

STEP-BY-STEP GUIDES

RUNNING • WEIGHT-LIFTING • FAT-LOSS
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STAR WORKOUTS

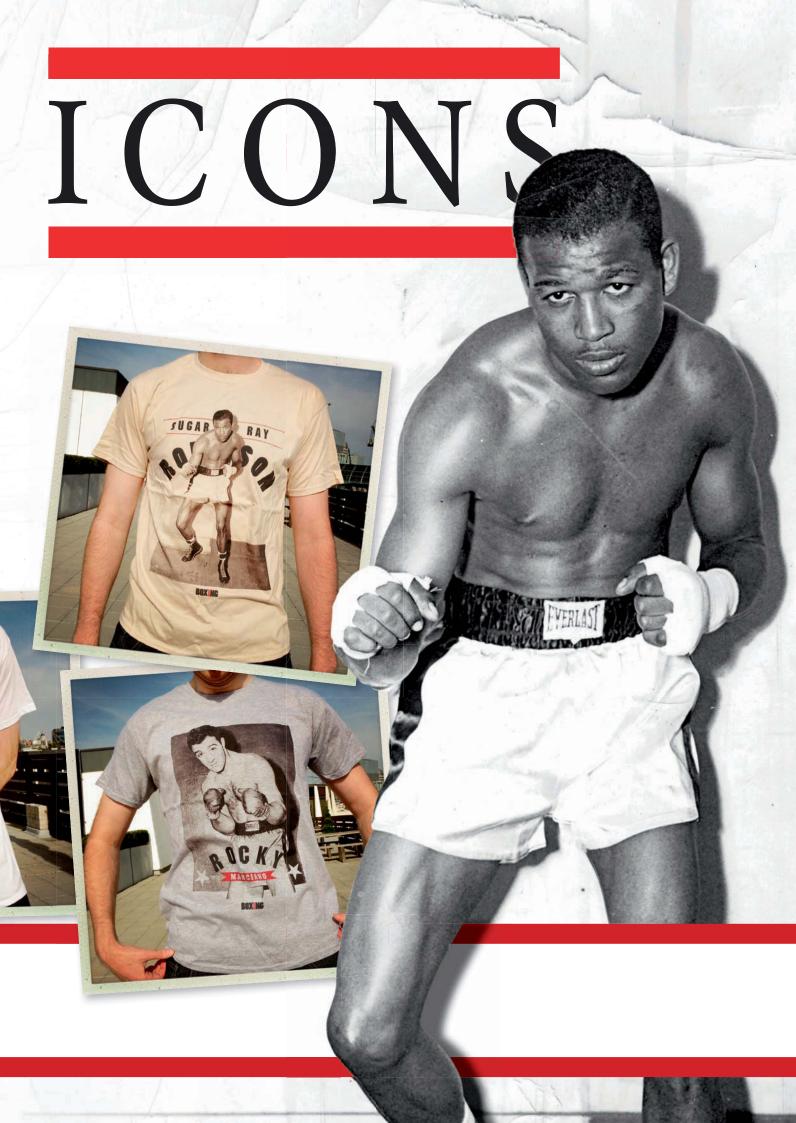
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CONTENTS

FUNDAMENTALS

| 008 - | 009 THE BASICS |
|-------|--|
| | Darren Barker on hand-wrapping and the stance |
| 010 . | THE WARM-UP |
| | Prepare your body for the rigours of boxing training |
| 011 . | SKIPPING |
| | The keys to the iconic exercise |

TECHNIQUE

| 016 - 019 | THE JAB |
|-----------|--------------------------------------|
| | We break down the essential tool |
| 020 - 021 | THE CROSS |
| | |
| 022 - 023 | HOOKS |
| | Expand your armoury |
| 024 - 027 | UPPERCUTS |
| | Carl Froch masterclass |
| 028 - 030 | BODY-PUNCHING |
| | Ricky Hatton describes his trademark |
| 032 - 033 | DEFENCE |
| | Frankie Gavin on artful dodging |

TRAINING

| The state of the state of the state of | |
|--|---------------------------------|
| 036 - 039 | RUNNING |
| × | Hit the road, hills and track |
| 040 - 043 | OLYMPIC WEIGHTLIFTING |
| | Generate true power |
| 044 - 047 | PLYOMETRICS |
| | Explosive training |
| 048 - 051 | CIRCUIT TRAINING |
| | arl Frampton shares his routine |
| 052 - 053 | THE WARM-DOWN |
| | Let your body recover |
| 054 - 055 | |
| | Take procautions |

MIND GAMES

| 094 - 098 | ALL IN YOUR HEAD |
|--------------|---|
| | The psychology basics you need to know |
| 100 - 103 | ON THE COUCH |
| EN CHARACTER | Top fighters answer psychological questions |

NUTRITION

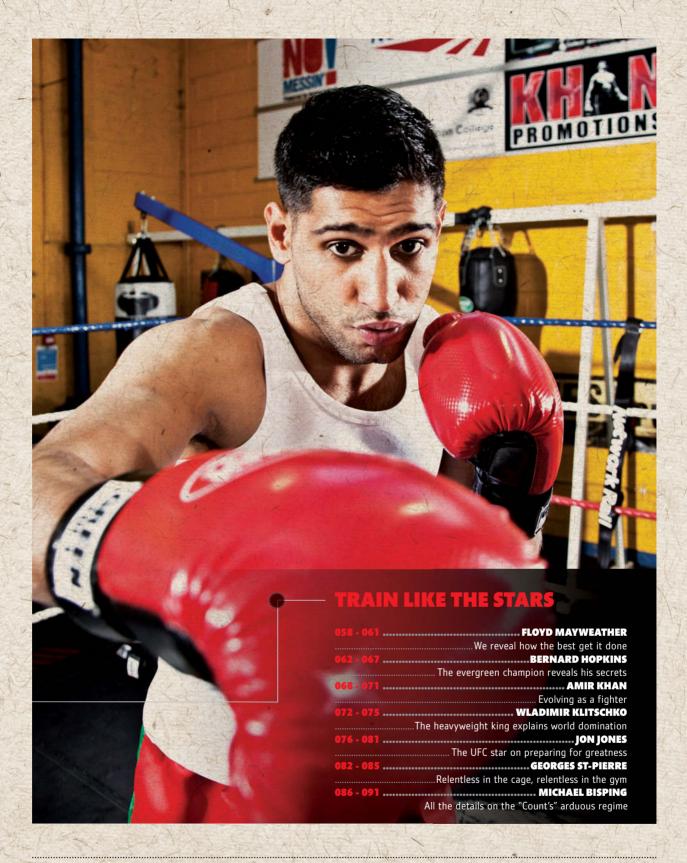
| 106 - 107THE GOLDEN RULES |
|--|
| What you need to know |
| 108 - 110 DIET ESSENTIALS |
| The core components for daily eating |
| 112 - 115 WEEKLY PLAN |
| A detailed schedule from Soulmate |
| 116 - 117 MAKE WEIGHT RIGHT |
| Kerry Kayes talks you through a fight camp |
| 118 - 119 SUPPLEMENTS |
| A little extra help |
| |
| 120 - 121 PROTEIN SHAKES |
| We 'whey' up the options |
| 122 - 123 RECOVERY SHAKES |
| Hasten your healing |
| 124 - 125 BAR REVIEWS |
| Convenient but tempting |
| 126 - 128 MAKE YOUR OWN |
| Recipes for DIY shakes and bars |
| 130 - 131 EATING OUT |
| |
| 132 - 133 ON THE ROAD |
| Advice for nutrition overseas |

GEAR

| 136 - 137 | GLOVES & PADS |
|---------------------------------------|-------------------------------|
| | James DeGale tests them out |
| 138 - 139 | PROTECTION |
| | Headguards and body belts |
| 140 - 141 | BOOTS & RUNNING SHOES |
| | For the ring and for the road |
| 142 | ACCESSORIES |
| | Mouthguards and more |
| 144 - 145 | TRAINING WEAR |
| A A A A A A A A A A A A A A A A A A A | Plus skipping ropes |

BRINGING IT ALL TOGETHER

| 148 - 153 | CENTRE OF EXCELLENCE |
|-----------|----------------------|
| 4 | |
| 154 - 159 | FIGHT ACADEMY |
| | Jackson's MMA gym |
| 160 - 162 | THE WILD CARD |
| | Pro hoxing's heacon |



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INTRODUCTION

OTAL FIGHT TRAINING is the ultimate guide for anyone taking part in combat sport. Whether you're an experienced fighter, a competitive boxer, a martial artist looking to hone your striking, a fitness enthusiast or a complete beginner, this manual has distilled expert advice from coaches, trainers and top fighters that you can add to your routine. Whatever level you're at, from these pages you can select the workouts, drills and tips to help you.

We guide you through the essential techniques, going through each step of the jab, the cross, the hook and the uppercut with the help of Olympic boxers and world champion Carl Froch. From boxing basics, experts detail stamina training, Olympic weightlifting, plyometrics and many more areas that you can incorporate into your workout.

We reveal the methods of some of the biggest names from the world of combat sports, including Floyd Mayweather and Amir Khan as well as the UFC's Georges St-Pierre, Jon Jones and Michael Bisping.

The fundamental principles of sport's psychology and nutrition are illustrated in depth with exercises and recipes that you can try. Olympic gold medallist and professional champion James DeGale reviews the products you need for your kitbag and we explore three of the finest gyms in the world, for boxers and UFC fighters, to unveil how they put it all together.

We can't promise to make you the complete fighter once you've read these pages. But you'll have more weapons in your armoury when you return to the gym, and be one step further along the way.

EDITOR'S LETTER

WHATEVERITAKES

Fighters need two main ingredients, says Boxing News boss Tris Dixon

IGHTERS have drunk blood, urine and raw eggs to gain an advantage in training. They are prepared to do anything it takes to get to the top, into those lucrative main event spots on the big pay-per-view bills.

There is an important message often banged out by the man with the most money in boxing, Floyd Mayweather Jnr. In recent years, he has placed a mantra in the minds of those watching him work at the Mayweather Boxing Club in Las Vegas. It's about two things. "Hard work and dedication." It is a simple, indelible slogan, basic to understand but not always so easy to follow.

In recent years, combat sports have seen many athletes tempted to take other routes to the top, with high-profile fighters posting positive drug tests.

Those taking anything – whether it's available on the shelf or not – must check with the respective governing bodies under whose jurisdictions they are fighting, to make sure what they are consuming is legal.

The very purpose of this bookazine is to give you an edge, just not an unfair one. It allows you to see what the top stars of combat sports do, how they work in and out of the gym, and it should assist you with how best to apply Mayweather's two basic rules. Because fighting sports require that. They are hard work every step of the way.

It is not easy to first step into a fighting gym. It is not easy when you first spar hard. It is not easy when you are warming up in the changing rooms, waiting for the knock on the door, to be told 'You're up' before a fight.

It is not easy getting into the ring, with supporters either cheering or heckling you. There's pressure, positive and negative. And there are nerves. Nerves like you've never experienced before in your life.

What is easy to forget for those watching, is that not only is that possibly the hardest part, but they will never witness what you went through to get there.

They won't see you waking at 5am to run. They won't see your solitude in training or the sacrifices you make to hit the weight. They won't see the nosebleeds or the punishment in sparring. They won't see you ringing the sweat out of your t-shirt after your workouts. That is where the hard work and dedication comes in. The commitment does not only have to be apparent come fight night. Even if no-one else sees it in your training, you need to know it has been there. The best way to fend off nerves on the big night is to make sure you have left nothing to chance.

You can drink all the urine, blood, raw eggs and whatever else you like, but without "hard work and dedication" you will never amount to anything.

And that's what makes fighters so special.



Your experts: Darren Barker & Tony Sims

NAIL THE BASICS

Darren Barker, the IBF world middleweight champion, demonstrates hand-wrapping and correct boxing stance with the aid of his trainer **Tony Sims**

PICTURES: STEFAN JOHNSON/JP BOXING



OXING, like any sport, requires strong foundations on which to base continual development and advanced skills. Many current pros may have been compelled to visit an amateur gym for the first time by the flashy, unorthodox style of a Prince Naseem Hamed – a

superstar during their youth – but his basic boxing skills were enhanced by hundreds of hours of repetition before the bells and whistles were added on. Perhaps even more pertinently, when the Sheffield featherweight was beaten for the first time, it was by a textbook operator with a superb grasp of the fundamentals in Marco Antonio Barrera. While it's important to possess flair in your locker – indeed it can separate contenders from champions – everything evolves from first perfecting the simple things.

Just ask Barnet middleweight Darren Barker. Praised for his impressive fundamentals, Barker has allied more sophisticated attributes to the core skill-set and this combination has taken him to Southern Area, British, Commonwealth and European titles and a world title triumph over Daniel Geale. Despite recently enjoying the heady heights of the sport, Barker has never forgotten the key skills which precipitated his incredible journey.

"They're the basics you learn," Barker explains. "You can overcomplicate things sometimes and leave yourself unstuck."

Trainer Tony Sims never allows his fighters to take boxing's building blocks for granted, though insists speed of hand is just as vital.

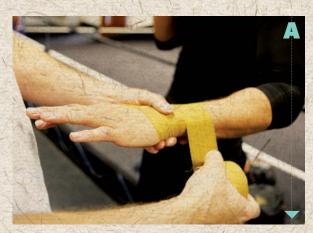
"It's been many years of hard work," Sims recalls of Barker's progression.

"He had good fundamentals to start with but that was for amateur boxing; there's been a lot of hard work that's gone into professional boxing. It's a totally different sport and he's totally changed his style.

"I focus on the balance first and once that is right, then the head movement then the speed of punch."

We cannot promise you faster hands but we asked Darren and Tony to demonstrate the fundamentals to our readership: wrapping hands and the basic boxing stance.

Wrapping hands



Always start on the wrist and come down. Three laps on the wrist, to make sure it's secure. If that isn't strengthened, when he's punching his wrist can buckle over.



We move on to the metacarpal bone which is the shock absorber of the hand. It runs another four bones off it. We do a figure of eight going across there to hold that in place. It's the most important bone for a boxer so if it smashes, basically the hand's no good.



We then come up onto the knuckles and back down around the thumb. There's a bone there called the scaphoid bone and it needs looking after – if you break that it's really hard to heal because it's hard, even in plaster, to keep it still.



We then go back across the knuckles and finish at the wrist. That's the first bandage finished.



I then place some padding around the knuckle to stop it bruising up. Then we put the next layer of wrapping in the same way as the first.



Now we tape it up. I always do the centre one first because that holds the rest of the hand in place, enabling you to put the other three on. I go around with the tape in the same way as the bandages.

Basic stance





- A When you're first taught your footwork, you're given a line on the floor to work from. You want to stay evenly balanced, keep your knees bent a bit and don't stand too upright. Keep your toes slightly up, heels off the ground so you can get rotation into your punch.
- As an amateur they used to tie our legs together now and again because we'd have our legs far apart but you don't want them close together either because you'll be off-balance and you're too upright because you can't bend your knees. Your feet should be just past shoulder-width apart.
- Keep your shoulders nice and rounded to keep your hands up but stay nice and relaxed all the way through your body.





LIMBER UP

Before you get into your boxing training you must put your body through a warm-up. **John Dennen** gets some expert advice on what you should do

PICTURES: BRIAN ROBERTS



EFORE you can start throwing punches in anger, to avoid injury and to optimise your performance in training you should go through a basic warm-up routine. Standard practice can include five minutes skipping before a general warm-up, running and limbering

up the body. Areas for a boxer to focus on, which get notoriously tight due to the sport, are the hips and back. The shoulders, considering the forces which are channeled through them, should also get special attention.

lan Gatt, the physiotherapist for the GB Boxing team, explains, "Even before they train, they do a shoulder warm-up using therabands. The reason we put that in place is a lot of boxers used to mention that in the first round they could feel their shoulder sometimes. So we thought about warming it up faster, more dynamically. If the shoulder is warm, it's preconditioned and obviously reduces the injury rate. We're always trying to fit in bits and bobs, not to overload it too much, but things which we think will have an impact but also which we can maintain over a longer period. The main thing is that we don't need

to drive it; it becomes self-driven and the coaches support it because they feel the benefit of it.

"If you think about the shoulder, you've got six movements it can do but it's a complex joint and does a lot of things. If you think about the movements happening in the shoulder, they're jabbing, they're hooking, they're doing the uppercut, so the basic thing is moving around the shoulder to wake up all the muscles, so your deltoids or your back and top part of the shoulder and then build it up to more specific movements, which could be your uppercuts, your drivers, your hooks, so by the time they get to do it, it's all dynamic, the muscles are ready, up and firing, so by the time they go on the pads or spar, they're nice and warm. Especially in the winter months, just skipping a little bit and moving the arms around to warm it up, it's not just about warming it, it's about getting it firing and getting it ready to do the things.

"The theraband creates those dynamic, ballistic movements, with a bit of resistance, and the other thing is that in a competition we'll use that just before they do pads. So it's nice way of getting them firing and prepared. It's quite a dynamic thing."

SAMPLE THERABAND EXERCISES SHOULDER BLADE PULL SHOULDER BLADE PUSH OVERHEAD TRICEPS WARM-UP MAKING SUPE TO PREPARE UPPER BODY, LOWER SHOULDERS FOR THERABAND THERABAND



JUMP AROUND

Skipping is one of boxing's iconic training exercises. **John Dennen** hears how you can incorporate it into your routine

PICTURE: ISTOCK PHOTO



KIPPING is a traditional staple of boxing training, but with good reason. For many trainers the skipping rope is a key tool for instilling balance, co-ordination and endurance in their boxers.

"Get the group in a circle skipping together, get that visual effect by looking at how other people skip.

"For senior boxers you could just take a rope session as a fitness session in itself. You're skipping stationary, implement an exercise on the whistle blast. There are loads of different things you can do.

BUILD THE SKILL

Tony Davis, an international amateur in his day and now a top coach, explains, "Ease them into it, just enhance their co-ordination skills. Just like jogging on the spot but getting the rope going around. Once they become quite competent at it, start progressively building up so they start actually moving forwards, backwards, to the left, to the right and even enhance their skills more, even double jumping - ensuring the rope goes round twice when they're hitting the ground

once. You can do pike jumps with them, get them moving as they would when they shadow-box [or] criss-cross the ropes, everything."

YOU CAN TRY

3 X 1-MINUTE ROUNDS
OF SKIPPING.
BUILD UP TO 4 X 3-MINUTE
ROUNDS, VARYING
THE TEMPO WITH
10-15-SECOND BURSTS
OF MAXIMUM SPEED

THE BENEFITS

"If you're doing four

three [-minute rounds], you

of the whistle blast. On the

first whistle blast you go 75

per cent effort, building up

to mimic the pace during a

to 100 per cent. You're trying

round, so you go up and down

the tempos. You've got try to

cross-reference it to maybe

an exchange in the ring or

a sustained attacked. Then

maybe drop back to 50 per

cent. You're getting the body

used to changing those gears."

can be working to the tempo

"I do think it [adds] balance, timing and co-ordination and also it's good for endurance," Tony states. "For a top-level boxer, if they've done all their session and they're doing a bit of a skip at the end, it enhances their cardiovascular and respiratory systems. You can even use it as a flush, before you go off into your flexibility. There's no effort in the skip, you're just turning the rope and you're getting the body to flush out the waste

"It's gives them a little variety and gets them to enhance their individual flair. Because everyone likes to show off with a rope as well."

products you've just built up.

IN THE SESSION

"The main aspect is for the timing and the co-ordination, Davis continues. "It can be used as a weight-management aid, towards the end of a session, 15 minutes on a rope. [As a warm-up], once you've done your mobilisation, then you might implement a few rounds just to make it time-specific. You've got to tailor-make it for the category of boxer.

reaction training

AS WELL as skipping and using the speed ball there are other ways to get reactions like a boxer. Ian Pyper was the strength and conditioning coach for the 2012 Olympic GB boxing team, he said, "We'll do a lot of things where they're reacting to visual stimuli. Sometimes we do things where they're reacting to a whistle, to a

ball or something like that but the main thing is, as we get closer to competition, we make it a little bit more real. So with boxing it's a visual stimulus they're reacting to, rather than a whistle or a voice. So again we change it, when they're doing partner drills or spinning a rope around punch in the gap when the rope's spinning,

again just for the timing. So we always try to make it as visual as possible, more specific to what they do. And obviously as they get closer to the competition, the volume of sparring goes up before it tapers down. So again that gives them plenty of opportunity to work on their quickness and their sharpness."





28 >>>>> BODY-PUNCHING

Learn from the master: Ricky Hatton

32 >>>>>> DEFENCE

Frankie Gavin on skilful evasion





Your experts: Mike Bromby, Qais Ashfaq & Kell Brook

FOOTWORK

Don't neglect to practise footwork. Your essential movement will set up your punches and good mobility can be the safest form of defence

PICTURES: BRIAN ROBERTS



OU'RE NEVER too good to keep practicing footwork. Once you've got the basic stance, established the boxing base (see page 9), the feet should flow from there – never crossing the legs, maintaining the space between the feet, pushing off the back leg to

move forward, off the front to move back. "The safest form of defence is the feet, pushing in, pushing out," said St. Paul's Boxing Academy trainer, Mike Bromby.

"We always learn the stance, the guard, the basic movements forward and back, then starting moving with the angles. Going forward we push off the back leg, going back we push off the lead leg, the front leg. The name of the game is [keeping] the base so at any time you can defend, attack, counter-attack. That's all to do with the feet and the base.

Bromby suggests some sample drills: "We get them in front of the mirror. You can have a session where, the first round or two, they're working without the punches, doing a bit of partner work, where they follow each other's footsteps, the lead foot changing angles. It doesn't always need to be punches coming at them.

"You've got to put a bit of fun in there, a bit of movement, tapping the lead arm, getting a bit of competition that way.

"We can bend the knees, transfer the weight, we're not pointing with the toe, it's slightly to a right angle. They can feel that balance then they can move on to the lead." GB boxer Qais Ashfaq demonstrates the basic steps







Going forward, push off the back leg (simply reverse to move back).







Moving to your left, the left leg moves out first (simply reverse to move to your right).

YOU CAN TRY:

Spend one or two rounds before your workout moving forward, back and side to side WITHOUT throwing punches, maintaining your base (see page nine).

Practise the same in front of a mirror.

WWW

Practise
with a partner,
free movement,
trying to tap the
other's lead arm.

Practise
with a partner,
one moves, the
other follows to
maintain the same
distance.

MOVING THE INGLE WAY

"Doing the lines is so important. When I first came to [trainer] Brendan [Ingle] he will tell you I didn't know my left foot from my right hand," says Kell Brook.

Ingle is well known for his unique and effective footwork techniques. The lines drawn on the gym floor provide the framework for the boxers to use when

performing routines to perfect their foot movement. Brook credits his success to these basic footwork drills. "Before I was allowed near a bag or in the ring, I would have to do my lines," he recalls. "I can't remember how long it took, it seemed like forever, but once I got my balance I just progressed from there."

Drill 1 - Line Balance

Walk along a single line, placing one foot in front of the other. This will help you find your centre of gravity, meaning you will be more balanced no matter which stance you are using.



 Place both feet on the line. The key is to find your centre of gravity so that you feel sturdy.



Moving forward, bring the back foot round and in front. Focus on your centre of gravity.



3. Bring the other foot around and in front. As you shift your weight, be aware of your centre of gravity.

Drill 2 - Line Step

Step across the lines, alternating between orthodox and southpaw positions. Practice across two parallel lines, moving both forward and backward to become accustomed to both stances.



 Begin in the orthodox position, with your feet either side of the left-hand sideline.



Going forward bring the left foot inside the two lines, in front of the right foot, to switch stance.



3. Bring right foot over the right sideline to go southpaw, unexpected for an opponent.



Your experts: Anthony Ogogo, lan Pyper & Simon Vallily

THE JAB

Former GB Boxing trainer **Ian Pyper** explains the punch from which everything else flows, with demonstrations from Olympic medallist Anthony Ogogo and GB rep Simon Vallily



OOKING back over the years of boxing champions there is one thing that is obvious - they all frequently used the jab in a variety of forms. The jab is the first punch a boxer will learn and although it is the most basic of strikes, it is one of the most important punches

in any fighters' repertoire. A technically solid and speedy jab can be used in a number of different situations.

1. Setting up and maintaining the distance

It is a range-finder as most combinations start with a jab as a way of closing the distance and finding the proper range.

2. Point-scorer

It can be used to score points from either long or medium distance, and over time this continual point scoring will gradually wear down your opponent.

3. Breaking up your opponent's attack

An integral part of a fighter's defence. By using the jab it stops your opponent getting too confident and can keep them at a comfortable distance.

4. Opening up an attack

By altering the type of jab it can open up your opponent to other more attacking punches.

Common flaws

The most common faults that boxers make when throwing a jab are:

- · The boxer falls in towards their opponent and overcommits due to not having their feet in the correct place.
- . Bringing the jab hand back low from the punch; this opens up a potential counter-punch for your opponent.
- The punch is 'telegraphed' this gives the opponent an obvious clue as to when you will throw the punch.
- The boxer allows the punch to become an upper-body movement and neglects to use the lower body to initiate the shot.
- There is an urge to try and hit too hard. The desire to throw the punch hard often results in too much of the boxer's weight transferring to the front leg (see the first common fault).

First, 2012 Olympic bronze medallist Anthony Ogogo – now an unbeaten pro - and his former GB team-mate Simon Vallily will demonstrate the perfect technique for the jab, both to the body and the head. Then stocky welterweight star Timothy Bradley will show you two advanced versions designed to outjab a taller opponent.

EXERCISES TO ENHANCE YOUR IAB

Other leg steps forward, squat down on it with your back straight, hands on hips until back of front leg is parallel to the ground

Punch upwards with added light weights

4 sets x 30 secs with 30 secs est. Build up to 4 sets x 60 secs. 30 secs rest

On your side, support and side of foot, hold hips level,

Lie on bench, grip barbell position above sternum, lower steadily to chest, pause, then push vertically up.

4 sets x 6 reps on each leg

Jab to the head

- From the orthodox stance, the first action is to slide the left foot forwards towards your opponent – this moves you within punching range. Simultaneously push in off your back foot in order to maintain a balanced, solid base (but don't let the foot come off the ground).
- Push through the floor with your lead foot, rotate through your left hip and complete a quarter turn at your lead shoulder. This will help to add power and stability to your shot.
- 3. Throw the jab straight out from the shoulder as if you're punching down a pipe.
- 4. The jab should be aimed for the chin and at the end of the punch rotate your fist so that your palm is facing down as your hand strikes the target.
- 5. As soon as your arm reaches full extension, quickly pull the hand back along the same path as the delivery, back to its starting position in order to guard your chin. Even if you are throwing multiple jabs, retract your hand between each one.
- The guarding hand is held high to pick off any counterpunches. Regardless of where you keep your jabbing hand, never bring your other hand down, even when you're punching.
- 7. Keep your chin tucked in behind your shoulder.



- 8. Use your judgment when jabbing and make sure that your front foot is in range first before you punch.
- 9. If using a single jab wait until the shot lands then push away off the front foot and slide the rear foot backwards, making sure that you maintain your boxing stance and therefore solid base.

Jab to the body

Another way to use the jab is to the body. For this punch the key differences are seen in the lower-body movement; the upper-body movements are the same as the above. The lower-body differences are:



- From the boxing stance, the first action is to slide the left foot forwards towards your opponent – this moves you within punching range. Simultaneously squat down to 90-degree angle at the knee – still maintaining a solid base.
- In this punch the boxer should actually raise the height of their defensive guard in order to increase protection in the half-squat position.
- Stay low when pushing out because aiming for the body increases a fighter's vulnerability to a counter-punch.



Your expert: Timothy Bradley

FOR TALLER OPPONENTS...

Up jab

This "sneaky punch" is useful against a taller fighter; **Joel Diaz**, Bradley's trainer, assists in the demonstrations

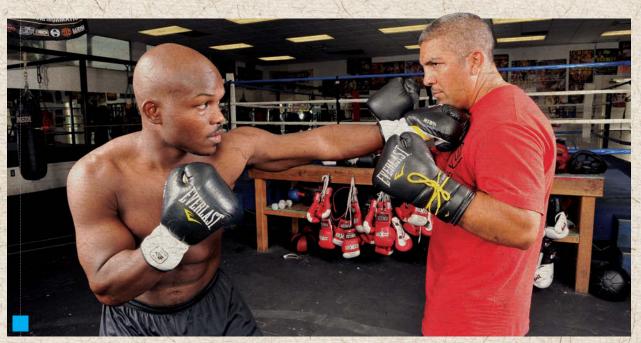
PICTURES: ALEXIS CUAREZMA



 Setting up this punch is all about the timing. You're trying to catch your opponent while he's still in his defensive posture, thinking about throwing a punch.



Every fighter is open down the middle. This one is coming from underneath the radar. It's not a straight jab, it's a flick, a sneaky punch that splits the guard.



3. You hit your opponent with the top of your knuckles and the top of your glove. The jab can pop his head up, or make him lean back.

Jab with jab

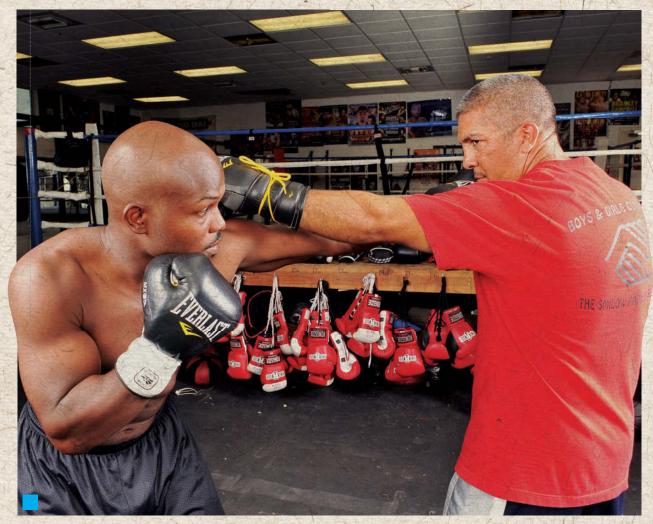
A significant weapon against a rangier fighter who jabs down the middle



1. You can set this punch up by being right in front or a little to the right. You're looking to time his jab, hit him while he's trying to hit you.



As my opponent throws his punch, I start to lean to the right. I start to throw my jab and begin to extend my shoulder.



3. Pivoting on my front foot gives me extra reach, and leaning to the right means I land but my opponent's punch misses over my shoulder. This punch is about having a quick head and hands; your whole body has to work together.



Your experts: Anthony Ogogo, Ian Pyper & Simon Vallily

THE CROSS

It's the big back-hand that can deliver significant damage and end a fight in a blink of an eye.

Our tremendous trio outline the basics of this crucial strike

PICTURES: BRIAN ROBERTS



HE CROSS is a powerful punch that should be used sparingly, and is in most cases a counter-punch or a follow-up punch when the target has already been opened up by using a left jab. Key things to remember when throwing the cross are:

1. Retain a solid base

When throwing a back-hand shot to the head or body it is important that the boxer doesn't fall in towards the opponent i.e. over-reaching. Over-reaching causes the boxer to lose balance and therefore a stable base; secondly, once the power and balance base is lost it opens up a potential counter-punch for your opponent.

2. Keep it subtle

A common error in throwing a good cross is showing

the punch before it is actually thrown. In this case boxers often draw the back hand back before throwing it – this becomes very obvious to the opponent.

3. Punch straight through the target

The effectiveness of a cross is increased if the power is directed straight through the punch target. In many cases, due to the angle of attack, boxers punch across the target rather than straight through it – this reduces the effect of what could have been a powerful punch. To combat this it is important to line up and punch through this line.

4. Get your hand back fast!

Remember that after throwing a back-hand your target area is wide open to counter-punches, therefore you must recoil the punch back along the same line to its guarding position.

EXERCISES TO ENHANCE YOUR CROSS

SQUAT

Rest the bar on your upper traps. Get your feet shoulder-width apart and toes pointed slightly outward. Shift hips backwards and squat down, with your back straight. When you reach the bottom position, drive up.

4 sets x 8 reps.
Build up to 4 sets x 3-6

WALL

Start in a boxing stance with a med ball in your right hand - approx 3m from the wall. Throw the ball towards the wall as if you are throwing a punch.

w/ 3kg ball

INVERTED ROW

Lie under the bar and grip just outside shoulderwidth. Lift your body up until your chest touches the bar.

4 sets x 8 reps.
Build up to 4 sets x
20 reps

BARBELL PUNCHING

Use a barbell (approx 15-20kg) set up against a solid base on which it can pivot. In your boxing stance, with the end of the bar in your backhand, drive from the back foot, rotate and extend through the shot.

4 sets x 30 secs.
Build up to 4 sets x
60 secs

Cross to the head

 From the boxing stance, the first action is to slide the front foot forwards towards your opponent – this moves you within punching range.

Drive off the rear foot, pivoting the hips and shoulders violently around the centre axis.Let the front-hand side of the body act as a hinge.

3. Drive the rear hand, fully extended, at the target.

4. Rotate the forearm and shoulder.

5. Keep the arm relaxed until approximately three inches prior to impact.

At the moment of impact, ensure the palm is facing down. On impact, the bodyweight should stay balanced over the centre of your base.

Keep the front hand in a guarding position and see that the shoulders remain horizontal throughout.

8. If using a single cross, wait until the shot lands then push away off the front foot and slide the rear foot backwards, making sure that you maintain your boxing stance and therefore solid base.



Cross to the body



- 1. From the boxing stance, the first action is to slide the front foot forwards towards your opponent – this moves you within punching range.
 - 2. Simultaneously squat down to a 90-degree angle at the front knee still maintaining a solid base.
- 3. Get the shoulders in line with the target.
- Ensure bodyweight is balanced over the centre of your base.
- Keep the trunk upright and pivot at the hip and shoulders to drive right through the target.
 - At the moment of impact, the palm is down and the thumb is turned inwards.
 - 7. Recoil the punch back along the same line.
 - **8.** Carry the front hand in a high guarding position.



Your experts: Anthony Ogogo, Ian Pyper & Simon Vallily

HOOKS

Useful both at range and close up, the hook – from either hand – is a superb shot in isolation or as part of a combination. The three wise men talk about the weapon, then demonstrate it

PICTURES: BRIAN ROBERTS



HE LEAD HOOK is perhaps the most effective punch in any champion's repertoire – if it is delivered correctly. A coach will insist that you work long hours on the bag, and then on the pads, to learn the basic lead hook. It is, in the main, a counter-

punch and, as its name suggests, is a bent-arm shot that is used at medium and short range.

The rear hook is slightly different in that, due to it coming from the rear hand, it has to be thrown at short range – both to the head and body. It is best used as part of a combination of punches or as a counter-punch against an opponent rushing in to launch an attack.

The key points to remember when throwing a hook are:

1. Stay in position

Hold your head still while looking at your opponent from under your eyebrows. Make sure your rear hand is guarding the jaw, slightly below eye level. Keep your chin down, tucked against the top of your chest.

2. Hips don't lie

The power comes not from the arm but mainly the hips, with a little from the shoulders. The pivot of the shoulders and hips is like a trigger mechanism and crucial to generating power.

3. Finishing position

The hook should land with the palm facing downwards in the amateurs but landing with the thumb up is acceptable in the pros.

EXERCISES TO ENHANCE YOUR HOOKS

DUMBBELL STEP-UPS

Stand next to a box or bench at knee height. Step up so that one foot is flat on the bench. Drive through the heel of the foot on the bench, bringing the rear leg up and through.

4 sets x 5 reps on each leg.
Build to 4 sets x 3-6 reps
with added weight.

DUMBBELL RENCH DDESS

Lying on a bench with a DB in each hand, lower the weight slowly. Then press both DBs vertically above your chest.

> sets x 8 reps. Build up to 4 sets x 3 reps with added weight.

BARBELL

Hold the end of the bar in both hands and rotate at the feet, inp and shoulders towards your left hip. Then accelerate back.

4 sets x 6 reps each hand.
Build to 4 sets x
20 reps with added
weight.

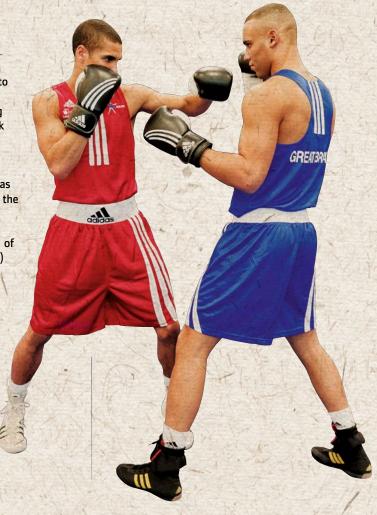
MED BALL ROTATION THROWS

Start with both feet facing the wall. Rotate to your right, maintaining your foot position. Accelerate the ball using both hands and throw towards the wall.

4 sets x 8 reps each hand (3kg ball). Build up to 4 sets x 6 reps with a 5kg ball.

Lead hook to the head

- From the boxing stance, the first action is to slide the front foot forwards towards your opponent – this moves you within punching range. Simultaneously push in off your back foot in order to maintain a balanced, solid base (but don't let it come off the ground).
- 2. The weight shifts slightly to the front foot as the hip and shoulders pivot violently, using the front-facing side of the body as a hinge.
- 3. The front arm remains relaxed in the shape of a hook (90-degree angle at the elbow joint) and is whipped in an arc towards its target at the side of the chin.
- To enable the hips to pivot, the front foot swivels inwards on the ball of the foot.
- 5. At impact, the palm is pointing downwards, though this is not crucial in the professional code.
- Keep the rear hand in a high guarding position.
- The punch recoil follows the same path back to the on-guard position.



Rear hook to the head



- 1. From the boxing stance, the first action is to slide the left foot forwards towards your opponent this moves you within punching range. Simultaneously push in off your back foot in order to maintain a balanced, solid base (but don't let it come off the ground).
- The weight shifts to the rear foot as the hip and shoulders pivot violently around the front-facing side of the body.
- 3. The rear arm remains relaxed in the shape of a hook (90-degree angle at the elbow joint) and is whipped in an arc towards its target at the side of the chin.
- To enable the hips to pivot, the rear foot swivels inwards on the ball of the foot.
- 5. At impact, the palm is pointing downwards, though this is not crucial in the professional code.
- 6. Keep the lead hand in a high guarding position.
- The punch recoil follows the same path back to the on-guard position.



Your expert: Carl Froch



In his own words, three-time world champion **Carl Froch** takes you through his philosophy then reveals three techniques he favours

PICTURES: BRIAN ROBERTS



HE UPPERCUT is a trademark shot for 'The Cobra'. You can throw it on the offence, the defence, on the counter, there's different angles and different ways, if you're fighting an orthodox or a southpaw.

You have to read what your opponent's doing – every action causes a reaction. Like

when I fought Brian Magee, every time he was coming forward to me he was looking to get his head in, quite dirty, and also he was looking for the grab, especially late on. He was reaching in and leaning over his bodyweight; you're supposed to have centre of gravity when you box. 'Keep your arse in the middle,' is how [trainer] Rob [McCracken] explains it." So Magee was vulnerable to the uppercut.



Back-foot uppercut



1. If your opponent's leaning forward, let them commit. You can risk getting hit yourself but if your uppercut lands solid it will take the sting out of their blow, so it's all about landing first. As they commit, it's about timing it correctly. You take a tiny step – if they're coming straight forward, you step back, but if, they're coming at you with a shot, you might have to step to the side.



2. The punch wouldn't come from a high guard — it would come from mid-range. The right hand would shoot from the hip, like a gunslinger. You have to drop it to bring it back up so if it's already low, half the work's already done. You lean down to your right thigh — if you're right-handed — and your strength comes up through the calf, the thigh, the lats — the big muscle which drives the uppercut.



3. Everything goes in from the leg up to the arm. The end of the chin is what we're aiming for. It's a lot of twisting as you start off almost side-on – you're driving up almost like a clean and press, driving up from a squat.



Offensive uppercut







- 1. Robert always tells me, "Don't throw an uppercut on its own, because you're out of range, you're open, they see it coming a mile away," which they do, especially the good fighters. So now what I do, if I throw the uppercut out of range and you can only get away with that against mediocre fighters or when they're knackered I do what Naseem Hamed used to do chuck the shot and if you miss, fall in with it, land on top of your opponent, smother your work.
- 2. You're looking for them to jab or move or put themselves into a position where they can't get out of there. A lot of the time, even if they don't throw a punch, if you think it's right and you throw a jab, you can do a little feint, a little move either a step-in, a little head movement or bring your left hand up. You are trying to do anything at all to force them to commit in some way and provide the opening for you.

3. Then just chuck it and it comes through the middle from out of the line of vision. It's like a corkscrew right uppercut. The weight's travelling forward and won't do as much damage – it's a nuisance punch, not a knockout punch. The ones where they're coming onto them are the best-executed uppercuts.



Close-quarters uppercut



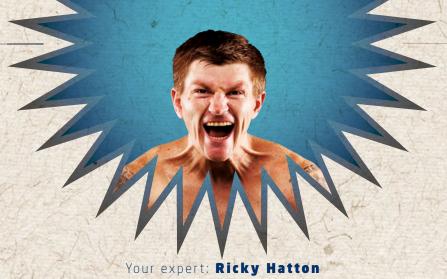
1. Up close, you have to have your right glove in front of your face to guard against the uppercut yourself; it has to be under your chin. There's not massive power on this shot unless you manage to step back before you throw it.



2. You should try and get a little bit of room – ideally you want to be stepping to the right up close – if you're righthanded – or stepping back because if you're smothering your work and you're too close there's less power in the shot.

3. You can be in the southpaw position up close then step back to orthodox and that automatically gives you room.

But it could be a roll, a bob, a weave, a little step back – then the uppercut in close.



BODY-PUNCHING

Manchester boxing hero and phenomenal body-puncher **Ricky Hatton** shares his knowledge with **Danny Flexen** – with the help of heir apparent **Scott Quigg** and **Craig Watson**

PICTURES: MARK ROBINSON



ODERN Manchester legend Ricky
"Hitman" Hatton is known for several
things: becoming the first British boxing
superstar created by satellite TV;
invariably bringing an army of UK fans
to America for big fights; and, despite
capturing world titles at two weights

and defeating some top fighters, retaining an ability to connect with the man and woman on the street, aided significantly by his down-to-earth persona. Something that seems to get lost amidst all the contextualisation, however, is just what a superb fighter Hatton was. Regularly lauded for his strength and fitness, in his prime Hatton was a highly intelligent beast, his footwork swift and smart, the upper-body movement clever and purposeful. But, as a fighter, Ricky would be defined – like Rocky Marciano and Larry Holmes before him – by one particular kind of strike.

"I was a body-puncher even before I turned professional," Ricky told me at the boxing gym on the top floor of the sumptuous Hatton Health and Fitness facility in Hyde, Greater Manchester. "My amateur coach was a former professional so he taught me from a very young age how to bob and weave, slip and roll, shift your weight and body-punch, which is almost unheard of in the amateurs.

Then when I went to [pro trainer] Billy Graham, one of the main parts of his training was with the body-belt.

"I've always been the short, stocky type with very, very big legs and body-punching was made for me and my frame. I used to punch with every bit of me body behind it."

Hatton's work downstairs not only led directly to many of his stoppages and knockouts, it also injected his opponents with a fistic poison, the pernicious influence of which would grow with every passing round until they could take no more. But Hatton's aptitude for locating and subsequently belabouring unfortunate abdomens and ribcages led to an unwelcome notoriety.

"After a few years, when people had recognised me as a body-puncher, I had to go back to the gym, the drawing board and think, 'They've got me number here; what can I do to get these body shots in now?' Ricky recalled. "It's a work of art in its own way, getting them in.

"The key thing is to disguise it because there's obviously a lot of things – arms and elbows and shoulders – that can look after the body. If you're looking for the hook, make sure you go somewhere else first or set it up with a jab or a combination."

*All instructions relate to orthodox fighters; southpaws should adapt accordingly.

Over a 12-round fight, I work me jab and try and work the body as quick as I can to try and break them down.

SCOTT QUIGG'S BODY-PUNCHING TIPS

WORK YOUR TRUNK

You've got to have a good core and you have to build your legs which I do with hillrunning.

WATCH AND LEARN

I learn a lot from Ruben Olivares and Wilfredo Gomez. Different fighters throw body shots differently.

PLAY TO YOUR STRENGTHS

Body-punching is pretty important because of the style I fight, the build I am, they're the most effective shots

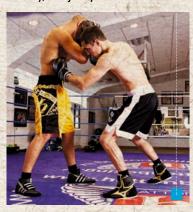
Left hook to the body



Make sure you're in close, so you're safe, then touch the opponent with a left hook to the head just to take their attention away from the body. Just touch them around the temple or on the chin.



2. You step to the left and shift your weight onto your left foot. Even if you just move three inches. Then all my weight is going to go through the shot, your whole body, not just your arm.



 Twist into the shot from your leg, through your hips and torso.
 Make sure you keep your right hand up in case a left hook comes back at you.

Right hook to the body



 It's the same as the left but in reverse. First touch them with a right hand to distract them from the shot you're going to put power into.



Then dip, shift all your weight onto your right foot with a little step. You've knocked your opponent's head back, giving you that split second to shift your weight.



3. Twist into the shot from your right leg, through your hips and torso. Make sure you keep your left hand up in case a right hand comes back at you.

Body shot to counter a jab



 It's important not to lead with a left hook to the body. I used to and it left me susceptible to a right over the top. Measure the jab first, and once he's thrown that, he's committed himself.



Slip to your left, move your left foot three inches left and you can go either breadbasket or floating rib. The slip and step should be all one movement.



 Shift your weight again, drive the shot through then get your hands back up and spin off so you're safe.



Uppercut to the body in a clinch



 When you're up close, most opponents will tuck their elbows in, so the floating rib is a lot harder to get. Get your elbows inside the opponent's elbows.



2. You don't shift your weight as much with the uppercut; it's more from a standing start. So you dip and mostly twist the hip. Sometimes you might be able to follow through and, with your momentum, you might just catch the chin as well.



3. This is more of an arm punch because you're in close but you bend your knees and drive your legs up and fist up and forward. Either stay in close because you're safe or spin off to the side.

Body shots in combination



 My favourite was this: first, I'd touch them with a right hook to the body, just to bring their elbows out.



Then I'd throw the right uppercut into the gap I'd just created. This could be an effective shot but it also distracts them, moves their head back slightly – creating more space around the middle – and knocks their right arm up and away from their ribs.



3. I'd then finish with the left hook to the body, my best shot. That's the one where I'd put all my body into it; the other two mainly existed to create the chance to land this one.





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Your expert: Frankie Gavin

DEFENCE

British and Commonwealth welterweight champion **Frankie Gavin** reveals three elements to not getting hit

PICTURES: STEFAN JOHNSON/JP BOXING



HE MOST important thing to remember is, if you don't get hit, you can't get beat." Those words were spoken with quiet conviction by the UK's only World amateur boxing champion – and now the British and Commonwealth welterweight champion as a pro –

Frankie Gavin.

As southpaw Gavin's philosophy points out, a fighter sufficiently slick, fast and intelligent to evade the blows

coming his way will prove nigh on impossible to defeat.

"As an amateur, at the Worlds, I was only hit about 40 times in six fights," Gavin recalled. "I landed 160-something, and that was against world-class operators. One year I won the ABAs and got hit 10 times in five fights. And I got seven of them in the final!

Here, with assistance from good pro Peter McDonagh, one of Britain's great boxing hopes for the future shows you how to master the crucial art of defence.

The parry



 If I'm in a position where I can't move, I like to parry. As they come in, you make them commit. Or you can keep the pressure on from the front foot, and make them throw.



Feints – shoulder, head, foot feints

 can make them throw, then as
 their shot comes in I'll use my front
 hand to block, turning my rear hand
 around a little bit to catch and parry
 the punch.



 Then as I block, I move my head and I have my lead hand free to throw a counter shot that they won't be ready for – either a hook or an uppercut.

The slip & counter



 I move my head and upper body to the inside, making sure to keep my lead hand up just in case they come in with a short shot.



You take make a small pivot to the inside in anticipation of the uppercut you are going to throw, as the power comes from the legs.



3. You drive up from the floor, twisting the back and your hips, letting the power move through your legs and into the shot. You can use the uppercut to the body or the head.

The roll



 If you're coming back from a slip, you can only come back with one hand, really. When you roll, you can use both hands. You dip your knees as the shot approaches.



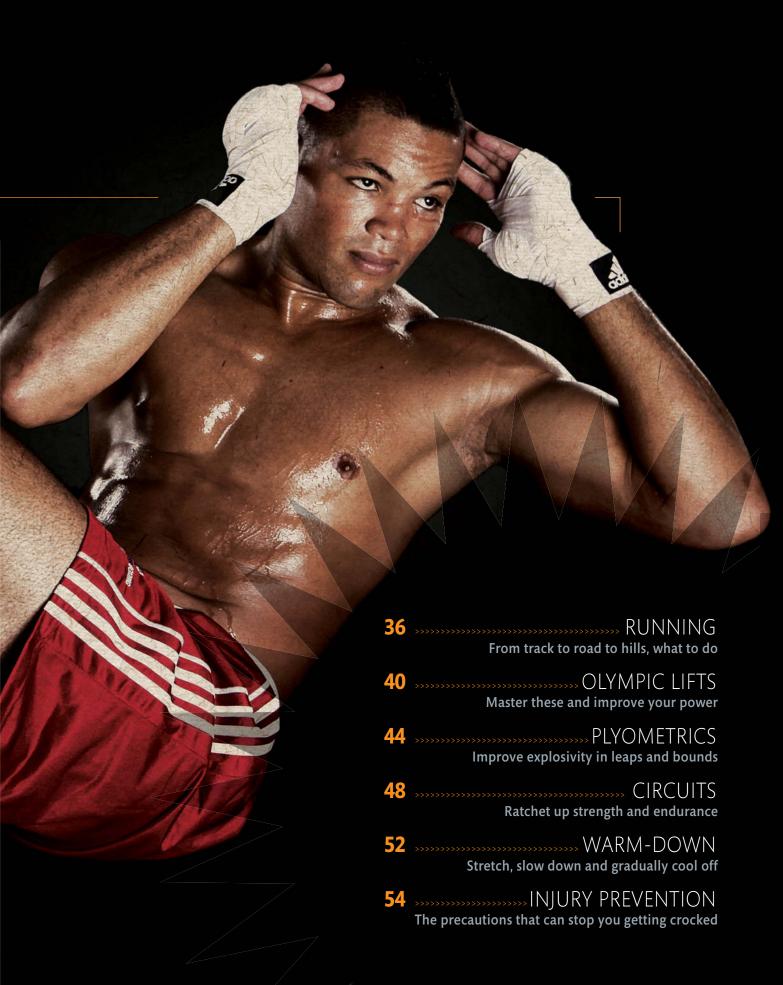
You can make them miss by an inch or 20 inches but an inch is all that matters. Bending the knees more, the roll comes from your legs.



3. I come back up, primed to counter, with the whole of the side of my opponent's body exposed.

TOTAL FIGHT TRAINING REPORT OF THE PROPERTY O







KEEP ON RUNNING

With help from Joe Gallagher, Mark Campbell and Margot Wells,

TFT's John Dennen outlines some key cardio

PICTURES: STEFAN JOHNSON/JP BOXING & CHRIS FARINA/TOP RANK & ACTION IMAGES



UNNING is a key pillar of a boxer's training. But there should be more variety to a fighter's roadwork than, say, a simple seven-mile run every day. Their training in the gym is specific to the rigours of a fight and their running should be applicable too, mirroring the

pace and rhythm of a contest.

GET THE GEARS

"If you do seven miles every night," said top boxing trainer, Joe Gallagher, "that replicates in your fight. You've got a great engine but you've got no gears. That's just once pace to you, one tempo."

Gallagher, who trains the likes of Anthony Crolla, Scott Quigg, Paul Smith and his fighting brothers, only puts his charges through one long run a week. But their staple running is done on an athletics tracks, over 1 kilometre, 800 metres, plus 100 and 50-metre sprints. To add variety he'll take them running up and down stairs to strengthen their legs. Flip to page 38 for some sample track sessions.

CHANGE IT UP

A typical week for them could, on top of their circuit and boxing training in the gym, include one long run, two track sessions and two sessions in the swimming pool. Gallagher may even throw in spinning or a cycling session "to break it up, for the knees, the legs and everything else".

"You've got to keep changing. I've always been a big believer in the track work," Joe continued. The one big run they do may be seven-and-a-half miles, but three of the miles will be on a steady incline and three miles comprised of hills.

For a pro, preparing for a 12-rounder, their long run might be 48-50 minutes; a shorter run might last 40 minutes

For an amateur boxer, who'll be boxing three rounds, Gallagher doesn't see any need for runs longer than 30 minutes or over distances greater than four miles. The pace that they do it is key. Three miles done as fast as they can is better, maintaining a high tempo rather than it being five miles at a daudle.

BUILD THE INTENSITY

For four weeks at the start of a training camp, the track work will involve 1ks, "to get them going, get them running". That may be three 1ks, with a minute's rest in between, building up to six. After the first month, it might switch to 800s. Six then eight

800s, building up to the 10×800 metres, with a minute's rest in between, at the most intense peak of their training regime. After crossing that threshold, he'll break it down to 400s, then 200, 100 and 50-metre sprints.

"That's where the hard work's done, the 400s, time after time, short recovery, go again," says Joe. >





NEED FOR SPEED by MARGOT WELLS SPEED COACH

YOU HAVE TO consider the stuff that underpins speed, like speed endurance and power. I would argue you want to be fast as a boxer, no matter what weight you are, so you want to be working on speed endurance rather than long distance.

If you make your arms move fast, your legs will move fast. A common error is people think they run with their legs and they don't. Your arms control what your legs do. You actually run with your arms. So the basic principle is the faster you go, the shorter your arms. So if you're running fast your arms should be bent at 90 degrees. And you put a lot of effort into driving them backwards because every reaction's got an equal and opposite reaction. So to go forward, you drive your elbows backward. The further you go, the longer distance, the bigger the angle. If you run long distances your arms are more balancing, When you run short distances your arms drive.

If you're running short distances you should run on your toes. If you're running long distances you don't.

If you're running short you have to lean forward. Especially if you're trying to pick up pace. If you're running long then everything should sit through the body, so your shoulders should sit over your hips, your hips should sit over your knees, your knees should sit over your toes. If you're sprinting, then that's not the case at all. Then you want to be leaning forward; there's a line from your heel to your head, a straight line.

If you look at Seb Coe, Steve Ovett, Alan Wells, if you look at their bodies they're all very stable and they work as one piece. Very fluid, that's what you're looking for in a top performer. You don't want webbly bodies, you don't want the arms and the legs not being connected. You want them to move as one piece, it doesn't matter what sport, they're the people that perform the best.



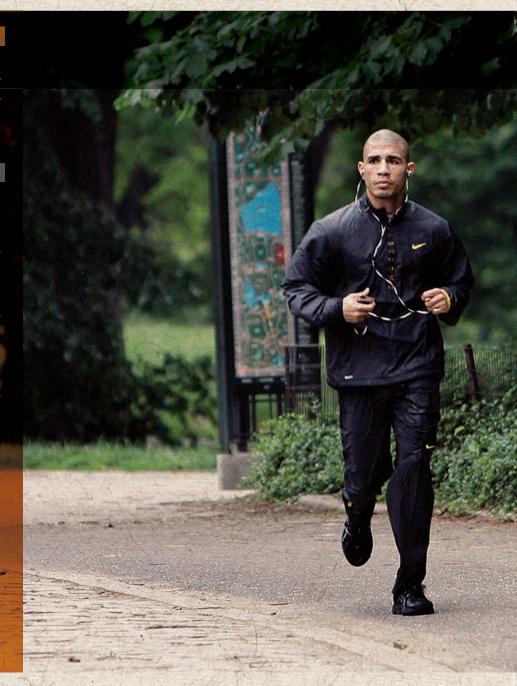


A WEEK'S STAMINA TRAINING

- track sessions
- swimming/cycling sessions
- 1 long run (for a pro 40-50 minutes, for an amateur 20-30 minutes)

SAMPLE TRACK SESSIONS

- 3 x 1 kilometres building to 6 x 1 kilometres (a minute's rest in between)
- 6 x 800 metres building to 10 x 800m (a minute's rest in between)
- 2 x 400 metres,
 2 x 300ms, 2 x 200ms,
 3 x 100ms (no more than a minute's rest in between)
- 3 x 400 metres, 3 x 300m, 3 x 200m, 3 x 100m (no more than a minute's rest in between)
- 1 x 400 metres, 1 x 300m, 4 x 200m, 4 x 100m, 4 x 50m (no more than a minute's rest in between)



NO CHEATING

Sometimes their rest between runs can be a minute. But Joe will put the boxers on heart-rate monitors. He can then tell if they're pushing themselves hard enough while running and their rest periods will last as long as it takes for their heart-rate to decline to a certain level, whether that's 15, 30 or 50 seconds or whatever it may be, though never more than a minute.

"They can't cheat," he said. "I know if they're pushing themselves. I know the times they have to be.

"They can lose focus. You can see them, all of a sudden, they drop the pace. It needs me to shout. They just drift off."

THE TRAINER SHOULD BE THERE

Gallagher therefore believes a professional boxing coach should watch his fighters at their running. "I can't believe how trainers aren't with the fighters when they're doing the runs. You can tell a lot from a fighter about how they're doing the runs," said Joe. "Are they jaded? Are they peaking?" He's known for getting boxers in shape, but Gallagher's not averse to giving them a day off if he's taken a look at them and deemed they need some rest. "Less is more sometimes," he says.

In his fighters' weekly schedule both Sunday and Wednesday are rest days. "It's keeping them mentally fresh," Joe said.



GET SPECIFIC

He also gets them to include bursts of pace in their shorter sessions. "The running's got be specific to the boxing," he said, suggesting jogging backwards, using ladders, explosive movements for the legs, running to and fro between lines, pyramid sprints, short, quick interval bursts - "to be able have gears to go through in a contest".

"The track work that we do is a true fundamental. 45 seconds sprint, 15 seconds rest. It's hard on the lungs, there's no rest in it," he explains.

"The running's got to be specific to the boxing." \blacksquare

NEED FOR SPEED by MARK CAMPBELL GB BOXING'S S&C COACH

WE NEED to make sure that we're challenging the boxers in different ways. That means looking at some of the runs theu're doing. A lot of the runs are fantastic and it's going to get the boxers fit. We want to give them another gear. So we're just looking at manipulating how we're using those runs to make sure we can give these athletes just that extra little bit of ability to go harder in the ring. To change pace within a round up above a level that anyone can match is the aim. So what it means is pretty horrible, horrible sessions for them. Because they've got to understand how to work that hard, and then they've got to understand how to repeat that hard work. That's where we're getting at the moment. I think boxers are very used to working long and hard but maybe not really, really intensely. If we get that with them maybe we can take them to another level. The coaches always talk about in the ring they want their athletes to have another gear. But they've got to know what that feels like. If they're just grinding it out they don't get that opportunity.

It doesn't look that good because it's doing something really hard, then having a lot of rest. Coaches and boxers don't like having rests. They'd much rather just keep on working, which is a credit to them but it's a change of philosophy we need to go down.

Make sure you're doing some sort of sprinting. Not just the long slow runs, some sort of sprinting each week so you're actually asking your body to be fast. That will go a long way to helping anyone get to a higher level.

When I say sprinting I mean doing say a 30-60 metre run and then actually having three or four minutes off. If you ever see a track sprinter training, you'll think they are the laziest athletes in the world. They might do a sprint and they might have six or seven minutes off, chat to their mates, strut around as sprinters do but that's for a reason. Because to get intensity up you need to have rests. If you just plod along, or if you're doing fartlek, where you're just going a bit faster and a little faster, you're not actually increasing your intensity that much and therefore you're missing out on a whole another world of physical development. Because you want the boxers to be fast and sprinting's a great way to make them fast.

What I see boxing coaches do a lot, I see them only sprint their athletes six weeks before a competition.
Sprinting's a skill. Most skills we do consistently.
So sprinting I think needs to be done every week.





rour expert. **Bj. kure**

POWER PLAY

Weightlifting guru **BJ Rule** explains Olympic lifting and demonstrates the snatch and clean

PICTURES: BERNARD MILLER



HE OLYMPIC LIFTS – the snatch and the clean and jerk – and their variants (progressive or part lifts) are brilliant training tools for all athletes. They are particularly useful for those who want to develop explosiveness and power.

Much can be made of the 'sciencey stuff' that goes on with the Olympic Lifts. The bottom line

is that these lifts allow us to move weight - and they allow us to move this weight quickly. In sports and particularly in fighting arts it is often about biding time, having patience and then when the opportunity arises – BOOM, it's time to strike explosively and powerfully. If we can (by training, using certain lifts) improve our ability to move explosively and powerfully, this will have a transfer into our athletic tasks.

The Snatch

The Snatch by definition is where a weight (we'll use a barbell) is lifted from the ground to overhead in one uninterrupted movement.

Speed is extremely important in the Snatch, but equally if not more important are acceleration and timing. The person lifting the load needs to hit maximal speed at the 'turnover', the point between where the bar nears the hips on the way up and where they drop under it on the way down. In order to reach this maximal speed at this point it is vital that the bar and the body in relation to the bar are in the right places at the right times and that the bar is moving at the right speed and is controlled in certain positions. Having an understanding of where the body is in these positions is extremely important.

1. STARTING POSITION

The hands need to be wide enough that when gripping the bar- whilst standing with knees slightly bent- in an overhand hook grip the bar should rest in the crease of the hip. A hook grip is recommended. Feet should be hip-width apart with your toes slightly turned out. The knees should be pushed wide so they are outside the line of the toes. The hips should be higher than the knees and lower than the shoulders. The shoulders should be in line with, over or slightly in front of the bar. The abdominals and torso are held tight. Prior to moving to the next stage and lifting the bar from the ground it is encouraged to take in a large breath.

2. FIRST PULL

The first pull moves the barbell from the ground to the position where the second pull commences (approximately mid-thigh). During the first pull the torso-to-floor angle remains the same, so the shoulders should stay over or in front of the bar. From a lateral view it should look as if the only movement is occurring at the knees.

3. SECOND PULL

As the first pull begins to accelerate the bar, the lift moves straight into the second pull. When the bar approximately reaches the mid-thigh and the hips begin to extend, the torso begins to extend from the hip, bringing the shoulders in line with and then behind the bar. During this movement the knees start to move forward and underneath the bar. As the bar nears the crease of the hip, the ankle, knee and hip are all extended maximally and aggressively. It is important that the balls of the feet and toes are still in contact with the ground. The elbows should still remain extended and over the bar and the shoulders should be behind the line of the bar.

4. THIRD PULL

At the end of the second pull the knees and the hips are fully extended. The third pull is initiated by an aggressive pull with the arms resulting in a shrug of the shoulders. The pull with the arms occurs at the same time as the

force into the ground diminishes (the feet may even leave the ground here). The pull here is to move the athlete downwards and underneath the bar. As the bar is reaching the end of its upward trajectory and before it starts its descent, the athlete must very aggressively pull themselves under the bar. As the athlete passes below the bar the third pull becomes somewhat of a push, whereby the athlete pushes themselves under the bar and into the bottom of an overhead squat position.

5. RECEIVING THE BAR

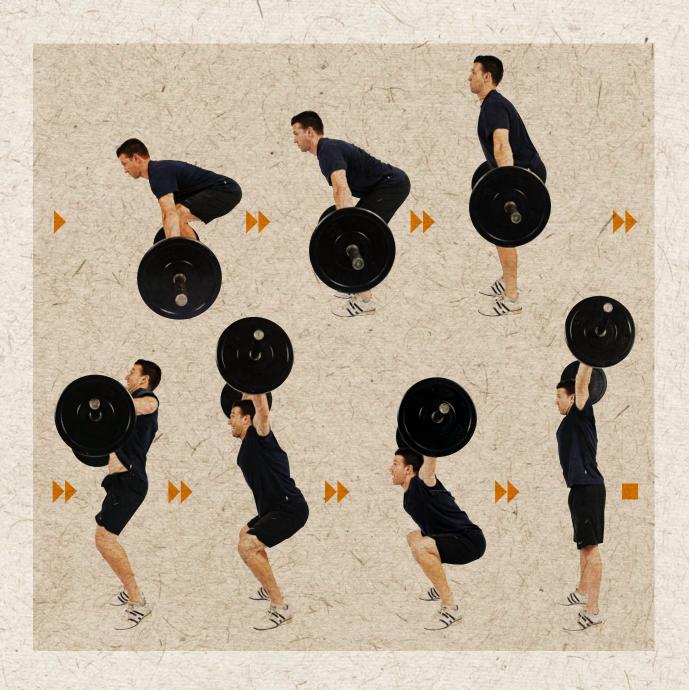
The athlete must again forcefully and aggressively stabilise themselves and the bar to hold it in place. The feet are grounded and the torso is tight, the breath is held to further stabilise the torso. At the initial receiving position the hips are not in the complete bottom position;

this allows the lifter to absorb and eccentrically decelerate the load and to make necessary adjustments in order to stabilise the bar.

A snatch is where the line of the hip is below the knee in the receiving position. Obviously the weight of the bar will determine how low the bar is caught.

6. RECOVERY

It is imperative that tightness and stability are maintained throughout the whole body. The movement of standing up comes from applying force into the ground; the thought of pushing the floor away with your feet whilst your body remains tight is a useful one. The lift is completed when the barbell is completely stood up and the weight is stationary overhead.





The Clean

The clean and power clean are used by sprinters, footballers and rugby players and should also make their way into the realm of fight sport training. These lifts allow an individual to raise large loads quickly. The clean by definition is where a weight – in this case a barbell – is lifted from the ground to the rack or shoulders, 'clean' of the body. This originally meant that the barbell wasn't allowed to touch the body anywhere on the way up to the rack position. It is now allowed that the bar can make contact and it often does touch the shin and the mid-to-upper thigh, as long as it does not stop or reverse it's upward path. The clean is a brilliant movement as it has the ability to get a heavy load to the rack very, very quickly.

1. STARTING POSITION

The hand position needs to be somewhere between the best position to pull from the floor (outside of the knees) and the best possible rack position. This probably won't be the same place so a compromise is required. A hook grip is recommended. Feet are hip-width apart with your toes slightly turned out. The knees should be outside the line of the toes. The hips should be higher than the knees and lower than the shoulders. The shoulders should be in line with, over or slightly in front of the bar. The abdominals and torso are held tight.

2. FIRST PULL

The first pull moves the barbell from the ground to the position where the second pull commences. Due to the hands being closer, this is lower down the thigh than in the snatch. As with the snatch the objective of the first pull is to stay in control of the bar and get it into the best possible position to carry out the second pull. The bar speeds up at the end of the first pull and into the second pull. During the first pull the torso-to-floor angle remains the same; from a lateral view, it should look as if the only movement is occurring at the knees.

3. SECOND PULL

As the first pull begins to accelerate the bar the lift moves straight into the second pull. The second pull is where the bar will achieve maximal speed. When the bar approximately reaches the mid-thigh and the hips begin to extend, the torso begins to extend from the hip bringing the shoulders in line with, and then behind, the bar. During this movement the knees start to move forward and underneath the bar. As the bar nears the crease of the hip, the ankle, knee and hip are all extended maximally and

aggressively. It is important that the balls of the feet and toes are still in contact with the ground. The elbows should still remain extended and over the bar and the shoulders should be behind the line of the bar.

4. THIRD PULL

At the end of the second pull, the knees and the hips are fully extended; the third pull is initiated by an aggressive pull with the arms resulting in a shrug of the shoulders. The pull with the arms occurs at the same time as the force into the ground diminishes (the feet may even leave the ground here). The pull here is to move the athlete downwards and underneath the bar. Timing is crucial during this phase as it is when the bar is reaching the end of its upward trajectory and before it starts its descent that the athlete must very aggressively pull themselves under the bar. At the end of the second pull, the athlete's shoulders and torso are behind the line of the bar, while the third pull takes the athlete both below and in front of the bar. As the athlete passes below the bar, they push themselves under the bar and into the bottom of a front squat position. If the feet have lost contact with the floor they now regain solid contact and the torso and the bar ends up on the shoulders in the rack position with the elbows being driven as high as possible.

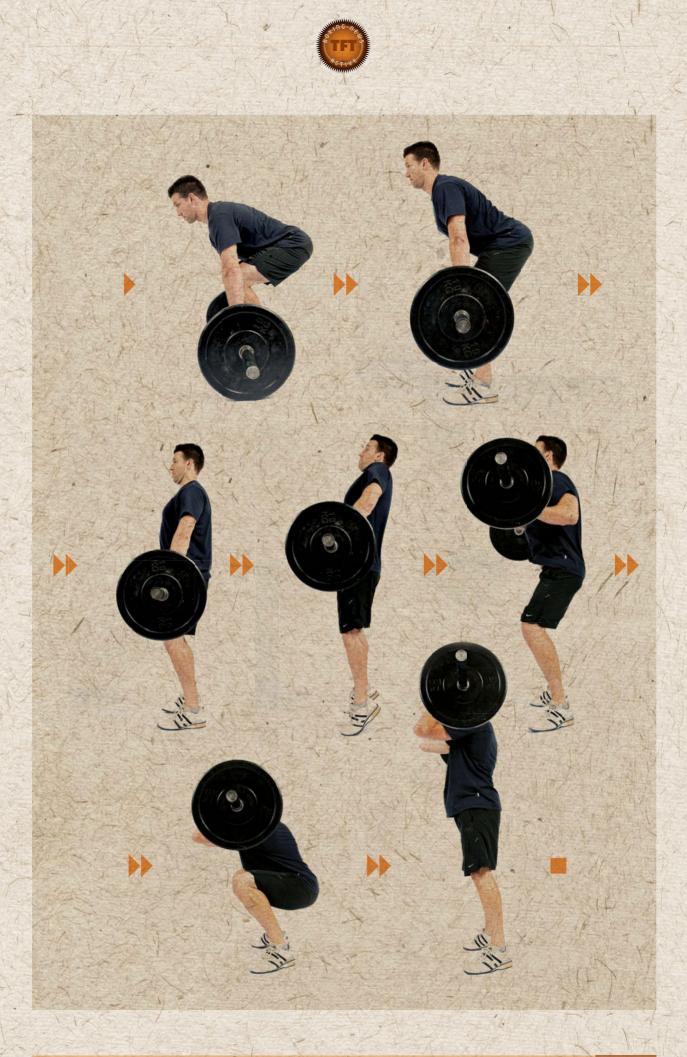
5. RECEIVING THE BAR

In order to receive the bar the athlete must again forcefully and aggressively stabilise themselves and the bar to hold it in place. The feet are grounded and the torso is tight, the breath is held to further stabilise the torso. At the initial receiving position, the hips are not in the complete bottom position. It is essential that the bar is stabilised before it is stood up from the bottom of the squat position.

A clean is where the line of the hip is below the knee. Obviously the weight of the bar will determine how low the bar is caught.

6. RECOVERY

The recovery is where the athlete stands up with the weight. It is imperative that tightness and stability are maintained throughout the whole body. The movement of standing up comes from applying force into the ground. The lift is completed when the barbell is completely stood up and the weight is stationary in the rack.





Your expert: Barrie Edwards

LOAD AND EXPLODE

Barrie Edwards, head of Extreme S&C, provides an introduction to plyometrics for fighters

PICTURES: ADAM CROWTHER



HE ABILITY to produce explosive power is key to any fighter's performance. Plyometrics are exercises that aim to produce fast, powerful movements by improving the elastic ability of both the muscle and tendon. The key concept behind true plyometric exercises is

known as the stretch-shortening cycle (SSC). When a muscle

is stretched, the energy required to stretch this muscle can be stored by the elastic components of the muscle and tendons, but this energy is only available by a subsequent contraction of the muscle and if the contraction does not take place immediately after the stretch, then the energy is simply lost as heat.

With the need for MMA fighters in particular to be explosive and powerful in so many areas of the body, and with the SSC concept of plyometrics always in mind, coach Barrie Edwards, head of Extreme S&C and Wolfslair's resident guru, devices plyometric-based workouts that target this elasticity of the muscles and tendons to provide fighters with the explosiveness they need at the highest level.

"Think of the SSC as an elastic band: when you stretch it, this is the eccentric phase, and then if you let go of one end, the band quickly contracts and this is the concentric phase," Edwards explains. "Now take a jump exercise for example. If you squat before the jump, this stretches the quadriceps muscles eccentrically, so the following concentric contraction, i.e. the jump, will be stronger and more explosive and you will jump higher." However the jump must come immediately after the squat, or else the stored

energy from the stretch is lost. The faster the transfer from the stretch to contraction the more powerful the contraction will be.

As long as the SSC concept is understood then plyometric exercises can be created to be very sport-specific, and the benefits to the fighter are more explosive power, enhanced balance and agility, more speed, increased muscle endurance and greater all-round athletic ability.

Starter plyometric exercises are ideal if you have been following a strength-training programme for a minimum of three months but have never performed any specific plyometric movement with correct form/technique. Just ensure you complete a dynamic warm-up and stretches before attacking the routines themselves.



BARRIE EDWARDS

Bolton-based strength and conditioning coach Barrie Edwards has run his own gym for over 10 years and first started working with MMA fighters when Wolfslair pros Aaron Wilkinson, Paul Kelly and Curt Warburton travelled from Liverpool to Bolton to take advantage of his knowledge and experience. From there, Edwards began to train most of the Wolfslair pro team. Now with a base in the new Wolfslair location at Total Fitness in Wigan, Edwards is working again with many of the gym's stars, including established fighters like Cheick Kongo and up-and-coming prospects such as Mike Wilkinson. You can find out more regarding Barrie's work at **www.extreme-sc.co.uk**.



STARTER LOWER-BODY ROUTINE

Once in the routine, each exercise should be done for four sets - with a one-minute rest between sets - before moving on to the next station.

DEPTH JUMP TO VERTICAL LEAP

Stand on a box six-12ins high. With arms at your sides and head up, step off the box with your left foot. Land on BOTH feet and, without squatting, explode vertically as high as you can. Minimise the time in contact with the ground between the land and the jump. Power arms up to give extra height. Land quietly into a squatted position with arms outstretched.







2 SINGLE-LEG BOX JUMPS,

Stand directly in front of a step or box six-12ins high with your left foot placed firmly on the box and right foot on the floor. Press up on to the box with your left foot and explode your right leg up causing both feet to leave the box. Land with your left foot back on the box and right foot on the floor. Repeat, minimising the contact time on the box.

10 REPS PER LEG







3 KATERAL BOX JUMPS

Stand to the left of the box or step and place right foot on top of the box.
Using your right leg only, push off the box and explode vertically as high as possible. Land on the other side of the box with your opposite foot on the box, then immediately repeat, alternating sides and minimising the contact time on the box.

16 REPS (8 PER LEG)







4 SPRINT STRIDERS

Use a box which is a minimum of six inches in height. Start by facing the box with your right leg on the box and your left leg on the floor. Stand on the balls of the feet. Alternate arms and legs as quickly as possible, and be as quick as you can off the ground.

20 REPS (10 PER LEG)









STARTER LOWER-BODY ROUTINE - CONTINUED

BOX SIDE JACKS





Start with both feet on the ground either side of the box, with a good athletic posture. Jump onto the centre of the box. Be as quick as you can off the ground. Hit the centre of the step for each rep. **20 REPS**

6 BOX HOPS





Start by facing the box with both feet on the ground, and be on the balls of your feet. Jump to the centre of the step with both feet. Be as quick as you can off the ground. Hit the same spot on the box and the floor every time. **20 REPS**

STARTER UPPER-BODY ROUTINE

Once in the routine, each exercise should be done for three sets - with a 45-second rest between sets - before moving on to the next station.



Assume a press-up position with feet shoulder-width apart. Slowly lower down into press-up position. Powerfully push up with arms, hard enough to allow hands to leave the floor, before landing softly back into start position.

20 REPS







2 PLYO INVERTED ROW

Hold bar from below with feet elevated on a bench and body straight. Slowly straighten arms and lower your body down until arms are extended. Powerfully pull up! Allow hands to leave the bar briefly before re-gripping the bar and starting the next rep. 20 REPS











SINGLE-ARM WIPERS

Place a 20kg weights bar in a secured position. Stand with one hand gripping the bar, and body in position shown. Powerfully pull the bar upwards and across the body, then release and switch grips into the other hand during the movement, lowering the bar down and facing the other way as shown. Start slowly until you are comfortable with the technique before adding speed, and weight to the bar, if desired.

16 REPS (8 PER SIDE)







4 MEDICINE BALL

Stand straight with legs just wider than shoulder-width apart to enable ball to fit between legs. With back straight lift an 8-20kg medicine ball above head as shown. Powerfully slam the ball down into the floor, trying to maintain a straight back throughout. Catch ball on the bounce up.

20 REPS









5 OVERHEAD MEDICINE BALL THROW

Stand, legs just wider than shoulderwidth apart, grasping the ball with bent arms with elbows tucked in. Dip body a few inches by bending knees as shown, and powerfully throw the ball as high as you can keeping your back as straight as possible. Move backwards and let ball drop to the floor.

20 REPS







6 MEDICINE BALL SIDE

Stand, legs just wider than shoulderwidth apart, grasping the ball with bent arms with elbows tucked in. Move ball over to the right as shown then rotate and lift up, around and over head in a circular motion and powerfully slam towards your left foot as shown. Repeat on the opposite side.

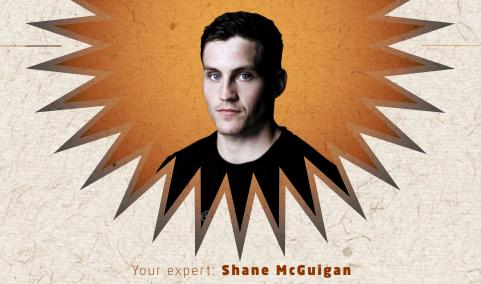
10 REPS PER SIDE











CIRCUIT BREAKER

Shane McGuigan, trainer of world-class super-bantamweight **Carl Frampton,** explains the virtues of circuit training and provides a simple example for fighters, demonstrated by his charge

PICTURES: STEFAN JOHNSON/JP BOXING



IRCUIT TRAINING can strengthen the muscles, make you more powerful and also work on endurance. But mainly a lot of boxers neglect strength training so if you do circuit training you will definitely feel the benefits in the fight.

You can do it at all ages, whereas if you do other

strength training you really have to watch out regarding loading the spine up, from a younger age.

It's a good introduction for people to get themselves accustomed to using resistance, rather than just running and abs and stuff like that.

WHY THIS CIRCUIT?

Carl would do a circuit like this at the start of a camp, to condition himself, get his weight down and get him into better nick faster.

It's quite a high lactic workload. When you produce lactic acid, your body produces growth hormone which burns fat, so this is something we want to do quite far out from the fight, so we can get his weight down then start working more on strength and power.

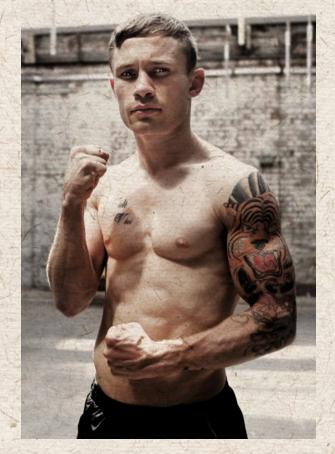
It will help his performance. The harder he can push himself through

these types of circuits, the more he can tolerate lactic acid in the muscle, the better. The lactic threshold of a 400m runner is very high, whereas a sprinter wouldn't be able to maintain his pace for very long. Boxing is an endurance game so you want to work your lactic threshold and pushing yourself hard.

We do it to a three-minute clock to replicate the rounds in boxing and you can manipulate the time under

tension. Sometimes we will do 20 seconds on, 10 seconds off, other times 40 seconds on, 20 off. As Carl gets closer to the fight the rest periods will be longer because we'll work more on explosive movements. The 20-10 split – called the Tabata format – maximises output in the given time, producing the most lactic

Somebody like Carl might do this circuit twice over, which replicates 12 rounds. We split the first station between pull-ups and dips because you couldn't do two minutes of pull-ups or dips alone as part of a circuit. And, just like the last station, we use two counteracting exercises, one push and one pull, so you don't have an imbalance, and all your strength is in your chest, for example. A lot of your strength is actually in your back as a boxer.



THE FRAMPTON CIRCUIT

STATION '





BENEFITS: Strength in the back, lats and arms; helps you to be strong when grappling on the inside; helps you to control the pace.

FORM: Do full range of motion; don't rush - go down for three seconds then explode up as fast as you can, to work your fast-twitch muscle fibres.





BENEFITS: Exercise most people can do; big compound exercise so it hits the chest and arms; the movement is related to punching.

FORM: Do full range of motion - lock elbows out at the top and go down until you cannot stretch any longer.

STATION 2







BENEFITS: Works core, quadriceps and shoulders; getting used to holding your bodyweight up.

STATION 3



BENEFITS: Getting up on your toes, aiding your footwork; fires up your calves.

FORM: Do either knees up for first 20 seconds, then doubles for the second and so on, or just knees up if you can't do doubles; turn the rope over as fast as you can. FORM: Use minimal movement in legs and upper body; make sure your back is flat, your wrists underneath your shoulders and your knees beneath your hips; crawl around the ring or along straight lines between the corners.

STATION 4





BENEFITS: Strengthens the often neglected lower abdominals but recruits the upper abs too; helps keep your spinal erectors in alignment; can be used as a 'rest' station while still working your muscles.

FORM: Keep your back flat; you can add weight plates on the hands and legs if necessary as a progression.



STATION 5





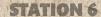




BENEFITS: It's a full-body metabolic exercise so burns fat; it also has plyometrics due to the jump at the top; gets your heart-rate going.



FORM: Ensure your chest touches the ground during the press-up; jump as high as you can, get as far off the ground as possible; kick both legs out at the same time; bring both legs in at the same











ROW BENEFITS: Strength in the back and lats.

ROW FORM: Make sure legs are flat, arms are straight and that your body is at a 45-degree angle; complete full extension; using a pronated grip replicates a punching motion.

PUSH-UPS BENEFITS: Different from a normal push-up, you get a nice stretch in between reps and get more blood into the muscle; extra bit of movement increases your heart-rate.

PUSH-UP FORM: Adopt a wider stance than for a normal press-up; use a low platform or a little table like we have here; place your wrists below the shoulders; keep your elbows in tight to replicate the punching technique; perform full extension going down and up.

RCUIT



Your expert: Shane McGuigan

CALM DOWN, CALM DOWN

Shane McGuigan explains the need to relax gradually after training and provides an easy warm-down routine

PICTURES: STEFAN JOHNSON/JP BOXING



HE WARM-DOWN is important because your heart-rate is going and there's a lot of lactic acid in the muscles. When you sweat a lot, you lose a lot of vitamins, minerals and electrolytes out of the muscles, which can cause cramping and DOMS – Delayed Onset

Muscle Soreness. If you train really hard and then don't warm down properly, then you'll end up with aches and

pains for longer. It's important to bring the body down slowly before you go and shower.

You can warm down on a bike, a rowing machine or do a jog but Carl does skipping and shadow-boxing before stretching. We always try and replicate the movement he will use – he's not a runner, he's not a rower and he's not a cyclist.

After training, before the warm-down, remove your wraps and tape.

THE WARM-DOWN



Shake out the limbs as you shadow-box. Focus on technique, work on specific punches or defensive moves. This brings you right down, while keeping your mind alert.



Maintain a very easy pace. Less is more at times. Boxers do tend to overtrain.

3. STRETCHING

This helps flush out the lactic acid in the muscles. Hold each stretch for 15-20 seconds and do two sets of each before moving to the next one.



BENEFITS: When you're closing it, you're stretching your glutes. When you open up you're looking more at your quads and releasing the hip flexor, with a bit of upper boy.

HOW: Keep your front leg bent at 90 degrees and in line with your belly button. Your rear leg should be straight down. Then you take the belly button over the front knee. Once you're there you want to open the hips up and look to the ceiling while bringing your rear shoulder as far back as possible. Repeat on the other side - that's one set.



BENEFITS: When somebody throws an uppercut properly, even when shadow-boxing, you should feel the lat work. The same with hooks. The lat is an internal rotator to the shoulder, if you're too tight around your lats, is going to come forward, putting a lot of pressure on the back.

HOW: Hold a parallel bar or a rope. Make sure your arms is across the body at shoulder height. You must sit into the stretch on the same side as the hand you are gripping the apparatus with. Bring your other arm as far forward as possible. Repeat on the other side - that's one set.



BENEFITS: This opens up your chest. With the boxing stance, you're very internally rotated and kyphotic (the spine is curved), so it's really key to stretch out your chest. Boxers want to be as loose as possible.

HOW: Kneeling on all fours, you would get your right arm and place it on the ball, elbow in line with the shoulder. Look to your left side and push down with the right arm while keeping your back straight. Repeat on the other side - that's one set.



BENEFITS: This stretches out the extensors and flexors of the forearm. When you're gripping all the time, especially when you're hand is wrapped and in gloves, you're going to get really tight in your wrists and forearms. This keeps them as nimble as possible.

HOW: Hold your arm straight out in front of you at shoulder height. Grab your fingers and pull back until you find a good stretch for 15-20 seconds, while pushing back on your heel. Repeat on the other hand - that's one set.

TOP TIP

Stretch again before bed.
This is when stretching is most efficient because your muscles aren't contracting and relaxing when you're going to bed.
You can do three-four sets of each stretch

TURN OVER FOR INJURY PREVENTION EXCERCISES & ROUTINES



TAKECARE

John Dennen outlines why you need to include injury prevention strategies in your routine and shares some top tips in that regard

PICTURES: BRIAN ROBERTS

training regime.



NJURIES can be the bane of any active participant but there are ways to mitigate the wear and tear a boxer puts his body through. On their way to topping the medal table at the Olympic

Games, the GB Boxing

team qualified 10 boxers for London 2012 through gruelling tournaments across the world. Through these trials they managed to keep their athletes in remarkable condition.

The experts from GB's support staff provided an insight into how to keep yourself fit, healthy and ready to rumble.

boxers at 16, 17. So we felt we needed to get their hands stronger and we also realised we needed to protect

their hands by doing professional wraps. Treating the hands like professionals do before every

training session. Before the boxers would pitch up, put on a pair of gloves and start hitting bags. When they come on the programme they have 20 minutes before each session, before they even put on a pair of gloves, just wrapping their hands properly. And they're taught when they come on to the squad how

to wrap their hands and it's insisted upon by the coaches. They wrap their hands properly, they then wear gloves that are also going to protect their

hands. They don't wear old gloves, they wear new gloves. If

they're hitting particularly hard, say a super-heavyweight like Anthony Joshua, he always uses 18oz gloves in training, to protect his hands because he is hitting very hard.

"What they used to do was find the lightest pair of gloves, so they could hit hardest when they were sparring. Now they're not allowed to do that. They have to find a big pair of gloves to protect their hands. Because what we're interested in doing is protecting the boxers and the boxers' hands."

THE TOOLS OF THE TRADE

A boxer's hands are his tools and those tools need to be cared for. Dr Mike Loosemore, the longtime team doctor for GB Boxing explained: "The hands are the tools of the trade. 90 per cent of boxers stop boxing because they're injured and 90 per cent of those have injured hands. Boxers almost always give up because of their hands. If they do want to go professional at least we can send them to the professional ranks in good condition so they have a long and successful pro career, if that's what they want to do."

Mike also noticed a spate of hand injuries among the squad and, co-ordinating with the coaches and other members of the support staff, took measures to prevent them. "Because of the significant number of hand injuries we were getting we looked to the professionals to see what they were doing to protect their hands during training. And also we looked at two things," he continued.

"One was we felt the hands were weaker than they should be. Instead of coming from jobs where they use their hands on an everyday basis, they were becoming



PREPARE FOR SHOCK

When anyone takes up boxing the new force applied to the hands and the new trauma they undergo takes a marked step up. The same applies to a boxer raising the level of their training or, for example, joining the GB squad.

"When you get lads coming on to the programme, they're top-oftheir-field amateurs but they're not training every day of the week and they're not hitting anywhere near as much as they do when they come on to the programme. With the best will in the world, they just haven't got the time, they've got other things to do. So when they



come on to the programme, the amount of hitting they do and the amount of trauma their hands have to undergo increases significantly. They become professional boxers in that that's what they do every day of the week," said Dr Mike.

But there are exercise routines they could introduce, to be done after gym sessions, to condition the boxers' arms and forearms. Former GB strength and conditioning coach, Ian Pyper, interviewed while still in post, said, "At the end of every session there'll be some sort of thing that we're working on. [One day] it was a core circuit. Monday they'll do a grip and squeeze - a hand and arm circuit. They're mainly based on areas where we've had a problem with injuries, that's generic across the board. The boxer creates so much power through their lower body, transferred to the upper body and then making contact but if they've got a weak wrist or a weak forearm, then that final point of contact is where they're going to lose a lot of energy.

"That energy's got to go somewhere, most of the time it's going to end up injuring their hand or their wrist or somewhere else. That's something we put in to make sure they can handle the force that they're creating.

"Usually it's on the back of the boxing sessions, going forward it's going to come down to conditioning, it'll be more focused. That's a long-term thing. At the moment it's good getting them doing it consistently. They know all the exercises. They can crack on with it, we give them a little bit of supervision . At the moment it is working pretty well."

Dr Mike continued, "They do a lot of bodyweight stuff anyway but it's simple stuff like rope-climbing, and when you twist a weight up from the floor; you can do it in the gym on a broom handle and twist it down again. That's all forearm strengthening

"They do grip-strengthening work, with a grip-strengthening spring. They hold the weight in a pincher grip by their side, they do that until failure. We do the

ROUTINE AFTER BOXING/ STRIKING TRAINING

Boxing circuit training/ exercises

Five minutes skipping

Grip and squeeze circuit for wrists and forearms
OR core/neck exercises

Individual rehab exercises (if required)

Stretching: 10 minutes in total

Foam roller over selected area for five minutes (muscle massage)

Ice hands: 20 seconds in, 40 seconds out. Repeat five times

SAMPLE FOREARM & WRIST EXERCISES

Rope-climbing
Grip pincer weight until failure
Striking tyre with iron bar
Wrist curls with dumbell



banging of a tyre with an iron bar and the idea about that is to train the muscles to attenuate the shockwave as it goes up the arm; to help train the muscles for when they punch to deal with that kind of shock. You can do wrist curls, with a dumbbell in your hand and your forearm straight, just curling your wrist. Like you do with your bicep but just for your wrist. They certainly do it several times a week. They also have a stretching programme."

ESTABLISH A ROUTINE

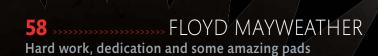
The GB boxers, injured or not, will always ice their hands after a boxing session. Before they go to see the physiotherapist, lan Gatt, if required, they have a routine that they go through – grip and squeeze exercises for the wrists and forearms "which helps to prevent injuries and condition the area, stretch, then ice their hands which they must do religiously," says Gatt,

"In boxing you get a lot of hand and wrist injuries. So that's our bread and butter. It depends but about 50 per cent of the injuries can be hand and wrist. As you get closer to competition those can become worse. Then you start getting things from overuse, because they're doing quite a bit more than they do usually, backs, shoulders, all those areas. What we try and do, we try and put in any preventative measures that we can before they go into the training session. We monitor them during a training session and at the end of a training session we make sure we're doubling up on all the preventative strategies, from stretching, icing the hands, to getting them inside the physio room and doing a bit of check screening."

Of course GB has the resources to monitor the boxers and pick up on niggling injuries. Some injuries can be prevented ahead of time, others managed. But they put a clear emphasis on prevention, came up with routines that the boxers and the coaches bought in to and so the processes became self-driven and self-perpetuating and these principles brought them results.

TOTAL FIGHT TRAINING

TRAIN LIKETHE STARS



- 62 BERNARD HOPKINS
- Old-school methods done with commitment
- 68 AMIR KHAN
 Let your strengths take care of themselves
- **72** WLADIMIR KLITSCHKO Gym work replicates the real thing for the big man
- **76**JON JONES The preparations of an MMA king
- **82** GEORGES ST-PIERRE How another pillar of the UFC Octagon gets ready
- **86** MICHAEL BISPING S&C is key for Great Britain's biggest MMA star





TRAINLIKE

FLOYD MAYWEATHER

Danny Flexen speaks to 'Money', his uncle and assistant trainer Roger, plus S&C coach Leonard Ellerbe, to discover the training behind the boxer's metamorphosis from 'Pretty Boy' to living legend.

PICTURES: ACTION IMAGES (5) & GOLDEN BOY PROMOTIONS (1)



APID-FIRE PADWORK

Anyone lucky enough to witness Mayweather's many public workouts over the years has observed his uncle's unique and innovative brand of padwork. Flashbulbs pop and fans

call out requests

while Roger's pads harass his nephew like a swarm of fireflies, their movement almost invisible to the naked eye. Critics denigrate these displays as rehearsed routines offering little practical value, but Roger insists that when the gym doors are closed, their everyday padwork bears a striking resemblance to the flashy exhibitions so beloved by the masses.

"What padwork does is teach you offence and defence. I'll tell you how to catch the punch, block the punch, counter-punch"

"People think I'm trying to make him look good," Roger complains. "I do the same thing when they're not there. I used to hold mitts when I was a little bitty kid. Ain't Floyd the best fighter in sports? That padwork must do something then.

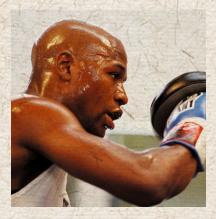
"What padwork does is teach you offence and defence. If I throw a punch at you and you on my pad, I'll tell you

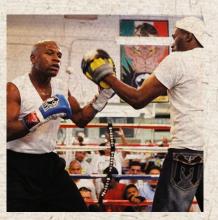
how to catch the punch. If I go to the body I'll tell you how to block the punch. If I throw a jab I tell you how to catch the punch. Then you throw, I tell you how to counterpunch. Pads is a way to air your offence and defence in one sector. Most people can't do it 'coz most people can't think as fast as me. You have to be able to push these quys

on the pads, all these punches, nonstop; most people can't do it because you have to be thinking to catch, roll, slip, pull off from punches. You've got to co-ordinate all that at one time and that's what makes the fighter. It ain't nothing to do with handspeed. Padwork is how you learn how to block, slip, catch and throw shots back. Padwork is the key to be able to adapt to what the fighter is going to do. You have to be

aware of what the opponent is going to do and adapt to that in a split second; that's what the trainer does it for. Pads ain't just to hit on, it's to correct things about you; how to keep your hands up, how to catch, how to roll, slip, duck, that's what pads are for. The pads are to create the same sense of volume of punches the guy gonna' throw at you."













COMPETITIVE SPARRING

Getting the better of Mayweather in sparring is something a fighter can dine out on for many years but that ambition is something Roger encourages.

"For a guy to fight Floyd, a guy has to be an attacker, he's gonna' have to take risks and keep Floyd on the back step the whole time," Roger explains. "That's the kind of guy you want because you try to set Floyd up, outbox him in the ring, Floyd know how to box, so you have to attack him. If he attacks him, that keeps him alert all the time, keeps him thinking all the time. Doesn't matter how hard they go, he gonna' handle it anyway. I let Floyd spar guys between 154 and 160lbs. There ain't no light sparring, most of them be getting their ass whupped because they can't do nothing with him.

"I want guys trying, ain't that what a fight is? Ain't a guy trying to win the fight? That's what I want for him in sparring. I want the guy to be at his absolute best, trying to get my nephew, beat my nephew. Because remember, if they do something to my nephew they gonna' go talk about it to their friends anyway, but they ain't had nothing to talk about.

"We don't spar by rounds, we spar by time. He got about five sparring partners and he do four or five-minute rounds, four rounds with one guy, then three or four with another guy. Certain days he'll box seven, eight or 10 rounds but the rounds are harder. The sparring partners, they are as good as the guy he's fighting and we decide whether they gonna' stay or go. If he don't benefit Floyd his ass got to go. If they're decent – if they stay in there and take it – we gonna' keep 'em."

HARD WORK

Between early-morning runs through the arduous
Las Vegas mountains, two-hour technical gym sessions
with his difigent father and uncle, and regular evening
strength and conditioning workouts with Leonard Ellerbe,
Floyd has evidently allied an indefatigable work ethic to
the intricate craft honed during his childhood. It would be
easy for Floyd to rely on his sublime skills and rest on his
considerable laurels. Millions stockpiled in the bank and

a legacy assured can induce indolence in even the most dedicated, but while Mayweather reassuringly admits the temptation is there, it is always suppressed.

"Getting out of my big, beautiful king-size bed is the worst part of my training," he concedes. "It's hard sometimes to put my feet on the floor knowing I have to get to the gym. But once I am up and out of bed, I switch into gear and am ready to go.

"I never stop working out. If I am not in the boxing gym, I go to the fitness gym where I either work out or play basketball.

"I never feel like I am out of shape and for that reason I feel confident that my physical fitness is always at a level that when I start to train for the fight I can get right back into fighting shape."

Roger and Ellerbe are both effusive in their praise for Mayweather's Herculean training efforts. They recognise – as does the fighter – that ability can only take a boxer so far; perspiration must sit companionably alongside inspiration.

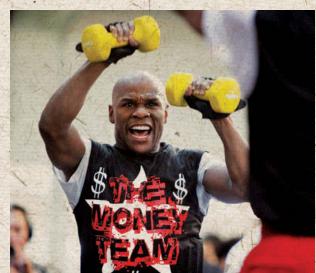
"He just works non-stop, he never gets tired; his output is phenomenal," eulogises Ellerbe. "He's not just the most talented fighter but he works harder than any other guy. There are three things that have allowed him to be the best in this sport – he's the most talented, he works the hardest and he's the smartest – that combination is unstoppable.

"My toughest challenge is trying to convince him to rest because he always wants to work. But that's a great thing. I never have to push him... he's always calling me, he's very self-motivated. He's the best conditioned athlete poundfor-pound in sports."

Roger concurs: "I ain't never had to push him. If I have to push you to be great, something's wrong. If I'm pushing him to do something he don't wanna' do, he ain't gonna' be great at it anyway.

"It ain't no different from Michael Jordan. Jordan shot basketballs at night, all night long, when the sun was gone. Now, you can shoot a basketball at night, you know you can shoot it in broad daylight, right? It's all about having your skills and how you achieve them."









'Money' Mayweather, his uncle and assistant trainer Roger and S&C coach Leonard Ellerbe break down what a typical training day for Floyd consists of, from the morning run to the evening's last workout

6AM: RUN – LAS VEGAS MOUNTAINS

ELLERBE: He runs a five-and-a-half-minute mile. Nobody even tries to keep pace with him.

ROGER: He gets some physical condition from me but he's still got to get it from running because them lungs, he's got to go in the mountain to get that wind.

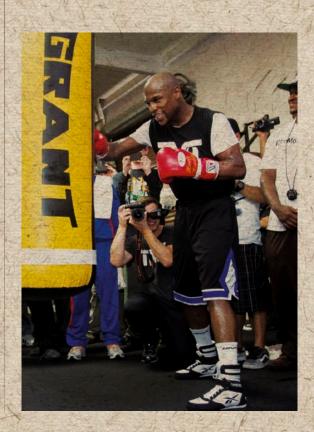
3PM: TECHNICAL SESSION – GYM

FLOYD: It's hard every day. I get to the gym in the afternoon and immediately take a shower. I like to feel clean and refreshed when I start my training. After the shower, I change into my boxing gear and go to work. Most days I have Rafael Garcia get my hands ready, one of my team members and the best hand-wrapper in boxing. We sit by the gym and I mentally prepare for the two hours ahead of me while he wraps each of my hands. I used to have problems with them but ever since Rafael has been a part of my team, my hands feel great. After we finish the wraps, I get in the ring and shake out a bit, working on my footwork, movement, just loosening up. When I feel good and have started to work a sweat, I get ready to put the gloves on and hits the mitts. Working the mitts is intense and very good preparation. It helps with coordination, precision, working combinations and handspeed.

ROGER: He'll spend about an hour on the pads. He'll do 30 minutes then he'll go to the heavy bag, speed bag, double-end bag, jump rope, then he'll say, 'I wanna' work on the pads again'. Most times he do it he don't rest and if he do rest, shit, he'll have 10 or 20 seconds but basically he's pretty much non-stop. I watch him on the bags and he does that non-stop as well. Whatever he do, he do it in time. If it's 20 minutes, he gonna' work for 20 minutes, not 15 minutes of talking and then five minutes of punching, because he knows what made him successful.

6PM: STRENGTH AND CONDITIONING WORKOUT – GYM

ELLERBE: We work five-six days per week, and a minimum of one session per day. That lasts around two hours. Floyd's conditioning has always been superb; we have gradually strengthened his body as he has moved through the weights. When I started we focused on building his legs, and Floyd has excellent symmetry now. He's never had any stamina problems in his career, he's a lot stronger than people think he is, it's the first thing most of his opponents say.



"He's never had any stamina problems in his career, he's a lot stronger than people think he is"



TRAINLIKE

BERNARD HOPKINS

Danny Flexen speaks to 'B-Hop' and three of his team to discover just how the 48-year-old record-breaker has lasted so long at boxing's top table

PICTURES HOGAN PHOTOS

"Bernard is always a

fighter. He puts on other

uniforms to blend in

with society but he never

surrenders his position"



'M A BASIC FIGHTER that made history not by being fancy. I kept to the fundamentals of being a professional prizefighter." So sayeth boxing sage and repeat record-breaker Bernard Hopkins, the seemingly ageless Philadelphian "Executioner".

It appears this traditional, down-to-earth approach extends to the training methods of the oldest man to ever win a world championship and the fighter who set a middleweight record of 20 world title defences. In almost 25 years Hopkins has stayed relatively loyal to the regime he began following after hooking up with trainer Bouie Fisher back in 1989. The pair split for good in 2005 but the late Fisher (a lease were

the late Fisher's legacy was monumental and has been perpetuated by his long-time assistant "Brother" Naazim Richardson, who took over as Bernard's head coach eight years ago and remains the head of a close-knit team based at the Joe Hand Gym in Philly. Add in pad man/conditioner Danny Davis, record-keeper Stephen Parker

and jack-of-all-trades Shahid Malik and you have a fistic choir all singing the same stirring but far from ostentatious tune.

"A lot of it starts from the basic training: the stretching, the hand-eye coordination," Hopkins explains. "It's all very traditional. I hit the bags, hit the pads with Danny Davis, stretch with bunjee cords.

"A lot of the stuff we do is old-school: push-ups, sit-ups. I train by the clock, not by what I actually do in the gym. I don't need to be in the gym for three hours to train for a 30-plus-minute fight. It's a numbers game."

How about three numbers, two letters and a punctuation mark, all combined to signify a time: 5.30am. That's when Hopkins goes for his morning run, "because the average person is sleeping until seven or eight. So I figure I'll get out before the pollution and people get out and suck up the rest of the little bit of air I can have to myself." Perfectly logical and yet somewhat eccentric; welcome to the world of 'B-Hop'.

BE A FIGHTER 24/7

Every one of Hopkins' team – including the star man himself – cites the fighter's near-monastic lifestyle, both during and outside of camp, as a key factor in his longevity and enduring success. The exemplary athlete has not touched a drop of alcohol since his teenage years. After his release from prison in 1988 – Bernard served a near-five-year stretch for various offences – Hopkins sought to turn his life around and swore off drugs and junk food as well as booze. Even now, he rarely goes to bed beyond 9pm. Fellow Muslim Richardson talks about his charge's habits – and lack of bad ones – with a mix of awe and respect.

"What he's done, he's done for years," Naazim tells me. "Bernard's training isn't a camp, it's a lifestyle for him.

When you're a Muslim and you go to a basketball game to watch LeBron James, you're a Muslim at the basketball game. If you watch your daughter's recital, you're a Muslim at the recital. When you go to bed at night, you're a Muslim in bed. You never stop being a Muslim. Bernard takes that same approach to his training. At his wedding he's not

drinking alcohol because he's a fighter getting married. When his lawyer's having a party he doesn't drink or stay out late because he's a fighter at the party.

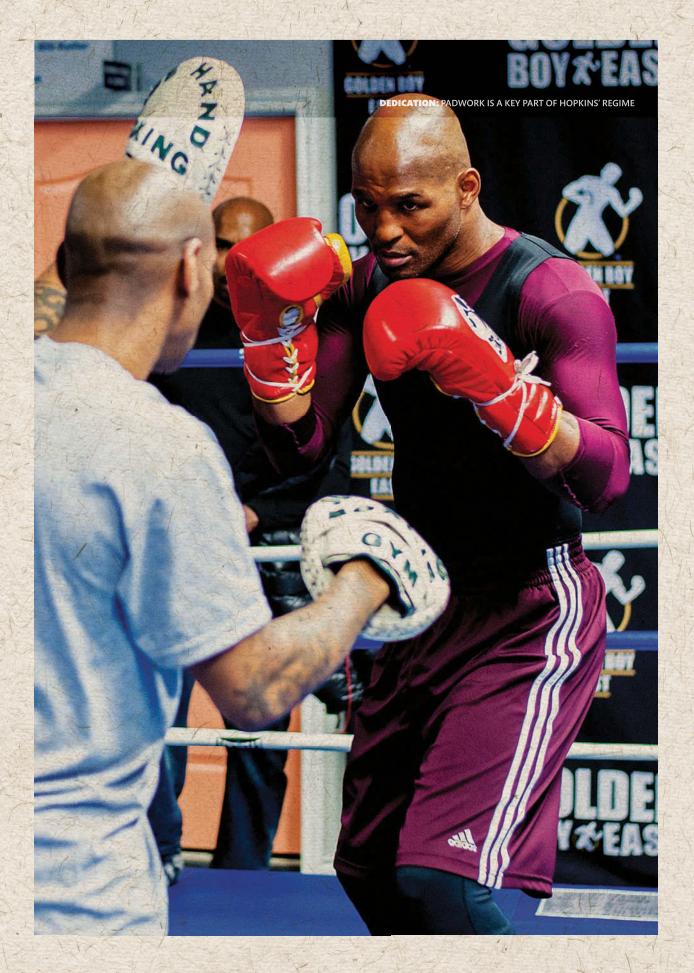
"Think of superheroes: Peter Parker puts on the uniform and only then becomes Spiderman. Clark Kent is actually Superman; he just puts on the uniform to look like the other superheroes but he's always Superman. And Bernard is always a fighter. He puts on other uniforms to blend in with society but he never surrenders his position as being a fighter."

Hopkins is in full agreement and advocates 24/7, year-round discipline as a necessity for any fighters with ambitions to win major honours and enjoy a lengthy ring career.

"Keep your body clean from any bad things that will not give you a chance to fulfil any dream you have," he advises.

"You have more time in your personal life than in the gym. Let's go back to the numbers game: you're in the gym for three hours, I'll give you four. What do you do >







when you're not in the gym? How do you live? How do you eat? How do you rest? When do you go to bed? Are you weighing your manhood out to the point where you got no strength? Having a career is management. It's discipline. I conditioned myself early in my life to reap the benefits now. I think long-term."

HAVE A PRE-CAMP

Having read the above passage, it should come as no surprise that Hopkins is rarely out of the gym. Driven by a desire to focus predominantly on boxing and his forthcoming opponent when the seven-week training camp begins, Hopkins spends around a month with only Danny Davis – before the rest of the team arrive – to get in ideal shape; he wants to be in peak physical condition just to train! Welcome to pre-camp.

"We do conditioning, we run and do a little pads, just to stay loose and stay flexible," Davis outlines. "I get him ready for Naazim, so when he comes in for those six weeks Bernard's pretty much ready to start boxing.

"I work with him for two sessions per day for three-four days each week. In the mornings he will do his elliptical trainer [aka cross-trainer], his conditioning work or we'll do our run, then he'll come back at 2.30pm for his boxing."

Hopkins runs more often than he uses the elliptical trainer during pre-camp but the balance shifts in favour of less joint-intensive work in the 'real' camp. At this early stage, Hopkins will spend "20 steady minutes" on the elliptical trainer according to Davis. "It works the whole dynamic of the body," he says.

After his cardio, Bernard will do a circuit, either weights-based or with resistance bands, but featuring eight exercise stations either way.

"For the core, I would set up eight exercise stations – band rows, skis, band pulls, band rotations," he reveals. "Some stations would be measured in reps, others in time. The skis is like skiing but with resistance bands, leaning forward, moving your arms up and down. The band row, I have him sit on an exercise ball and row back and forth with the band. The bands are attached to the ring or the wall. Then there's band walk when I put bands around his ankles or his knees and have him walk; that's good for your hips and your legs because there's a lot of resistance while you're stepping.

"I love using bands because of the resistance and you get the same tone as if you were lifting weights; but the bands don't make you tight, they keep you mobile and flexible.

"If I do weights, they're light but a lot of reps – say 12-15. I do eight stations – maybe bicep curls, one-arm snatches, shoulder press, one-leg row where you hold onto the table and lift one leg up with the weight to your chest."

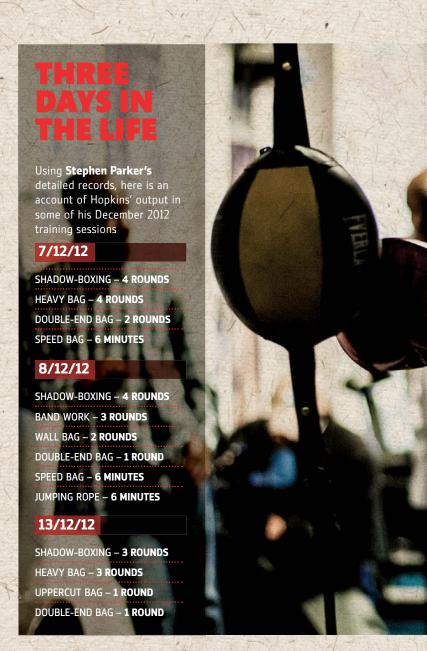
After the first session, Hopkins will go home to rest and eat before returning that afternoon for his boxing workout. Davis recounts the drills and, as you will see from the boxer's weekly schedule (p67), the mechanics of his days stay virtually the same as he moves from pre-camp to the more serious preparations; only the workload increases and sparring enters the equation.

"I normally wrap his hands first, then I give him a little stretch on the table and he'll get in the ring and shadow-box," Danny states. "Depending on how he feels he might do three-five rounds. Then we'll do two-four rounds on the pads before he jumps on a bag, say the double-end bag.

"I've done pads with him since 2003; I'm a little more mobile than Naazim and Bernard likes that speed, he wants to keep that speed and mobility. Naazim will put that body on him, when he wants to get tussled around and stuff like that. I know him so well I can pick the pads up and I can follow him through a four-punch combination and you always finish with the jab. He'll know what I want; I won't have to call the stuff out."

GET YOUR WEIGHT DOWN BEFORE CAMP

Hopkins never drifts 10lbs or more over his fighting weight (175lbs), even when he does not have a fight scheduled. He is loath to create unnecessary extra work for himself





and his training team when a fight date is agreed and he returns to camp.

"If you keep your body right when you're not at work, it's so easy to bounce into shape real quickly," he opines. "A guy who walks around 20-30lbs over their weight has to do a weight-loss training camp then think about strategy and who they're fighting; that's two camps! I never do that to my body and that's helped with my longevity."

Richardson is full of admiration for his man's dedication but does highlight one minor issue with this Spartan attitude.

"The problem with him a lot of times now is that when he comes to camp he's a little too light," Naazim chuckles.
"By the time I put three or four sparring partners on him

I need some weight on him to carry that load. I try to get him to eat a little more but that's just not in his nature.

"But most guys just put on weight and the camp is all about weight; with Bernard that's never the case. He's impeccable with his diet."

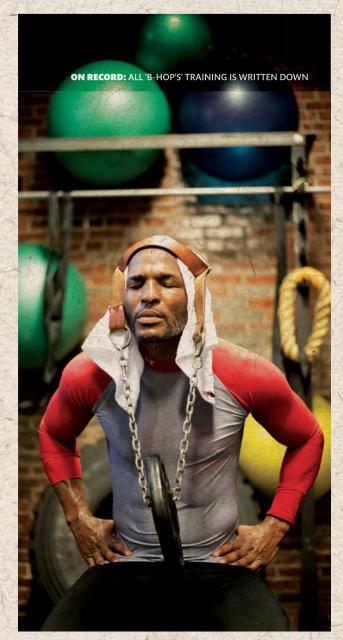
STRETCH - REGARDLESS OF YOUR AGE

Hopkins stretches his muscles – or Davis manipulates them on his behalf – before every training session. This is not only to allow greater agility and flexibility in the ring, but helps to prevent injuries especially, as Hopkins happily points out, when one is advancing in years.

"If you keep your body right when you're not at work, it's so easy to bounce into shape real quickly"







➤ "I feel stretching is so important because when you get older you can't do what you used to do at 19 or 20," he remarks. "When you're young you go out and run five miles without stretching at all. When you get older you just don't start that old-school car up without it stalling; you let it warm up. The same with the body.

"The worst thing is when you got to go to fight and you're injured. Why wouldn't you want to go into the ring healthy? Stretching is important in any sport.

WATCH YOUR OPPONENT

Between astute tactician Richardson, ace impersonator Davis and expert fight reader Hopkins, videos of Bernard's future opponents go before a trio of insightful critics. Naazim will watch the future rival before Hopkins, noting down observations and formulating an appropriate

"The details are important because they give me a foundation. I have a blueprint. Everything is documented"

gameplan. Then, when in camp, he will share his thoughts with the fighter who may spot something similar when he views the tapes and perhaps offer some key points of his own. Davis and Naazim will then put their heads together before Danny dons the pads and emulates the luckless pugilist designated as Hopkins' next victim.

"I used to be a fighter myself so it ain't too hard," Davis affirms. "For example, I'd seen that [Hopkins' last opponent, Tavoris] Cloud, he always dropped his left hand, he always leaned forward, he was very heavy-footed so I duplicated that. I knew the jab would definitely set the tone for Bernard, and feints and movement would set Cloud off and that Cloud did not know how to fight going backwards. I concentrated on not doing too much lateral movement. I saw someone aggressive and come-forward, so that's the look I gave Bernard."

Richardson sees analysing the opponent as his most important function.

"My main role is dissecting and breaking down the athlete he's opposing," he confirms. "So I present the gameplan [based] on the weaknesses and flaws of the other guy. As great a fighter as Bernard is, coaches just see fights from a different perspective."

DIARISE YOUR WORKRATE

Team Hopkins are as diligent in the recording of training output as Bernard is in the work itself. This attention to detail and the desire to retain the gathered information for future benefit emanates from the veteran boxer.

"I'm a guy that likes details," Hopkins attests, sounding admirably obsessive. "The details are important because they give me a foundation. So when my guy writes down that I did 15 or 10 or eight rounds and we add it up and get closer to the fight, I have a blueprint and I know if I feel too good, to pull me back, or if I feel too bad, to ease off the rounds a little. Everything is documented."

His "guy" in this context is Stephen Parker, an associate of Hopkins for over 18 years. He began documenting Bernard's travails around five years later and never stopped.

"I started out doing fitness work with him, then I would write down things like how many miles he'd run, how many rounds he'd spar, how many rounds he'd shadow-box, jump rope and do exercises – I could determine when he was really in shape," Parker says, excitement evident in his voice. "I even counted the amount of punches he'd throw each round. Recording everything, if he did a lot that week he could take off for a day or do easy work in the gym.

"Also, we can count how many sparring rounds he has in camp as we don't like to go over a certain amount – during six weeks we don't like to go over 140 rounds. You can leave a lot inside the gym."



WEEKLY TRAINING SCHEDULE

MON

Run/cross-trainer (30 minutes), rest/ eat, stretch (40 minutes), shadowbox, gym work (90 minutes max) including floor work, jumping rope

TUES

Run (one hour), video-watching, rest/eat, stretch (40 minutes), shadow-box, gym work (90 minutes max) including floor work, speed bag

WED

Run/cross-trainer (30 minutes), rest/ eat, stretch (40 minutes), shadowbox, gym work (90 minutes max) including floor work, pads/bags (heavy, swivel), jumping rope

THURS

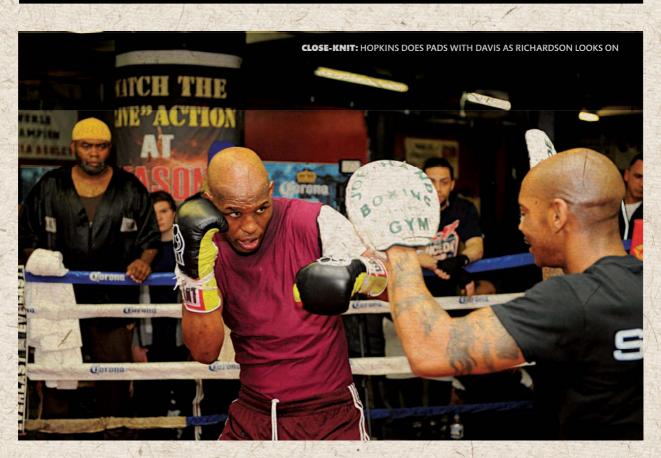
Run (sprints),
video-watching,
rest/eat, stretch
(40 minutes),
shadow-box,
gym work
(90 minutes max)
including sparring,
speed bag

FRI

Run (one hour), massage, rest/ eat, stretch (40 minutes), shadowbox, gym work (90 minutes max) including floor work, bags (heavy, swivel), jumping rope

SATURDAY nour), Rest

SUNDAY Rest



KEEP A SETTLED TEAM

Hopkins' inner circle has remained unchanged for well over a decade. This creates a reassuring backdrop for the boxer who can spend the majority of his training among men he trusts and is comfortable with. A fight camp can be an exceptionally testing environment, so the continued presence of a secure and proven back-up team is essential

"We know what each other are good at and what our different weaknesses are," Richardson notes. "The personalities don't clash, and we know when something is going on in any of our individual lives, the others can step up.

"Danny's phenomenal at what he does, Parker's phenomenal at what he does, [assistant trainer, Shahid] Malik deals with Bernard's personality. We respect each other and we won't disrespect that. We all on the team but we know that Bernard is Michael Jordan."

Even given the genius of the outstanding basketball player, Jordan does not seem an adequate comparison. Hopkins may not have transcended his sport to the extent of "MJ" but, still going after an incredible 25 years as a pro, Bernard could teach Jordan (19 years on and off in the NBA) a thing or five about longevity. Not only that but Hopkins is a reigning world champion getting ready, when we spoke, to defend his title against a far younger adversary.

We cannot give you Hopkins' fighting brain or his genetics but you can now at least follow elements of his regime. If it's a long career in a tough sport you want, you could do a lot worse than emulate this history-maker.



TRAINLIKE

AMIR KHAN

It's fair to say Amir Khan's career has been a rollercoaster. Trainers have been dispensed with, world titles won and lost, but what hasn't changed is his desire to succeed.

Matt Christie tries to understand the training that makes a man get back up, again and again

PICTURES: STEFAN JOHNSON & MAXIMUSCLE

"It's in my blood to

be aggressive and be a fighter. I make sure I observe things, stay

composed and listen"



NE Olympic medal, two world titles, three high-profile losses, four trainers. Amir Khan has packed a lot into his 26 years. Whatever happens from here, no one can accuse him of not trying. Ever since he entered the professional ranks, surfing a ferocious wave of expectation,

the gifted youngster has been desperate to achieve fistic perfection.

Trainer Oliver Harrison was the first casualty of the quest, as Khan endured rocky moments as a tender pro. In 2008 Cuban master Jorge Rubio was hired, and quickly fired, after Brieidis Prescott splattered an over-easy Khan inside a minute. The Englishman was back on the hunt for a master.

Freddie Roach – perhaps the most esteemed coach of the century – was handed the reins and, at last, the good times rolled. The likes of Marco Antonio Barrera, Andriy Kotelnik, Paul Malignaggi and Marcos Maidana were beaten. IBF and WBA lightwelterweight belts were claimed. But Khan's explosive brilliance had a dangerous alter-ego that dragged him into unnecessary wars. Attempts to contain it were futile.

Two consecutive upset losses, to Lamont Peterson in 2011 and Danny Garcia the following year, convinced Khan to move on again.

Enter Virgil Hunter, the man who guided Andre Ward to the world super-middleweight title. Ward's defensive brilliance ensured he barely got hit along the way. It was the kind of armoury that could complete Khan's mission to become the perfect fighter.

Together they are 2-0. Progress is being made. But in their most recent assignment, Khan was forced to go through hell before outscoring an ageing Julio Diaz.

"I'm not getting world champions walking through the door," explains Hunter about his British pupil, "I'm getting former champions trying to save their career. It's not an easy job. It's also a job that could end up tarnishing my reputation but I don't care about that, I care about that kid." "Amir needs to bring his boxing IQ up to match his physicality and he'll be fine. He just needs to understand some things, that's all."

LISTEN UP

If you venture away from the gameplan you're stepping onto dangerous ground. Khan's reliance on speed and athleticism has occasionally been his downfall. His belief that his rapier mitts were superior to Peterson's drew him into an unnecessary scrap; similarly, he opted to stand with Garcia and was taken out. One could argue both were winnable battles if he'd taken a more sensible approach. Amir is trying to teach his mind to pay attention throughout training, so it will be second nature to stick to

instructions during battle.

"It's in my blood to be aggressive and be a fighter," he admits.
"It's hard to change but I understand that if I'm smart, if I listen to Virgil, I'll win fights much easier. Even in the gym I'm more chilled and relaxed. It's about staying composed and listening all the time, even to instructions while you train. Virgil will shout at me, tell me to stop what I'm doing, until I understand why I have to fight the way I fight."

According to his strength and conditioning coach Tony Brady – who worked with Diego Corrales during the most prolific period of his career – Khan is willing to listen to new ideas and that will play a crucial part in future success.

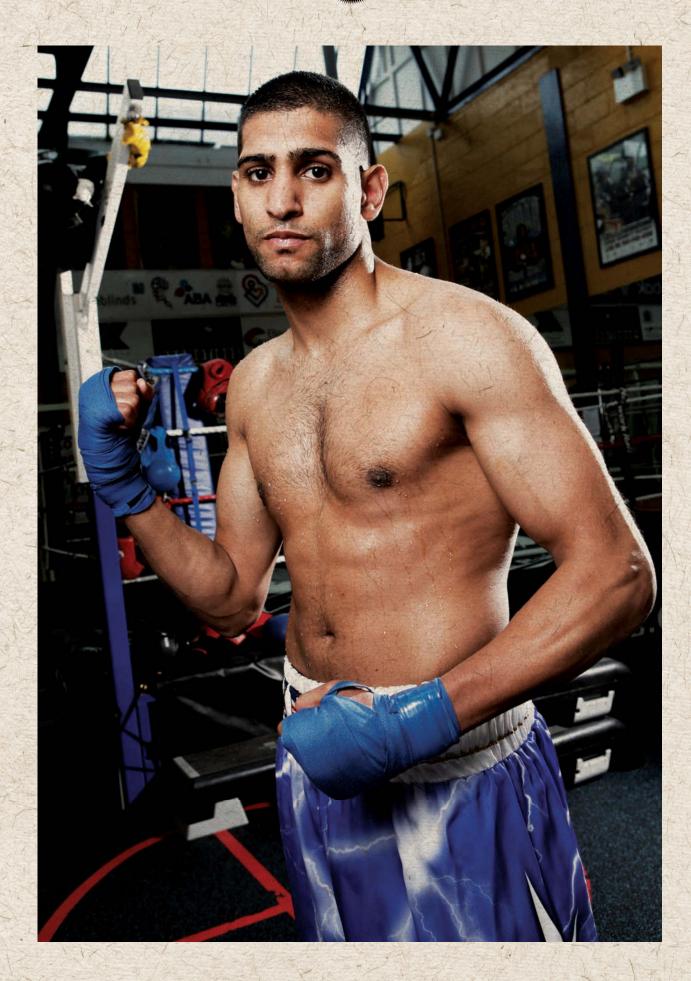
"I've worked with other fighters and it's challenging," Brady says. "They just want to do what they've done before, but with Amir he's an open book. He wants to learn and that makes a huge difference in the results he'll get.

"He's very focused and he works very hard. He trains very intelligently. He tries to understand the concept of each exercise he does and I like that."

And with Hunter, Khan's employed a coach who believes a fighter who listens, is a fighter who will succeed.

"We don't just focus on Khan physically, we have to teach him how to be an intelligent fighter too. It's about building up that relationship. A coach can ride a fighter's physicality to a certain point, he could even ride it to a







WHO'S TONY BRADY?

Tony Brady worked with Khan in the closing stages of his preparation for his bout with Julio Diaz. Brady made his name working with the late Diego Corrales, when he was at his lightweight peak. The coach is confident that working with Amir for a full camp will reap the rewards.

"I trained Diego Corrales for his war with Jose Luis Castillo, which was our third camp together.

Prior to that I worked with him when he avenged Joel Casamayor, and then he beat Acelino Freitas before that unforgettable war with Castillo. The results get better with time.

"With Amir I think we're going to see some fantastic results. I was only with him for a few weeks in the lead-up to the Julio Diaz fight but what we did there was build a foundation. Now, with a full camp, I expect to see the best Amir Khan anyone has ever seen."

> championship if he's got a good promoter, but at some point you're going to have to have the brains to go along with all the other stuff. You have to have the brains to compensate for your physicality sliding otherwise you're going to have a short career."

But how is Hunter instilling those brains? Virgil speaks quietly, and calmly, about "training the boxing IQ". How do you nurture his natural explosiveness while taming animal instincts?

"Amir has to be trained mentally. People say he's explosive but if you don't know how or when to be, what difference does it make? One punch will throw that out of the window. People say he doesn't fight the same [since he joined me]; well, thank goodness. He's still going to be the same exciting fighter he's always been but give him a chance, he's in transition. He has to understand when to put a six-punch, eight-punch combination together and when not to. Look, his career is on the line. The worst thing to do is listen to the wrong people's advice, because those people will get you knocked out. He has great physical attributes but he needs more mental training than anything. You can be the strongest fighter in the world but if you don't understand what you're working with, you're always in danger."

BUILD MUSCLES ON MIND AND BODY

It must also be remembered that Khan's willingness to go to war has resulted in championship belts. His self-confidence has been criticised but he spends his time in camp solidifying that belief. He knows he's fast and explosive. He knows how good he is. If you don't believe you're the best in the world, you never will be.

"I've never worked specifically on improving my speed because I know I have that, it comes naturally," the fighter reveals. "I'll shadow-box with weights in a weighted vest [for 20 minutes prior to 40 minutes' padwork], but I already





have it in my mind that I'm quick.
I'll want to throw quick shots
and I do that. My mind is strong,
and I believe in my strengths.
It's important to recognise your
strengths and be confident in them."

Khan's confidence increases with his fitness during camp. In that weighted vest, Khan will rock climb, he'll do bench-presses, dips, and deadlifts. Now that he's moving up a weight-class to welter – a terrain where his body will carry seven extra pounds – Amir is keen to build muscles to cope.

"As an amateur the strength training isn't so important," he reasons. "But as a professional it's very important. That's how you push your opponents back. Now I concentrate on weights, I concentrate on hill running [used alongside five-mile runs early in camp that finish with a 400-metre sprint, with explosive sprints over hurdles later on], bench presses, cleans and deadlifts, chin-ups with weights on my ankles.

"Strength is the quickest to gain, and the quickest to lose. Once you start training you gain muscles quickly and focusing on the results helps you."

VARY YOUR APPROACH TO SPARRING

Khan believes that fitness training is the most important part of his routine. His day begins with punishing roadwork and sprints. But he looks forward to the afternoons, when it's all about the boxing. Khan enjoys working on the pads, but it's the sparring, when punches are coming back, testing his resolve, where he feels the most benefit.

"I have to stay focused on what I work on," he says about his mindset in sparring. "I know I can get through 12 rounds regardless and that's not the point for me. You learn when to throw shots and when not to. I like to spar with different guys. If you spar the same person you can become complacent, you can fall into a pattern. It keeps me alert to vary things. We change it around to suit the opponent we're going to face, be it a southpaw or a come-forward guy."

Tailoring sparring partners to fit the upcoming opponent is not rocket

WEEKLY TRAINING SCHEDULE

IIIOIIDH

Morning

Four-to-five-mile runs early in camp, add sprints and hurdles later. Times must be beaten as camp progresses. Functional lower-body workout to correct any body imbalance.
E.g. Cobra (face down on mat, open up arms and move them back.)

Afternoon

Shadow-boxing – 20 minutes Pads – 40 minutes Sparring and bagwork (Increase rounds as camp progresses)

THESDAY

Morning

Upper-body focus. Abdominal and arm exercises. Body imbalance exercise E.g. Cobra (face down on mat, open up arms and move them back.)

Afternoon

Shadow-boxing - 20 minutes Pads - 40 minutes Sparring and bagwork (Increase rounds as camp progresses)

Evening Power drills

WEDNESDAY

Morning (

Extensive running on the track.
Sprints, stairs, hurdles

Afternoon

Shadow-boxing - 20 minutes Pads - 40 minutes Sparring and bag work (Increase rounds as camp progresses)

THURSDAY

Morning

Swimming programme. Essential for full body endurance. Three-minute routines to mirror length of rounds.

Afternoon

Shadow boxing - 20 minutes Pads - 40 minutes Sparring and bagwork (Increase rounds as camp progresses)

FRIDAY

Morning Sprints, hurdles, stairs

Afternoon

Shadow-boxing - 20 minutes Pads - 40 minutes Sparring and bagwork (Increase rounds as camp progresses)

Evening

Power training

science. But Hunter warns against sparring too much — particularly for fighters who revel in the savagery — and also against getting too caught up in treating the sessions like dress rehearsals for the battle that lies ahead.

"Each fighter is different," Hunter shares. "If a fighter's defence is not great then you need to be careful about how many rounds you spar. If you've got a fighter like Andre Ward you can spar 150 rounds a week if you want. There's no set programme because each fighter is different.

"You definitely want to give Khan different looks, different styles, and different types of attributes that other fighters bring to the ring. You train for the opponent but if you focus too much on that you only train for the fighter you saw in his last fight and he might not fight you that way. The secret is to know what you have, and force the opponent to deal with that."

FOCUS ON YOUR WEAKNESSES

"I always focus on the fighter's weaknesses," says Tony Brady, Khan's strength and conditioning coach.
"Your main focus has to be what they're doing wrong and that's what I look for. He doesn't need to be any faster, he just needs to maintain it.
Weaknesses stem from postural issues and muscular imbalances. If you can correct the posture and balance, everything else will fall into place."

Along with Khan's desire for war, his inability to cope once he's in the midst of one has been a common criticism. Brady accepts that there is little you can do to add extra layers to a chin, but that doesn't mean Khan's durability cannot be improved.

"We can add a little more durability to him," Brady reveals. "The conditioning work does help how strong and durable you are in the ring. You have to create optimal balance in the body; it's postural. Your body is vulnerable unless you have proper postural alignment; if you have rounded shoulders it will cause your chin to jut out. The exercise has to be founded on the back and neck muscles. Of course, there's only so much you can do because there has been years of improper balance but you can make a difference."



TRAINLIKE

WLADIMIR KLITSCHKO

IBF, WBO and WBA Super world champion Wladimir Klitschko reigns supreme in the heavyweight division. **Paul Wheeler** finds out how he came to rule.

PICTURES: REX FEATURES



VERY year I think I've reached my peak but every year it goes up and up, every year I understand the game better. There is no way anyone can beat me but me when I'm 100 per cent ready."

It is difficult to argue with Wladimir Klitschko's statement above. With 14

consecutive successful world heavyweight title defences under his belt at the time of writing (and a 15th defence against Alexander Povetkin in Moscow looming), the Kiev colossus is undoubtedly one of the most dominant heavyweight champions in history.

Ominously for his heavyweight rivals, the 37-yearold has improved with age; an observation which is a testament to his perfectly sculpted physique and a hugely successful personalised training regime honed over the past decade, originally alongside the late, great Hall of Fame trainer Emanuel Steward and latterly in conjunction with Steward's

protégé Johnathon Banks.
Previously a stablemate and chief sparring partner to Wladimir, 31-year-old fringe heavyweight contender Banks followed Steward for 15 years and inherited many of his coaching techniques along the way. He is the man entrusted with preparing Klitschko for his fights and keeping the Ukrainian at the top of the heavyweight pile.

"Wladimir does what works for him," Banks states. "I wouldn't say to another fighter, 'This is what the heavyweight champion of the world Wladimir Klitschko does. This is exactly what you should do.' It's different strokes for different folks."

It is certainly true that what works for one fighter does not always work for another. However, for those who wish to replicate a prosperous training template, attempting to emulate the world heavyweight champion's weekly routine is not a bad place to start.

LOCATION, LOCATION, LOCATION

Wladimir's training site in the foothills of the Austrian Alps is well known to those who have watched the critically acclaimed documentary *Klitschko*. However, the location of his training camp ahead of each fight is not set in stone.

Typically, he trains in two or three different places in the build-up to a bout. While some would argue that this set-up involves excessive travelling, for Klitschko, a nomadic existence is the norm.

"Where we decide to base our camp depends on how Wladimir's feeling at the time and what the weather is like in certain areas," Banks says. "For the Francesco Pianeta fight in May, we trained in Florida for two or three weeks and then headed to Austria for the same amount of time when the weather had warmed up a bit. Then we finished up in Germany where the fight was held.

"Along with his brother Vitali, Wladimir has been travelling all his life, as his father was a colonel in the Soviet Air Force. Since he was a little kid he never had one particular place he called home. That's why it doesn't

make any difference to Wladimir where camp is.

He feels comfortable training at different locations around the world."

BANKS ON WLAD'S NUTRITION

"Obviously meat is an important part of his diet.
Barbecued steak is very good for his protein levels. He often has three meals a day, with a couple of snacks in between."

PAD PERFECT

The ramrod left jab, the shuddering left hook, the destructive straight right.

Klitschko's frightening array of signature shots are constantly sharpened through his padwork, which he carries out in the morning. It is during the pads sessions that Banks and Klitschko explore various ways in which to execute specific punches and

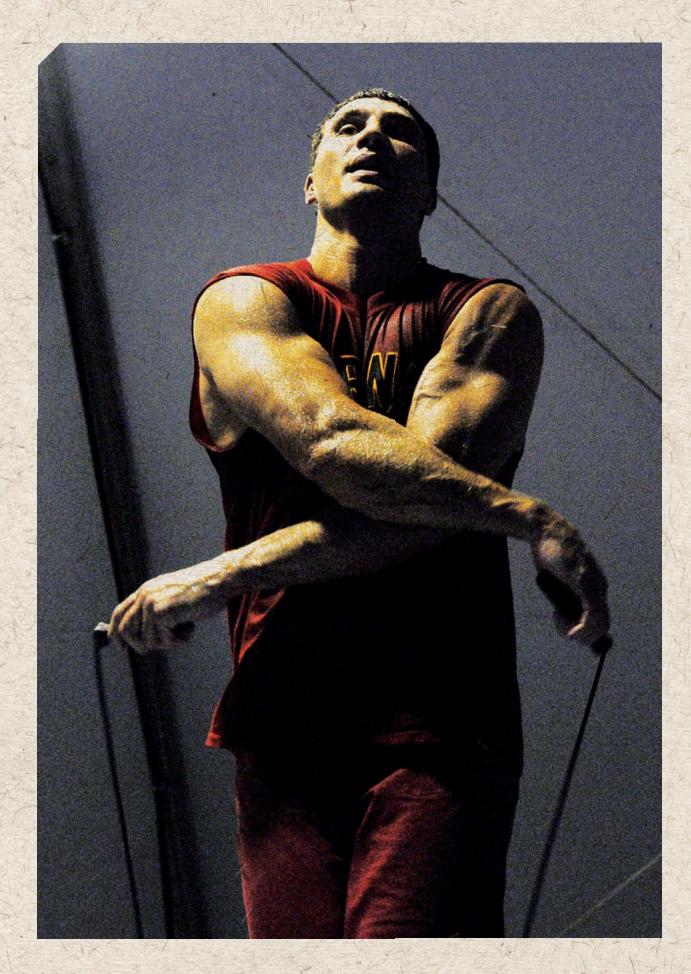
manoeuvres. Focusing on a diverse range of potential scenarios which could occur in the ring helps prepare Wladimir for any eventuality during a fight.

"We do a lot of mittwork and technique training,"
Banks confirms. "We create different strategies and try out
different movements. I teach him so many different things
ahead of each fight in order to prepare him for as many
potential occurrences as possible,

"Wladimir has an unlimited arsenal. I just show him different ways to unleash it. He loves learning how to throw a wide variety of punches. He's like a kid in a candy store on the pads."

Klitschko affirms his fondness of the technical aspect of the sport. "Thinking how to hit and how not to get hit and how to knock your opponent out, that's the whole art of boxing," he maintains. "It's not always about a







BANKS ON

IIII AD'S SEC

"Strength and conditioning

comes early on. Extra weights aren't always necessary. Throwing

the medicine ball to one another

from a standing position is

important. It keeps the upper

body loose and prevents

stiffness:

showing everything you can do, it's about using your technique and power as needed. It's about polishing all that you have learned before.

"The experience, the talent and the technique are there, but it's about letting it go, pulling the trigger. When you focus on the boxing plan, it works out exactly as you plan it."

"Reality" is a key term within Klitschko's fight preparation. Banks believes that as often as possible, training exercises should imitate the three-minute round format, as this is what Wladimir will be faced with on fight night. It is a simple but effective concept.

"From the start of the camp until the end of the camp, it's good to keep everything at three-minute rounds," Banks deems.

"We always do three-minute rounds on the pads. Before we start the workout, I don't know how many rounds we're going to do. Sometimes we do four, sometimes six, sometimes eight, maybe even 10 or 12. We mix it up each day.

"It depends on the energy Wladimir has. I've been a part of his camps since 2004, so I know him very well. I'm able to recognise when he needs a rest or when he's got more left in the tank. If everything's clicking really good after four or six rounds, we might cut it off early and save our energy for the afternoon workout."

SPAR PUPIL

They say variety is the spice of life. In Banks' opinion, this saying applies to sparring too. Sharing a ring with a wide range of sparring partners is fundamental to Klitschko's fight preparation.

"We always make sure we have an assortment of sparring partners with different styles, techniques, speed and power. We have a sparring buffet," Johnathon reveals.

"I choose who goes in with Wladimir and for how long. We may have one guy come in for two rounds, another guy in for three, another guy for two, and so on. We have a very intensive three-week period of sparring during camp. Some fighters do a lot of running, but the sparring is Wladimir's cardio work. The swimming that he does is obviously good for his breathing, but it's the sparring that increases his lung capacity."

As well as providing an intense cardiovascular workout, sparring also supplies that most vital of commodities within the Klitschko camp; reality. "We love sparring as it's the closest you can get training-wise to an actual fight." Banks declares.

"We always do 12 three-minute rounds of sparring in the afternoon. I know a lot of other fighters do four-minute rounds with 30-second rests, but I can't see any reason to do this.

"A fight is three-minute rounds with a one-minute rest in between, so sparring should be the same. We never do things like body sparring, as that's not reality. Training should always be kept as close to reality as possible."

Attempting to mimic actual fight conditions within training is something Wladimir regularly did with former

coach Steward. Ahead of Klitschko's unification clash against David Haye in July 2011, the legendary trainer stated, "Wladimir likes to box 12 rounds every day he spars, that's the standard amount. He enjoys his sparring. He doesn't spend a whole lot of time on the bags anymore as he likes things that are close to reality."

Klitschko himself confirms that the realism sparring provides is invaluable when preparing for a fight. "I like sparring. I usually have five or six sparring partners," he explains. "We don't need a lot of mittwork anymore."

CHASING SHADOWS

While Team Klitschko believe the value of sparring cannot be overemphasised, in their opinion, the benefits of shadow-boxing are overestimated by some. "Although Wladimir shadow-boxes every day, it isn't one of the most important parts of his training," Banks points out. "He shadow-boxes in the morning before padwork and in the afternoon before sparring, but I think it's overrated by some people. Nobody ever won a fight due to shadow-boxing. It's just a warm-up exercise. We do two or three rounds at the most.

"Wladimir also does skipping but not every day.

Sometimes after 12 rounds of sparring and some speed bag work in the afternoon, he might start skipping and I'll say to him, 'Come on man, you're done for the day.

Come on man, you're done for the day. Get some rest."

SIMPLY THE REST

As the above statement suggests, Banks encourages Klitschko to have ample periods of rest during camp. No formal training takes place on Wednesday, Saturday and Sunday.

"Rest allows the body to fully develop and the muscles to build," Johnathon informs us. "For example, if you keep a car's engine running all the time, it'll eventually run out of gas. Then when you try and start the car again, you're going to have a lot of trouble. Instead, if you start the car, use it for a while and then turn it off and give the engine a break, you're going to preserve that car for a lot longer."

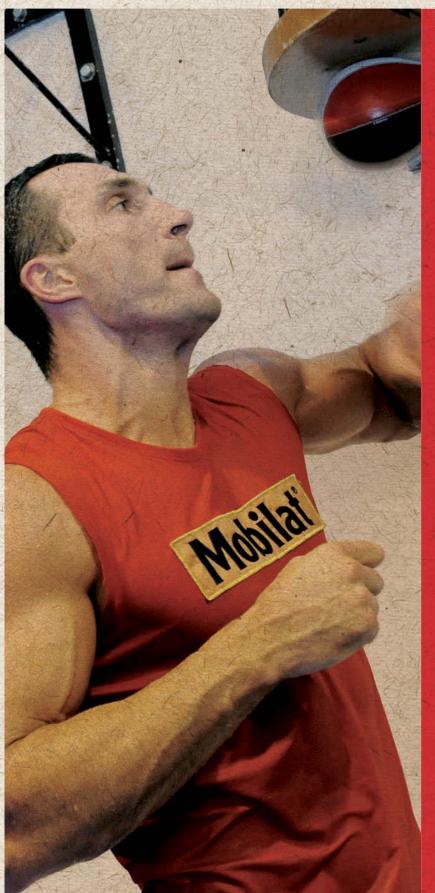
Although Wladimir has three days off training during the week, he usually goes for a 45-minute swim on two of these days, followed by a relaxing dip in the Jacuzzi. "Swimming is better for him than running," Banks says. "It's less harsh on his joints and he really enjoys it.

"Every fighter does different things to relax. Wladimir likes to go on nature walks and feed the animals. Sometimes we watch a movie or just sit down and talk."

Like his trainer, Klitschko is fully aware of the importance of rest and recuperation. "Boxing is a tough sport to stay in for a long time like Bernard Hopkins or George Foreman," the heavyweight ruler states. "It's not so easy. You can burn yourself out pretty fast."

Wladimir has seemingly struck the perfect balance between training and resting during camp. The way he is going, it would not be a surprise to see him emulate the incredible longevity of Hopkins and Foreman by reigning as a world champion into his mid-to-late forties.





WEEKLY TRAINING SCHEDULE:

MONDAY/TUESDAY/ THURSDAY/FRIDAY

MORNING:

SHADOW-BOXING (TWO OR THREE ROUNDS), PADWORK (FOUR, SIX, EIGHT, 10 OR 12 ROUNDS)

OCCASIONALLY **HEAVY BAG** (FOUR, SIX, EIGHT, 10 OR 12 ROUNDS)

AFTERNOON:

SHADOW-BOXING (TWO OR THREE ROUNDS), SPARRING (12 ROUNDS)

SPEED BAG

(THREE OR FOUR ROUNDS OR 10 MINUTES STRAIGHT), OCCASIONALLY **SKIPPING**

WEDNESDAY/SATURDAY/ SUNDAY

REST

NOTES

- All rounds last for three minutes with a one-minute rest in between.
- Wladimir fits swimming into his weekly schedule (around 45 minutes in an Olympic-sized pool), often on a Wednesday and Saturday. He has Sundays completely off.
- His strength and conditioning work comes during the early stages of camp, when boxing is not implemented yet. One of his key S&C exercises is the medicine ball toss from a standing position (six rounds followed by six rounds of another exercise, usually bodyweight-based).



'Bones' lones is arguably the most exciting and charismatic champion in the UFC today. At just 28 years old, the light-heavyweight title-holder is already breaking records and, his coaches tell **Matt Freeman**, only now beginning to hit his stride.

PICTURES: GETTY MAGES (1) / ANDREW DEMATTOS (2)

IZZY MARTINEZ

s my wrestling coach

and he owns the number one

school was ranked number one

so he's actively coaching now

why I've never beer

taken down



ETWEEN April and July 2008 Jon Jones fought and won six times, all by stoppage, earning himself an invite to the UFC, MMA's big league. After another six wins, with one disqualification loss, Jones found himself competing for the light-

heavyweight title. To say the New York native's rise to the top was meteoric is an understatement. On his way to the title, Jones dispatched veterans and highly touted up-andcomers with the same explosive and dominant ease. In taking the 205lbs belt, his victory was brutal and decisive as he became the youngest ever UFC champ. Jones has never been stopped, never been legitimately defeated and never, in truth, been troubled by an opponent. He currently holds the longest win streak in the division and is the only MMA fighter to have his own line of Nike shoes. Clearly, Jon Jones' reach inside and outside the Octagon is massive. Many wrestling team in Chicago. His high attribute the champion's success to his physique and, at 6ft 4ins with a reach of 84.5cm, he has many advantages over his opponents when it comes to striking. Others cite his natural gifts as a

all-comers. Finally, there are his coaches and mentors, Greg Jackson and Mike Winkeljohn, and their ability to forge potential into success. It is a formidable combination of all three that has seen Jones (18-1) fight his way to the top of a notoriously tough division and claim his place as the king of the light-heavyweights.

STAY HUMBLE, WORK HARD

fighter, hard to deny when he seems able

to out-wrestle, out-grapple and overpower

Jones comes from an athletic background. A state wrestling champion in high school and community college, Jones has two brothers who are both involved in professional sports, playing American football. Despite his background and innate ability, Jones keeps his feet on the ground.

"Jon obviously is physically gifted and mentally strong but he is also super humble and very coachable," says Greg Jackson, one of MMA's best coaches and one of Jones' mentors. "He listens all the time and appreciates the

training. It's something he has in common with Georges St. Pierre [the long-time UFC welterweight champion, see pages 82-85]. Neither of them acts like they know more than you do and I think that is one of the big traps that fighters fall into. When you have so many people telling them that they're geniuses every 15 minutes, pretty soon they'll believe it so it's hard to stay coachable. But, I think that is an attribute that Jon has. One of the things that I've seen define champions is their willingness to learn, their openness to learn and not become a know-it-all."

On top of Jones' desire to learn, Mike Winkeljohn, the light-heavyweight's striking coach, cites his impressive work ethic. "During training camp, Jon works very hard. He's here 100 per cent and does an incredible amount

> throughout the day from doing his conditioning work to doing different grappling classes. So he'll put

in his time."

The final piece of the puzzle for the coaches is self-belief. "On top of all that learning and work that he does, he believes in himself," explains Winkeljohn. "If I show him a new technique, or Greg shows him something, whatever it may be, Jon will try it out the very next time

everything he tells me is up-to-date That's probably the reason

he spars."

REPETITION THEN DRILL DOWN

"We spend a lot of time with Jon getting him to do the right things at the right time," says Mike. "I really believe in repetitions so that they become confident in the technique without even thinking about it."

Though Jones began his MMA career by teaching himself how to strike via YouTube videos, his time with Mike Winkeljohn, a decorated Muay Thai fighter in his own right, has seen the light-heavyweight's skills on the feet improve in leaps and bounds. The formula is, once again, fairly simple.

"I teach a basic striking class where we won't spar. It's very important to drill without getting punched in the head. It's hard with a gym full of fighters as some of them will just want to go hard. But what I've found is with guys like that is that they get tough, though next year they're the same fighter, just as tough, with quite a few less brain cells." >







➤ Dividing the classes between live work and technique drills is an important part of the learning cycle at the gym in Albuquerque, New Mexico. "What we do is to slow things down and drill things in a controlled atmosphere so that we can do the repetitions over and over and they become second nature."

As Jon Jones' main striking coach, Mike also holds one-to-one classes with the champion. "I'll do a lot of mitt work with Jon, putting myself in positions to mimic the opponent he'll be fighting so that he can practise the proper length of his strikes, the change-ups he wants to do and the footwork and techniques that put him in areas people won't expect him to be, allowing him to attack or shoot in for the takedowns."

Spending between half an hourto-an-hour every day doing extra padwork, these times are spent perfecting and drilling techniques. "At first, when Jon comes into camp, we'll do a lot of repetitions on learning new techniques but the further we get into camp the more specific we get to the opponent he'll be fighting. But early on in the camp I'm always trying to add new skills to his toolbox that can be used further on down the road," says Winkeljohn. "I'll assess during the camp if Jon is able to utilise and sharpen those new tools and if so, we incorporate that into the camp-specific training. If not, we put it on the shelf and use it later on. Closer to the fight we'll put Jon on the clock and pick up the intensity. We always do five-minute rounds so he can see and feel the length of the rounds in his mind. In fact, towards

the end of camp we'll have guys come in and shoot in on him in the middle of the pad work, or grapple with him to tire him out so that it really simulates the fight."

SWIM TO WIN

"Swimming is definitely the most challenging element of training," Jones reveals, perhaps somewhat surprisingly. "It's brutal. I usually start off warming up with some 800s and then I do resistance swimming where I'll have a bungee tied around my waist and I'll swim out to the middle of the pool. They'll hang on to this bungee and basically I'm swimming and I'm not going anywhere. When I get really exhausted they usually let the bungee go and I'll have to finish over to the other side of the pool, then I have this



changed my care around big time.

other drill we do called diving swims where you start at one edge of the deep end. Standing out of the water you jump and dive in, you swim across and pull yourself out at the other side of the pool, turn around and as soon as you turn around you dive right back in and you just keep going back and forth. Eventually, pulling yourself out of the pool is so exhausting."

GRAPPLE WITH THE BASICS

In mixed martial arts, the ability to wrestle as well as use submission grappling techniques is paramount. A decorated wrestler in his school days, Jones has fared just as well against the submission skills of Brazilian Jiu-Jitsu specialists such as Vitor Belfort and Lyoto Machida as he has against legitimate wrestlers in the form of Ryan Bader, Quinton "Rampage" Jackson and Chael Sonnen.

"A lot of what we do with Jon is expanding his knowledge of the wrestling and ground game. He was fairly raw when he came to us in all areas, even mentally. He had all the basics in terms of technique but it was more a case of giving him ideas as he is very creative," explains Greg Jackson. "In his jiu-jitsu privates we'll go over basic manoeuvres and the details of certain techniques. When it comes to gameplan time, I'll tell him that we'll be doing certain things and we'll drill them over and over again until he gets them down."

With the normal pro classes lasting between one hour-to-

an hour-and-a-half, and privates lasting another half an hour, Jones is clearly packing in the training and practise necessary to make his skills second nature.

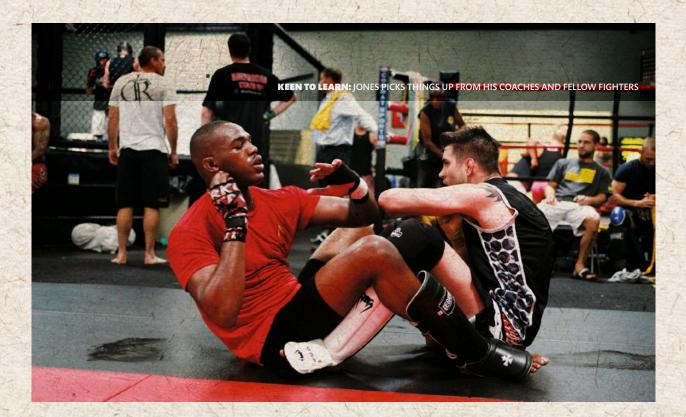
"There's no real secret formula with Jon. I mean, he has great striking coaches, great jiu-jitsu coaches, great wrestling coaches and then me putting everything

together. He does all the normal practices and sparring as well as daily privates," Greg reveals.

"The thing with Jon is information. What I like to do is give him ideas and let him play around with them and make them his own. Some fighters are very creative and like to be able to flow within certain parameters and Jon is certainly one of those guys."

Whilst Jon will work with Greg to a specific gameplan, his coach also develops a personal growth plan for his fighters looking at





GREG JACKSON

think like a warrior. He says

things like, 'Anyone can fight, but

real fighters, real champions, the

deficiencies and weaknesses that need developing. "In the privates we'll work on areas that I think need strengthening but we also look at opponent's and their 'x factors' as well as vulnerabilities that I want them to exploit in the fight."

The other important part of the grappling game is wrestling, including takedowns, defence and body position. The man who has been helping Jones recently is Israel "Izzy" Martinez, an Illinois native who came to the gym after helping UFC lightweight Clay Guida.

"Izzy works with Jon a lot and will modify classes around Jon's fight camp. So, when Jon fought Chael Sonnen, Izzy spent a lot of time working with the class on specific drills for that opponent," explains Mike Winkeljohn. "It's the same as the striking classes with a lot of drilling, a lot of repetitions and a lot of basics."

Preparing for his last opponent,
Chael Sonnen, an accomplished wrestler,
Jon's trainers highlighted some specific
techniques in training. "We wanted Jon to shoot
with his head on the outside of Chael's front leg so
that he didn't walk in to any punches. In camp we spent a
lot of time on avoiding the left side when we looked for
the takedown, and on defending the looping right hook
that Chael likes to throw," explains Winkeljohn.

ATTITUDE TO ALTITUDE

Albuquerque's height of 9,000 feet is a boon to Jones and the other fighters who train there and Jackson's gym in particular is local to some impressive peaks. Jones is quick to emphasise how crucial this is to his conditioning. "Albuquerque has a lot of mountains and it's high elevation, so even if I'm just jogging on a treadmill inside of the gym, I'm still going high elevation," he enthuses. "And when I get into those mountain runs it really uses the land. You go even higher. When you get up to 9,000 feet working out it's really hard to breathe and your body gets adjusted to it. That means you're getting into phenomenal shape. When you come down from that mountain or get

to the city you're fighting at, which is usually sea-level, you feel like you have an untouchable tank of gas. It's not the longest run, it's just hard work. I'm not a big believer of these long, boxing-style logs. I'm a big believer

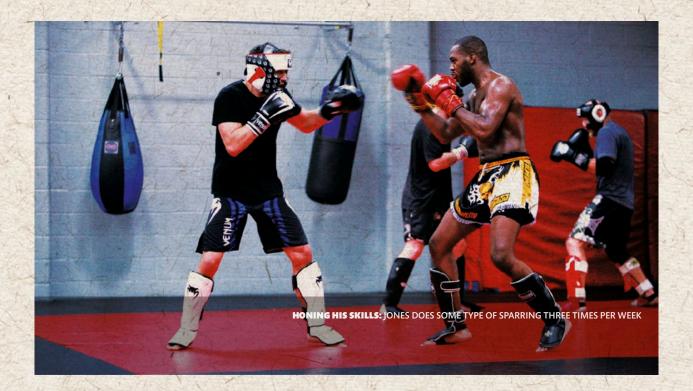
long, boxing-style jogs. I'm a big believer in sprints and hill sprints, short bursts, and that's how fighting works. A fight is a short-burst thing, so that's how I do it."

ANALYSE AND PERIODISE

In the modern era of MMA, strength and conditioning can make the difference between winning and losing, especially when the opponents are so well matched in skills. Jon Jones is an athletic individual with some clear physical advantages over his opponents but he doesn't neglect his conditioning regime. Having begun working with Adrian Gonzalez before his last title defence, a stoppage win over Chael Sonnen, Jones has already improved again.

"The very first thing I did with Jon was a functional movement screen," explains Adrian. "It's a seven-point screen that looks at his mobility and flexibility that I use as a jump-off point to create a programme. The screen uncovered a number of mobility limitations and a





my boxing coach and he's living

with me; we're getting in workouts

nasty Irish guy; he's in the best

shape of his life. He wakes up

at 5am every morning

and he's running

➤ few chronic issues that he probably developed over the years. What I did with Jon is to take a holistic approach to open up his hips, his shoulders and thoracic spine. Through that increase in mobility and flexibility he saw an improvement."

The development in his flexibility had the knock-on effect of greater strength gains. "The joint malfunction I saw in Jon was that he was loading his legs and arms asymmetrically. After we opened him up with these mobility patterns we got feedback from the gym that he had more power in his kicks and in his takedowns,"

Adrian reveals Adrian uses two mobility

Adrian reveals. Adrian uses two mobility patterns to activate his athlete's muscles which are alternated over the weeks; linear and lateral. Using foam rollers and different stretches, such as a scapular push-up stretch for the shoulders and a box hip flexor stretch for the hips, Adrian can open up the muscles and joints, allowing for better mobility and thereby improve athletic performance.

Working with Gonzalez at Elevate PHW,

Jones has the best facilities on offer including
an exercise physiology laboratory where his coach can
derive all manner of data including VO2 max and heart-rates.

"Jon's programme is somewhat unique in that we do his strength and conditioning work on the same day, including his speed work and power work. The amount of each element he does depends on where he is in his camp. Closer to the fight we focus more on conditioning and less on strength but he'll continue to do some amount of speed, agility, power, strength and conditioning in every workout block; it is just the amounts and times change," Adrian says.

Working with Jon three times a week for between an hour-to-an-hour-and-a-half each time, Gonzalez uses block periodisation to develop his athletes. In the first instance, "In an eight-week fight camp, we use two three-week blocks focusing on strength and then power. The final two-week block is then more conditioning-based where we simulate fight conditions," say Adrian. The aim is to carry the gains in each block over into the next. "But this also allows us to address certain deficits as well

as tracking improvements. So, over the camp, if we needed to emphasise power, we can manipulate

the programme to work on that area."

Adrian has an interesting insight into what makes Jones so formidable.

"The thing I've noticed is that Jon is very comfortable being uncomfortable. He's okay with pushing himself and his work ethic is phenomenal and he'll give one hundred per cent every time," Adrian reveals. "The other attribute Jon has is that he is naturally athletic. I truly believe he has only tapped into a small spectrum of what he is capable of. For example, he came to me with a

deadlift of 225lbs and over a six-week period improved it to over 400lbs. Really his body is just now developing."

At just 26 years old, it seems that Jon Jones is only now fulfilling his potential. He has undoubtedly already beaten the best in his weight class and, though the UFC has a few young contenders making their case as challengers, he seems destined to remain at the top of the lightheavyweight division.

*Jones quotes provided by James Reader



Gonzalez shares with us the S&C schedule Jones was working to during his power phase towards the end of last year. The weights should be chosen as appropriate to the strength of the fighter or fitness enthusiast.

AUTUMN 2012 Phase 2

| 约14 计数据文件 | WK1 SETS | REPS | WK2 SETS | REPS | WK3 SETS | REPS | |
|---------------------------------|----------|----------|----------|----------|--------------|----------|---------------|
| CLEAN\HIGH PULL | 3 | 5 | 3 | 5 | 3 | 5 | A |
| SUMO SQUAT PRESSOUT | 2 | 8 | 2 | 10 | 2 | 12 | |
| PLANK W/ ISOMETRIC PRESS | 2 | 10ea | 2 | 15ea | 2 | 20ea | 36 |
| BARBELL DEADLIFTS | 3 | 8* | 3 | 6* | 3 | 5/5/2x5 | To the second |
| CHIN-UP W/ 20LB WEIGHT VEST | \3 | 5 | 3 | 5 | 3 | 5* | 1 |
| PEC STRETCH | 2 | 20secs | 2 | 20secs | The state of | X My | |
| 1/2 KNEELING ONE ARM DB PRESS | 3 | 8ea | 3 | 8ea | 3 / | 8ea | The state of |
| SINGLE-LEG DB ROMANIAN DEADLIFT | 3 | 5 | 3 | 5 | 3 | 5 | |
| STANDING ANTI-ROTATION PRESS | 1 | 2.20secs | The A | 2.25secs | 1, 1, | 2.30secs | 差 |

Anaerobic work: 10-second sprints

| 是一种的自己的。 1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,1000年,100 | WK1 SET | S REPS | WK2 SETS | REPS | WK3 SET | S REPS |
|---|---------|--------|----------|-------------|---------|---------|
| DUMBBELL SNATCH | 3 | 5 | 3 | 5 | 3 | 5/5/2x5 |
| BENCH PRESS | 3 | 8* | | 6* | | 5* |
| REAR FOOT ELEVATED SPLIT SQUAT | | 8 | | 6 | | 5 |
| LAT BAND STRETCH | | | 10 br | eaths or 30 | seconds | 2779 |
| TRX HORIZONTAL ROW | 3 | 8 | 3 | 10 | 3 | 12 |
| GLUTE/HAM EXTENSION | / 3 | 8 | 3 | 8 | 3 | 1,8 |
| KEISER PUSH PULL | 2 | 10ea | 2 | 12ea | 2 / | 14ea |

Anaerobic work: 10-second sprints

| | WK1 SE1 | S REPS | WK2 SET | S REPS | WK3 SET | S REPS |
|-------------------------------------|------------|--------|---------|--------------|---------|---------|
| BARBELL ROMANIAN DEADLIFT | 3 | 5 | 3 | 5 | 3 | 5/5/2x5 |
| PARTNER PLANK W/ ISOMETRIC PULL | 2 | 10secs | 2 | 15secs | 2 | 20secs |
| DUMBBELL INCLINE BENCH 35° | - 3 | 8 | 3 | 6 | 2 | 5/5/2x5 |
| GOBLET SQUAT | 3 | 8 | 3 | 10 | 3 | 12 |
| BOX HIP FLEXOR STRETCH | | PA TAN | 10 br | reaths or 30 | seconds | 2 1/ |
| DUMBBELL ROW | 3 | 8ea | 3 | 8ea | * 3 | 8ea |
| TWO-DB SLIDEBOARD LUNGE | 3 | 8ea | 3 | 8ea | 3 | 8ea |
| SLIDEBOARD LEG CURL W/ KB PRESS-OUT | r 2 | 8 | 2 | 8 | 2 | 8 (|

Anaerobic work: 10-second sprints

NOTES: DB=Dumbbell; TRX (brand name)=suspension trainer; KB=Kettlebell; ea=each arm or leg; *= do as many reps as possible (the stated figure is a minimum amount).

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TRAINLIKE

GEORGES ST-PIERRE

Firas Zahabi tells **James Reader** the training programme that has kept GSP at the top of the division for over half a decade

PICTURES: GETTY IMAGES

"With padwork I don't

call shots. He's got to react.

He's already been taught

what to do. It's like

a substitute for sparring"



HE MOST DOMINANT champion the UFC welterweight division has ever seen, Georges St-Pierre (24-2) has blended fluid striking with seamless grappling and unmatched cardio to keep a stranglehold on his weight class since 2008. With a division record of eight

title defences, the 32-year-old Canadian has bested every opponent matchmakers have put in front of him. Since his return from ACL surgery in 2012, St-Pierre has most recently dispatched world-ranked welterweights Nick Diaz and Carlos Condit in dominant fashion, having previously defeated the likes of Josh Koscheck, Jake Shields, Jon Fitch and B.J. Penn. With these credentials, it is no mystery why "Rush" is considered one of mixed martial arts' pound-for-pound greatest.

St-Pierre's natural athleticism and tireless work ethic have moulded him into the champion that he is today, but the clinical guidance of Firas Zahabi – a former Canadian Muay Thai champion and coach at the world-famous Tristar Gym in Montreal, Canada – is the force that has helped him develop and

remain at the very top of the elite level.

"I've been training with Georges for about 10 years but about six years ago he asked me to become his head trainer; before I was an assistant coach and training partner", explains the 33-year-old. "I train him everywhere, but mostly in his striking. I'm a black belt in jiu-jitsu as well and I've been doing freestyle wrestling for 12 years."

MIX IT UP ON THE PADS

"Once a week will be a pure boxing workout", Zahabi begins. "If we're doing drills, they're usually about three minutes long. It's more intense and it's faster. We do five minutes sometimes – but if you're always doing five minutes you might become a little flat, you might lack in intensity. If you're doing a lot of rounds and getting fewer breaks you might be slower, so you're keeping up the intensity with three-minute rounds and you're fresher."

Another technique Zahabi drills with St-Pierre is the

use of feints to set up his diverse striking game. "We do a lot of mitts and Thai pads, and a lot of feint drills. We stand in front of each other and we take turns doing feints, like setting up a leg kick, setting up the right hand, and setting up the body shot. The first two or three movements are a decoy before a real landing shot, or sometimes just one decoy and then a real landing shot, just practising how to blend the real punches and kicks with the decoys."

Zahabi also utilises a training technique he calls "Micropunching" in order to make sure the champ's boxing is crisp on fight night. "During the fight, because of the nerves and the pressure, you're going to throw that hook a lot more wild. You're going to swing it more and it's going to be a little less disciplined. In practice we have to make the hooks and uppercuts even tighter than usual. I call it 'micro-punching'. Sometimes I make the guys do

> pads and I make them do it a really exaggerated short hook or an exaggerated short uppercut. In the fight it will adjust, so I overcompensate in practise."

"With padwork, I don't call shots", he continues. "If I'm walking forward with the pad, leaning down like I'm calling for an uppercut, he knows that he has

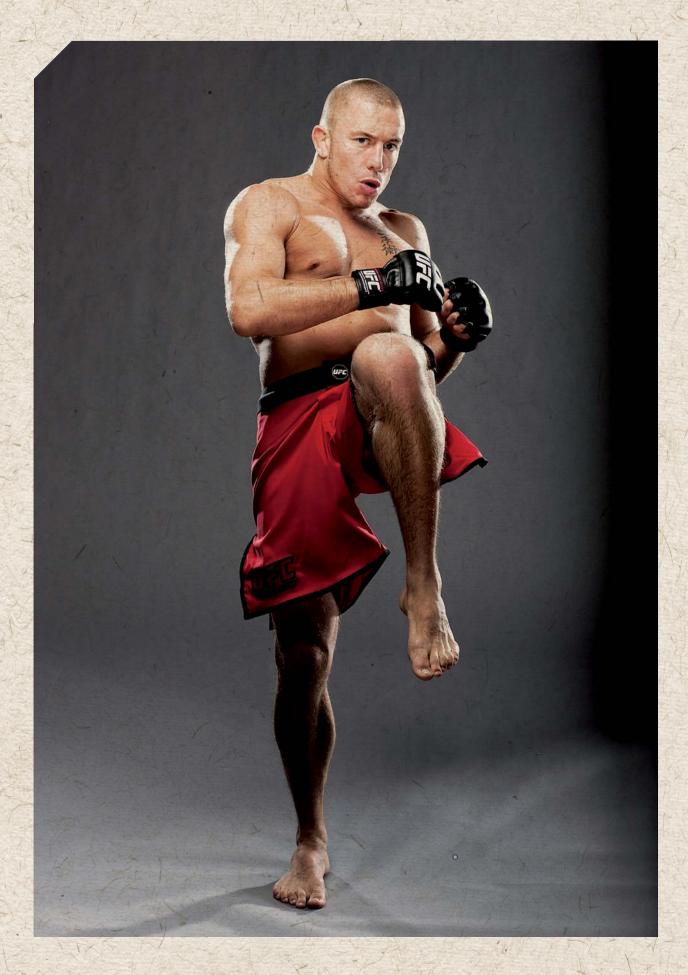
to step at an angle, throw the uppercut, step out of the way and let me breeze by and change position. He's got to react. He's already been taught what to do. When you do these kinds of drills it's like a substitute for sparring."

BE SPECIFIC IN SPARRING

"A sparring session is about 20-25 minutes. Usually, I do three-minute rounds but on some days I do four or five-minute rounds. I change the duration", states Zahabi. "Sometimes I'll be telling Georges, 'I only want you to use the jab for the first two rounds', or I'll be asking him to do certain things. For instance, I might want him to go for the body, giving him a type of target and limiting other options. It makes the sparring more interesting and it helps develop that particular tool."

Despite its obvious benefits, the world-class coach is quick to warn that sparring at a high intensity all of the time can be potentially damaging to a fighter's technical >







"In a fight you want to have the gear to go hard and fast and you also want to have the gear to go deep into a fight"

➤ development. "You can't spar all the time because your body will break down. I don't like them to go high-intensity unless they're closer to fight camp. I like the high-intensity rounds to be a very short thing. I don't like it to be for eight weeks in a row. I find guys that spar too much at high intensity all the time get injured, miss more practices and learn a lot less. They learn to brawl more and they don't become technical. They learn to become tough, their telegraphing is greater and their technique is not as good because they didn't take the time to learn how to relax in practice."

This level of specifity is replicated in the selection of sparring partners. St-Pierre's next challenger is heavy-handed No. 1 contender Johny Hendricks who is scheduled to meet the champion at UFC 167 in November. Zahabi, however, is already lining-up sparring partners to prepare his student:

"If you're fighting a guy like Johny Hendricks I want lefties who throw a good shot, have good power, who move forward, and guys who can wrestle as well. I'm trying to mimic Johny Hendricks as much as possible, and I might need two or three guys to mimic one Johny Hendricks."

PERSONALISE THE CONDITIONING

Having gone the distance a total of seven times in fiveround championship fights, St-Pierre has one of the best gas tanks in MMA. Naturally, good conditioning is key to success in all combat sports.

"For an MMA fighter, metabolic conditioning is more important than strength training", Zahabi begins. "This is going to increase your work capacity. It's not a question of reps; it's a question of time. It can be done between two and 30 minutes. You've got to be creative and keep changing the times. I usually use between one minute and five-minute rounds.

"For instance, I'll do three rounds of three minutes: for three minutes I'm going to sprint, take a one-minute break, for three minutes I'm going to row, take a oneminute break, and then for three minutes I'm going to do a kettlebell swing. That's a very specific example of a metabolic conditioning circuit for an MMA fighter.

"The next time I do metabolic conditioning it could be three rounds of sprinting for five minutes. It could be kettlebell exercises and I could make it three two-minute rounds, or five three-minute rounds, or four four-minute rounds. I can vary it as I wish.

"If I do a two-minute round of conditioning I'm going to be a lot more intense; I'm going to row a lot harder or I'm going to swing the kettlebell at a faster rate. In a fight you want to have the gear to go hard and fast, and you also want to have the gear to go deep into a fight if the fight is lasting longer. If you're a guy who's a slow starter but you don't fade in the later rounds, you might as well do short rounds of sprints and short rounds of metabolic conditioning. If you're a guy who does really well in round one and starts to fade, you might want to hit the four and five-minute marks more often.

"For metabolic conditioning with Georges I really like sprinting. Sessions are very short; the shorter the session, the longer the warm-up. If Georges is going to do 100 meters, the warm-up has to be even longer or you could tear up a hamstring or injure a quad. If you're going to go to the track and do 800 meters, your warm-up is going to be shorter."

USE OLYMPIC LIFTING FOR STRENGTH

The third dimension of St-Pierre's S&C programme is 'Strength and power'. Here, GSP is able to develop his distance-closing explosiveness. For Zahabi, precise reps, sets and resting times are crucial to "Rush's" overall development.

"Strength is how much weight you can move and power is how much weight you move over time, so it is explosiveness", states the Tristar coach. "Gymnastics should be practise, metabolic conditioning should be to do with time, and weightlifting should be five reps and under. If we're talking about Olympic lifting and bench press it should be five reps and under because you're trying

STRENGTH & CONDITIONING

ST-PIERRE'S strength and conditioning programme is one of the most sophisticated in the sport, however stability training lies firmly at its core. "Stability and mobility have to be present in the athlete before you ask him to do a movement," Zahabi advises. "If you don't have good stabilisers you will get injured. For stability, we use gymnastic movements. Gymnastic movements are far more complicated, they're for harder to do and they're progressive. You need to do stability work like lunges, ring push-ups, push-ups on a stability ball and boduweight savats.

"You're trying to develop the mobility and stability of the joints. It's extremely important not to skip this step. The harder the exercise the less reps, but you can't become overly obsessed with sets and reps. It's a question of practice."

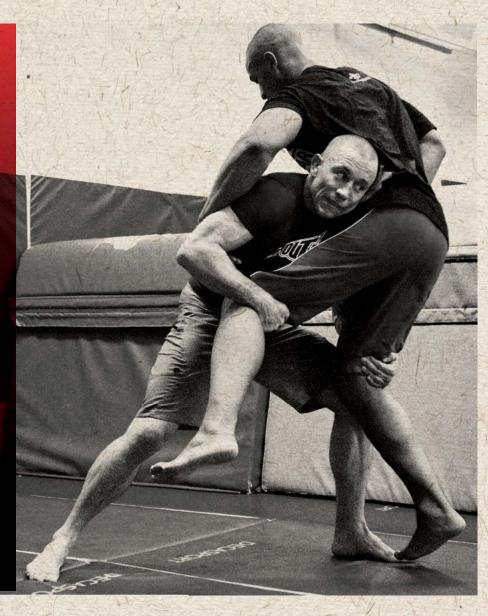
Naturally, "Rush's" S&C routine adjusts leading up to a scheduled bout: "We do gymnostics, metabolic conditioning and Olympic lifting all year round. We try to do one session a week every week, There's usually a day in between, so Monday is gymnostics, one day is metabolic conditioning and maybe Saturday he will do his Olympic lifting. Closer to a fight we'll do less metabolic conditioning, weight-lifting and gymnostics and we'll do extra rounds of kickboxing and wrestling and more of the sport."



WRESTLING

Under the mentoring of Zahabi, St-Pierre has developed one of the most feared ground games in mixed martial arts. The champion has shut down some of the welterweight division's most gifted grapplers including jiu-jitsu ace Jake Shields and accomplished college wrestler Josh Koscheck but how does he fine-tune his ground control and takedown attacks? There are no mandatory sets and reps," Zahabi explains. "Maybe I'll do five reps and Georges will do five reps. If we're a little tired it might be one rep each, but if we're feeling good we might do 10 reps in a row. We just play it by ear. Georges is very good with the single-leg, so he focuses a lot on what he likes to do, and we're constantly perfecting all of his takedowns. We usually do about an hour of technique and then we'll roll for 20 minutes. There is one day when we'll work against the fence, and we'll start with the wrestling and fall on the ground and keep going with the jiu-jitsu. The way we teach jiu-jitsu, wrestling and ground is not separated. Georges is a very experienced guy so he likes to go with more experienced wrestlers. If the guy's a very good wrestler, we'll

send him Georges' way."



to build strength. With Georges we use Olympic lifting because we know how to Olympic lift and that's the best way to build power and explosiveness all at once.

"With Georges we mostly do the snatch and then front squat and back squat. I think the snatch is the best move. We never do more than five reps at a time. Resting periods are two-to-five minutes because you're building strength, not endurance. The athlete has to be fresh or he won't be as explosive, he'll be slower. I'm trying to get him to go from zero to 60 as fast as he can. We used to do it for an hour, but now we're doing it in 20 minutes.

"Georges will do a double, two reps, take a break, six sets — seven sets max — and he's done. We lift weights that are heavy but manageable. I never lift weights more than 80 per cent of my capability [bodyweight]. I like to use Olympic lifting, but I really suggest people only use it if they have a good coach."

Dominating one of the most competitive weight classes in

mixed martial arts for over half a decade takes a special kind of champion, but it is not St-Pierre's raw talent alone that has kept him at the top of his game. It's also Zahabi's understanding of the sport, and perhaps even more importantly his training programme that is specific to St-Pierre's needs:

"We change his schedule depending on what we think will help him the most. I'm not saying change it completely, but you've got to tweak it."

A victory over Hendricks will not only stretch St-Pierre's title defense record to nine, but it will also put him only one step behind organisation record-holder and former UFC middleweight champion Anderson Silva, who successfully defended his strap 10 times before suffering a knockout loss to Chris Weidman back in July.

If St-Pierre can best Silva's record with three more wins in his talent-rich division, it could very well pave the way to solidifying his legacy as the greatest mixed martial artist of all-time.



TRAINLIKE

MICHAEL BISPING

Britain's most celebrated UFC star is known as a stunning striker but he is well on his way to becoming a complete mixed martial artist and the middleweight champ.

Bryan Schatz meets 'The Count' and his training team

PICTURES: CARLOS BAEZA



N A windblown but sunny southern California afternoon at The Ultimate Training Center in Huntington Beach, Michael "The Count" Bisping displays his penchant for bellicosity by bloodying the face of his luckless sparring partner.

Bisping's life as a combatant goes back to his youth in northwestern England, fighting for the first time at the tender age of 10. Later, he went on to become the British Sport Jiu Jitsu champion and a five-time national kickboxing champion, not to mention all the "just-a-case-of-growing-up" street brawls that punctuated his journey to professional pugilism.

The street fights are now a distant memory, but his innate aggression still fuels his ferocity in the cage as well as in the gym. "You've got to train the way you fight. Some people are lazy when they train and then they go out and fight hard and they gas. Sometimes it works out, they might win quickly in the first round, but if they get dragged into deep water, it's not going to work out too well for them."

"Mike gets these guys to back up, gets them on the fence and then batters the living shit out of them and they can't do anything about it"

It's a method that's proving successful: Bisping is 24-5 in MMA with 18 early finishes. He is still seeking that elusive middleweight title shot, but came back from a defeat to Vitor Belfort by taking a unanimous technical decision over Alan Blecher in April.

S&C trainer, Scot Prohaska, who joined the Bisping team two years ago, develops his explosiveness and power. Tiki Ghosn serves as the jack-of-all-trades MMA coach, pulling all of Bisping's striking skills together to package them up appropriately for the cage. Lastly there's Brady Fink, a Paulista BJJ black belt responsible for "The Count's" ground game. Like any quality camp, they bring in world-class strikers and grapplers to prepare for every fight.

GRAPPLING

There's no doubt about Bisping's skill in the striking department. His quickness coupled with his technical boxing skills have been a challenge for every fighter he's encountered. While pundits have questioned his ability to deal with top-level grapplers, according to Ghosn, "Michael Bisping is a complete martial artist. A lot of people underestimate that because he's had such success as a striker. There's a whole side of Michael Bisping no-one's ever seen, and it's his grappling side. He's right up there with all the top guys."

Fink, the verbose and friendly grappling coach,

enthusiastically agrees, "Mike's grappling is good. No doubt about it. He's keen to [aware of] every position, every move, and he knows when you're tricking him. We do two hours of grappling practice every morning and a structured wrestling class a few times a week. We bring in top-tier wrestlers from all over, guys competing in the Olympic trials and things like that, and they can't take him down. Mike is

a professional athlete and he trains like one. Period."

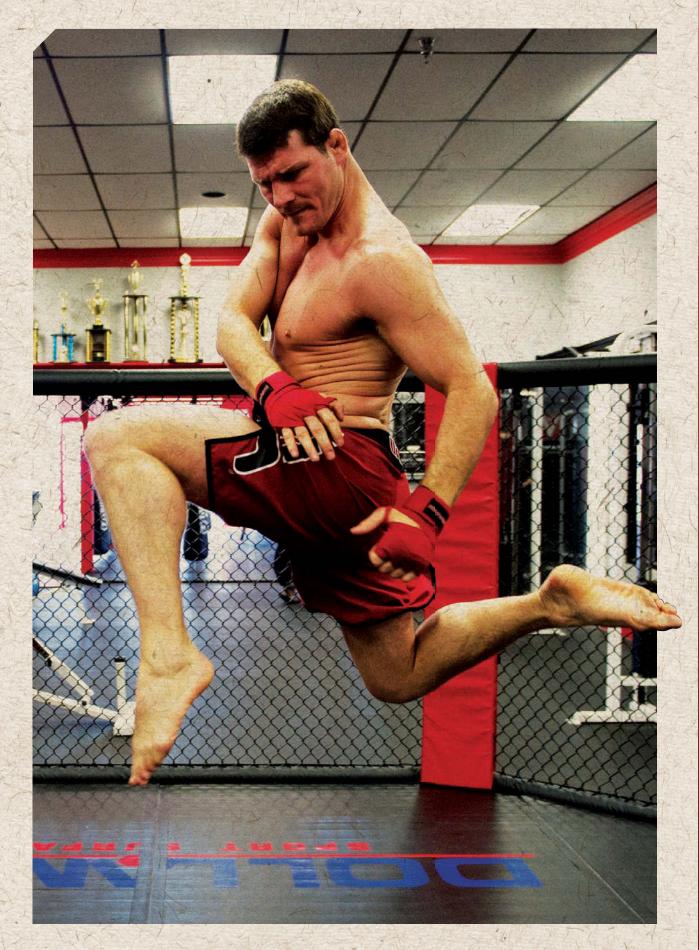
Still, while his coaches recognise that his ground game is solid, they know it's what he can do with his fists that will keep him winning fights.

STRIKING

"In Mike's fights he gets these guys to back up, gets them on the fence and then batters the living shit out of them and they can't do anything about it," says Ghosn. "There's a reason this is happening, a method."

Ghosn takes "The Count's" already supreme striking skills and then fine-tunes them for MMA, adjusting his footwork and punching for optimal positions to either shoot his own takedowns or to effectively evade them.







INTENSE: WHETHER KICKING, GRAPPLING (FACING PAGE, TOP LEFT), SPARRING (TOP RIGHT), DOING PADS (BOTTOM LEFT) OR S&C (BOTTOM RIGHT), BISPING PUTS EVERYTHING INTO HIS TRAINING







> "Boxing footwork works in MMA, but it has to be modified. You have to take into consideration getting kicked in the leg, getting shot on, your footwork could be wrong in that you could be stepping right into position for getting taken down."

"You cannot turn the side of your leg toward your opponent. Your front foot has to be pointed at your opponent at all times. I've argued this with boxing coaches time and time again. They say, 'No, it's going to take all the power off your hooks, your jabs and your cross.'
Go ahead: generate all the power you want. But when I kick your fucking leg off or I take you down,

fucking leg off or I take you down, what are you gonna' do? There's no two ways about it. You cannot turn your foot."

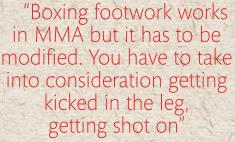
Ghosn and Bisping do three-to-five five-minute rounds on the pads at a high-intensity pace four or more times a week and, depending on who Bisping will be fighting, they'll

adjust their methods.

"If he were to fight a wrestler, I'd incorporate takedowns into the pad work. I tend to get more involved. I'll throw the shin guards on, I'll punch him, I'll kick him, I'll force him to move. If it's a day when he's going to spar it'll be more interactive, other days he'll just kill the pads for cardio."

The lessons delivered during striking sessions are intended to translate into the cage, as

each day of pad work precedes an evening of sparring. On Mondays, it's boxing padwork then sparring. Thai pads are used on Wednesdays for kickboxing sparring,









"Every time I train it's five five-minute rounds. I'll wrestle with three or four guys around me trying to take me down"

➤ and come Friday, everything is fused together for MMA.

ENDURANCE

Every morning before heading to grappling practice at the UTC, Bisping wakes up and runs threeand-a-half-to-five miles to start the day.

It's actually something S&C coach Scot Prohaska has toned down, saying that cardio was the main area where Bisping would overtrain. Rather than long-distance pavement pounding, they've turned up the dial on sprints and intervals.

"I always give him sprints to do after each workout starting at 10-second sprints with a 50-second jog. I add five seconds to the sprints and reduce the jog by five seconds every week," says Prohaska.

When Bisping is in the gym, he heeds to his belief in training the way he fights.

"Every time I train it's with five five-minute rounds. If I were working with a strategy coach, it would be five five-minute rounds of intense, hard work after a warmup of high-intensity pads. I'll be doing wrestling one day with three or four guys around me trying to take me down.

"We do rounds and rounds and rounds and I'm the guy in the middle. As soon as I deal with one person, boom, the next one's in. That builds endurance."

EXPLOSIVE POWER WILL WIN FIGHTS

"The key with him - and I think the future of the sport - is explosive lifting. With all other things being equal with tactics and technique, the guy with more strength and

WEEKLY TRAINING SCHEDULE

MONDAY

3-to-5-mile morning run
10-12pm Wrestling
Takedown/Defense
12-1pm Focus Mitts
7-9pm Evening practice/Boxing
sparring

UESDAY

3-to-5-mile morning run 10-12pm BJJ Evening S&C (see facing page)

HIEDDESDAY

3-to-5-mile morning run **10-12pm** Wrestling/takedowns **12-1pm** Thai pads **7-9pm** Kickboxing/sparring

THURSDAY

3-to-5-mile morning run 10-12pm BJJ Evening S&C (see facing page)

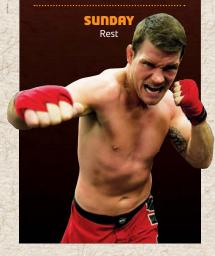
FRIDAY

3-to-5-mile morning run 10-12pm BJJ or wrestling 12-1pm Interactive padwork for MMA 7-9pm MMA/sparring

<u>SA</u>TURDAY

Sprints and intervals at the track - example:

| INTERVAL | SPEED | DURATION |
|----------|--------|-------------|
| 1A | Jog | 30 Seconds |
| 1B | Sprint | 20 Seconds |
| 2A | Jog | 60 Seconds |
| 2B | Sprint | 30 Seconds |
| ВА | Jog | 90 Seconds |
| ВВ | Sprint | 40 Seconds |
| 4A | Jog | 120 Seconds |
| | | |



power will win," opines Prohaska.

"We've found that when he gets more explosive in the gym, he gets way more athletic and powerful in the cage."

Prohaska's S&C program is scheduled around the lead-up time to Bisping's fights, going through two separate phases of four weeks each (see facing page).

While there's a set plan, it's malleable and can be adjusted based on Bisping's performance and overall health.

"The first four weeks we do full-body lifts, focusing on lower rep ranges to build strength and some functional hypertrophy [usable strength].

"The next four weeks we start getting explosive with his lifting. I switch him to an all-lower-body on Tuesdays and an all-upper workout on Thursdays. This allows Michael to focus on the area I want exploding while allowing me to manage his fatigue, his soreness and his nervous system much easier."

On upper body days Prohaska makes it a point to finish with Cuban presses, external rotations with cables or other rotator cuff exercises for increasing punching power. "Rotator cuffs are important because they're the decelerator of the punch. The stronger they are, the more you can take advantage of the strength you build."

"Leg days consist of three-tofive leg exercises and we always finish with a lot of core antirotational stuff, like a Dragonfly, where he's got to stabilise his hips against pressure I'm putting on him.

"If he's able to brace his torso on his hips and not get turned, that's the key with trying to get off the ground."

Prohaska uses what he calls "contrast training" to peak Bisping and to translate his strength gains to functional performance in a fight.

"Contrast training is where he would do a heavy weight or an isometric pull and then go right into an explosive jump, and that way he's able to use his strength and express it in the movements of the sport."





Prohaska believes that the top performance-enhancers, once technique and tactics are down, are strength and power. "I never take technique and tactics away. They are important things. You can win with those. But after that, it's strength and power." Furthermore, insists Prohaska, isometric strength (introduced below in Phase 2 of Bisping's training regimen) is too often overlooked in the preparation of MMA fighters. "Isometric strength is when we're pulling

Bisping Phase 1 (four weeks)

| DAY | 1: TUESDAY | | | HOLL BY |
|-------|---------------------|------|------|-------------|
| ORDER | EXERCISE | SETS | REPS | REST (SECS) |
| A1 | BB squat | 10 | 3 | 70 |
| B1 | Dip | 4 | 6 | 60 |
| B2 | BB bent row | 4 | 6 | 60 |
| C1 | Glute ham machine | 4 | 6, | 60 |
| C2 - | EZ bar skullcrusher | 4 | 6 | 60 |
| D1 | Hanging leg raise | 4 | 6 | 60 |

Anaerobic: 10-second sprints

^{*}Same letter (e.g. A1/A2) means, perform as a super-set.

| DAY 2 | THURSDAY | | | |
|---------|------------------------|------|------|-------------|
| ORDER | EXERCISE | SETS | REPS | REST (SECS) |
| A1 / | Chin-up | 10 | 3 | 70 |
| B1 | Romanian deadlift | 4 | 6 | 60 |
| B2 | Shoulder-width pull-up | 4 | 6 | 60 |
| C1 | BB split squat | 4 | 6 | 60 |
| C2 | DB upright row | 4 | 6 | 60 |
| D1 | DB external rotation | 4 | 6 | 60 |
| Anaerol | bic: 10-second sprints | | Take | Carlo Maria |

THE WOLVERINE

Bisping's Strongman conditioning day, dubbed "The Wolverine", is introduced only once he is sufficiently conditioned to complete it

R1) Farmer's walk 60secs for max distance **R2)** Weighted squat jumps – 30secs for maximum jump height on each rep

maximum jump height on each rep No rest between A1 & A2 Rest 2 minutes between repeats Repeat 5x **Bisping Phase 2** (four weeks)

| DAY 1 | TUESDAY | Charles | | |
|-------|--|---------|------|-------------|
| ORDER | EXERCISE | SETS | REPS | REST (SECS) |
| A1 | BB snatch grip high pull | 5 | 3 | zero |
| A2 | High hurdle jumps | 5 | 4 | 120 |
| B1 | Iso pin pull split squat | 5 | 3 | zero |
| B2 | Flying knee jump with light kettlebells | 5 | 3 | 120 |
| C1 | Rotating back extension | 4 | 6 | 60 |
| C2 | Dragonfly abs | 4 | 6 | 60 |

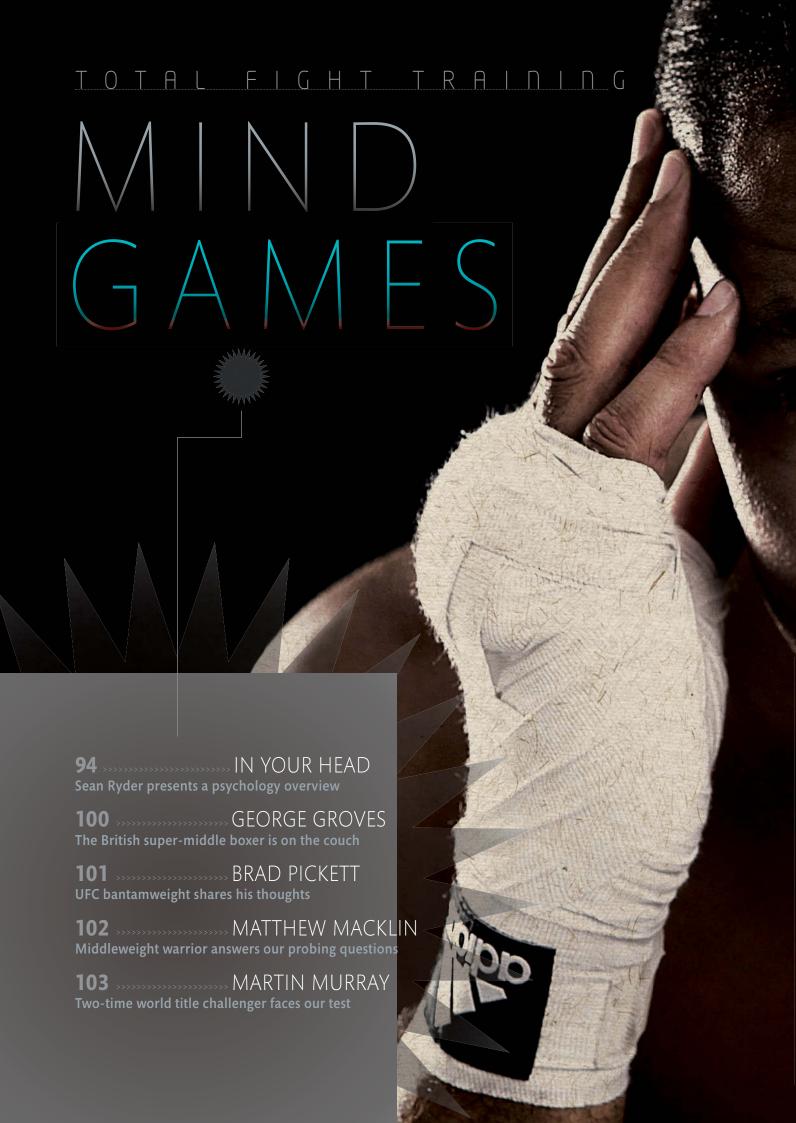
| DAY 2 | THURSDAY | | | |
|-------|--------------------------------------|-----|--------|------------------------|
| ORDER | EXERCISE | SET | S REPS | REST (SECS) |
| A1 | Isometric incline bench against pins | 5 | 3 | zero *6-second hold |
| A2 | BB overhead push jerk | 5 | 3/ | 2min |
| B1 | Wide weighted pull-up | 5 | 3 | zero |
| B2 | Overhead MB slam | 5 | 5 | 2min |
| C1 | Kneeling DB Zottman curls | 4 | 6 | 60 |
| C2 | Rope face pull | 4 | 6 | 60 |

B1) Steel log clean and press 10 reps **B2)** Prowler push 60secs. **No rest between B1 & B2. Rest 2 minutes between repeats Repeat 4**x

C1) Tyre flips 6 reps C2) Sledgehammer 30secs C3) Ropes 60secs

(4) Sprint 90secs to maximum heart-rate No rest between exercises.

NOTES: BB=Barbell; EZ bar=zig-zag-shaped barbell; DB=Dumbbell; MB=Medicine ball

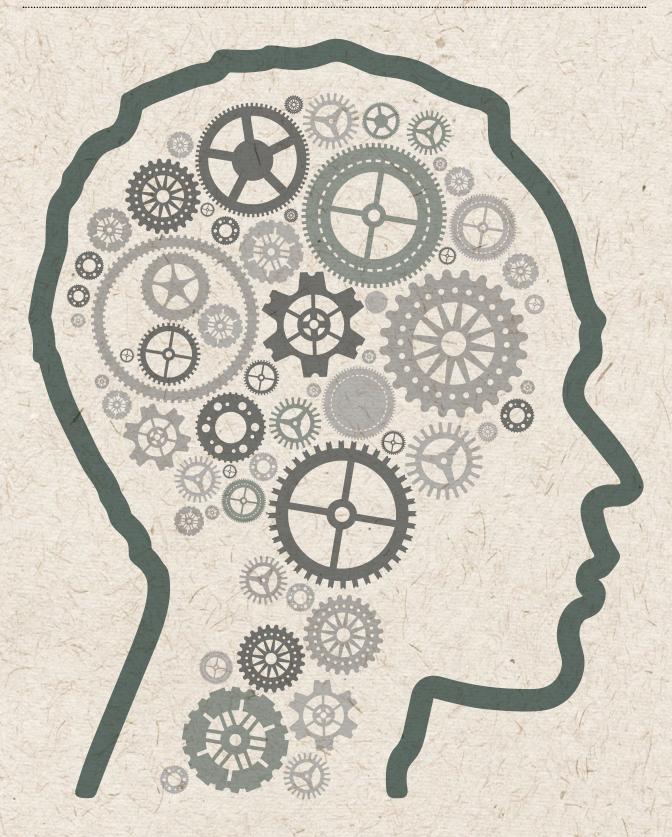






IN YOUR HEAD

Mental performance consultant **Sean Ryder** discusses essential psychology







HERE ARE a lot of misunderstanding about what using psychology in boxing is all about. There's a big use of mental

toughness but if you ask lots of people what mental toughness means, it means lots of different things to lots of different people.

It might be mentally tough to get up day after day to do the roadwork first thing in the morning, do a day's work and then go back to the gym at night. Or it might be how you deal with being knocked down. There's all these sort of things.

You're born with a certain level of physical skills but you have to work on them to make them better and it's the same with the mental side. Some people are born with a certain level of mental toughness and then there's experience in their lives; they've come through things which will have given them some of that resilience, whereas others not so much.

We tend to break sports psychology down into five areas: confidence, concentration, motivation, managing pressure and resilience, the ability to bounce back.

CONFIDENCE

One that boxers are pretty good at, there's a huge amount of positive self-talk and building themselves up through that area. But it's only one area. If you haven't worked on controlling your emotions, all of that talk and all of that confidence you've given yourself, if you then come under quite a heavy barrage then that confidence can just shatter. It's only given you a certain layer of confidence. If you're working on visualisation training as well and simulation training and you've done relaxation so that when you're under pressure you can maintain that clarity, you have that solid confidence, rather than just fragile confidence. Just telling yourself, 'You're going to win, you're going to win', only gives you that veneer of confidence.

Imagery is a key one. There's all sorts of things you can do with imagery but one of the things I encourage people to do is create

CHRIS MARSHALL GB BOXING PSYCHOLOGIST

It frustrates me sometimes when people will spend a lot of time physically getting warm before they go in and expect their brain just to switch on when they're there. For me getting their brain switched on is just as important a part as getting their body warm before you step into the ring. So the closer you get, the refinements you make to those athletes' mental warm-up strategies will be important.

Athletes spend their whole lives and their whole time training for oneoff events and if they don't succeed or
achieve their goals it can be very difficult
to overcome. The key with many athletes
is to look to refocus and move them
forward - 'Maybe that hasn't gone as well
as you would have liked, what do we
need to do now to put it right.' And if that
is continuation in the sport, that's looking
at resetting their goals, reassessing where
they're at and then putting strategies
in place for them to hopefully achieve
those goals. For some athletes that might



mean leaving the sport, then looking at that transition for them, what is it that happens next, what skillset have they got that they've developed in the sport that they can take into a future career and into a future life.

Disappointment is a massive part of sport. Helping athletes rationalise that is an important part. It is difficult - particularly the bigger the event is in their eyes.

It's very individual. Some boxers will see success as the stepping-stone to the next level and some will often beoverwhelmed by the success and not really know how to handle it.

'We try to make their identity become more than an athlete. It might be that, yes, they're an athlete but also they're a business person. They're an academic, they know little bits, we look to give them avalifications. If an athlete does decide to turn pro, for me it's helping that transition enough so that they understand what's going to happen over there. We do everything we can to keep athletes on this programme but sometimes if athletes want to turn pro there's not much we can do. And athletes that get removed from the programme, for whatever reason, there's a dutu of care to those athletes to make sure their transition to the real world is as smooth as possible.

a mental highlight movie of their performances. That can be a combination of stuff that they've seen and they've felt in the ring but also you can create your own highlight reel that you play in your head. Lots of boxers do that but don't do that as part of a programme.

Developing a pre-bout routine is vital as is trying to avoid superstition in it. With something like pre-fight music, say you have your music selected but that song doesn't get played. It doesn't matter if that happens.

Everything in your pre-fight routine has to get you in the perfect position for being out there. You've got to do your physical warm-up and decide what you visualise and when you visualise it. It's what's good for you; some people need to be banging their head against the wall and doing press-ups, developing that real warrior-type spirit, whereas other people need to remain very calm, very controlled. So it's really understanding what's best for you.

CONCENTRATION

During training, there's having a set programme, so that you do certain things at certain times. So it's not, 'Well, I'll sleep in for a couple of hours and then I'll do it later because I don't really have to.'

What I encourage lots of trainers to do is mess about with boxers a little bit, so that they don't get into that routine. So that they do have to deal with distractions. I encourage lots of people to practise just having five minutes to get ready for sparring or 20 minutes to get ready and springing that on them so it becomes a bit of a shock. That almost comes under simulation training because that can happen when you're waiting for a bout.

Regarding concentration for a bout, you're looking more at distraction training. It's interesting how you need to change your focus as a boxer from three minutes in the round – you've got a reasonably broad focus to be looking at what you and your opponent are doing – but then for the minute in



> between rounds you need to change that focus to listening to what the trainer says.

MOTIVATION

You focus on a bigger goal — why you get up for training to do these sort of things. There's all sorts of little tricks. If you are one of those people who struggles to get up for the early-morning runs then you make sure, the night before, all of your kit is just there by the side of your bed. So the alarm goes off and you get in your gear before you have time to think about it.

To a lot of boxers this seems like nonsense because they just get up and do it because they love it but we all know boxers who perhaps don't put in the hard work and that need to, so there's all those little tricks.

The key with motivation is understanding what motivates you, really understanding why you are doing what you're doing. Are you doing it because you love the process of getting to be a better boxer? Are you doing it for the money? Are you doing it for your family? You have to spend some time understanding why you do it and when the times are tough you can bring back those reasons of exactly why you're doing it.

There's also, from a motivational side, the goal setting. Training can sometimes be pretty repetitive. But if you're adding individual targets to that, that can be motivating for quite a lot of people.

Everybody is slightly different. Goals for what you want to achieve might not be right for another person.

I always use the analogy of a staircase. You have your ultimate goal right at the top, so that might be to win a British title for example. Then you have the steps that you need to do to get there.

There are three types of goals: there are outcome goals, whether you win or lose. Or if you get money, those sorts of things. There are performance goals, which are timed sorts of events, if for example you're timing the runs that you're doing, whether you hit your desired time. Then there are process goals which are more about actual technique.

You might have process goals of developing certain combinations. They're a little less tangible. The way you get around that, to make them tangible, is to say, 'I want to work x amount of rounds on this particular punch, this particular combination, and those sorts of things. I'd always encourage the goal-setting to be done in collaboration with the coach. Because the relationship between a coach and a boxer is such a close relationship that they have to be working towards the same goals.

The boxer might be physically really, really fit. So what tends to happen is people who are really fit like working on their fitness. We all like doing the stuff that we're good at. However, the trainer might think he's really fit but he needs to work a lot on his feet, for example, so you might have the trainer having these goals, you having your own goals and it gets a little bit lost.

Whereas if there's good communication between the two of them you get agreed goals pertaining to what you're trying to do; then you're both highly motivated to be moving in the same direction.

MANAGING PRESSURE

If we're talking pressure of performance, the time before a fight, I'd say make sure you have a good pre-fight routine, a strong routine that includes breathing.

You can do triangle breathing. Basically you breathe in, hold the breath, breathe out, that triangle. You might breathe in for three seconds, hold for three seconds, breathe out for three seconds; that can bring you to centre yourself.

You might play that mental highlight reel of you performing to your best. You may be playing something





of what you've been doing during the camp, things you've done in this camp that are better than you've ever done before.

In terms of actually managing pressure in the fight itself, there are a lot of things you can do. Breathing techniques are very common and self-talk is also widely used. If you feel yourself under pressure you might use a trigger word that you've been using in training. So that might be 'focus' or it might be 'calm'. If you're under pressure, it's trying to get you back in the moment again, rather than just letting things happen to you.

RESILIENCE

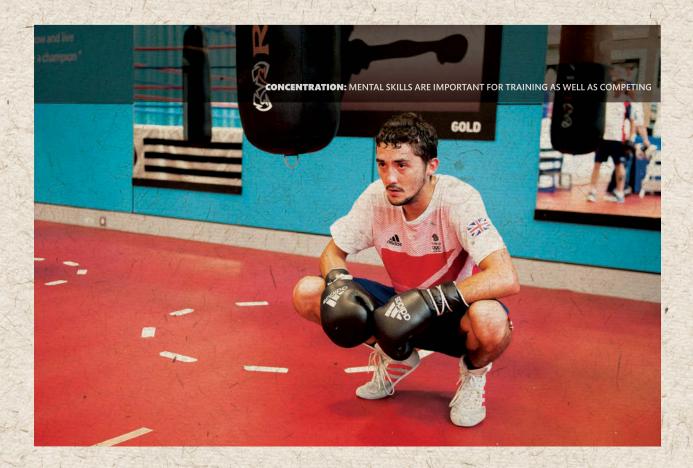
You have quite a long time in a camp so you have the opportunity to practise in your head being caught. You get caught all the time, so it's planning what your response is to that.

Usually when you're under pressure you have two options: either get on your bike or go in and clinch, but it's making sure you practise those options so you know what you're going to do when you are under pressure.

Recovering from a defeat, then you've got to go through a period of reflection. I take sportspeople through a multi-stage process.







This process involves realising what happened, second why it happened, the third thing is what could you have done differently and the fourth thing is what you will do for next time.

During that same period, you then go through all of the things we were talking about earlier: why are you fighting? what is your motivation?

A defeat happens and then you go from there again.

Other people, who don't respond well, you can use their heroes. Pretty much everyone's been defeated, you can highlight examples of people who have been defeated and came back stronger.

I would encourage people to do that

reflection whether they win lose or draw. Because you never have a perfect fight.

There will still be things you can take forward to work on. You can take forward the things that worked and were successful and repeat those. So take that bit of time to ask why you were successful and you go from there

So you get that confidence boost, you want to build on that, but you don't want the end result to affect your motivation.

Boxing compared to any other sport, it's all about the win.

It's such a cliché, learning much

more from a defeat than a victory, but that doesn't mean you can't learn lots from a

win as well.

SIMULATION

"You might be terrific in sparring when no one's watching but when there's a crowd and there's lots of people shouting, they sort of lose their concentration, lose their composure, those sorts of things. So what you can do is, during a sparring session, get loads of people round the ring and screaming all sorts at you. That's simulation training, you're just trying to create that experience as close to the real event as possible.

Otherwise you're leaving it to the flip of a coin."

Sean Ryder is a sports psychologist who works in boxing and combat sports. He says: "Through my sports mental performance consultancy, Deliver Your Ability, I deliver practical results to allow boxers and trainers to develop their full potential. Combining practical experience with a BSc Sport Science, MSc Sport Psychology and PhD Sport Psychology (ongoing) allows my clients to trust the support I provide is based on evidence, and applied to the sporting areno. My goal is to show how mental performance skills can be used to improve technical, physical, tactical skills and performance as a whole. Particular areas of focus are; Mental Toughness, Confidence, Motivation, Managing Pressure, Concentration, Emotional control and Resilience." Find out more at deliveryourability.com.

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The IBF mandatory super-middleweight contender claims he's ready for Carl Froch – but can he survive our psychological questioning? By **Glynn Evans**

What would you naturally like more of: speed, power, strength or stamina?

G: It'd be nice to have the power to score those spectacular, violent knockouts but I edge to speed, even if it means I have to travel the full 12 rounds every time. Speed brings power, you can't have power without speed. Speed kills - plus it's cool to run fast. Girls like that.

What do you most fear from an opponent: speed, power, skill or toughness?

G: Probably skill. I see myself as very skilful. My best attributes are my variety, ability to pick the best punches and my timing. It's easier to find ways to counter the quick guys, the bangers and the hardmen but, when a guy's really skilful, it's a different ball game.

When you need to go to the well, how confident are you that you'll find what you need?

G: I'm 100 per cent confident that I'll find gold down that well because I've trained physically and mentally as an adult since the age of seven or eight. Perhaps one in a thousand don't break under such a hard regime and I was that one boy. From all the tiring sprints and long, hard runs I've been doing for three quarters of my life, I know I've got the engine and mental strength to call on when it's hell in there.

What do you enjoy most: training, fighting, recreation or sleeping?

G: Fight night in the ring – because you encounter so many contrasting emotions: excitement, nerves, panic, shitting

yourself. There's not many things in life that bring that out in you. It lets you know you're alive.

If you had to choose between popularity and a world title, what would you choose?

G: That's a very, very hard question. I've always dreamed of being world champion but some people, like say Tony Oakey, had a personality that people take to. Everyone likes them yet they never get past British level. Others, like Junior Witter, become world champion yet never carry it on [attract crossover appeal]. Unpopular world champions don't make a lot of money so I'd rather be Oakey than Witter. I'd rather be a popular, shit fighter!

How do you most want to be remembered: as a hard man, a skilled man or a big personality?

G: A skilled man, definitely. I'm most proud of my natural ability. Everyone loves a big personality like Frank Bruno but I'd much rather be remembered as a brilliant fighter than someone who could tell jokes. I want to see how far my talent can take me. Perhaps I'll have to work on developing a personality in a few years' time if things don't pan out as I plan!

What do you value more highly: friendship or respect?

Friendship. Respect's all well and good but you need loyal friends you can really trust so that when things get tough, you've got someone to lean on.

Analysis by mental skills coach Andy McCann

George's comments suggest he has the capability to withstand significant performance-related pressure. He has a real confidence in his abilities and is willing to take on significant challenges.

Fuelled by his enjoyment of sport and particularly his appreciation of the skill of boxing, typically, George will have the self-belief to attempt tasks that may be considered too difficult by others with similar abilities but lower confidence. He has a genuine feeling that he is a worthwhile person, with a generally positive view that doesn't allow him to let mistakes get him down.

to let mistakes get him down.
Furthermore, he is probably quite tenacious and committed to becoming better. I would anticipate that George feels responsible for his own destiny and that he is very

influential in the success he achieves. He will usually complete training tasks to a high standard, finding ways to motivate himself. I would expect him to have high levels of internal resources, which allow him to sustain high levels of effort.

George is likely to be calm and

George is likely to be calm and stable under pressure. He may well remain poised and is unlikely to lose his cool, even in stressful situations. Britain's number one UFC bantamweight fighter Brad Pickett is known for rarely taking a backward step inside the cage – but can he handle the stress of our psych test? By **Matt Freeman**

What would you naturally like more of: speed, power, strength or stamina?

B: That's a good one. I will choose speed. Sometimes I see punches and I just let them hit me. I don't know if it is because I'm too lazy to get out of the way because I don't mind getting hit or if I am just too slow.

What do you enjoy most when training?

B: Sparring. I like the fighting aspect of it; it's the most realistic aspect of training. What else can get you better at fighting than fighting? Plus, it really helps you gauge your fitness. When I say sparring I don't mean just knocking lumps out of each other. I mean going live; if i am going to wrestle I go live; if I am rolling, I will go live. You can do all the sit-ups and press-ups you want but sparring and going live is the real test. I think the body is really clever. It teaches itself, especially from mistakes in sparring and the muscle memory makes you learn how to fight better.

If you had to choose between popularity and a world title, what would you choose?

B: That's a stupid question. I am a humble guy and I'm not into being flashy so I'm not bothered about popularity for the sake of it. It has to be the title. No fighter would say otherwise.

What do you enjoy most: training, fighting, recreation or sleeping?

B: Fighting. I'm not the best in the gym but I turn up and fight every time. It is still nerve-wracking; I still get nerves

but I love it. If you took me without any training against another guy without any training and we fought, I would win. There is something inside me; I'm a natural fighter.

What one thing would you change about your life right now?

B: Not being injured [Brad was recovering from a slipped disc]. Maybe my age as well. If I could be 25 again... at that age you've already developed man strength. I didn't start in MMA until I was 26 years old. It'd be great to have more time in the sport [Brad is 34 at press time].

What do you fear most from an opponent: speed, power, toughness or skill?

B: I don't want to sound arrogant but I have never feared any of my opponents. My biggest fear is losing. That fear is greater than any opponent. If I had to choose one, it would be toughness because I like to break people mentally. I know that against tough fighters like Scott Jorgensen or Ivan Menjivar it will be a war but it'll also be a great fight.

What do you fear the most: injury, losing or dying?

B: Losing. By far. If I die then I am dead and nothing will matter. If I am injured then I'm out. I'd be happier breaking my leg on someone's head and winning than being fit and healthy and losing. There is no substitute for winning. I'd accept death if it meant I'd win.

Analysis by mental skills coach Andy McCann

BRAD clearly has an unflappable, innate self-confidence when it comes to being a fighter.

He talks about having the qualities that he believes can't be taught, namely willpower and heart. His answer about winning the title is illuminating. Sometimes it is hard for people not involved in elite, professional sport to appreciate that this has to be the significant

motivating factor for both aspiring and successful athletes. It is often confused with arrogance. However, to me Brad does not come across as arrogant, he just scores highly on self-confidence

As his answers state, being self-confident doesn't mean there is no room for pre-fight nerves, but in Brad's case these arise from a fear of the consequences of

losing rather than from any real self-doubt.

Interestingly, Brad is pragmatic when asked what he fears most (injury, losing or dying) and his preference to break his leg and win than be healthy and lose seems a good summary of what this fighter is all about, and why he has achieved all that he has in recent years.



He may be a three-time world title challenger at middleweight but this is the Irish Brummie's first time taking on our shrink

What would you naturally like more of: speed, power, strength or stamina?

M: Handspeed. I already feel stronger than most I meet and I've always had good power and stamina, except for when I was weight-drained. Good speed makes things easier for yourself.

What do you enjoy most when training: sparring, running, skipping, strength work, bag work or pad work?

M: Sparring. It's the nearest thing to the real thing. The rest can get repetitive and mundane but no round of sparring is ever the same. You have to think more. After a good six or eight rounds, particularly if I got on top, I'm buzzing for the rest of the day.

If you had to choose between popularity (i.e. having lots of fans) and a world title, what would you choose?

M: A world title. Some fans can be fickle and chop and change between favourites. As a kid, I didn't dream of being popular, I dreamt of being world champion. Once you've got that title, no one can take it away from you.

What do you enjoy most: training, fighting, recreation or sleeping?

M: Fighting is what I love doing... followed closely by recreation! I like to stay in shape but there's no way I'd go away to camp to sacrifice and train as manically as I do, without a fight at the end of it.

How do you most want to be remembered: as a hardman, a skilled man or a big personality?

M: I'd like to be thought of as a hardman; not some moody f**** who growled at people but a fighter with a lot of bottle, who gave it 100 per cent every time, never shied away, always put everything on the line,

What do you value more highly: friendship or respect?

M: I'd say friendship. In my line, you come across a lot of acquaintances but really good friendship aren't easy to

What do you most fear from an opponent: speed, power, skill or toughness?

M: Probably speed. Quick kids make it awkward for you by throwing flurries then moving. You have to get to grips with the speed before you can get to grips with them. I prefer them to stand and have a row. Conversely, if they're slow, I know it's an easy night for me.

When you need to go to the well, how confident are you that you'll find what you need?

M: I'll keep digging until I do find it. I'm very confident in my own toughness, my capacity to go through the pain barrier. I may get beat in the future because the other kid is quicker or has more talent, but I guarantee it won't be because my opponent dug deeper. Even though I lost the fight, I think I showed that in my war with Jamie Moore.

Analysis by mental skills coach Andy McCann

MATTHEW'S comments illustrate that he is secure in his mental toughness and psychological preparation. This is not just based on his successes to date, but where he is prepared to

go mentally.

The answers Matthew offers are biased towards the importance of mental hardiness. The way he wants to be remembered, "...a fighter with a lot of bottle ..." appears to be a great

summary of his motivation.

He doesn't look for excuses or opt-outs. In addition, he is probably quite tenacious and committed to becoming better. I would anticipate that Matthew feels responsible for his own destiny and that he is very influential in the success he achieves. He will usually complete training tasks to a high standard. I would expect him to have high levels of internal

resources, which allow him to sustain high levels of effort, and he probably enjoys working to training targets that are fight-specific.

He probably feels in control of his life and his time, and rarely just 'goes through the motions'. Fuelled by his enjoyment of sport and particularly his love of boxing, typically, he has a genuine feeling of security in who he is as a man and a boxer.

He drew with pound-for-pound contender Sergio Martinez earlier this year and now takes on a new challenge – our in-house mind coach

What would you naturally like more of: speed, power, strength or stamina?

M: Speed. Power comes with speed so that gets rid of power; everything else you can improve on, speed you have what you've got and that's that!

What training do you most enjoy?

M: I love sparring when I'm feeling fit and up for a fight, but I love technical padwork with [trainer] Oliver [Harrison] too.

If you had to choose between popularity or a 'world' title, what would you choose?

M: Winning a world title. Popularity comes with that anyway.

What do you enjoy most: training, fighting, recreation or sleeping?

Margining, because you don't always get satisfaction from fighting. I love both... I would say fighting actually. You get a better feeling from fighting but you are training for a longer period; a fight is shorter but the feeling's better.

What's your favourite environment: the gym, a sports venue (as a fan), a living room or a bar?

M: My home definitely, there's no place like it. I've got lovely kids there and a lovely wife.

Would you prefer more respect, money or sex?

M: Money because - I'm not being big-headed - I have a

lot of good friends who respect me, so money.

What do you value more highly: friendship or respect?

Friendship. You can always gain respect. If you've got a good friendship they respect you.

What one thing would you change about your life right now?

M: Just getting the big fights I want. Apart from that everything is just how I want it to be.

Do you most want to be remembered as a hardman, a skilled man or a big personality?

M: I'd say a skilled man. Not necessarily that I had all the skill in the world but in the tactics I used and the way I went about my job.

What do you fear most from an opponent: speed, power, toughness or skill?

Mt I'd say speed or skill. If someone's powerful you can be wary of that, stay away and adjust your tactics, but when an opponent has a skill and speed advantage it's quite hard to stop that.

When you need to go to the well, how confident are you that you will find what you need?

M: 110 per cent confident. I learnt a lot from Jamie Moore in sparring, he put me in all types of situations. That gave me the confidence that I can handle anything.

Analysis by mental skills coach Andy McCann

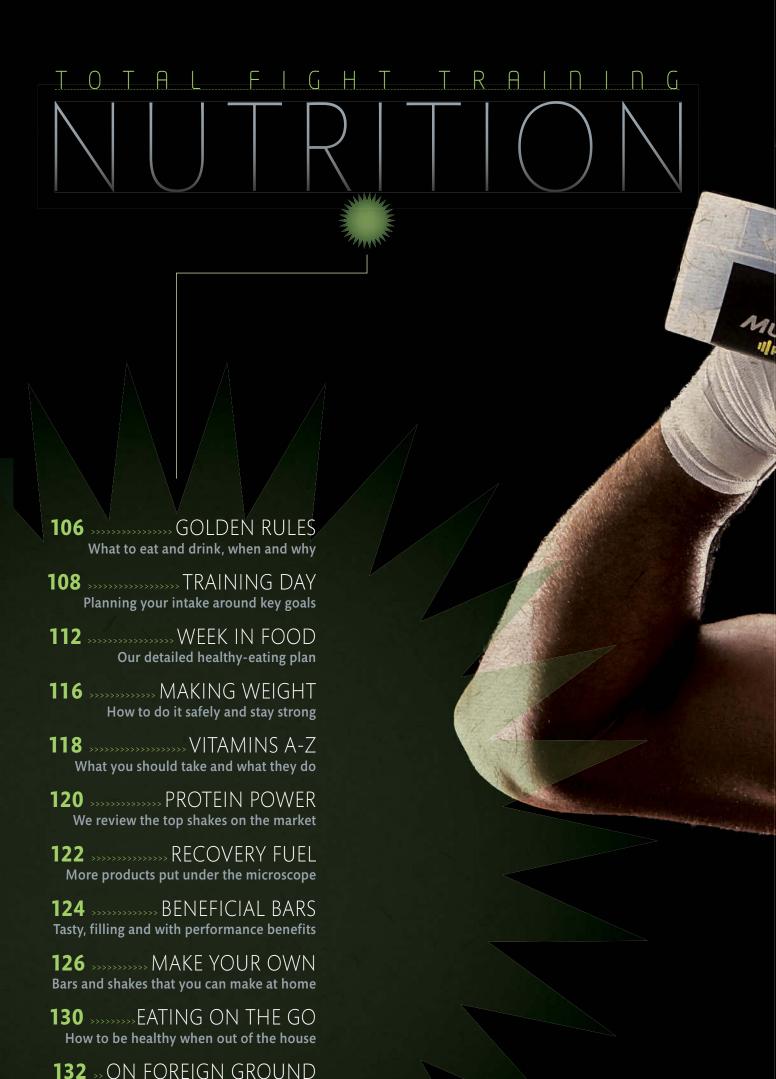
MARTIN'S responses indicate that he is a determined, highly motivated athlete. However, in his answers he makes reference to a clear set of personal values at every opportunity. These values are at the heart of his personality as a father, son, friend and athlete. He is motivated by a desire to represent himself and his family to the best of his abilities at all times and has a clear sense of the

man he is. His personal values will help him to continue to drive himself to be the most successful boxer he can he

Martin likes having boxing and personal goals. He relishes performing, both physically and mentally, whether training or fighting in the ring. This implies he is resolutely committed to whatever task is at hand and that he is willing to take on significant chal-

lenges. Furthermore, he is tenacious and resolute, completing what he starts. He continually pushes himself to improve on his already significant strengths and will develop any areas highlighted for improvement; when opportunities present themselves, he is likely to accept the challenge. Should problems arise, Martin is unlikely to give up and will naturally seek to learn from his experiences.

2



The dos and don'ts of nutrition abroad





Mark Ellison is the nutritionist for Manchester United Football Club, British heptathlon heroine Jessica Ennis-Hill and the highly successful GB Boxing team. Here, he discusses the basic pillars a fighter needs for his nutrition

PICTURE: ACTION IMAGES

WEIGHT MANAGEMENT

IT'S WELL DOCUMENTED that within GB we've adopted a five per cent rule, [away from] the weight category you compete in. We wouldn't go much beyond that with a pro. The athletes that are close to their weight and train and live at their fighting weight seem to be the ones that have more success. Because they're much more robust, they've got much more energy. They're not having to do that damaging dehydration and weight-making. It's a bit of a myth that you're giving away a couple of kilos in the ring. It's just a bigger fighter that's dehydrated but you're probably much stronger and much fitter. It's counter-productive.

From a nutrition point of view the way that we tend to manage weight is making sure that the diet is fully loaded with lots of fluids, so lots of clean water each day, lots of fresh fruit and vegetables, lots of good-quality proteins and then we tend to use the carbohydrates for fuel.

They don't then have a huge amount of carbohydrate at 8pm or 9pm when training finishes at 3pm because there's no function for it. It's just going to affect your weight-management negatively, eating that food late at night. Those meals tend to focus on clean, good-quality proteins and vegetables.

Proteins are poultry, meat, lots of fresh fish. Young lads aren't always keen on fresh fish but we try to get good-quality fresh fish in there each day and at least a couple of servings of the oily, omega 3-rich fish, like salmon, herring and mackerel.

We try to make sure as a rule they have at least two servings of red meat each week. So they're getting some good-quality iron in their diet. It's quite easy to become iron-deficient and anaemic. We make sure at least two of those proteins each week come from oily fish as well. In between we use quite a bit of the recovery drinks and milk-based whey proteins for recoveries.

In the fruit and veg, you could call every fruit and vegetable a superfood because they're all packed with vitamins and minerals and antioxidants and things, that are going to be really beneficial to a training athlete. We use things like cherry juice around competition, but day in,

day out, just lots of good-quality fruits and vegetables and you won't go far wrong.

We know that cherry juice reduces muscle soreness around competition but at the same time we know that using it too much in training can reduce the adaptation to training, because you actually want your body to go through misery, that's the whole point of training. Your body gets sore, it gets tired and it comes back stronger. If we take that away all the time with these fancy nutrition strategies, sometimes it's a bit counter-

productive. Save them for competition.

As long as you follow those basic rules weight-management looks after itself.

FUELLING

So you've pastas, rices, breakfast cereals, breads, grains, cereals, potatoes, all those energy foods; use them very much as fuel. Carbohyrdates are fuel. They're not part of the diet as a staple, they're used specifically for fuel.

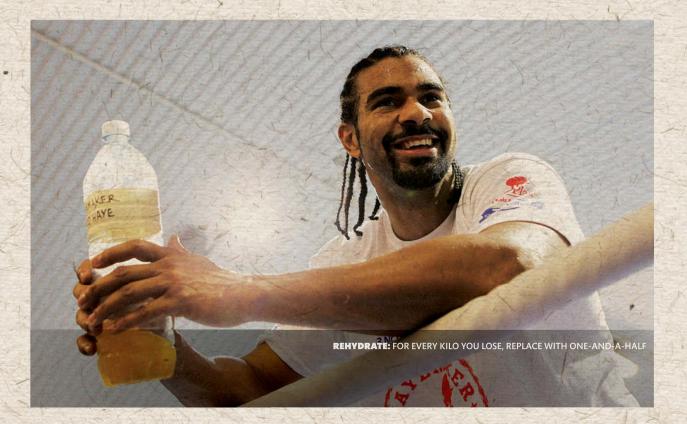
Use your carbohyrdrates as a fuel source as part of your training, just like you put your boots on, pack your gloves and everything else; you think about carbohydrates in the same way.

If you've got a training session at 3pm, then you're putting carbohydrates in at lunch. Likewise you're putting some carbohydrates in afterwards to help recover from training. So all of the carbohydrate intake is focused around fuelling and recovering. It's all about preparation for training and preparation for competition.

HYDRATION

Purely from a scientific point of view, the research from cycling and running and any aspect of sport science and medicine shows you that just two per cent dehydration and you're making a significant impact on performance. Three per cent and you're up to around a 30 per cent reduction in performance; it's massive and any more than that you're getting into heat stroke and circulatory collapse. Anthing above two per cent and you're in trouble. The question is, how much can you put back? How much can we rehydrate in a short period of time, especially in the amateurs?





It's so short a period the weightmaking, it's not worth the risk.

We always work to four litres of fluid a day as a basic rule of thumb. At least two litres of that should come from drinks and the remaining two litres should come from your food. Foods that are rich in fluids tend to be things like fruits and vegetables.

That's just for a normal person, for an exercising athlete it obviously goes up when

In the ideal meal after training you want 50g of carbohydrates, 20g of

you're losing fluids through sweat. We try to meet the sweat losses. Each young athlete out there or any of the readers should be weighing themselves before and after a training session. If you go out for a jog around the park, you should every now and again weigh yourself before you go and weigh yourself when you get back. We get them to replace one-and-a-half times what they lose.

Every kilo that you lose, put back one-and-a-half.

RECOVERY

If I had to focus on one thing, it would be recovery. Recovery is the most important part of any sportsperson's nutrition, be you a boxer, footballer or rugby player. It's critical because when you finish exercise that's when your body's crying out for nutrition. In the 30 minutes after training or any hard physical exertion, your body has something called glycogen synthase telling your muscles to store carbohydrate and to get that carbohydrate you consume into the muscles.

When you consume carbohydrates after training you get an insulin response as well and that insulin is really positive for muscle growth and recovery. Because of the carbohydrates and the insulin response getting into the blood and into the muscle, if you imagine it being a flow, the proteins and everything else you consume after training get caught up in that flow and dragged into the muscles, which is fantastic. That protein and carbohydrate gets into the muscles, where it's needed, where it can repair the muscle tissue and where it can replenish the energy stores in the muscles that have been used.

If you don't want to use a recovery drink it could be as simple as some fruit and some yoghurt. Your getting carbs from the fruit and the yoghurt and you're getting protein from the yoghurt as well. You want 50 grammes of carbs, and 20 grammes of protein. If you do it in a recovery drink you get your fluids back as well.

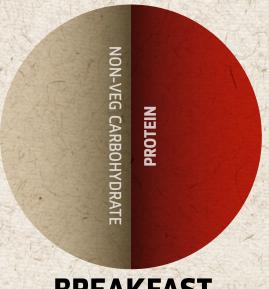
Try to do that straight after training and then when you get home have a clean meal like some chicken and salad.

I always try and remind the athletes if you're eating straight after training in that 30-minute window that carbohyrdate's going to your muscles. It's not going to be stored in body fat. So it's a positive scenario. You're not getting fatter. You're just topping up your muscle energy.

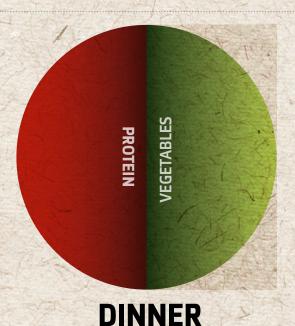


We break down the make-up of a typical day's eating with the core components to put on your plate for three meals and three snacks, for athletes going through different phases of training, either fuelling hard work, bulking up or slimming down.

FOR HARD TRAINI







PROTEIN NON-VEGATE CARBOHYORATE VEGETABLES

LUNCH



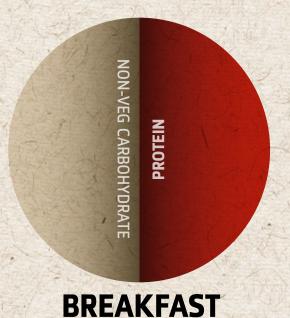


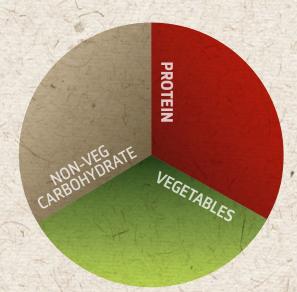


FOCUS CARBOHYDRATE AND ENERGY INTAKE AROUND TRAINING AND RECOVERY BRING DOWN YOUR CARBOHYDRATE INTAKE AT NIGHT, AWAY FROM TRAINING, TO MAINTAIN GOOD BODY FATS WHILE FATS AREN'T MENTIONED, MODERATE 'GOOD' FATS ARE OK E.G. NUTS, SEEDS, OILY FISH

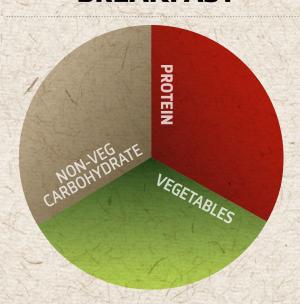


FOR STRENGTH BUILDING



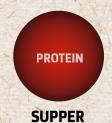


LUNCH









DINNER

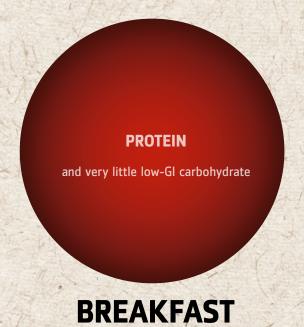
KEY POINTS

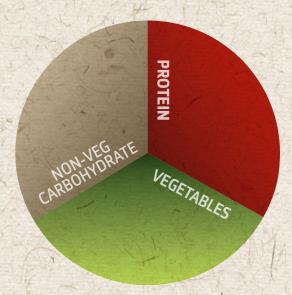
> PROVIDE ENOUGH ENERGY TO GROW
> AN EXTRA 500KCAL PER DAY EQUALS A 0.5KGS GAIN PER WEEK
> SPIKING BLOOD SUGAR BEFORE, DURING AND AFTER TRAINING WITH CARBOHYDRATE WILL INCREASE INSULIN,
TESTOSTERONE, GROWTH AND OTHER HORMONES
> EAT REGULARLY

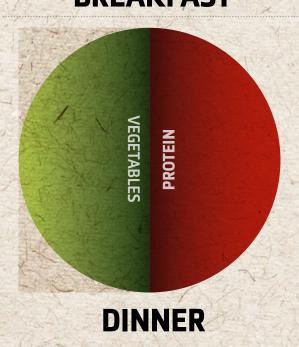
CONSUMING PROTEINS SIX TIMES A DAY WILL PROMOTE LEAN MASS DEVELOPMENT >



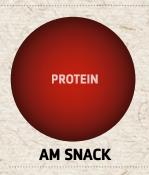
BURNING FAT

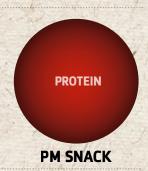


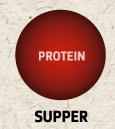




LUNCH







KEY POINTS

REDUCE PORTION SIZES AND TAKE SMALL FREQUENT MEALS

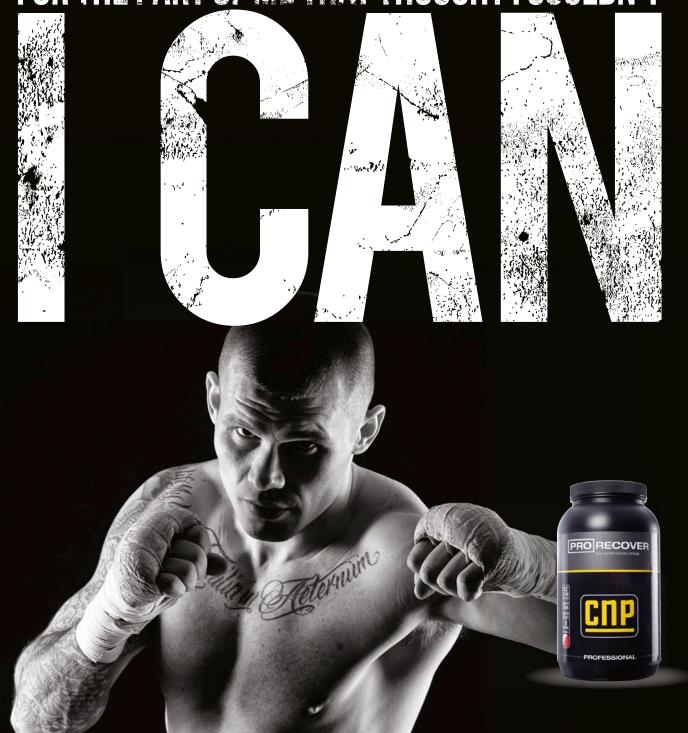
• EAT PROTEIN SIX TIMES A DAY

• ONLY CONSUME HIGH-GI CARBOHYDRATES AT LUNCH TO SUPPORT RECOVERY AFTER TRAINING

• TAKE LOW GI CARBOHYDRATE IF ANY AT ALL OTHER TIMES

• INCREASE VEGETABLES AT DINNER

FOR EVERY FAILED ATTEMPT FOR THE PAIN OF THE DAY AFTER FOR EVERY OUNCE OF EFFORT AND FOR THOSE 3 MINUTES THAT FEEL LIKE 20 FOR THE PART OF ME THAT THOUGHT I COULDN'T





PLAN YOUR WEEK

Tom Whitehead is a nutritionist for Soulmatefood. Here he outlines what factors to consider when looking over your meals for a typical training week and he provides a sample plan

PICTURE: ISTOCK PHOTO



HEN planning your diet to support your training, it is crucial to vary your intake to suit your weekly training programme. A 'one-size-fits-all' approach does not work when looking for the perfect diet. When cutting weight during camp, try to focus any carbohydrates that you

have during the day around the hard training (three hours before and one hour after – to maintain training intensity and technique) and stick to low-carbohydrate, moderate-fat and high-protein meals, with a heap of vegetables, away from training.

To lose 1kg of body fat requires under eating 9,000 kcals. Aiming to cut 0.5kg of body fat per week will mean a calorie deficit of 650kcals per day.

Losing 0.5kg per week, over the course of an eight-week camp, would mean a body fat loss of 4kg (8.8lbs).

BASICS

- A serving of vegetables/ fruit is 80g; try and aim for a minimum of two different fruits or vegetables with each meal (breakfast, lunch and dinner).
- When cutting weight aim for 2-2.5g of protein per kg of body weight per day (or 1-1.25g per 1lb of body weight) e.g. 140-175g per day for a 70kg boxer.
- Eat red meat two-to-three times per week for a good iron and magnesium intake.
- Eat oily fish three times per week to increase Omega 3 intake.
- Have one-to-two servings of dairy per day for calcium to maintain bone health.
- Take in six servings of protein at three-hour intervals throughout the day to maintain lean muscle mass.
- Carbohydrate intake of 1g per kg of bodyweight immediately after training will help maintain immunity and promote recovery.

It is also important to be aware of "anti-nutrients" that block the uptake of certain minerals. This will make sure that you are not only consuming the recommended amount but also actually absorbing these when digested. The two main minerals you should be aware of as combat, weight-categorised athletes are calcium and iron.

CALCIUM

During a weight-cut and the negative energy balance associated with it, bone mineral density can be lost, meaning your bones become weaker. Consuming a good calcium intake will help maintain bone density. Vitamin D also plays a vital role in calcium absorption. 90 per cent of the vitamin D in our bodies is created via exposure to the sun and UV rays, so in the winter months it may be worth having a blood test to check for a vitamin D deficiency.

CALCIUM-BOOSTING INGREDIENTS - Eat these with your calcium-rich meal to boost Calcium absorption

 Vitamin C can help boost calcium absorption – eat some fruit with your dairy to boost uptake.

CALCIUM INHIBITORS - Avoid/ limit these with your calcium-rich meal to prevent iron uptake being reduced

- **1.** Wholegrain e.g. oats, wholegrain pasta, wholegrain bread.
- **2.** High fibre e.g. fibrous vegetables, wholegrain foods.
- **3.** Soft drinks that contain citric and phosphoric acid.

IRON

As a combat sport athlete, iron requirements are higher when compared to the normal individual.

This is due to higher iron losses, through increased blood loss and injuries, loss through the gut and the volume of high-impact running damaging the red blood cells (called foot strike hemolysis).

IRON-BOOSTING INGREDIENTS – Eat these with your iron-rich meal to boost iron absorption

- 1. Orange juice.
- 2. Broccoli.
- 3. Tomatoes.
- **4.** Nuts.



IRON INHIBITORS – Avoid/limit these with your iron-rich meal to prevent iron uptake being reduced

- 1. Calcium e.g. yoghurt, cheese, milk.
- **2.** Wholegrain e.g. oats, wholegrain pasta, wholegrain bread.
- **3.** Spinach although high in iron, the phytates found in spinach actually block uptake.
- 4. Tea the tannins found in tea block iron uptake.

WHAT SHOULD MY WEEKLY PLAN LOOK LIKE?

The plan on pages 116-117 will help ensure you are consuming the required amount of macronutrients (protein, carbohydrate, and fat) and micronutrients (vitamins and minerals). This plan also takes into account all of the basics mentioned before.

The plan is based on a 2000-calorie-per-day intake for a 70kg fighter expending 2650 calories per day. This would give a body fat loss as previously mentioned of 0.5kg per week. The macronutrient intake of the day is:

- 160g Protein.
- 200g carbohydrate.
- 60q fat.

THE BOXER'S TRAINING PLAN IS AS FOLLOWS

- · Fasted run first thing in the morning.
- Circuit training or strength work followed by technical pad work planned for 3-5 p.m.
- Training Monday-Saturday with a rest day on Sunday.
 Adjust the quantities to suit you weight, energy expenditure, training phase and body composition goals.

TRY THIS

GREEN THAI CURRY

INGREDIENTS

Fine beans 15g

Thai aubergine peas 20g

Coconut milk 150g

Broccoli 20g

Rice noodles 80g

Baby corn 20g

Prawns 60g

Coriander 3g

Pak choi 25g

Red Peppers 20g

Lime 15g

FOR PASTE:

1tsp coriander seeds

1tsp cumin Seeds

1 Shallot finely chopped

- 4 cloves of garlic
- 4 green birdseye chillies
- 1 thumb-size piece of

root ginger

1 stick of lemongrass

- 1 pinch of salt
- 4 Kaffir lime leaves
- 1tbsp fish sauce
- 1 pinch of ground pepper

METHOD

TO MAKE THE PASTE:

Toast cumin and Coriander. Put all ingredients into a blender and grind to a paste.

TO MAKE THE CURRY:

In a hot wok, fry one ingredient at a time: babycorn, pak choi, fine beans, red peppers, aubergine peas, until soft, and keep to one side. Fry off prawns, add paste, coconut milk and sauteed vegetables. Bring to boil, simmer for one minute until prawns are cooked. Season with salt, pepper and lime juice. Serve over boiled rice noodles.

MOROCCAN CHICKEN SKEWERS

INGREDIENTS

DRESSING:

Ground cumin 10g

Ground coriander 10q

Olive oil 500g

Lemon juice 5g

APRICOT GLAZE:

Dried apricots **500g**

Water 250g

SKEWERS:

Chicken breast (Skinned,

cut into 20g pieces)

Shredded (dried) apricot

59

Sliced red chilli 5g

Toasted cumin seeds **2g**

Micro coriander 19

METHOD

Blend all dressing ingredients to make dressing.
Pre-soak the skewers in water to stop them burning.
Cut chicken lengthways into 20g pieces, marinade with dressing for an hour using brush and push meat onto skewers. Cook apricots in water until soft then blitz until smooth and reduce to thicken. Cook Chicken skewers at 180c for eight minutes or cook on griddle pan, turning every two minutes. Brush with glaze when hot, then again once they have cooled. Garnish with Shredded apricots, red chilli, toasted cumin seeds and micro coriander.

TOM WHITEHEAD

Tom Whitehead is a nutritionist for Soulmatefood. To find out more about what Soulmatefood's Sportskitchen can do for you go to www.soulmatefood.com



FUEL YOUR WEEK

| BREAKFAST – as soon as possible after run | V S |
|---|--------|
| SNACK | (a |

LUNCH

SNACK

PRE-TRAINING

45 minutes

Recovery

Piri Piri chicken breast with

before training Recovery shake **POST-TRAINING**

DINNER - as soon as possible after training

PRE-SLEEP SNACK - 30 minutes before sleep

MONDAY

Scrambled egg whites with smoked salmon and spinach

Greek yoghurt with a scoop of whey and fresh fruit

vegetable couscous

A large banana

2:1 carbs:protein ratio

Steak with brown

rice, grilled tomatoes,

broccoli, asparagus and orange juice

150g cottage cheese with blueberries

TUESDAY

Greek yoghurt with a scoop of whey protein and fresh berries

Cashew nuts with a handful of blueberries

Hoisin turkey stirfry with noodles

Protein flapjack

Recovery shake 2:1 carbs:protein ratio

Cod, chorizo and broad beans

40g casein with 200ml whole milk, 200ml skimmed milk

WEDNESDAY

Lean bacon rashers with grilled tomatoes

Coconut chicken bites

Salmon and lemon risotto

Hummus with pitta bread

Recovery shake 2:1 carbs:protein ratio

Teriyaki beef stir-fry with rice noodles and orange juice

150g cottage cheese with blueberries

LOW CARBOHYDRATE



| | A PARTY | ATTACK NOTES | | |
|---|---|---|---|--|
| | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| 1 | Greek yoghurt with a scoop of whey protein and fresh berries | Three poached eggs with smoked mackerel | Greek yoghurt with a scoop of whey protein and fresh berries | Omelette (two egg yolks, four whites) with feta and sundried tomatoes |
| | Sunflower seeds, linseeds and mixed nuts | Brazil nuts | Greek yoghurt with a scoop of whey and fresh fruit | Moroccan chicken skewers (see recipe) |
| | Pan-fried tuna steak with lemon couscous and salad | Mango and smoked chicken quinoa salad | Chicken fajitas with wholegrain tortilla, corn and side salad | Turkey meatballs with bolognese sauce and steamed vegetables |
| | Low-fat protein brownie | A large banana | Low-fat protein brownie | Handful of sunflower seeds, linseeds and mixed nuts (as an afternoon snack) |
| | Recovery shake 2:1 carbs:protein ratio | Recovery shake 2:1 carbs:protein ratio | Recovery shake 2:1 carbs:protein ratio | N/A |
| ' | Cajun chicken with sweet potato wedges and vegetables | Beef and liver stroganoff with brown rice | Thai green prawn curry with rice noodles (see recipe) | Panfried seabass with ratatouille |
| | 40g casein with 200ml whole milk, 200ml skimmed milk | 150g cottage cheese with blueberries | 40g casein with 200ml whole milk, 200ml skimmed milk | 150g cottage cheese with blueberries |
| | | | | 13年3个36 |

MODERATE CARBOHYDRATE

HIGH CARBOHYDRATE



HIT THE TARGET

Renowned nutritionist **Kerry Kayes** – a vital part of Ricky Hatton's success – provides a step-by step guide to making weight over a 10-week training camp

PICTURE: ISTOCK PHOTO



T'S HARD making weight, but it's even harder making weight properly. Billy Graham always said fights are won and lost on the scales; let me explain. It's all about

energy in and energy

out. If you eat or drink less energy than you use then you have to lose weight. Energy in is the food or supplement that we eat or drink

Energy out is the amount of energy we use to live or

Energy that we eat or drink is measured by kcalories (kcals). A kcalorie is not a nutrient, it's a measurement of energy just like a kilo, which is a measurement of weight.

Macronutrients are 4kcals per gramme (four units of energy) for carbs and protein, and 9kcals per gramme of fat. Energy that we use in training is measured in METs – metabolic equivalent of task – which is the amount that we use in physical activities. An hour's boxing would use about 1,000kcals.

If we eat lots of micronutrients – like vitamins and minerals found in fruit and vegetables – and drink plenty of water, our metabolism will be working well so it now becomes simple mathematics.

The amount of kcals we can metabolise is not measured in how many per day but how many per meal so we need to eat small and often, let's say five times a day.

In an ideal world it's best to lose about 2lbs a week, so if you have 20lbs to lose you need to give yourself at least 10 weeks. Here is a guide to losing the weight safely in that timeframe.

WEEK 1

As it's your first week, just cleaning up the food you eat will probably be enough to lose a few pounds. Cut out all fried food as you don't want to be eating any bad fats, the carbs you eat must be real cereals like Weetabix, shredded wheat, porridge, muesli or any other whole grain breakfast cereal. It's very important to eat plenty of protein, I suggest about 1g per lb (2.2g per kg) of bodyweight. Try to drink at least 2-3L of water each day.

WEEK 2

Hopefully you'll carry on losing by doing exactly what you did in week one. Protein is very important, we all know if we use energy (carbs and fats) but don't use a lot of it, our

body will catabolise/use stored energy, or turn it to body fat. Our body is designed to put body fat on and then use that body fat as energy in times of famine. If we lose 2lbs a week for 10 weeks then we'll lose 20lbs of body fat providing it is there to be lost.

WEEK 3

As our body is happy to lose body fat our metabolism will still be working well. For it to carry on working well, we must not lose any skeletal muscle; we need that muscle not only as it is our very being but we need to use it to train. There's not a single cardio exercise that doesn't involve using muscles. So it is very important that we carry on eating plenty of protein. Eggs, chicken or turkey breast and white fish are all complete proteins that are low in fat.

WEEK 4

Your fitness levels are now improving so be careful that you don't cut back on your carbs too much as you are now using more energy. Stay with your breakfast cereal and you may need to add a protein powder – most of my fighters use CNP Pro MR. Lunch may be sweet potato, lots of fibrous veg (broccoli, runner beans, cabbage or any other leafy veg) and chicken breast. Snack on apples, pears or bananas (no more than two a day). For your evening meal, protein (chicken, turkey or white fish) and lots of fibrous veg again. You can snack on veg in the evening and have a protein drink such as Pro MR before bed.

WEEK 5

You may need to start counting kcals now, just to make sure you're on the right track. 50g of porridge, muesli or two shredded wheat/
Weetabix with half a pint of semi-skimmed milk is less than 300kcals. A clean meal of rice, pasta or potato with chicken, turkey or white fish will be less than 500kcals, e.g. 50g of dried rice is about 175kcals, 50g of pasta



Fights are won and lost on the scales. It's all about energy in and energy out. If you eat or drink less energy than you use, you have to lose weight

around 180kcals and 300g pre-cooked potatoes approx 220kcals, so you can average about 190kcals per portion of carbs. 250g of turkey (pre-cooked, as are all of these) is 175kcals, 200g of chicken 220kcals, 180g of white fish 150kcals, so the average for protein is about 180kcals. 100g mixed veg is approx 40kcals. So any combo of these foods would total less than 500kcals.

A recovery drink (after training) is around 300kcals, each piece of fruit approx 70kcals, a protein drink less than 300kcals and a 250g bowl of veg less than 60 kcals. Do the maths yourself, and remember the government recommends 2500kcals for a sedate human being; you're not sedate!

WEEK 6

If your weight (body fat) is still coming off, then keep everything the same. Only if your weight loss slows down, then start to cycle your carbs: three medium-to-high days (300-400g) then three low days (50-100g). This may give your metabolism the boost it needs but remember to keep your protein to 1g per pound of body weight as you don't want to lose muscle

WEEK 7

Hopefully everything is going well but if not, especially after cycling your carbs, then you may need to implement a big change. You should now know a little bit more about foods and more importantly kcals so try and reduce your kcals but only for a short time. Eat or drink foods that are high in nutrients but low in energy (kcals); an example of this is CNP Pro MR meal replacement at 270kcals. A clean meal of protein, carbs and veg can be as low as 400kcals and as your workload is now high this will again drop your body fat.

WEEK 8

Your target weight should now be in sight but if not we need to look at what's going wrong; it may be that you're not eating enough micronutrients (five fruit and veg a day). They are vitamins and minerals that are responsible for ALL metabolic reactions in the human body and if your metabolism is not working properly how can you metabolise the kcals properly? You also must drink 3-4L of water a day.

WEEK 9

It's important that your scales are accurate; it still amazes me how professional some boxers and coaches are in most areas but they only have bathroom scales. How do you know they are accurate? You need to have a good set of scales at home and get them checked/calibrated regularly, keep them in a safe place and only you should use them. It's also important that you weigh yourself at home first thing in the morning after you have been to the toilet and

before you eat or drink anything as this is your true body weight.

WEEK 10

Hopefully all is well and only a few adjustments are needed. You should have stopped training now but don't worry, you're still burning energy (kcals) as your nerves are racing. Keep drinking water, this is very important as it helps your metabolism. If you're still a bit over, cut back on your carbs; this is called carb depleting and can drop weight quickly. The day before the weigh-in, start taking 1g (1000mg) of vitamin C every two hours as this will help you lose water.

The night before the weigh-in at about 6pm stop drinking water and any other fluids. You will carry on urinating and when you wake up the next morning you can easily lose 3-4lbs. You should now be on the weight but if not a hot bath will do the trick. This is dropping water, NOT dehydrating.

You should have been eating lots of fruit and green veg (five a day) which gives you all your micronutrients including vitamin K, a blood-clotting vitamin, but why not take a 1000mg tablet for the last two or three days to help your cutman if you get sliced.

AFTER THE WEIGH-IN

The first thing to do is have CNP Pro Hydrate or similar, then you may drink water and Pro Energy. Don't bombard your stomach with too much food – small and often still applies. Have soft carbs – rice, pasta and children's cereals are all easy on the stomach – then complex carbs like whole grain wheat, rolled oats, brown rice and sweet potato can be introduced. These are more important than protein as we need to stock up on energy. Remember to drink lots of water as water is needed to absorb and store the carbs. If you mentally need a junk meal have it last thing at night. A junk meal can slow down your digestion so if you had it after the weigh-in you wouldn't eat again; far better to eat clean and have a junk meal last thing at night, giving your body seven or eight hours to digest it.

DAY OF THE FIGHT

Much of the same as after the weigh-in; drink lots of water and eat complex carbs. You can eat protein if you want but it's complex carbs you need. I know it's hard to eat before a fight but try; apples are a good, easy food to have in your kit bag.

KERRY KAYES



Kerry Kayes is the founder of CNP who provide sport supplement nutrition to British Cycling as well as to numerous boxers.



A LITTLE HELP

Tom Whitehead is a nutritionist for Soulmatefood. Here he breaks down the supplements you should be looking at to complement your regular diet

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PICTURE: ISTOCK PHOTO



CORRECTLY planned nutritional intake should adequately cover all bases regarding both macronutrients and micronutrients. However, the fact that many boxers train up to three times per day can mean that consuming the correct nutritional qualities at the

correct time is often hard and that supplements may be required to fully support training and recovery. The following supplements are well supported by peer-reviewed research.

PROTEIN POWDERS

While most of your protein intake should be acquired from your food intake, protein supplementation is particularly useful before and after training, or in times when good-quality, lean protein is hard to find.

There are three protein powders that have received the most research and are the most popular within the protein supplement industry. These are whey, casein and soy protein and can be categorised as "fast" and "slow" proteins. Of the three, whey is the quickest acting, followed by soy and then casein. However, this does not mean that casein does not have it's uses as will be mentioned later.

Whey and soy protein are classed as 'fast' proteins due to the high digestion rate. This causes a spike in circulating blood nitrogen and circulating essential amino acid levels, which promote protein synthesis. This is required for efficient recovery and reducing muscle

breakdown (catabolism) when in the negative energy balance seen when cutting weight. The most popular 'fast' proteins in the supplement market are whey protein and soy protein.

For athletes with lactose intolerances or those who are vegan, soy protein is a great alternative to whey. Soy is one of the best vegan proteins available due to its full amino acid profile. Pea protein is another alternative with a good amino acid profile (however these are usually unflavoured).

As previously mentioned casein is classed as a 'slow' protein due to its slow digestion rate; this releases amino acids over a greater period when compared to whey.

While casein is not suitable for before or after training, this slow digestion rate is very useful for reducing muscle breakdown (catabolism) overnight and can drip feed the muscles with protein for up to 8 hours.

DOSES

WHEY & SOY 20-25q

45 minutes before training and immediately after

CASEIN 30-40q

30 minutes before sleep

OMEGA 3

Of the essential fatty acids in Omega 3 the two most important are EPA and DHA, which have markedly different effects up on the body.



EPA has anti-inflammatory properties that aid with recovery and reduce stress upon the body. The UK diet typically has Omega 3 to Omega 6 ratios of 1:15-20. As Omega 6 promotes inflammation this ratio increases inflammation. Increasing the Omega 3 in this ratio through a high EPA intake will help promote an anti-inflammatory response.

DHA is the part of Omega 3 associated with brain health, as it forms the 'building blocks' of the brain, which can be particularly important for fighters. Dementia Pugilistica is a neurodegenerative disease that can occur due to the repeated blows to the head that fighters receive over the course of their career. Research on the effect of DHA on degradation due to Alzheimers suggests that DHA may reduce the incidence of Dementia

Pugilistica in combat athletes.

Opt for fish oils with a higher EPA and DHA content. Cheaper products tend to have low contents, whereas more expensive products tend to have greater contents, though check the product to be sure. EPA-levels should ideally be above 500mg per 1000mg capsule and DHA levels above 200mg per 1000mg.

DOSES

3000-5000mg of Omega 3 per day, either in the morning or evening, this would usually mean **3-5 1000mg** capsules.



MULTI VITAMINS

While you should intake all of your required micronutrients through a vitamin and mineral-dense diet, packed with vegetables, fruit, nuts, seeds, grains and varying proteins, multi vitamins can still play a role, especially when cutting weight. When cutting weight, certain food groups may be omitted or the volume of food reduced, in which case you may be deficient in certain vitamins or minerals. Using a good, high-quality multi vitamin may help minimise the chances of a deficiency occurring, maintaining immunity and efficient bodily functions. However, follow the guidelines on the packet and never over-use multi vitamins. This may seem extreme as, 'They are only vitamins, they are good for me, what harm can they do?', but over-consuming certain vitamins (A, D, E and K) and minerals (including iron and zinc) over a sustained period of time can cause unwanted side effects and is potentially poisoning.

DOSES

Follow recommended dose on the container.

VITAMIN D & CALCIUM

Bone mineral density is an extremely important factor that many boxers may be unaware of when cutting weight. During a weight-cut you will be in a negative energy balance; this in conjunction with long-distance running, a low calcium intake and low vitamin D status can cause a reduction in bone mineral density. This may result in weakened and fragile bones, not just during camp but also progressively over your lifetime, increasing the chances of osteoporosis later in life.

Athletes who regularly eat dairy will more than likely have a sufficient intake of calcium. However, athletes who opt for a 'dairy-free' diet are very likely not to be consuming the required calcium, therefore a high-quality calcium supplement may be required.

90 per cent of the Vitamin D in our bodies is actually produced by our bodies, through skin exposure to the sun and UV rays. In summer this is great when the days are sunny (sometimes) and the daylight hours are long. However, in winter with short days, very little sunlight and most of our time spent indoors under artificial light, it is highly likely that most athletes develop a vitamin D deficiency. Vitamin D is found in very few foods with limited dietary sources, including oily fish, cheese, milk, eggs and fortified cereals. Vitamin D is required for calcium absorption, so it is important to ensure these levels are at the required levels.

OSES

2500IU per day during the winter months will usually be sufficient to avoid Vitamin D deficiency. As vitamin D is a fat-soluble vitamin, take alongside your Omega 3 fish oils for maximal uptake.

BETA-ALANINE

Beta-alanine is what is known as a lactate buffer. This means that it can help when your muscles start to burn and fatigue towards the end of high-intensity exercise. Beta-alanine works by increasing intra-muscular carnosine levels, which helps reduce the rise in blood acidity when training in an anaerobic state. This allows you to train or compete at a higher threshold for longer, particularly useful towards the end of rounds. Beta-alanine usually requires a four-week loading period to adequately increase carnosine levels, so effects may not be seen until this time.

Beta-alanine may cause a tingling sensation in the skin. This side effect is called parathesia, and while not harmful it may be uncomfortable. Parathesia can be reduced by taking the beta-alanine in smaller, more frequent doses, or consuming with a meal or carbohydrate-based drink.

DOSES

Start supplementing eight weeks prior to a fight; this will allow the muscular carnosine to increase to an adequate level, at the correct time for your fight. Use $2\times2.5g$ or $4\times1.25g$ servings throughout the day.

CREATINE

Creatine allows the body to resynthesise ATP (the molecule responsible for intra-cellular energy transfer) at a greater rate, meaning rest periods can be reduced and both strength and power output increased. Creatine is a useful supplement for all atheltes, but particularly useful for vegetarian athletes or those who avoid red meat, as red meat is the greatest source of dietary creatine. The only side effect with creatine that may impact on boxers is that it increases water retention and therefore increases weight. By using smaller doses and not 'loading' for a week, this can be minimised.

DOSES

3-5g per day spilt into 1.5-2.5g before training and 1.5-2.5g after training.

SUPPLEMENT WARNING

Before taking any supplement in large doses it would be recommended to seek a blood test for possible deficiencies through your GP to ensure that you are not over consuming any vitamins or minerals.

Also make sure you check with a sports nutritionist to make sure these supplements are safe for professional athletes to use, or have a look on www.informed-sport. com. This site has a list of accredited supplements that are 'safe' for athletes to use. Even after all of the checks the responsibility ultimately lies with yourself to make sure what you are taking won't have you potentially fail a doping test.

TOM WHITEHEAD

Tom Whitehead is a nutritionist for Soulmatefood. To find out more about what Soulmatefood's Sportskitchen can do for you go to www.soulmatefood.com



SHAKE IT UP

Elite nutritionist Freddy Brown talks protein shakes and analyses six of them



O SUPPLEMENT or not to supplement your protein intake? That is probably the most frequently asked question of a nutritionist. Although sufficient protein can easily be achieved by consuming a varied diet, whey protein is a high-quality, fast-acting protein

with an exceptionally high "biological value", meaning more is converted into muscle-mass. Now, to put it bluntly, the precursor to whey protein, milk, is just as convenient and contains both whey and the insoluble casein fraction (essentially a clotting, slower-digesting protein) for immediate, and long-duration repair.

So... why whey? Use a discerning eye to sift through the products available and you can be specific with your nutrition. A pure whey, particularly a fast-acting hydrosylate, will provide amino acids and little else; optimising your calorie intake if cutting weight. If energy, or muscular growth are your priorities, then whey can act as a good base to your individualised recovery. Similarly, products may be bought that incorporate more carbohydrate and/or fat sources of energy, as well as different fractions from the purification process (the relative merits of each will be explained within these reviews). I simply see it as another source of food, and a tasty way to recover from training.

FREDDY BROWN

An Oxford-educated scientist now working for the English Institute of Sport, Freddy is an expert at making his nutritional know-how easy to understand, and effective in its application. A former British Universities boxing champion and wrestler, Freddy is experienced at implementing integrated nutrition, monitoring and training strategies to help weight-making, performance, and power in professional boxers and martial artists.

MULTIPOWER PURE WHEY ISOLATE 100

£54.99 FOR 2.25KG multipower-bodybuilding.co.uk

PERFORMANCE AND PURPOSE

Whey isolates are microfiltered whey proteins, separated from the rest of the casein, fat and carbs in milk. This results in a product full of undenatured peptides, which some studies show to retain some biological activity. Although the body can often digest these proteins itself when they're consumed, there is a possibility that consuming undenatured proteins may help the body enhance its own capabilities when it comes to immune function, regulating inflammation, and gut health. The effects on performance are as yet unconfirmed, but isolates are usually purer proteins.

HEALTH

Isolates are generally thought to contain at least 85 per cent protein, while the finished product has diluted the protein content to 84 per cent by adding vegetable oil, salt, thickener and sucralose sweetener. It can't claim to be lactose-free and "can contain traces of egg", so the purity and manufacturing processes leave a little to be desired.

TASTE

It mixes well and gives a smooth finish.

SIZE AND RECOVERY

This is high in protein and low in carbs, making it ideal for recovery from resistance exercise and for those athletes aiming to improve body composition.



PROTEIN MILK (READY TO DRINK)

£23.99 FOR 8X330ML maxishop.com

PERFORMANCE AND PURPOSE

Protein Milk is a higher protein version of its cow-derived precursor, with small amounts of carbohydrates and fat. Milk is, in effect, already a protein shake as it contains protein and carbohydrate with a blend of slow-release casein and fast-release whey to support training adaptation.

HEHLTH

High levels of branch-chains are included along with glutamine to provide energy and stop muscle "catabolism"; breakdown that can arise if you are in a negative calorie balance and neglecting your recovery nutrition.

The lower sugar content may optimise your calorie

TASTE

The strawberry option's nice and thick, while the chocolate ... is chocolate (you can't go wrong!).

count towards the lean and mean variety.

SIZE AND RECOVERY

Providing 17g carbs with 30g protein this may help maintain body composition by ensuring you get an optimal dose of post-training protein, with a smattering of extra carb calories. High levels of leucine support muscle synthesis by amplifying the effects of insulin in a muscle-specific way, while glutamine prevents muscle wasting that can occur during hard training. Perfect for weights sessions where leanness is the aim, or as part of a meal replacement during your weight-cut.





OPTIMUM NUTRITION PLATINUM HYDRO WHEY

£49.99 FOR 794G onacademy.co.uk

PERFORMANCE AND PURPOSE

From Optimum Nutrition, it combines whey concentrate with a partial hydrosylate, and casein, to combine slow and fast-release proteins.

HEALTH

This is a quality, tested product that provides sufficient amounts of essential aminos for optimal protein synthesis, and a blend of fast-acting and long-lasting proteins to optimise recovery and repair.

TASTE

It dissolves well and gives a creamy texture. It's not too sweet, which gives it a wholesome flavour.

SIZE AND RECOVERY

This is another 'single ingredient', allowing you to add extra macronutrients according to your goals. The free-form EAAs included with arginine and glutamine have all been implicated with anabolic, hormone-boosting and immunomodulating effects in the literature.



REGO PROTEIN

£48 FOR 1.2KG scienceinsport.com

PERFORMANCE AND PURPOSE

This protein is another high-quality product that combines a 'basic' whey concentrate with some added hydrosylate that essentially provides free-form amino acids to maximise recovery. An isolate covers all of the whey bases, combining whole proteins and aminos for different biological activities. This product supplements the whey with enough hydrosylate to be effective.

HEALTH

They've added wheat-derived glutamine for anticatabolic and potential immune-enhancing effects.

TASTE

It doesn't taste too sickly, being sweetened with a small amount of sucralose rather than bucketfuls of aspartame.

SIZE AND RECOVERY

A combination of proteins without additional carbohydrate or fats, this is another good 'single ingredient' for keeping lean. Consume additional carbs in line with intensity, adding extra good fats if also trying to bulk up.



SIS REGO NIGHT

£43.20 FOR 1.1KG scienceinsport.com

PERFORMANCE AND PURPOSE

Science in Sport have tried to formulate a bed-time protein to aid sleep, de-stress the body after a hard day of training, and allow adaptation to your punishing regime. Rego Night contains tryptophan in similar amounts shown to help sleep in one trial on insomniacs. This amino acid goes on to form serotonin and melatonin; two chemical-messengers involved in sleep. The effects of serotonin on sleep are somewhat debatable however.

HEALTH

This product also contains zinc, magnesium and vitamin B6 which play roles in neurotransmitter metabolism and nervous control. Although zinc and magnesium (when combined with melatonin) have been seen to improve sleep, as with any psychological intervention, individual variation will be huge.

TASTE

It's got a lovely, Horlicks-like maltiness and thick texture made me contentedly dozy.

SIZE AND RECOVERY

Even if you don't respond to the sleep-supporting effects, it will provide a good source of slow-release protein (from the casein) and vitamin B6 to promote night-time repair of your muscles. As this moderate calorie product has no added carbohydrate, this is ideal to preserve muscle whilst maintaining or cutting weight



SCI-MX SCI-MX DIET

£27.99 FOR 1KG sci-mx.co.uk

PERFORMANCE AND PURPOSE

A mixture of whey concentrate, soya isolate and wheat-derived peptides to provide protein at different rates to keep you full, and your muscles nourished.

HEALTH

There is a slight risk of allergen contamination according to the product's disclaimer, although the use of maltodextrin probably helps them use less sweetener, only a small amount of sucralose being present in their formula.

TASTE

The chocolate cream flavour is indeed chocolaty and creamy, not being too sweet as mentioned above, whilst not tasting too much like a health-food shop's floor sweepings. Thoroughly pleasant.

SIZE AND RECOVERY

A weight-loss formula with fewer carbs and good fat. The mixture of whey concentrate and isolate from soy, along with milk proteins, should provide sources of fast and slow proteins to preserve lean mass during weight-loss. The small amount of carbohydrate, as well as the calorie count being moderated for weight loss, makes this a good 'single ingredient' that would require extra carbohydrate if optimal recovery was to take priority. Good for resistance exercise and lower-intensity workouts.





REPAIR AND RECOVER

Freddy Brown moves on to supplementation that can aid recovery from the kind of arduous training we've suggested elsewhere in this manual



O DOUBT readers will have heard about "recovery", "recovery strategies" and, of course, "recovery shakes", but why is it so vital to blend these into your training programme? What's the best nutritional approach to recovery, and why are there so many different

types of products?

Recovery is the ability of an athlete to perform, quality work following a previous training session; recovering allows you to consistently work hard enough to improve all facets of your performance. Recover better; get fitter, faster.

The most important factor in recovery is sufficient rest,

whilst providing specific nutrients after specific sessions will enhance your fitness adaptations.

After training is when the muscles are most receptive to taking on nutrients in order to repair themselves and re-load energy stores. Therefore, adequate nutrition in recovery is the most effective way to fuel the next training session.

The foods you select should be altered regarding their relative amounts of protein, carbohydrate, and fat to meet your training and diet requirements.

However, if you would rather fork out some of your hard-earned cash on a convenient, ready-made product, then you may want to consider some of the following.

OPTIMUM NUTRITION ORTS AND WHEY

£48.49 FOR 1.36G onocademy.co.uk

PERFORMANCE AND PURPOSE

Combining whey protein isolate and concentrate makes it suitable for a meal replacement or post-workout boost. It's also instant, so you can prepare this meal replacement in seconds. Whey isolate (undenatured) is a slightly slower release form of whey, making this product ideal for gaining muscle.

HEALTH

The included minerals give a nod to muscle function and fitness, without going overboard. This may be a positive in that it reduces the risk of 'stacking" your micronutrients (ingesting too much by adding this product to others, on top of the intake from your diet). Calcium is included in a slightly smaller amount than you'd get from milk, whilst iron is also important for cardiovascular fitness, but present only

in trace amounts. A great example of less being more.

TASTE

A wholesome flavour with a creamy texture: think healthier Ready Brek... with chocolate.

RECOVERY

The suggested serving provides less than 24g of both protein and carbohydrate, making this a less suitable product for high-intensity recovery. However, increasing the portion size with this 1:1 carb:protein ratio makes this ideal for a part-meal replacement, recovering from high-volume weights sessions or bulking up.



MAXIFUEL RECOVERMAX

£29.99 FOR 750G maxishop.com

PERFORMANCE AND PURPOSE

This is a solid whey plus carb product, providing 55g carbs with 16g protein to stimulate synthesis of glycogen and muscle-protein. Carnitine is also included at a concentration that will be absorbed effectively, especially when combined with this amount of carbohydrate. The high essential amino acid content will help preserve lean mass.

HEALTH

The small amount of sodium added will go some way to supporting hydration, despite only giving a 5mM solution (specific hydration products are usually between 10 and 40mM), whilst minor, but significant contributions are also made towards your RDI values of calcium, magnesium and phosphorous; ideal for weight-making athletes pounding their bones with incessant roadwork.

TASTE

The product mixes more like a sports drink compared to a protein shake, making it well suited to consuming during high-intensity workouts. I find this perfectly palatable, but some of my athletes find it too much of an assault on the senses. The strawberry flavour seems to make the sweetness work better than the orange.

RECOVERY

This would be ideal for recovering from sparring or an interval-sprint session, also being well suited to replenishing muscle and liver glycogen if you have an early/day-before weigh-in.







KINETICA 100% RECOVERY

£39.99 FOR 1KG kineticasports.com

PERFORMANCE AND PURPOSE

This is a good option for those aiming to increase lean mass, or trying to recover from a high-intensity resistance-training session. Again, carnitine is added in useful amounts, whilst the amount of arginine included may also be in the realms of that seen to help blood flow in endurance trials.

HEALTH

The 30 per cent RDIs of antioxidants included here are ideal. Whilst antioxidant vitamins C and E have been shown to help recovery after intense training and may help reduce the risk of infection when administered in smaller doses, large doses of antioxidants (in particular over 1000mg Vitamin C) have been seen to blunt training adaptation.

TASTE

The flavours are brilliant and unique; mango is a tangy and sweet offering, whilst blackcurrant is more flavoursome than any other I've tasted.

RECOVERY

This may also help those aiming to recover from intense training sessions whilst struggling with weight control or body composition, as more of the calories in this product will come from protein rather than carbohydrate energy.



PRO-RECOVER

£39.99 FOR 1.28KG cnpprofessional.co.uk

PERFORMANCE AND PURPOSE

This is a fine product with 48g carbohydrate and around 20g high-quality protein for optimal recovery. It uses a clever combination of whey protein isolate and hydrosylate to deliver fast-acting recovery aminos with a steady supply of protein precursors. The carbohydrate content is also from a mixture of polymers, with glucose and sucrose combining for speedy recovery.

HEALTH

This contains sensible levels of antioxidants without too many added extras. As always though, recovery products are full of sugar, so don't use this as a meal replacement, or a hand-to-mouth snack.

TASTE

This shake-and-take recovery drink is more like a traditional protein shake with a pleasantly sweet berry flavour that's still more fruity than it is sickly, whilst the chocolate flavour is noticeably enhanced by the relatively high proportion of cocoa.

RECOVERY

This product should be used only for the hardest sessions when recovery rather than weight-reduction is your major focus, being an insulinogenic mix of macronutrients that's ideal for repair and repleinshment. The carbohydrate offering combines high-weight, rapid-digesting polymers with simple sugars that will help a lean fighting machine recover.



EPIC PRO ALL-IN-ONE

£44.39 FOR 1KG USN.co.uk

PERFORMANCE AND PURPOSE

Hydrolysed whey combines with hydrolysed casein to provide an array of partially digested peptides and aminos, which will combine with the plentiful carbohydrate to maximise recovery.

HEALTH

The carbs come from waxy maize starch and maltodextrin, the ultra-high-

GI, fast-release polymers, as well as from fructose to provide a more gradual energy source. Carnitine and beta-alanine, present in functional doses, will be absorbed to a greater extent when combined with this amount of carbohydrate.

TASTE

It's meant to taste tropical, but is sweet enough to effectively obscure the flavouring.

RECOVERY

This is ideal for recovering from intense/ maximal cardiovascular training. It provides the macronutrients essential for recovery and performance. It suggests consumption throughout endurance events, for which the 52g carbs and 16g protein would be ideal.



MYPROTEINRECOVERY XS

£27.99 FOR 1.8KG myprotein.com

PERFORMANCE AND PURPOSE

This great shake combines 50g carbs from fast-releasing high-weight polymers, along with 24g protein that includes 5g each of leucine and glutamine – a known insulin-optimising combination to aid recovery and enhance uptake.

HEALTH

This products includes 3g creapure and 500mg Vitamin C – again, ideal for a gentler, effective method of supporting health, recovery, and explosive performance without the negative impacts of excessive creatine (water retention and unwanted weight gain) and antioxidants (slowed fitness gains).

TASTE

No problems on the flavour front; sweet, chocolatey. The salty "electrolyte blend" aimed at enhancing hydration actually does good things for the flavour, offsetting the sweetness with a savoury edge.

RECOVERY

Just be wary of these insulin-spiking calories if cutting weight. Not only does it contain insulinogenic aminos with a hefty whack of carbs, but the waxy maize starch is a high-weight carbohydrate, polymer that is rapidly digested and absorbed. It is essentially more 'sugary' than sugar, making it ideal for recovery, but not for a meal replacement, or snack.





BARS OF GOLD

Shakes are all well and good but sometimes the training athlete requires something more filling, without breaking the rules. **Freddy Brown** investigates and runs the rule over some options



ROTEIN BARS are yet another form of convenient recovery food. Rather than shakes, bars offer more of a food-like experience; a vast array of offerings encompassing products from oaty flapjacks to jaw-achingly chewy bars. It may be preferable for consuming

a variety of micronutrients and avoiding large amounts of processed sugars to eat actual foods rather than prepackaged bars, but people can often get too hung up on things being 'natural'. Whey is actually often less processed than cheese, being extracted from milk at an earlier stage, whilst people forget that ham and bacon are both cured, classifying even these products as 'processed' meats. Food

is food, and food is fun – just be wary of convenience foods sometimes being too convenient, and respect them as you would any other calorie-dense morsel.

Bars are combination-products consisting of all three macronutrients; carbohydrate, protein, and fat in proportions dependent on the purpose of the bar. These products are often marketed as a method of obtaining additional calories and nutrients for those wishing to gain weight, as combining protein with fat and carbs gives energy and precursors for growth. However, using a bar to replace part of a meal can help control the frequency of eating and the quantity of food consumed. Much like opting for semi, skimmed, or whole milk can individualise recovery for weight loss or bulk-up strategies, different bars can be used for different purposes.



£36 FOR 12X70G cnpprofessional.co.uk

PERFORMANCE AND PURPOSE

This was the first protein bar that tempted me through the doors of Holland and Barrett, marking the beginning of my tempestuous and often stomachturning relationship with sports nutrition. These protein bars define the word chewy, and contain 30g of both fast and slow proteins.

HEALTH

To pick a flaw, the fats included are the saturated type, and apparently not the medium-chain saturates. Still, not full of nasties by any means.

TASTE

I love all of the flavours available, especially the peanut option (king amongst bars) and the chewy chocolate offering.

RECOVERY AND SIZE

Use for a low-calorie snack on their own, or combine with another source of carb like a sports drink if aiming to recover for a subsequent training session. Ideal for lower-intensity sessions and watching body composition, these have a moderate carb content that keeps the calories in check. If bulking up, these are a little too low in carbohydrate to meet the increased energy demands of anabolism and the high-intensity exercise necessary. On the flip side, many carb-conscious slimmers will find that to be a bonus; use this as a base for a wider recovery strategy, adding carbs and fats from

foods after this convenient treat has propped open your 'recovery window'.



KINETICAMILK PRO

£29.99 FOR 12X60G kineticasports.com

PERFORMANCE AND PURPOSE

Like many others, this bar combines various protein fractions, including 4.2g of hydrolysed whey protein for quick absorption and increased insulin response, as well as a hefty whack of natural milk proteins. This is a bar that's quite low in carbohydrates, with only 5g of sugar per bar (20g total carbohydrate), although the poly-ol sweetneers still have calorific value.

HEALTH

The fact that their factory backs on to the dairy and pastures where the cows which provide the milk graze, makes me even more confident in this batch-tested offering. This high-grade product is gelatine-free as well as batch-tested, meaning they adhere to stringent manufacturing practice.

TAST

Whilst the orange flavour can divide opinion, Kinetica's toffee option will charm the pants off you. These high-protein bars offer a perfectly adequate 20g of the highest quality milk proteins per bar.

RECOVERY AND SIZE

As with other lower-calorie bars, additional carbs will be needed for growth or recovery from more intense training sessions, so use this as a single ingredient on your recovery menu. 7.7g of fat per bar isn't excessive, but is also a bit high to make these ideal for the weight-making fighter, so ration, revere and respect

these bars.





PRO FLAPIACK

£36 FOR 24X75G cnpprofessional.co.uk

PERFORMANCE AND PURPOSE

Pro Flapjacks have a higher carb content and slightly lower protein than CNP's bars and would be ideal for recovery from a 'metabolic' session (circuit-weights/interval training/bag work). This is going to do a lot more for readying an athlete for a second daily session than a protein binge.

The carbs are low-GI and the proteins provided are both fast and slowrelease, so they may be suited better as mini-meal replacements throughout the day. Oats are a good source of soluble fibre which may help support a healthy heart, as well as being a rich source of B-vitamins and minerals.

Their small size, ease of eating and tasty flavour means they're ideal for consuming mid-session for energy and nutrients for fitness adaptations.

RECOVERY AND SIZE

As well as recovery, they're perfect for athletes trying to gain lean mass as

they combine 18g of protein with nearly 40g of carbohydrate. As with a lot of CNP products they go down rather easily. Only put one or two in your kit bag.



MYPROTEIN HIGH PRO

£19.99 FOR 12X80G myprotein.com

PERFORMANCE AND PURPOSE

These bars contain 29g protein, and 20g carbs, being designed to aid muscular recovery with less carbohydrate energy. This product contains high-quality proteins in the form of whey isolate, as well as whey protein concentrate.

An ingredient-list that includes partially inverted sugar syrup, glucose syrup, palm oil, vegetable oil, maltodextrin, sweeteners and various E-numbers suggests that these bars are more confectionary than cathartic, although probiotics have been added to make this easier to swallow.

This thoroughly delicious product contains calories enough to be a partial meal replacement.

RECOVERY AND SIZE

In addition to the above proteins, there are added fast-release sugars for a speedy recovery. However, the final product offers lower carbs - but from sources many consider to be lower in quality, whilst combining them with a (less than) healthy whack of palm and vegetable oil. These micronutrient specs have seemingly been aimed at supporting lean muscle gain,

although it's a little light on the carbs for aggressive hypertrophy or recovering from a harder sparring session.



MAXIMUSCLE PROMAX LEAD BARS

£25.99 FOR 12X60G maxishop.com

PERFORMANCE AND PURPOSE

These little beauties claim a scientific rationale that supports a role in weight-loss. The antioxidants in green tea (catechins) have also been reported to support healthy fat transport and may be useful in a calorie-controlled weight-loss programme.

The fatty acid CLA is also included, which has been used in many trials on overweight populations with a degree of success in increasing insulin sensitivity. This may have a role in weight-loss. The main 'fat-burning' ingredient is caffeine, so time this product for earlier in the day to stop a combination of stimulants and training's adrenaline-release wrecking your recovery.

All in all, a fine product, which has a satisfying texture and lovely mint-choc taste. Only helps you cut weight if used alongside a carefully planned diet.

RECOVERY AND SIZE

Protein, in the absence of excessive carb intake, is a good food for dieters, as around 30 per cent of the calories are used in digestion and converting aminos into an energy source, while caffeine has well-established fat-burning benefits.



MULTIPOWER POWER LAYER

£44.99 FOR 18X60G multipower.com

PERFORMANCE AND PURPOSE

Similar to Kinetica's bars, this product contains 20g of protein, 24g of carbohydrate and 8g of fat which would be ideal for recovery from resistance exercise, particularly for those looking to gain lean mass.

The foremost ingredient is milk chocolate, and the protein content comes from a combination of sources. Although milk is the king of proteins. including "sweet whey", and "full cream milk powder" rather than an isolate or concentrate makes it seem like considerations of flavour may have pushed the product away from its healthy purpose. A solid, chewy bar that will fill a hole, it's garnished with e-number emulsifiers and contains nuts.

It tastes as good as confectionary. All of the carbs come from sugars, syrups and poly-ols. Whilst this gives the caramel a smooth, round texture, it risks doing the same to your stomach if you have too many!

RECOVERY AND SIZE

A sensible, but not excessive content of carbohydrate and fat shows a compromise between body composition and recovery concerns, although extra carbohydrate energy would probably be required to maximise hypertrophy. This is a good macronutrient split to improve body composition after a hard workout,

without enough calories to add much





DO IT YOURSELF

To save time and money, a smart option is to create your own training snacks and bars. **Freddy Brown** extols the virtues of this approach and provides some recipe ideas

PICTURE: ISTOCK PHOTO



MOOTHIES and shakes allow you to mix a colourful array of fruit, milks and interesting extras, to tailor your nutrition to your specific goals; and go on an exciting culinary journey to boot! Base your shakes on milk (in effect, already a recovery shake as

it a blend of slow-release casein and fast-release whey with carbohydrate), subsequently adding extra sources of carbohydrate, good fat, and micronutrients according to the requirements of the training session you've just completed. Eat specifically and you can't go wrong.

If protein shakes are quick, functional formulas for time-poor athletes with hectic schedules, then making homemade protein bars is more for the fighting foodies amongst you. Using whey as an ingredient, or even combining various vegetarian proteins to get a complete spectrum of essential amino acids, making your own protein bars can be immensely satisfying. Making a bar gives you more of a licence to experiment with textures and spices. Making bars does require more planning than blending a shake, and those who enjoy baking and cooking will find them appealing.





SHAKE IT UP

This guideline will provide carbohydrate, protein, vitamins and minerals. Adapt this basic recipe for more specific goals by using the recipes given. You will require a blender to mix all recipes!

INGREDIENTS 15g Low-fat Yoghurt **½pt** Skimmed Milk ● Fruit ● Apples, Pears, etc

• Berries • Banana • Tinned Tropical Fruit

POST-SPARRING PUNCH

A DAMAGE-LIMITING REGENERATION SMOOTHY





509 CARB



INGREDIENTS

150ml skimmed milk

4 ice cubes

200g plain yogurt

1 tbsp natural peanut butter

2tsp High EPA vanilla or orange-flavoured fish oil

50g vanilla protein powder (or plain protein powder and vanilla extract)

2tsp Chocomine (or plain cocoa powder)

1tsp creatine monohydrate

25g vitargo (or other carb)

You can add 300ml water to serve two, thereby halving the macronutrients per person

FRUGAL FRAPPE

A SHAKE TO AID THE AEROBIC ENERGY SYSTEM





159 CARB



INGREDIENTS

1 shot espresso

1/2tsp coconut oil

1tsp molasses

200ml semi-skimmed milk

Pinch of salt

100g ice-cubes

BRAIN BOOSTER

THE RECIPE FOR GOOD COGNITIVE FUNCTION

535 KCAL



429 CARB



INGREDIENTS

150ml low-fat soy milk

4 ice cubes

1tbsp almond butter

1 tsp vanilla-flavoured, high EPA+DHA fish oil

50g chocolate protein powder

1 scoop finely milled oats

1 shot espresso/2tsp instant coffee

2tsp cocoa powder

1tsp creatine monohydrate

HIPPY HIPPY SHAKE

THIS SUPPORTS GOOD HORMONE FUNCTION SERVES 2

390 KCAL



60g CARB



INGREDIENTS

150ml Irish Moss (2 handfuls of washed, dried moss, soaked in 800ml water until re-hydrated)

1L skimmed milk

1dsp clear honey

2 bananas

2dsp sugar-free peanut butter

This recipe is inspired by "Coach David" at the Hackney Pedro Gym



BAR CRAWL

The first of these bars are based on a granola base I invented when experimenting with oats, quinoa, buckwheat and Demerara sugar. To make 300g, I combined 90g of each grain with 30g demerera, which gave a lovely crunchy texture. Just using oats would also be fine. All fruits referred to are dried.

For all bars, toast the granola base until browned, and then pulse in a blender with the other dry ingredients. Mix the whey with enough water to make a relatively sticky, but fairly loose paste, then mix together. I then put this under a low grill so I can keep an eye on it, or in a very low oven, checking every 10 minutes until it is firm and drier but still fairly sticky. Leave to cool for an hour and it should dry to a consistency where you can chop into bars, or break into clusters.

SPICED OAT BREAKFAST CLUSTERS

BETTER FOR LONG DURATION, LOWER-INTENSITY ACTIVITY

MAKES 10

220 KCAL

13.1 PRO

24.5 CARB 10g

MACRONUTRIENTS PER BAR

INGREDIENTS

300g granola base (above)

40g chopped almonds

30g chopped pecans

30g almond butter

100g vanilla whey

Cinnamon, nutmeg, vanilla essence to taste

CITRUS-NUT

A TANGY LOW-CARB SNACK

MAKES 10

335 KCAL 17g PRO

7.59

26.3 FAT

MACRONUTRIENTS PER BAR

INGREDIENTS

150g cashews

150g pistachios

150g brazil nuts

25g dried orange peel

25g Xylitol

100g vanilla whey

20g fresh-grated lemon and lime peel

20g lime juice (fresh)

Lemon essence (oil-based)

3. PEANUT CHOC BAR

FOR MAXIMUM PROTEIN AND GREAT TASTE

MAKES 10

291 KCAL

29.7 PRO

10g CARB 15.2 FAT

MACRONUTRIENTS PER BAR

INGREDIENTS

150g peanuts

50g peanut butter

75g CocoCeps

300g vanilla whey

25g Xylitol

50g 75% dark chocolate as topping

4. **NIGHT-TIME CALMING BAR**

HELPS YOU GET FITTER IN YOUR SLEEP

MAKES 10

389 KCAL 21.6 PRO

5.9c

31g

MACRONUTRIENTS PER BAR

INGREDIENTS

300g brazils (magnesium)

100g brazil-nut butter

35g Xylitol

75g pea protein

75g peanut butter

75g glycine

Vanilla essence to taste

SPECIFIC NUTRITION

Nutritional Systems from Elite Sport, **Available to All!**

Specific nutritional provision provides the means to train harder, recover faster and adapt better. Fuel, recover, and rebuild with specific nutritional intakes, and you have the means to consistently push your body harder, and get the most from your training. Gain from the experience of an Oxford-educated scientist, now working with Olympic athletes and elite boxers/martial artists.

SPECIALIST AREAS:

- Combat sports: "making weight" whilst preserving power and performance
 - Pre/post-weigh-in nutrition
 - Can provide daily/competition fuelling plans, and put together nutrition packs for travel
 - Experienced working with
 - Professional Boxers/MMA/Muay-Thai
 - GB boxing
 - GB Wrestling
 - England Rugby (League and Union)
- Nutrition for rehabilitation and injury prevention
- Female athletic demands
- Specialist needs; e.g. fasting
- Endurance (triathlon, iron-man, athletics)
- Rugby: strength and power

COMBINED SPORTS-SCIENCE AND NUTRITIONAL STRATEGIES FOR YOUR CAMP

- Testing and monitoring systems:
 - Identify areas for fighters' improvement alongside coaches
 - Adapt training and nutrition for each individual
- Nutritional strategies to keep your athletes healthy and injury-free
- Integrate menu-plans, food and supplement strategies according to:
 - Training-phase (e.g. endurance, strength etc.)
 - Competition schedule
 - Fighter-specific demands
- Experienced setting up communication systems within sports-medicine teams coordinating nutritional strategies alongside:
 - Sports medicine
 - Physiotherapy
 - Strength and conditioning
 - Sports coaches
 - Catering facilities

FREDDY BROWN

- MSc (Oxon) biochemistry
- International Olympic Committee (IOC) nutrition diploma
- MSc sports physiology
- GB Badminton performance nutritionist (English Institute of Sport)
- Experienced with premiership rugby and England rugby league/union
- Three-time Oxford boxing Blue/British universities light-welterweight champion





NUTRITION ON THE GO

Freddy Brown outlines how to make the right food choices while away from home, and lists some favourable – and less so – options if you are tempted by a major chain



AST FOOD"; A phrase so deeply ingrained with negativity and guilt, and yet with a literal meaning that could easily be a recommendation straight out of a sports nutrition textbook. To adapt optimally from resistance training, it's common knowledge we should eat immediately

after we damage our muscles, In a similar vein we are told that eating small, regular meals can help to regulate blood sugar and satiety, whilst providing our muscles with a constant supply of substrates for structural repair and energy provision. The difficulty is eating something that's quick, easily available and tasty without falling into the traps set for us by the fast food industry. It can be difficult to eat specifically for your training load when tempted by the unsophisticated, yet visceral urges elicited by sweet, rich, fatty scents, conspiring with hundreds of thousands of years-worth of evolved survival instincts.

Luckily, help is at hand. The obesity epidemic has resulted in a fair section of society becoming increasingly

aware of their nutritional intake with healthy eating ranges now more readily available from fast food franchises and supermarket shelves rather than just specialist health-food shops.

As always, you should aim to eat specifically for your training load – the higher the intensity of your training sessions, the greater the body's demand for carbohydrate. Protein should be present in every feed.

The prevailing pitfall as ever is the unholy combination of fat and simple carbohydrates (think 'chips' if you ever need a reminder). High levels of circulating fatty acids in the blood reduce insulin-sensitivity by upsetting your body's biochemistry – your body has sufficient energy (as communicated by an increase in the molecule acetyl-co-A) and so forgoes the normal processes of fuel storage and oxidation that follow feeding. This mechanism for the obesity-induced spiral of insulin resistance may exacerbate the very simple effects of increasing your calorie consumption caused by combining fat and carbohydraterich foods.

SUBWAY

SUBWAY

Go for higher-carb subs for recovery; target the "Low Fat" menu, shunning creamy sauces and the meatball marinara!

- > BEEF
- > SUBWAY CLUB
- > HAM
- > CHICKEN BREAST
- > SWEET ONION CHICKEN TERIYAKI
- > TURKEY BREAST

Lower activity/weight-loss goals:

Turn your sub into a sandwich when less active.

Avoid

Meatball Marinara, Thousand Island sauce, mayo etc.



ONE OPTION: CHICKEN BREAST LOW-FAT SUB

NANDO'S



One of the better things to happen to the fast food industry in recent years. Grilled chicken with the option of adding extra carbs and veg as required.

MAINS:

Base most meals on lean, low-fat protein such as the peri peri chicken with a mixed leaf salad

Higher intensity training requires the addition of:

- > WRAPS
- > PITTA BREADS

Side Orders (carb-loading fuel)

- > LUSO BEANS
- > RATATOUILLE
- > SWEET POTATO MASH
- > SPICY RICE

Avoid

Creamy Mash (how did they get 20g of fat into such a small serving of potato?).

PIZZA EXPRESS



Pizza can be a great example of healthy carb-loading, as easily as it can exemplify what NOT to do. Look for 'healthy' and 'low-fat' menus to avoid fatty carb combinations.

High-intensity carb options:

Pizza Express serve the Leggera range, often with lower fat cheese, less oil and even a whole cut out of the middle! Select a lean protein pizza topping such as:

- > CHICKEN (POLLO)
- > POMODORRO PESTO (TOMATO LESS CHEESE)
- > PANCETTA

Less intense - fewer carbs:

- > NICOISE (TUNA AND POTATO) SALAD
- > TRADITIONAL MOZZARELLA & TOMATO SALAD

> Processed/reformed meats such as sausage and meatballs. The American Hot pizza and Meat Feast should be avoided.

McDONALD'S



0

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Higher carb - Deli Sandwiches. Go for the meat with black chargrilled lines on it as opposed to a battered coating.

Higher Carb options:

- > GRILLED CHICKEN SALAD SANDWICH > GRILLED CHICKEN SALAD
- A MCFLURRY IS ACCEPTABLE IN RECOVERY FROM TRAINING

- > Salads with the word "crispy" in the name
- > Fries
- > Shakes



ACCEPTABLE: MCDONALD'S GRILLED CHICKEN SALAD

KFC



With chicken as the principal ingredient, there are plenty of options from the Colonel.

Higher-carb mains

> BBQ RANCHER BURGER

Side Orders (carb-loading fuel)

- > BAKED/BBO BEANS
- > CORN COBS
- > MUNCH BUNCH YOGURTS
- > EVEN A SNEAKY KRUSHEMS ICE-CREAM TREAT IS **OKAY IN RECOVERY FROM TRAINING!**

Lower-carb options

- · BBQ RANCHER SALAD
- · MIXED LEAF SALAD



HIGHER CARB: BURGER CAN WORKOUT

SUPERMARKET STALWARTS

Fast-food can be just as convenient if popping into a supermarket. Use your phone, tablet or computer to map out your whereabouts in advance if you know you're going to be travelling.

Moderate-carb salads (similar salads are available in Sainsbury's, Marks and Spencer, Tesco etc):

- > LOOK FOR ADDED CARBS WITH THE PROTEIN BEANS, SQUASH, NEW-POTATOES ETC.
- > ON A HARDER TRAINING-DAY, ADD MORE CARBS (BREAD ROLLS, CEREAL BARS, FRUIT ETC)

Look for the healthy options with 'two links in the food chain' (protein and veg) such as:

- > NICOISE (TUNA AND POTATO) SALAD
- > TRADITIONAL MOZZARELLA & TOMATO SALAD

> Stay away from stodgy, fatty versions of carb dishes, masquerading as healthy foods.



HOW TO FUEL WHEN YOU'RE ABROAD

Mark Ellison, GB Boxing's nutritionist, talks us through his strategy when overseas







T'S A MINEFIELD. The only message is, be prepared, be organised and take things with you.

The best athletes that I see, like Olympic gold medallist Luke Campbell and others, they never fail to amaze you. If they've got things they always

do as part of their routine, if it's say porridge for breakfast each day, when you go to World championships, they're the kids that pull out a box of porridge from their suitcase along with their gloves and everything else and they're the

ones that are successful.

It is tough travelling with
boxing. Often food safety is an
issue. In some of the countries you
go to, even water safety can be
an issue in some places. Just buy
bottled water. Be prepared, take

things with you and just be careful.

As a rule you can always get fresh fruit and vegetables, we just encourage the guys to wash them and peel them first. We get them to take control of their nutrition a lot. We wouldn't necessarily trust that the options in a salad bar in a restaurant have been washed in drinkable water. There are similar concerns about ice.

When we travel, someone does a supermarket run, buys a couple of carrier bags full of fresh fruit. Think about a banana – it comes in its own protective jacket, you've got rid of the dirty bit and got the clean fruit inside.

We'll always buy loads of yoghurt and milk so straight away we've got carbs covered with the fruit and protein covered with the dairy produce. I've not been to many countries where we've not been able to find that.

In addition to that, for the rest of the stuff, we'll have to rely on getting the meats for the proteins from the dining facilities but we will normally take a lot of dried foods with us. We will take lots of porridges, oats and snack bars and cereal products. We tend to take loads of those types of things.

It's not been unknown for us when we're going into eastern Europe to travel with tinned fish and dried meat and everything. You can't really stuff a load of salmon in your suitcase. I have seen some of these guys take things like tinned salmon or tinned tuna.

Things that aren't going to perish in their suitcase. We're pretty well prepared like that.

It depends where you're going. There are some places you can take real good control. In boxing you tend to have to stay in a team hotel. So all of the teams from Europe or all around the world for example will probably share three hotels so you don't have control of the menu as such. It's set by the organising committee. It's normally really clean, healthy stuff. It's not a problem. Often the problem is the opposite, a few home comforts for the boys.

We always do a 'recce'. Two members of the team will go out well in advance, check the location, check that the hotel meets our needs. You don't want to not stay in the hotel but if it was a disaster, we'd look elsewhere. We look at transport links, find out where the local supermarkets are and the doctor and physio. They'll find out where the local hospitals are, medical care centres, where we can get X-rays, all the little things that come into performance.

We'll look at the menus. If the menus are appropriate, great. If not, we'll fill the gaps ourselves. We'll make requests and ask if things can be changed. We don't always get a yes but if we do, great. Then we'll fill the gaps ourselves. If worst comes to the worst, if we can't take with us what we need, from the advance checking we know where the local supermarkets are. We know where the local restaurants are and we've got back-up strategies.

Normally we send an advance party also a couple of days before we land. So when we get to the hotel, each room's full of water, each room's full of fresh fruit. This might sound counterproductive during weightmaking but the lads should be on their weight. When they get there it's all ready and if needs be we can pop out to the supermarket and get more.

When I travel I get the opportunity to check the temperature of the food in the buffet, we always take a little thermometer with us. We always check the food's cooked and it's hot. Check that everything's clean. We'll always do our background and do our research.

And eat food sold by the street-side food vendors!

TRAVEL ESSENTIALS

If you're doing long-haul flights it's worth taking your compression stockings. They reduce your recovery time.

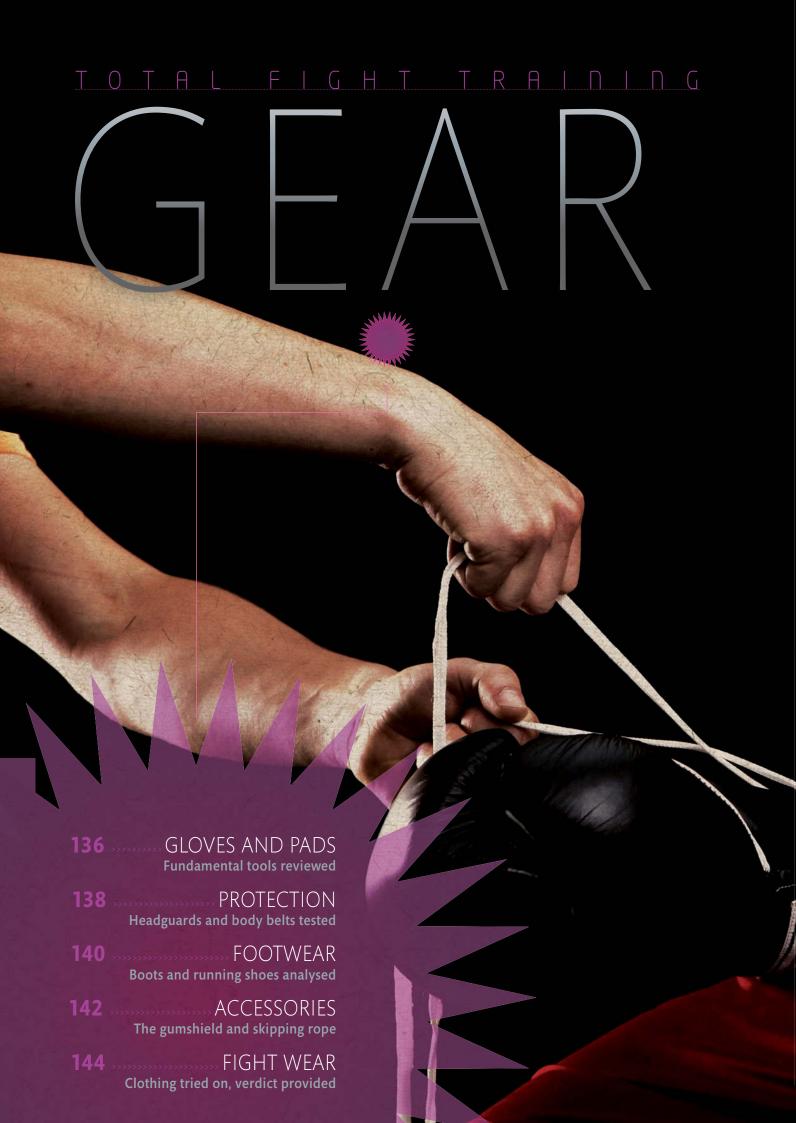
It's worth adjusting your sleep and getting your body clock right before you go. For every time zone you're going, that's essentially going to take you a day to recover. If you're going 12 time zones away, it's going to take you 12 days to recover, three time zones, three days. So try and give yourself an advantage by getting on the right body clock a few days early. So if that means going to bed a couple of hours earlier and getting up a couple of hours earlier, do it so it saves you time when you get there, less acclimatisation.

If it's going to be hot, maybe do some warm work and get used to it.

In the flights you've got the pressure of the cabin and you've got the air conditioning in there. People tend to get dry throats, dry nasal passageways and it's easy to get respiratory tract infections from everybody sharing the same air in a small cabin and getting very dry. So we always insist on the guys having a two-litre bottle of water in their seats to encourage them to keep drinking. Put some flavours of electrolytes in there if it helps them to drink. We'd always take some electrolyte products with us.

From a back-up point of view, we tend to always go for dried goods. Protein's always a problem. If you want to take proper protein, you're taking milk, yoghurt, meat or fish. As a rule it tends to be dry, powder-based proteins. So you've got your recovery there straight away. You've got 20g of protein you can have after a training session to recover your body quickly with some carbs. So if it's either a complete recovery product or you put a bit of fruit with it.

OTHER HOME COMFORTS - Breakfast cereals and milk powder travel really well.







GLOVES AND PADS

Kicking off our review of vital fight training equipment, top super-middleweight **James DeGale** and his coach **Jim McDonnell** look at the things you need to punch and catch

PICTURE: STEFAN JOHNSON/JP BOXING





HATTON LEATHER SPAR GLOVES hattonboxing.com/shop

MANUFACTURER SAYS

Leather constructed outer injection mould design for improved fist formation whilst providing added comfort and protection. Velcro wrist strap for additional support.

DEGALE SAYS

For me the ones tested are a little small but for a smaller hand they seem quite light and offer good protection. The padding is a little stiff so they may take time to wear in.



LONSDALE AUTHENTIC £52.99 SPARRING GLOVES store.lonsdale.com

MANUFACTURER SAYS

Genuine all cow hide leather glove hand made with extra dense resilient inner foam layered mould. Touch and close fastened wrap around elasticated wrist strap for additional comfort and support. Combining the finest raw materials, traditional craftsmanship with the latest foam technology to create the finest sparring glove of the present day.

DEGALE SAYS

They are very light; they feel like you have nothing on your hands. They're well-padded and they support your wrists with these straps.



CLETO REYES UNIVERSAL £190 GYM GLOVES WBCME.CO.UK

MANUFACTURER SAYS

These are made with the best leather and materials with a unique new longer-lasting padding, extra curved fist, new fit cuff, more padding on the knuckle and with a lace and velcro wrap to protect the wrist, plus a new water-repellent lining. This glove is a universal glove and can be used for pads bags and sparring. Reyes are not mass produced and put a lot of effort into research and development. They

are all made in one place – Reyes' own factory – which is almost unheard of.

DEGALE SAYS

They are comfortable and nicely padded around the fingers and knuckles, which you look for in a glove. They look well-made and durable also. I think I'll keep these.



PRO CONTEST GLOVES sugarrays.co.uk

MANUFACTURER SAYS

Cowhide leather. Hand stitched, hand moulded, high-density padding. Made from four layers of hand-moulded foams including two-part Ampro V2 Foam, and two-part A-Foam.The different layers allow for a form-fitting glove, shape, protection and feel. For a glove that is powerful yet protects the hands, with 20mm of knuckle padding.

DEGALE SAYS

These are nice, especially for a lace-up, very comfortable. For a small size – 12oz – I can actually form a proper fist, which is rare.



PRO-BOX XTREME AIR £42.99 HOOK N IAB PADS pro-box.co.uk

MANUFACTURER SAYS

All-leather pads perfect for 'heavy hitters'. A full three-inch-thick pad filled with high-density foam, features a unique central 'Air Chamber' to absorb the biggest of punches. Comfortable padded hand mitt with secure Velcro fastening.

MCDONNELL SAYS

These are blinding – since first testing them I've been using them non-stop. They're not too big or clumsy, they're a great defensive mechanism for the coach because of how good the cushioning is. They are compact and just really nice to use.



RIVAL D30 RPM10 PUNCH MITTS

£140 sugarrays.co.uk

MANUFACTURER SAYS

The RPM10-IntelliShock is the result of a collaboration between our design team and some of the top coaches in the boxing world. These are the first and only punch mitts on the market with the d3o technology. They have: "Super Microfibre" construction; 30mm pre-curved high-density foam; AirFlow Control System; 30mm urethane dome for a better grip; a padded

elastic wrist for a perfect fit and embroidered logos. Their dimensions are 180 mm x 260 mm.

MCDONNELL SAYS

These are a stiffer, more solid pad than the Pro-Box. I feel the shots more with these which isn't great for me but fighters will like hitting these ones more because they'll feel that snap in their shots. Pads for me are not for power.





PROTECTION

Messrs DeGale and McDonnell move on to headguards – that stop a boxer getting cut – and body belts, that provide a realistic target to aim at while shielding a trainer from a pounding

PICTURE: STEFAN JOHNSON/JP BOXING





HATTON PRO LEATHER HEADGUARD shop.hattonboxing.com

MANUFACTURER SAYS

Improved fit and includes cheek protector. Padded to the front and sides with lace fastening at the rear and d-ring studded secure fastening padded chin strap. Printed Hatton wings logo on the front.

MCDONNELL SAYS

Head guards for me are simple – they are to stop fighters getting cut.

This one looks like it has good protection, will last a long time and does not compromise peripheral vision.

LONSDALE SUPER PRO £44.99 FULL FACE H/GEAR store.lonsdale.com

MANUFACTURER SAYS

Chin padding design delivers unparalleled security to the front and underside of the jaw, while additional padding around the ears and on the forehead increase its overall protection. Genuine leather constructed and implements a hook and loop rear closure for a snug fit. Key features: adjustable top lace

closure; hook and loop rear closure; geniune top grade leather outer; shock absorbing padding; padded chin and an M-Core wicking material inner.

DEGALE SAYS

The best thing about this is that it's light so you don't feel it weighing you down. On the negative side it moves around a lot on your head and the chin strap may not be in the right position.



LONSDALE HEAVY-HITTERS £99.99 TRAINERS' VEST store.lonsdale.com

MANUFACTURER SAYS

The ultimate shock-absorbing coaching aid. As the name indicates this is the most heavy-duty coaching tool yet. Universal fitting constructed with extra-thick, layered super-shock-absorbing padded inner, with heavy-duty finest quality synthetic outer. This guard has been designed to deliver the ultimate protection from body shots using a unique colour-coded wrap-

around leather strap system with reinforced stitching and studs, hug the body of the trainer, ensuring the punches do not penetrate the guard.

MCDONNELL SAYS

It's light, it's compact, it don't restrict your movement. The gaps on either side mean you don't feel 'strapped in' and if you were doing pads as well, you could move better in this than the AmPro one (right).



AMPRO IMPACT GEL £65 FULL FACE H/GUARD sugarrays.co.uk

MANUFACTURER SAYS

A mixture of foam padding with a Gel lining for a comfortable and shockabsorbing headguard. The form-fit headguard contours to the shape of the head, with minimal room to move for a secure fit. Well-padded cheeks, forehead, chin, ears and back for superb impact protection and coverage. Double Velcro back allows for easy on-off access with a leather and elasti-

cated top, to ensure good adjustment. Adjustable Velcro chin strap, to help keep the headgear in place. Genuine leather for durability. Has cheek quards and chin protection.

DEGALE SAYS

It's a better fit for me than the Lonsdale but it's a bit bulky and I'm not sure if I'd want to spar in it. Saying that, the level of peripheral vision is really good.



AMPRO PRO GEL BODY PROTECTOR

£85 sugarrays.co.uk

MANUFACTURER SAYS

The most comfortable, protective and anatomically correct coaches' guard available. Almost three inches of contoured multi-layer special cell padding for shock absorption with more than a half-inch of encased Pro Gel target areas for further shock absorption. Complete with moisture wicking inside liner to help keep cool and dry during training. Features completely

adjustable webbing neck, shoulder and cross back adjustable fasteners for the most comfortable fit, with Pro GEL shoulder pads to help hold the coaches' protector in place.

MCDONNELL SAYS

It feels quite compact, there's good protection for the trainer and it's nice and light so you can move a lot in it. One of the better body protectors I've tried.





BOOTS

Until you get serious, training and sparring in trainers is okay but to advance to a higher level a good pair of boxing-specific footwear is essential. DeGale tries a couple of the options

PICTURE: STEFAN JOHNSON/JP BOXING

ADIDAS BOXFIT 3 BOOTS

£80 - boxfituk.com or sugarrays.co.uk

MANUFACTURER SAYS

Lots of cushioning and support underfoot, and an easy and quick lace system with mesh ventilation to keep you cool in the ring. Rounded medial outsole contour. Perfect grip for wide sidesteps. 3D, open weave, warp-knit mesh for high breathability. Three stripes of synthetic material for lightweight support. Low-profile and non-marking gum rubber outsole for improved ground contact.

DEGALE SAYS

These look good and are light. I quite like ankle boots for training as they allow more movement while a longer boot would offer more support in a fight.



NIKE MACHOMAIMID BOXING SHOES

£90 - sugarrays.co.uk

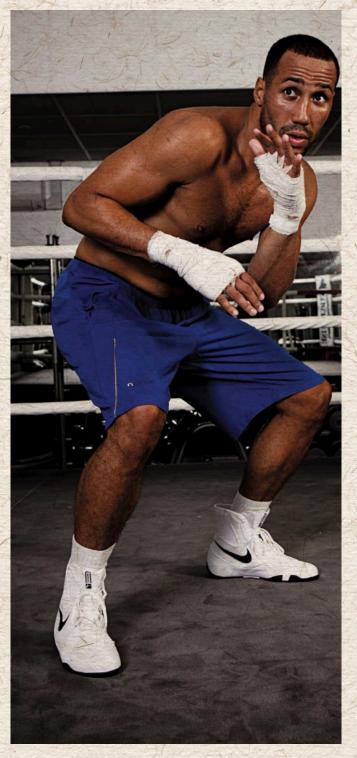
MANUFACTURER SAYS

Designed to maximise today's elite fighters for quickness, agility, maneuverability and speed. Super nimble and flexible gum rubber outsole made for control, traction and power pivots in all ring conditions. Stylish, tough and incredibly lightweight phylon base with professionally inset nylon trophy air quick mesh that allows shoes to breathe and virtually eliminate moisture absorption. Complete with unique easy on-off inter-locking lacing system, flexible comfort tongue and embroidered outline dazzle swoosh. The ring shoes of choice for former world champions Manny Pacquiao and Oscar De La Hoya.

DEGALE SAYS

I really like these boots. They're light which is hugely important in a boot, I've got flexibility, traction and they look nice and fresh too, so they win on all counts.







RUNNING SHOES

All fighters do some form of roadwork; most do several. Marathon runner **Neil Featherby** explains what to look for in a running shoe for different purposes and recommends three



HILST running shoes are designed for running, there are variations for specific types of running shoes. Road-running requires a shoe that has highly protective midsoles so as to cushion and disperse high

impact which can be anything from two-to-five times our bodyweight upon foot strike, whereas lightweight shoes for speed work and interval sessions on the track give improved performance by way of weight reduction and forward motion. Likewise rugged shoes designed to meet the demands required for off-road and hilly runs require more ground control, protection and stability.

TRACK SHOES

WHAT TO LOOK FOR

Lightweight racing and natural-type running shoes are perfect for track and speed/interval sessions through the low-profile midsoles. However if the firmness of the track/race shoe doesn't appeal, then some of the natural shoes do have a more responsive midsole which may be a better option.

WHY DO I NEED THESE SHOES?

Race-type and minimal shoes not only feel great, but also help provide a great feel under foot and toe, particularly where speed and high tempo are required. These types of shoes also allow the foot to move more freely forward in a natural movement through the low-profile midsoles. However novices and those of a heavier weight should use a little caution due to a reduction in shock absorption and heel drop.

ONE TO TRY

The **Saucony Virrata** meets all the requirements in terms of weight reduction, natural foot movement and feel underfoot as well as offering substantial protection and responsiveness particularly for the first-timer.

RRP £90

en.saucony.co.uk

HILL AND OFF ROAD RUNNING

WHAT TO LOOK FOR

Whilst running in the hills – such a great way to develop strength and endurance – always look for a shoe that hugs the foot with a fairly robust upper and reinforced toe section, a low-profile midsole for increased stability and plenty of grip underfoot from the outer sole.

WHY I NEED THESE SHOES

Shoes that are specific for hills and fell-type running will provide far more grip and traction through the studded outer sole along with a reduced risk of ankle sprains from the low-profile midsole. The strong uppers will also help reduce any sideways movement and toe bruising from the reinforced toe bumpers.

ONE TO TRY

The Mizuno Wave Harrier 3 is a great shoe offering superb grip and traction in the hills whatever the conditions. The low-profile midsoles also allow for excellent contact with the ground which helps increase the stability of this shoe.

RRP £85

ROAD RUNNING

WHAT TO LOOK FOR

My advice is to go to a specialist running retailer who can advise you as to what type of shoe you require as there are three basic types: neutral shoes for those with no biomechanical issues, support cushion for those that require a little extra medial support and motion control to guard against over-pronation (excessive rolling of the foot inwards).

WHY I NEED THESE SHOES

A good-quality road-running shoe offers superb cushioning and shock absorption from the special materials that are built into the midsoles which help disperse the high impact (ground forces), each time the foot makes contact with the ground whilst running. Many of us will also require extra support built into the medial side of the midsole which certain models provide, hence why we should seek out a specialist running retailer who can provide this information.

ONE TO TRY

For the neutral runner the **Brooks Ghost 6** offers fantastic cushioning and shock absorption whereas the **Asics Gel 1000** offers the same properties along with extra support for those with over-pronation. If you want something for motion control, the **Saucony Grid Omni** gives fantastic support for the very moderate-to-excessive over-pronator whilst still retaining the cushioning of a lighter weight shoe.

Ghost 6 RRP £105 Gel 1000 RRP £90 Grid Omni RRP £100 brooksrunning.co.uk asics.co.uk en.saucony.co.uk

NEIL FEATHERBY

Neil Featherby runs Sportlink running and fitness specialists and has represented England and Great Britain as a marathon and ultramarathon runner.



ACCESSORIES

Two more vital – but inexpensive – ingredients for anyone training like a fighter are a skipping rope and a gumshield. DeGale gives the rope a go, while we offer some mouthguard tips

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DEGALE SAYS

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MANUFACTURER SAYS

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PICTURE: STEFAN JOHNSON/JP BOXING





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DEGALE SAYS

They're light and I can retain good movement in them. Fashion-wise they're too bright and bold for my taste but they feel good to train in.



2XU PWX ELITEL/S COMPRESSION TOP 2xushop.co.uk

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DEGALE SAYS

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It feels good on you, you feel sleek and fast and obviously it has plenty of henefits





2XU PWXCOMPRESSION TIGHTS 2xushop.co.uk

MANUFACTURER SAYS

Using PWX Flex to deliver optimal flexibility and movement; high power denier to support hamstrings, quads, abductors, gluts and calves; reduced muscle fatigue and damage; graduated fit promotes increased circulation for faster recovery; Flatlock seam construction; UPF50+ sun protection; antibacterial; moisture wicking.

DEGALE SAYS

They'd be a struggle to force on every day but once you've managed that, they are loose and so light it feels like you've got nothing on.



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This is made from quick-drying cotton and uses UA Storm technology, so water rolls right off. It's light so can be used as either outerwear in the spring or an extra layer in the winter. The fit is a slimmer athletic cut that delivers better mobility by eliminating the bulk of extra fabric. UA Storm gear uses a DWR finish to repel water without sacrificing breathability. Charged Cotton has the comfort of cotton, but dries much faster. Lightweight 230g fleece has a smooth outer and a soft, brushed inner to trap warmth. Signature Moisture Transport System wicks sweat away from the body. Mesh hood liner for added breathability.

DEGALE SAYS

It's light, which is good because normally hoodies are too big and bulky to train in. It's quite plain too so should be to a lot of people's tastes.



148GB BOXING We visit a centre of excellence

154 MMA MECCA Jackson & Winkeljohn's Academy

160 WILD CARD BC

Freddie Roach invites us into his gym





CENTRE OF EXCELLENCE

John Dennen visits the GB amateur gym in Sheffield to find out the secrets of their success

PICTURES: BRIAN ROBERTS



HERE is something special about the GB boxing gym. Its wide halls and cutting-edge equipment exhibit a cool professionalism far removed from the grit and grime you might expect of amateur boxing.

This facility in Sheffield could well house the best boxing gym in the world. The level of its scientific support is unparalleled. The English Institute of Sport, the EIS, provides them with experts in all aspects of their training, from physiotherapy to psychology, from performance analysis to lifestyle advice. Even a physiologist, new to the programme and rare for boxing, has come on board.

The system has brought results. Britain topped the boxing medal table at the last Olympic Games and the team went on an unprecedented medal-winning run in the years building up to London 2012. While the boxers had to get the job done in the ring, their support from the EIS experts and the GB coaches all contributed to their fractional gains in performance. In international amateur boxing, where the margins can be so tight, that proved crucial.

The boxer is at the centre of the programme.

The Podium squad, the elite team, are at the facility in Sheffield four days a week, training three times a day.

The boxing coaches will take them for their morning running session usually on the indoor track they have up there. The strength and conditioning coach feeds their daily routine into the individual routines he sets.

Their physiologist will monitor the boxers to ensure they're experiencing the required levels of intensity.

Mid-morning they'll be in the strength and conditioning gym. Each boxer is entrusted with a personal routine that he goes through after their warm-up. This workout usually centres round hip, back and chest strength, and jumping or quick, reactive exercises. The boxers for example might be jumping hurdles and face a fiendish array of weighted pull-ups amongst their other exercises.

In the afternoon they have stints in the boxing hall for sparring, pads, bag work and more. Written on the whiteboards in the gym for each athlete are the goals and areas of focus as well as requirements for that particular session. The boxers are staggered in small groups so they come under close scrutiny from the team of coaches.

"The boxers have been magnificent in the last four years, they've really delivered. We have the talent in the UK," says performance director, Robert McCracken.





IAN GATT PHYSIOTHERAPIST

I've always been an advocate of what we call injury management as opposed to injury treatment. What that means is we're always trying to promote a lot of the preventative stuff and the only way to do it is to work as a group, as a team. In a typical day me and the other physio [Charlie Steggles] will be discussing what we need to do, but also discussing with the rest of the team, so it could be the nutritionist or the psychologist, anything that will impact on the injury in such a way that will help it. More importantly since the Olympics our promotion is for a very independent athlete. We want them to be in a position where they can self-manage. That frees time to look at bigger projects to try to prevent things. So maybe if we're talking about running injuries, we're looking at what sort of shoes we need. If we're talking about glove quality, then we see which are the best gloves. There's a lot of work at the moment to put structures in place.





POWERHOUSE: THE GB GYM HAS PRODUCED A STREAM OF MEDAL WINNERS, INCLUDING WORLD NO. 1 ANDREW SELBY



KATHRYN STUART PERFORMANCE ANALYST

We have a computer database which has got all the boxers from all over the world. So I think on record we've got about 70,000 boxers. Some of those we won't ever face but we've got information on them, just in case. We know what they've done, where they've been, who they've boxed, what their win rate is, all that sort of information. At tournaments my role is to film every single bout, not just GB. Then with those bouts we put them into the database. So then say Som Maxwell was going to face Vasyl Lomachenko, we'd type in Lomachenko and all of his previous results would come up on our database with the videos. I sit down with the coaches and tell them the information I know, what kind of stuff Lomachenko does in the ring, where he maxmises his efforts, what kind of combinations he likes to throw. The coaches will tell the boxer the tactics for the bout. When I'm back in the office, I try to find common trends for boxing as a whole.



"We don't have the numbers, that the Russians and the Ukrainians and the Cubans and the Kazakhs and whatever have, for sure we have a smaller pool of boxers but we have a talented pool of boxers and it's our job to try to identify them as quickly as possible."

Where the programme impresses so much is how the diverse departments combine to form a harmonious whole. For example, the physio and S&C coach will work together to deal with an injury, the performance analyst provides information for the coaches, the physiologist will furnish the nutritionist with the data that he needs.

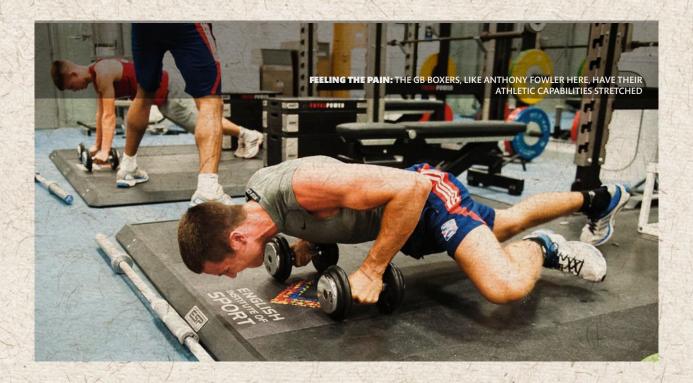
Since joining as performance director in late 2009, McCracken has shown he has the skills of an expert manager. One of his great successes was empowering each of the elements within the support team. It allowed them to get on with their jobs and encouraged them to interact with one another and the coaches. It worked.

"I understand that I have skills but in other areas I'm not up to date or as skilful as a strength and conditioner is with strength and conditioning," McCracken says. "We've had some tremendous coaches here, too many to mention. Dave Alloway, Lee Pullen and Paul Walmsley have been fantastic for GB, tremendous at tournaments in the far corners of the world, here, there and everywhere, and they sealed it in London with a brilliant Olympic Games.

"Nigel Davies has moved on now, he's in Holland and hopefully he'll do well in Holland."

McCracken had to handle the change in his own role, from being solely a trainer to a performance director as well.

"It's very different because you're dealing with a lot of people. You're dealing with lots of boxers, you're dealing with lots of staff and you're dealing with the administration side of things, you deal with different organisations. So things changed a little bit. Derek Mapp was an absolutely brilliant chairman, he was there for the boxers and he backed the boxers 100 per cent. Everything was put in place for the benefit of the boxers," said McCracken.







THE TEAM BEHIND THE TEAM MARK CAMPBELL S&C COACH

You're treating them like athletes, rather than looking at them purely as boxers. We get them to move better. We challenge them. Obviously a lot of trunk strength, obviously shoulder stability is what the warm-up is based on. Then just key strength exercises through the bulk of the workout when they work independently.

Strength training is an auxiliary to what they do. It also enhances other parts of their conditioning, such as their running.

You want to be nice and consistent so the athletes get familiar with each of the exercises. I tend not to vary the base exercises too much because I want to them to get to a level and I want them to push beyond that level. There are key things: it's hip strength, it's back strength, there's pushing chest strength and some sort of quickness, reacting, like jumping, jumping over hurdles. Something that delivers that force quickly.

They've all got their own individual programmes. It also educates the athletes and gives them a focus for their sessions. Once the warm-up's done, they just run their own session and go through what's written on the sheets.

The first thing you focus on is what's going to make them better boxers. It's not how much weight they can lift, it's making sure they can box harder, train harder in the boxing ring.

I'm a big fan of doing press-ups with absolutely perfect technique, chin-ups with perfect technique, learn how to squat, so you can move well. Learn how to lunge and make sure you've got really good trunk control. Sit-ups are fine but things like planks and side planks, anything where you're challenging it to be strong, perfect technique is paramount.

It's about doing it consistently and doing it in control.







LAURA NEEDHAM PHYSIOLOGIST

The main thing is giving the coaches numbers on things. So if they are doing a session and they want it to be a hard session and really push the boxers, how do we know they're pushing themselves to that limit? We can give them clarity and numbers on it. We'll be able to have a live feed so when the guys are sparring they can wear a strap and we'll be able to see their heart-rates live. See how hard the sparring partners are, is that sparring partner pushing them hard enough, is there another way we can get the adaptation response?

That's the thing with physiology, it ends up in a lot of disciplines so it fits in with everyone.

Nutrition, we're looking at weight-management and the stress that puts on the body and how we can minimise that. In competition, we're looking at things like, what are we doing between bouts to optimise that time period. It's a really successful programme and all I want to do is facilitate the process. It will be looking at if there's a problem, is there anything we can do to help? In the training environment we test it first before we take it into competition.



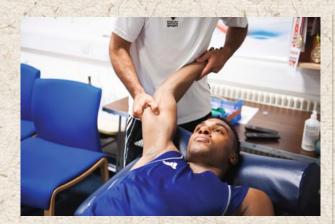


CHRIS MARSHALL PSYCHOLOGIST

With every single boxer, after a competition they'll sit down and we'll thoroughly debrief the competition. A big part of my role is that debriefing process with the coaching team, with the aim of looking to set their goals for this next period of time. So their training is relative to what they need to work on to improve for competitions. Learning is probably one of the only sustainable advantages that we've got. A lot of countries now have sports science and medicine. The coaches we've got in Great Britain are some of the best in the world. However we've got to help our athletes learn as quickly as possible. It is a coach-driven thing. A coach always knows what I'm working on with an athlete. It helps me bring sports psychology into the gym.

In the months preceding a competition it is around learning and developing but then it can be very bespoke with each of the athletes. So it might be with one athlete we're looking at particular strategies for maintaining focus during competition and also during training. It also might be that we're looking at particular strategies on confidence with certain athletes.





I think modern, I think there's always stuff to learn. My take was we get the best people in here in their field and we incorporate them with boxing and what we need them to do and we become boxing-orientated."

"My job was to identify who I felt were the best people for those positions," he continued. "The relationship with the English Institute of Sport has been a very positive one.

"I think the key to it is allowing people to do their jobs... We come in, we have a plan, we discuss it and they crack on with it. They've done a great job over the last four years."

The communication between the different departments, the different members of the support team and the

coaches continues on a weekly and daily basis. "You can't do without the physio because if they're injured they can't box. You can't do without the nutritionist because he gets their diet correct, he's a boxing-orientated nutritionist," said McCracken.

"You can't do without the performance analyst because they show you the opposition you're boxing, they're able to work with you on pointing things out. You can't really operate without the strength and conditioner because he prepares them physically and we work on a plan with him that we're all in agreement with, me and the coaches. There's lots to it. The psychologist's very important. I can think of one boxer in particular, psychological work worked massively with him. He was losing his way a little bit and the belief was leaving him. Sometimes it's not always a boxer-coach thing, sometimes you need them to speak about different things. The doctor, Mike Loosemore, is vital here. You can contact him every day, he's in here every week. The people that help run the organisation like Matt Holt [chief executive] and Laura Ross [logistics manager] are vital to the success of the programme.

"They all have a role to play, they're all part of the success of the programme. They understand boxing. They're all equally important because they all have huge roles to play in a boxer's career."

The resources they have at their disposal can't be overlooked. But, as with all gyms, it's the people who make the programme tick.

THE TEAM BEHIND THE TEAM

MARK ELLISON **NUTRITIONIST**

The overarching umbrella is it's coach-led, athlete-focused. So the coaches lead the programme, we're here to support them. You've got the S&C coaches as well, nutrition supports them. We're supporting everybody. We put the diet around it to support whatever the goals for that phase are. Physiology, they monitor the effectiveness of that. There's overlap around injury strategies with the physiotherapist. I can tell the guys what to eat. I can give them a strategy, I can give them a plan, I can't make them do it. Getting the psychology guys involved to address motivation at times, little tricks they can use to remember and prompt them.

Each month we tend to do shopping and cooking classes, normally on the Development squad.

The delivery meals take control of every detail of your diet. That's what you want before a competition, you don't want to stress about what you're going to eat or what you're going to cook, It doesn't educate you and that's what we need to do.

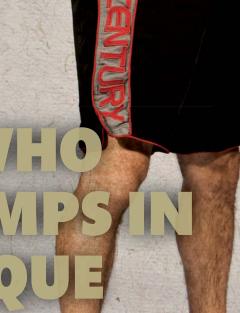
When you look at some of the close bouts we've had, if we can make that tiny bit of difference it all helps.







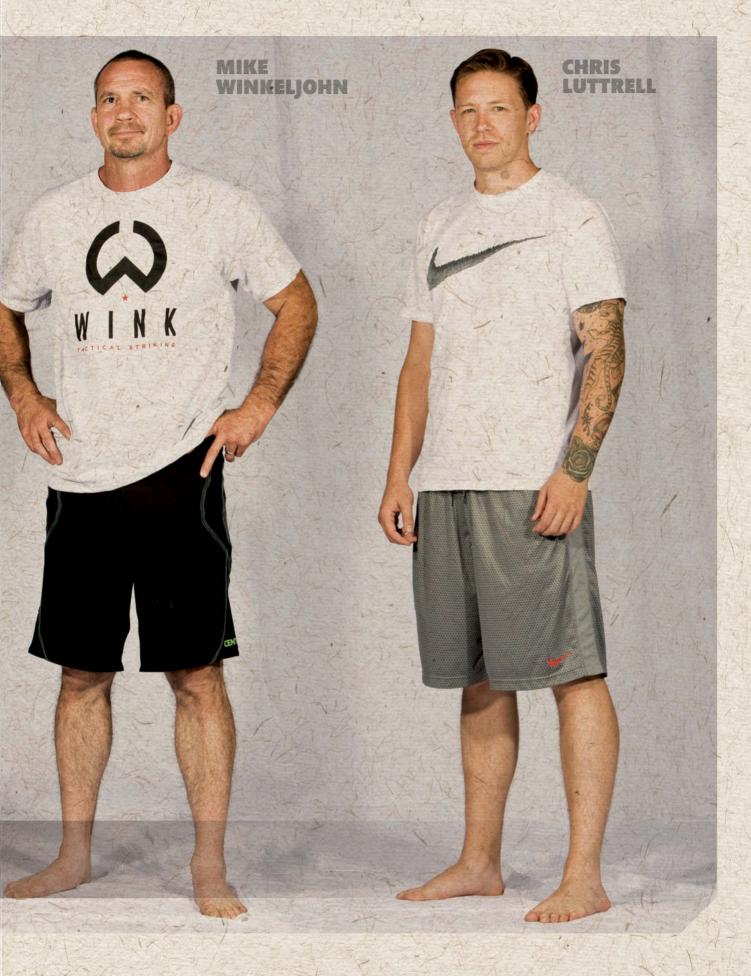




Located in the heart of New Mexico, Jackson's and Winkeljohn's MMA Academy has become synonymous with the sport of MMA. The partnership between Greg Jackson and Mike Winkeljohn has helped forge a Mecca for fighters from all over the globe, writes Matt Freeman

PICTURES: ANDREWDEMATTOS.COM











993 saw one of the greatest shifts in martial arts, profoundly changing concepts of hand-to-hand fighting. That year the inaugural Ultimate Fighting Championship crowned its first ever tournament winner, a slightly built Brazilian named Royce Gracie.

In that same year, a similarly young and unassuming young man by the name of Greg Jackson opened his first gym in Albuquerque, blending a style of wrestling and street-fighting into a formidable art called 'Gaidojutsu'. Whilst separated by thousands of miles, the Gracie family and Greg Jackson had come to similar conclusions about the notions of self-defence and fighting. The Gracie style of fighting planted the seed for MMA, influencing and changing a whole generation of martial artists. Greg Jackson, along with his mentor and striking coach, Mike Winklejohn, would go on to train some of the best and most successful MMA fighters and champions in the history of the sport.

Growing up in Albuquerque, Greg Jackson quickly learnt that being able to defend himself was a key life skill. An impressive high-school wrestler, Greg began to blend ideas from judo, wrestling and his experiences in street-fights. Soon he gained a reputation for his ideas and began training students whilst just 17 years old. As MMA and grappling competitions began to grow in popularity, Greg found he was teaching and training his students to success over and over again. By 1995, Greg had

been introduced to Mike Winklejohn, a former kickboxing champion. Both were interested in what the other could offer and a friendship and partnership was forged that has produced one of the finest gyms in MMA today.

MEETING OF MINDS

A three-time world kickboxing champion, it was Mike Winklejohn's meeting with Greg Jackson that helped the gym in Albuquerque become as successful as it is. "I was at the end of my Muay Thai career when I met Greg. I'd started wrestling with a buddy of mine when I was introduced to him," explains Mike. "Greg was this kid way beyond his years, living in the back of his gym. He was really competent in grappling and had this ability to watch and learn techniques and then play with them and adapt them into new moves and figure things out. So I worked with him on the stand-up and he worked with me on the ground game. That was in 1992 or 1993 I think. I had my own kickboxing school and Greg had his grappling school and we started training guys together," remembers Mike of the early days.

However, that meeting of minds came from some very similar experiences. "We both had to fight in the streets for different reasons but what it taught us both was the value of martial arts to society and how it can help people."

For Greg Jackson, the influence of Mike on his own training and for his students has been invaluable and one of the main reasons for their success in MMA. "Winklejohn has taught me the most about martial arts, along with



my father. What Mike allowed me to do was become a generalist. I was pretty good with the wrestling and the grappling and he made me good with the kickboxing. It allowed me to become one of the few generalists in the sport at the time," Greg reveals. "Mike is my mentor, my big brother but also my instructor. He basically put the last piece of the puzzle for me together, which was really cool."

Having trained together for nearly 20 years, the working partnership combined with their friendship makes the gym one of the best in the world when it comes to learning MMA. "It is such a smooth operation because Mike was kind enough with all his knowledge to allow me to be a generalist."

It has also allowed the two men to understand the game from both points of view in such a way that they can work on all areas with their fighters. "There's a lot of give and take with Mike and I. He has a lot of good insights into the ground game. We're both involved in all the aspects now," says Greg, acknowledging that their shared passion for the sport and their ability to share their knowledge has resulted in both becoming true mixed martial artists.

CULTURE OF INNOVATION AND RESPECT

At the gym in Albuquerque there are two very important factors for a training centre packed with so many high-profile athletes. Respect for other athletes, for the coaching staff and for oneself is key. "All the fighters come to the classes we run throughout the week. So, we have wrestling classes, sparring, BJJ, striking classes and within those classes the instructors will direct aspects towards a certain fighter's camp and their specific opponents," Winklejohn explains. With such a large stable of pro fighters in the gym, and nearly all taking extra privates with certain coaches, the organisation of the Academy is run on a fairly relaxed basis. "I'll work with the higher profile



fighters, those guys in the UFC or Bellator," says Greg Jackson. "Priority is always given to those guys with fights coming up. But each coach will work with the fighters that they have a rapport with and who they feel they can help."

But, along with the coaching staff, the rest of the team will step in to help out an athlete with his or her fight camp. "We expect our fighters to help each other out," Mike states, adding, "Both Greg and I will notice if a guy volunteers to be an opponent and be willing to help and put the extra time in. We'd be more willing to then help and work with that guy in the future."

Jackson echoes all the same sentiments. "It's a very positive place. We're not going to be screaming and yelling at you. We're here to motivate you," Greg says. "We set a culture. It's one of innovation, one of risk where risk

"It taught us both the value of martial arts to society and how it can help people"







THE OTHER GENERALISTS

CHRIS LUTTRELL: A member of the Albuquerque Police
Department, Luttrell was one of the first Gaidojutsu blackbelts
to come out of Jackson's & Winklejohn's Academy. Having been
training and teaching with them for over 15 years, Luttrell works
with all level of fighters from amateur up to the likes of UFC
welterweight Carlos Condit and UFC heavyweight Frank Mir,
primarily working on their all-round MMA game.

MIKE VALLE: Known for his 'flow style' of striking, Valle has adapted his Muay Thai and boxing skills for the MMA game. Working the stand-up aspect with fighters such as Donald Cerrone and Travis Browne, both UFC competitors, Valle is a major part of the Academu.

ISRAEL MARTINEZ: Brought to the Academy when Clay Guida made the move to Albyquerque, 'Izzy' Martinez coaches the wrestling game to all the top-level pro athletes. A decorated high school wrestler and now a high school coach, Martinez has been praised for his work with Jon Jones, Carlos Condit and the rest of the UFC standouts at the gym.

BRANDON GIBSON: A former student of Mike Winklejohn and an amateur kickboxer, Brandon concentrates on the striking game in the gym. Working across all the ranges from amateur to high-level pro, Brandon has become an excellent striking coach.

is rewarded and one of trust. You could leave \$5 on the floor of the gym and it'll still be there when you come back. All the fighters are there to help each other and I think it sets up a good culture, and one that attracts people. You know, it's a fun place to work. You have to push yourself to the limit but that's a lot of fun. So, if there's a great place to work and it's a lot of fun and you're having success, why wouldn't you train there?" Greg asks.

"'Iron sharpens iron' is a factor but we haven't been made on the success of one group of fighters. We've had generation after generation come through here and I think it is that culture that is the real secret."

It is also a place where innovation and hard work go hand in hand. Both Greg and Mike expect their fighters and students to give 100 per cent. They expect athletes to push themselves and each other but also to seek to learn new things and try out new ideas. Each fighter is a martial artist, with the emphasis on art. Each athlete has their own style and their own physical attributes to bring to the game and are coached and supported as such.

"I'm self-taught so by necessity I'm innovative," says Greg. "It helps to get guys to think about different ideas and approaches to certain problems."

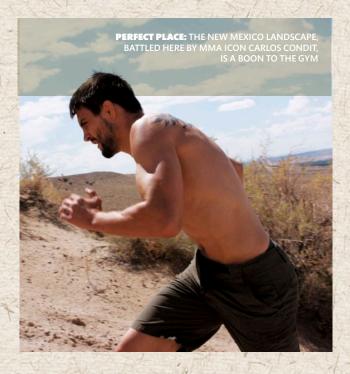
NETWORK AND STRATEGISE

Jackson and Winklejohn's training partnership is just the tip of the iceberg when it comes to sharing information. Both coaches are keen to learn and develop their art and there is no greater way to do that than by networking with other highly respected instructors. A loose affiliation has been forged between the gym in Albuquerque and two other well-respected training centres. Tristar in Montreal, Canada, is home to UFC welterweight champion Georges St. Pierre, a fighter who has worked with Jackson in the past. Firas

Zahabi, head coach at Tristar is another innovative and insightful coach with a large stable of successful fighters. Trevor Wittman, head coach at Grudge Training Centre in Denver, is another member of this MMA cabal, one whose background lies in boxing but who has quickly adapted his skills for the rigours of MMA. "Where our gym is different is that there is a lot of strategic thinking. The coaches that have helped me out, and the coaches that have helped Greg out, are the ones who are developing this picture of MMA because of that network," says Mike Winklejohn. "As smart as each of these individual coaches are, put them all in the same room and they start knocking ideas around, we all become much stronger."

Strategising and the ability to develop solid gameplans for their fighters is another important aspect for Jackson and Winklejohn's success. When it comes to preparing his fighters Greg Jackson uses ideas from a number of sources including game theory. "We use an idea called clustering," says Greg, adding, "It is similar to chess in that you put yourself in the strongest position to win by stacking the odds in your favour. This ideal position then branches off into a number of complimentary nodes so you are always giving yourself a number of options."

In terms of an opponent, Greg will emphasise a vulnerability to attack. If the opponent is weak on the single-leg takedown, Greg will highlight this area. Should it be defended, Jackson will have a number of options to change to, in this instance, the body-lock takedown or the double-leg run-through. Clustering is all about stacking up the options so that if plan A fails, plans B and C are already in place. This is the basis of the game-planning as Greg goes on to explain. "Game theory is integral to our approach to opponents but, in terms of application, Sun Tzu's idea that 'if you know your enemies and know yourself, you will not be imperilled in a hundred battles' is a solid approach to fighting. Knowing your strengths





THE FUTURE OF JACKSON & WINKELJOHN'S

Currently home to UFC light-heavyweight champion Jon Jones and a whole raft of top 10 competitors across all the weight categories including such veterans as Diego Sanchez and Andrei Arlovski, the gym is a breeding ground of talent. "The thing is I've got a lot of guys with a lot of potential. However potential is common now. There are a lot of great athletes coming through now but there are so many factors and parameters for those guys to get to the upper echelons," explains Greg. But, here are a few names to look out for in the future.

JOHN DODSON:

"The first name to my mind is John Dodson. He's already fought Demetrius Johnson [UFC flyweight champion] but I expect him to be champ," Winkeljohn says. The 28-year old UFC flyweight is currently ranked third in the world with a record of 14-6.

TRAVIS BROWNE:

The Hawaiian heavyweight currently competes in the UFC and boasts an impressive record of 14-1-1. "Travis is one of those guys that could be fighting for the title in a few years. He's a great team leader," says Winklejohn of the 31-uear old.

NICK URSO:

Whilst relatively young in the sport, with a record of 5-1, Nick Urso has impressed Winkeljohn in the gym. "He fights at 125lbs and just the other day he and John Dodson were going at it. The speed is incredible. They're two of the fastest human beings in the sport."

RUSTAM KHABILOV:

Hailing from Dagestan, a federal subject of Russia, Rustam is a Sambo champion holding a record of 16-1 in the UFC. "I think guys like Rustam are the future of the sport. They're really good at everything and able to fight in all areas," says Grea.

and preferences as well as your opponent's strengths and weaknesses is at the heart of combat."

ENVIRONMENT

Whilst many gyms will boast of the facilities on offer, Jackson's and Winkeljohn's has something unique. Of course, their gym has great equipment including boxing rings and an MMA cage, wrestling mats and heavy bags but it is their location which both coaches think makes the difference. "Albuquerque is at altitude so that definitely helps. It's great for the fighter's breathing capacity and oxygen-carrying capacity when they go down to sea level and compete, but then they also have no worries when

they go to fight at high altitude places, such as Denver," Winkeljohn explains.

Greg agrees but adds a little more to the equation. "It's the environment for sure but not just the altitude. You have to remember there're a lot of places where you can train at high altitude. Here, it is the total environment. In New Mexico there isn't a lot to do for the fighters other than to train. It's like a desert, it's tough, the air is tough, the animals, everything is tough and strong," says Greg. "It's hot and dry and miserable. You're not in Florida on the beach. There are not tonnes of nightclubs to go party at all the time. It's kind of a palace of war and I think that has a lot to do with it."



AVAILABLE AT WWW.BOXINGNEWSONLINE.NET/APPS/



TAKE A WALK ON THE WILD SIDE

Often acclaimed as the best pro gym in the world, the Wild Card Boxing Club opens its doors to top writer **Steve Kim**

PICTURE: ACTION IMAGES



T WOULDN'T be an overstatement to call the Wild Card Boxing Club one of the most famous gyms in boxing history. You've had places like the 5th Street Gym in Miami, Stillman's in New York and Detroit's Kronk Recreational Center in the past. But this facility, located in

the heart of Hollywood, California, has had as much talent walk through its doors in the past decade as any gym in the world – most notably Manny Pacquiao.

It's not only defined by the fighters who work there, but the man who runs it — Hall of Fame trainer Freddie Roach, who came from humble beginnings to turn the Wild Card into an iconic setting in the boxing world.

FROM AN OUTLAW TO A WILD CARD

Early on during his training career Roach worked at the Outlaw Gym that was owned by actor Mickey Rourke. "Then his advisers told him that he couldn't afford it anymore, so we had to get rid of the gym and he gave me the equipment and told me to find a new location," recalled the trainer. "So I did, I went to the Hollywood/Highland area and I was there for like nine months. But it was really a high-profile area with the big windows, a lot of street kids coming in, skinheads, punks. We fought every night in that gym – and not boxing, either, fist-fights."

Roach laughs as he recalls the unsanctioned bouts. "It was a bad neighborhood. So I decided I wanted to open another gym," he continued. "I remember I didn't have a lot of money, \$10,000 and that's what it cost me when I found this gym, to build a new gym. I was sleeping on my hairdresser's couch at the time and I thank her for that."

Virgil Hill and Marlon Starling, his first two big clients were no longer under his auspices. "I was just training Mickey Rourke," said Roach, who literally had to build the original ring at the Wild Card himself. "I couldn't afford to buy a ring so I built that one by hand. It cost me \$2,000 worth of material and that was the beginning."

That was in the mid-90s and by that time boxers like Michael Moorer, Steve Collins and James Toney were working with Roach. Back then, it was just another





struggling boxing gym fighting to make the monthly rent. Now, on a daily basis it's a live and bustling scene that is filled with world champions, white-collar clients and a cast of characters that you couldn't make up.

THE PRICE IS RIGHT

One reason why the Wild Card is so popular, is that in a city where many boxing gyms charge up to \$20 a day to work out in, Roach has insisted that his gym dues have stayed at \$5 for one day and \$50 for one month.

He explained, "I'm not looking for that high-end audience. I want to make it affordable for everyone. I don't like going out of town and paying \$20 to use the gym. Five bucks I think is a fair price." And despite being pushed to raise his rates, he resists that notion. "I want to create a place where everyone can have fun and get in a workout."

The secret to making a gym profitable – or at least able to keep its doors open – is to have non-fighters coming through and using the facilities with the likes of in-house trainers Sammy Stewart, Ernie Zavala, Pepe Reilly, Marcus Harvey, Marvin Sumudio, Paul Mayorquin and Freddie Norwood. Roach says, "The white-collar people love it, they can work beside a world champion and just be in the same building. But the white-collar people pay the bills and that's why we're able to expand because they're paying well."

During normal regular gym hours you will see worldclass pugilists training for fights right alongside regular civilians looking to burn a few calories. It's not unusual to see a modern-day gladiator and a regular person hitting the opposite sides of a heavy bag during its busiest times.

Some of the Wild Card trainers will alternate through the day in working with their boxers and their hourly clients.





THE FIGHT CLUB

All that said, this gym is still where real prizefighters can come in and get the best work possible. There is perhaps no other gym where you can get quality sparring for flyweights all the way to heavyweights like the Wild Card. Eric Brown, a rising trainer, who works with the likes of Peter Quillin and Paulie Malignaggi, states, "This is the best place to be because of the quality of fighters that come through here. You get great fighters coming from

all over the place. So we get a lot of good work in here. The atmosphere is conducive to getting good sparring and the fighters are up; fighters who come here, they're energised because of the vibe."

This gym has as deep a roster of talent as any in the world. In addition to Pacquiao, fighters like Quillin, Malignaggi, Ray Beltran, Vanes Martirosyan, Ruslan Provodnikov, Denis Shafikov, Alejandro Perez, Brian Viloria, Lateef Kayode and Zou Shiming (among many others) call the Wild Card their boxing home.

Roach opens the doors at 7am and won't close them till 8pm. In between, it's a constant and steady stream of action, which has its two rings being used consistently throughout the day for floor work and sparring. Monday, Wednesday and Friday are the regular sparring days.

"Now, for the bigger fights, we'll do Tuesday, Thursday and Saturday and on Saturday we try and replicate what they'll go through on fight days, even down to how they eat and so forth," explained Roach.

Even fighters who don't come here on a daily basis, will stop by to get in work. It's not unusual for boxers to get in six-to-eight rounds of sparring, but do so having to rotate in and out of the ring. Yes, it can get crowded in here. But the great thing about this gym is that we have all sorts of styles: runners, boxers, punchers, big guys, small guys. If you need work, you'll eventually find it here," said Roach.

On this day, Beltran (who was getting ready to face WBO lightweight titlist, Ricky Burns on September 7) comes in the early afternoon to spar. He says, "I've been here for a while and I believe it's the best gym in the world. Everybody comes here, everybody comes to work out. All the champions or hot prospects that look for sparring. It's always busy, it's always the best sparring and high quality of sparring."

Matt Freeman mentions iron sharpening iron in his MMA gym article; that also seems to be the case here.

s that a couple of years later you see them debuting and getting grow fights. It's a good gym. This is where champions are born."

There aren't a lot of easy days

INTRODUCING ROACH'S KEY STAFF MEMBERS

THE WILD ONES

MARIE SPIVEY She is Roach's righthand lady. She filters many of the media requests that come his way and many of the other administrative duties that come with helping to run the gym smoothly.

ROB PETERS Was brought into the fold by Roach (a long-time friend) to run security for the gym and well, anything else. "I do a little of everything, if a car needs to be moved in the parking lot, I'll do it. Mop the floor, I'll do that, too." He's best known to HBO viewers as the guy who bellows "Pacquiao Timel", to signal to everyone that the premises need to be cleared for a certain Filipino southnow.

ERIC BROWN A long-time fixture at the gym, he came into his own last year by leading Quillin and Malignaggi to world titles. The native of Detroit got his start at the Kronk.

STEVE BANDMAN If you call the Wild Card, chances are it's this guy who answers the phone. On Mondays through Fridays you'll see him perched on the stool nearest the office on the front desk.

GAVIN MACMILLAN The founder of Sport Science Lab, he is now handling the strength and conditioning duties for many of the boxers trained by Roach. With the dismissal of Alex Ariza, he will now be working with Pacquiao according to the trainer.

There aren't a lot of easy days in this gym. You have to be ready to go from the time you step into this place. The bar is so high that you see all these world champions here. That's why when you walk in here, you want to perform your best," Martirosyan stated.

"It's crazy, when you walk in here you feel like there's

spirits of champions going everywhere," said light-

middleweight contender, Martirosyan, who himself was

getting ready for a title bout against Demetrius Andrade over the summer. "Anyone that walks in here feels as

though they can be the next champion - anybody. There's

guys that come here average, you see them work out and

On this day, Roach is on the lower portion of the gym, which for years was a laundromat that went out of business in 2012. It was recently renovated and furnished for the likes of Miguel Cotto (who just recently hired Roach) to be able to work in solitude. "It used to be for washing my clothes," Roach, said laughing, "But now it's for the fighters that need privacy and need exclusive things like working on strategy and so forth. Miquel's the first fighter to work in the gym and of course, Manny Pacquiao looks forward to seeing the gym and I've been bragging about it because it came out so well.

"Ruslan Provodnikov's going to be working out here, as well. So it's going to be for one fighter at a time. We're going to separate everyone unless they can help each other with sparring and if that happens, they'll work together."

HOME, SWEET HOME

Roach is one of the most coveted trainers in the sport. In addition to that, he has other commitments (such as doing colour commentary on fights) that keep him on the road for weeks and months at a time. Have spit bucket, will travel, but it's this place located on the corner of

Santa Monica and Vine that is his sanctuary.

"Without a doubt," he confirmed. "The thing is I have bad days and good days with my Parkinson's [disease] but once I'm here and I have a cup of coffee, everything's okay. Because it's time to get back to work and I don't have time to dwell on my problems. I have bigger problems with my fighters with big fights coming up. I've got to get them 100 per cent ready for the fights.

"That's what I love to do and I'll probably die here." lacktriangle



TILLY EVANS

went through the award scheme and is now an ABA England champion. Qualified GB boxing

EBONIE JONES

to boxing via the boxing England champion. Qualified GB boxing tutor.



FEATHERSTONE

Introduced to boxing through the boxing awards programme at the age of 8 years old. Now 14 and ABA England schoolboy semifinalists. Qualified GB boxing tutor.



SHILLINGFORD

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MATEUSZ ZIOLKOWSKI

Started boxing 4 years ago through the boxing national awards programme, ASDAN CoPE Educational Qualification and NABC Champion. He is also a qualified ABAE young judge. Qualified GB boxing tutor.









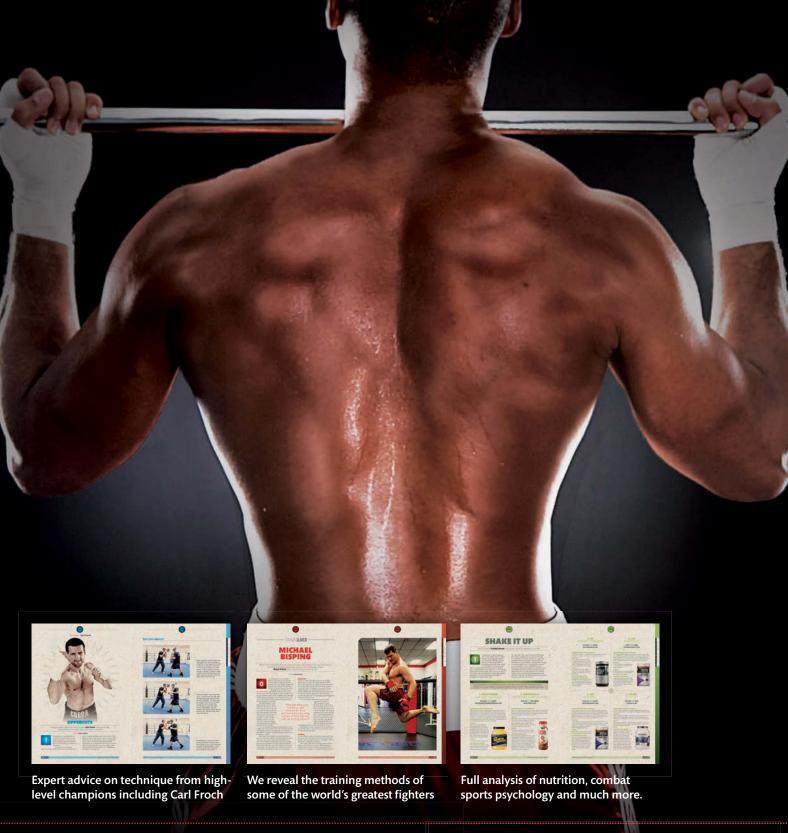












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