

FIGHTING TALK

A MONTHLY COLUMN INTENT ON IMPROVING YOUR COMBAT SKILLS



HOW TO IMPROVE YOUR PUNCHING AND TONE YOUR BODY AT THE SAME TIME

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PHOTOS TAKEN AT **GYM BOX** IN WESTFIELD LONDON

In previous columns I have focused on improving fitness for combat sports. Now it's time for some deeper fighting talk: I'm going to unveil the secrets that will enable you to throw 'bombs' in the ring while improving your shape, technique, strength and speed.

I'm not saying that my advice will make you as fast as Manny Pacquiao or Amir Khan: I would be writing science fiction if I promised that. But it will improve your punching and tone your body.

The first thing to remember is that a punch involves a big kinetic chain that uses far more muscles than you might have realised. It's no surprise that many gyms and personal trainers have deployed striking in the last ten years as a fitness tool—it works so many muscles.

After discussing the mechanics of punching I will give some tips on athletic and physiological development that will further improve your striking performance.

BASICS FIRST

Punching is way more complicated than many people think. Until they try it they don't realise how difficult it is to execute the correct kinetic chain movement. It is all about coordination.

First, you need to learn the stance. Legs are the pillars of success; they can transform a normal punch into a knockout. Without proper use of his legs even the strongest guy will be a weak puncher.

Stances vary according to various

fighting styles and their rules on how you should distribute your weight. But the key points are:

- *Keep your arms bent with your fists protecting your jaw and your elbows tucked in tight to safeguard your ribs*
- *Stand sideways on with your strong side furthest away from your opponent so you can generate more power when activating the kinetic chain*
- *Engage your shoulders and traps to keep a sort of cage around the head*

WHAT TYPE OF PUNCHER ARE YOU?

The way you are built often dictates the way you fight. Shorter, bulkier fighters like to throw more hooks; they need to shorten the distance with opponents and

hooking enables them to attack from different angles rather than from straight on where they can more easily be picked off. Also, they don't have the long levers to generate power from straight punches. Mike Tyson and Joe Frazier are examples of great hookers.

Taller fighters prefer straight punches (jabs or crosses), which enable them to keep shorter opponents at distance. Think how Wladimir Klitschko nullified David Haye, or look at footage of Thomas Hearns.

PUNCHING BIOMECHANICS

Once you get your stance right the key area is your waist. Punching power comes not from the arms but from the rotation of the hips. The more powerfully you engage





your hips and core, the stronger your momentum and the harder you hit.

This is because muscles get stretched, just like elastic strings. They accumulate energy when they are pulled and let it go when released. Your hips transfer your bodyweight from lower to upper body.

The kinetic chain goes through: feet, legs, hips, shoulders and fists. Forearms and biceps play a part too but they are not essential components of the chain.

Once you are in stance, to throw a straight power punch (in boxing known as a 'cross') you must forcefully spin the back leg on the ball of the foot, moving the heel out. This will trigger the chain: the back hip moves forwards enabling the whole upper body to exert force as the back shoulder rotates forwards to help your arm snap forwards (extension), as if throwing a stone. The arm will be packed with the energy transmitted from the legs upwards through the chain.

The cool thing is that the elastic energy the chain creates recharges the opposite side of your body when it is released. This is because when you rotate your hips and foot one way, your other foot automatically moves the other way, which in turn shifts body weight in the other leg too. Shifting your weight this way creates a kind of perpetual motion, thanks to the elastic nature of our bodies.

So remember: for straight punches and circular hooks and uppercuts the key movement is always the same—hips rule!

For hooks, you lift the elbow of your striking arm as the torso rotation begins. You still use the front of your fist to hit but you aim for the side of your opponent rather than the front. Again, the key thing is to keep the kinetic chain to maximise

the transfer of body weight in order to increase power.

PRACTICE

No matter how good you are you need to practise. There are different ways of doing this.

SHADOW BOXING: doing simple and more complex moves in front of a mirror helps to identify flaws and makes you more fluid. The more shadow boxing you do the more automatic real boxing is when it matters. The moves become automatic.

BAG WORK: this enables you to unleash the power you practised in the mirror while getting used to the feeling of resistance and at the same time conditioning your muscles and tendons to impact.

PAD WORK: this enables you to sharpen your accuracy and to execute drills against a moving target that hits back while improving your fitness.

TIP: check if you are correctly executing punches by freezing after throwing one. If your weight has shifted from the leg on the side you have just hit with to the other one, your execution was correct.

CONDITIONING FOR STRONG PUNCHES

SPECIFIC CONDITIONING:

The body produces energy using different aerobic and anaerobic systems. There are actually three systems in total.

- Aerobic system
- Anaerobic lactic acid system
- Anaerobic ATP-PC system

All three systems are used in sport and exercise but one or two are usually more dominant, depending on the intensity and

duration of activity.

Boxing and other striking sports rely more on the anaerobic energy systems due to their intense demands. Intense physical activity leaves you struggling to get enough oxygen into your blood, which leads to the build up of lactic acid. Anaerobic means operating without oxygen.

Hard boxing training will improve tolerance to the build up of lactic acid and increase stores of phosphocreatine, which aids recovery.

Training the ATP-PC system increases the stores of phosphocreatine and therefore delays the use of lactic acid. This is achieved by medium and short intense interval training, such as running or bag work, which puts muscles under sufficient stress to make them learn how to cope.

The aerobic system is less widely used but still needs to be trained at some level to improve recovery during breaks and to keep you moving throughout contests.

To recap, a boxer needs to improve his or her:

Anaerobic system so they can expend quick bursts of energy without lactic acid building up quickly.

Aerobic system to improve the general oxidation of muscles throughout a fight and recover more quickly between rounds.



FUNCTIONAL MUSCLE CONDITIONING

If experience has taught me one thing it is the value of being able to fire jabs continuously. Another thing it has shown me is the importance of having strong shoulders to keep your guard up when fatigue bites your arms.

A few years ago I came up with this exercise that I named 1-5-10 (all rights reserved!). It is based on maintaining the jab under extreme pressure, as well as striking with combinations of different speed and intensity. It is a sort of interval training for the arms, which works all the energy systems and mimics what happens in the ring.

Firstly, choose two combinations of punches. One should consist of three heavy punches and the other of five fast punches. Then choose two acoustic or verbal signals to indicate each one. A coach or timer calls out either combination with pre-determined or random time intervals in between.

Do the three-punch combination five times in a row; do the five-punch combination ten times in a row. Once each combination is finished, resume the jab until the next combination is called. Keep going until the end of the round(s).

Your shoulders will be on fire but it provides good functional stress. After four weeks your punches will fly and your shoulders will suffer less.

ATHLETIC CONDITIONING

My first article discussed general fight conditioning. Now let's look more specifically at ways of developing power.

You can do this by exercising the muscles you use when punching. It's best to do this in specific sessions during the first phase of a periodisation programme.

This muscular conditioning will support later stages of your programme when these drills are utilised in circuit routines.

Do the following exercises for anything from 15 seconds to three minutes, depending on your training phase and which muscles you are targeting.

MEDICINE BALL SLAMS OR THROWS

Throw or slam the ball with both your hands against a wall, the floor or a partner standing opposite. Engage your core and legs and extend your arms explosively. Catch the ball as soon as it returns and repeat until time is up.

KETTLEBELLS

Kettlebell swings are the first and basic exercises to use but any dynamic drills will exert stress on the area that generates most power for punches: the legs. Kettlebell exercises also teach our bodies how to thrust the hips to generate power and transfer body weight from legs to upper body.

BARBELL ARM EXTENSIONS

This old exercise involves holding a barbell at chest level then firing your arms forwards as if you were throwing the barbell away from you. Do not fully extend your elbows. Return the bar to your chest and almost lock the elbow. Repeat at the highest possible frequency.

OLYMPIC BAR SINGLE ARM EXTENSION-STRAIGHT AND/OR UPPER-CUTS

Using an Olympic bar (loaded or not, it is up to your strength and working time). Brace one end in the lower corner between the wall and the floor, and the other end is held in your hand at shoulder level; the bar is inclined roughly 45 degrees to the floor.

Activating the correct kinetic chain (depending on which punch you are training for), "explode" the arm up and return it to the original position, absorbing the weight with torso rotation and legs. Repeat until you are done with reps or time.

OLYMPIC BAR SINGLE THROW & CATCH/SWITCH HAND: (more advanced)

Everything is the same as above, the only

difference is that this exercise will develop more power, since the bar actually leaves the hand (after the extension) and given the explosiveness of the throw.

Switching hands requires a bit of hand-eye coordination: the upper end of the bar will take off from one hand, describing almost a triangle in its trajectory from hand to hand, where you catch it and "shoot" it straight again in a continuous fashion, without compromising form! **M&F**

Practise and let me know how your punches improve, how strong and well rounded your deltoids become and what definition your arms will achieve. See you next month!

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