

KETTLEBELL

TRAINING GUIDE

CROSSFIT
THE HALLMARK OF ELITE FITNESS
LONDON

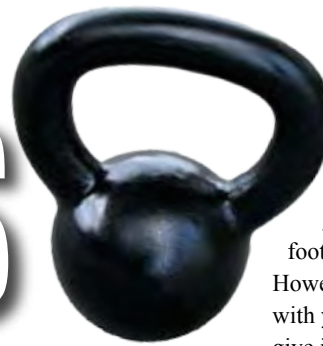
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A kettlebell, in spite of the hype, is neither a gym in the palm of your hand, an item that flenses flat from your body, nor builds indestructible bullet-proof abs: that's done by hard work, skill, determination and diet

A kettlebell has as much chance of ending up unused in the back of a wardrobe along with last years fitness DVD's, as has any item of fitness equipment

However, a kettlebell is a metal ball of various sizes attached to a thick handle. The ball part can be as small as a shot put, or as big as a football. The training idea behind such an item is that if it can be swung and lifted with correct form, it confers on the user a variety of strength, power and CV-based improvements that, some insist, outstrip conventional training methods.

Kettlebells have experienced an upsurge in popularity with the dedicated physical culture enthusiast, apparently rediscovering the many benefits to strength and conditioning kettlebells can bring.

Commercial kettlebells are available

in many sizes and weights. Some use a Russian descriptive weight system being popular in some areas. The Pood is an Old Russian measure of weight which equals 16kg. Therefore:

- 1 Pood = 16kg ,
- 1½ Pood = 24kg
- 2 Pood = 32kg

The kettlebell is claimed by various nationalities as part of their exclusive cultural heritage: the Russians and the Scots tend to be the most vociferous.

There is historical evidence showing the Greeks training with objects known as *halteres*. In ancient Greek sports, *halteres* were used in their version of the long jump. They were held in both hands to allow an athlete

to jump a greater distance; the athlete would swing the weights backwards and forwards just before take-off, thrust them forwards during take-off, and swing them backwards just before releasing them and landing. Apparently.

This however bears little resemblance to the use of modern day kettlebells and is perhaps a more romantic than factual evidence for their historical pedigree.

Romantic or not, it must take second place to the notion that 'kettlebell' is a Scottish word for a kettle with its spout knocked off, filled with earth and used for weight training.

Whilst the kettlebell can be used as any other weight can, its modern day marketing-created reputation is based primarily upon the swing. There is little doubt that the current wave of enthusiasm for kettlebells is the result of promotional work carried out by Pavel Tsatsouline. It is basically his efforts that began the notion that training with kettlebells could be woman-friendly.

In the general marketing of the kettlebell, the benefits emphasized are:

- Kettlebells for strength training
- Kettlebells for cardio training
- Kettlebells for grip work

Marketing babble aside, you have decided to embark upon a fitness activity that requires you to swing, throw and catch heavy weights near your head. This could be indicative of the fact that you need to re-evaluate your decision making paradigm. It is, after all, a long way away from lounging on a bike in a gym reading celebrity magazines.

It is always worth remembering three things: focus on form, increase weight gradually (and if need be,

practise the exercises empty handed). Above all, try not to let go of the bell when it is over your foot or head. It hurts.

However, if you decide to proceed with your kettlebell (and by the way, give it a cute name), we need to see that it hits all the correct buttons when analysed against accepted definitions of the components of physical fitness.

Physical fitness can be defined as 'a set of attributes people have or achieve that relate to their ability to perform physical activity'.

The fitness industry focuses on five major components of fitness:

Cardiovascular fitness

● The ability of the body's cardiovascular system to deliver oxygen to the working muscles.

Muscular strength:

● The amount of maximal force generated by a particular muscle or groups of muscles in one repetition.

Muscular endurance:

● The ability of muscles to repeatedly contract over a period of time.

Flexibility

● The range of movement around a joint.

Motor fitness:

● The ability of the nervous system to coordinate, balance and control the body.

As this introductory guide will demonstrate, the kettlebell – if used in the manner prescribed – hits all these buttons. It will also indicate that the author has major psychotic issues about dropping kettlebells on your head.



THE SWING

The kettlebell swing is the rock upon which the advertised magic of kettlebells is based. This one move combines phenomenal increases in cardio vascular endurance.

If you learn one thing about the kettlebells, learn how to swing it.

Basically, it combines a squatting motion with the energy of the rise being transmitted to the kettlebell in your hands, raising and lowering it in the sagittal plane with long relaxed arms.

If you compare the move with a garden swing, the kettlebell is the seat, the ropes the arms. Where the rope ties to the cross bar or tree bough is the shoulders. But this swing is not powered by a push from behind by your mum; the energy comes from squatting down to load the muscles, then standing up and projecting the energy through your body.

The potency of the swing is partially based in a form of training called 'peripheral heart rate training'. In essence the

heart is required to pump blood to the legs to fund the squat, and then immediately push additional resources into the torso and arms to maintain and control the upper body swing.

With the swing it is important to assume a wider squat stance. This will allow the kettlebell to pass between the knees without any risk of injury, and also allow more momentum to be generated on the up-part of the swing action. The feet should be parallel and at least shoulder width apart, and the knees placed out above the feet. To reduce stress to the back region, aim to sit and stand rather than lean and use the lower back to swing the kettlebell.

When picking the kettlebell up from the floor, adopt the correct deadlift position. Your shoulders should be pulled back (try and make your scapulars touch, have your lumbar curve in, and your shoulder directly over, or forward of the bell). Brace, tense, then stand – and stand tall.



KARATE BELT SWING

One of the biggest problems for many stronger trainees is the trained belief that they must use arm strength to swing and snatch.

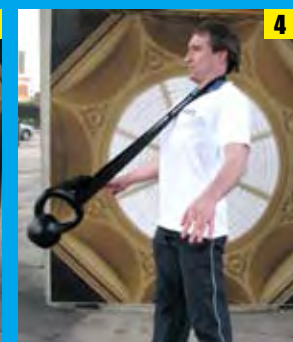
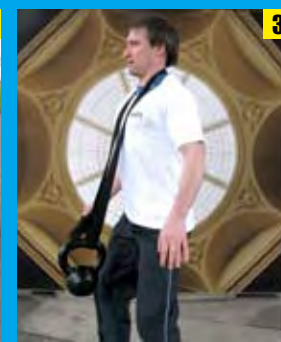
The potency of kettlebellling lies in the ability to train the body to generate and transmit hip force through a supple and active core, and long relaxed strap-like arms.

In many seminars we teach, we see trainees attempt to lat-raise the bell.

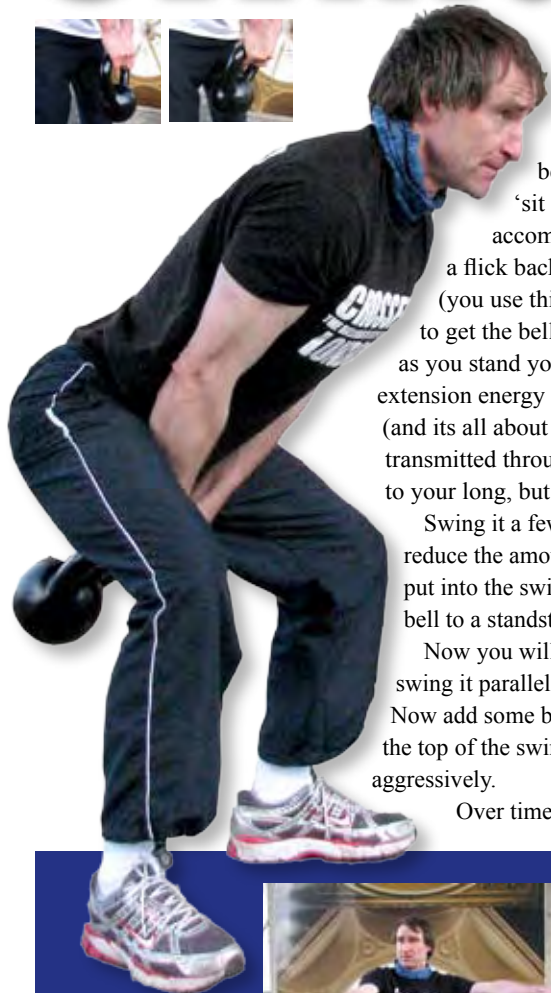
One demonstration we use to de-emphasise the arms is the karate belt swing.

The arms can be substituted for a cloth karate belt and the bell still swings by the hip flexing and extending. Not a lat raise in sight.

We reproduce this here as a demonstration, not as a drill for you to do. If you decide to reproduce the effect for yourself, use a light bell and wear a box.



THE SWING



The first step in the swing will be a slight 'sit down' accompanied by a flick back of the bell (you use this once only to get the bell moving) as you stand you allow the extension energy of your hips (and it's all about hips) to be transmitted through your core to your long, but relaxed arms. Swing it a few times, then reduce the amount of energy you put into the swing and bring the bell to a standstill. Now you will begin again and swing it parallel to your chest. Now add some breathing. At the top of the swing, breath out, aggressively. Over time, you will move



the range of the swing to up above your head.

Swinging in sets of 10 with a rest is not effective. Shoot for 20, 30, 40, 50 reps at a time. The aim is not to keep the move aerobic, but to give you the opportunity of moving into the anaerobic zone – when you feel you have mastered the correct mechanics and possess an underlying base of standard aerobic fitness.

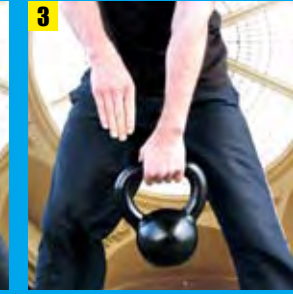
CHANGING HANDS.

This is a cool skill that demands co-ordination, agility and timing. Swing the bell up to the top of the swing where it sort of 'floats' (the point at which the energy you have given the bell is equalled by the pull of gravity. At that time, place

one hand over the other, slide the under hand out and grip with the over hand.

It may be helpful to have the hand waiting for the switch over in the early stages of learning.

You may want to practise this outdoors on grass.



ONE-ARMED SWING

Once the two-handed swing is mastered, the one-armed swing should be attempted. Try and hold the bell in the middle of the handle to balance it. It's now your job to make the bell follow a middle path. Don't allow it to swing into your knee.





THE CLEAN



The aim of a clean is to get the kettlebell to rest on your upper body so you can practise front squats, or be in a position to press the bell overhead.

The clean is complete when the bell rests on your forearm, which lies diagonally across your body (elbow points down, fist rests on the upper chest). The wrist remains strong. This position is sometimes called the racked position.

The aim is to pull the kettlebell from between the feet to a resting point on the front of the upper body.

Start from the deadlift and aggressively extend your hips. Practise shrugging.

Now, the two together. Pull and shrug and lift your elbow. The arm/elbow 'transmits' energy: it's not an upright row.

Your arm is relaxed but follows the path you make it take.

When the kettlebell reaches chest height, quickly tuck the arm close to the body, with the elbow touching the lower ribs and the hand in the centre of the chest.

Easier said than done.

So, lift the kettlebell to its resting place on your chest with two hands using arm strength.

Now, with two hands, tip it down. Begin to understand the path it takes: across and forward.

To progress this drill, begin to put in a small hip flex and extend, plus a shoulder shrug, whilst reducing the support from the second hand. Use 4 fingers, then 3, then 2, then 1. It's useful to practise this move in a mirror to make sure you get the end position right – but don't rely on the mirror as it builds hard-to-shift dependence.

By the time you have got to no supporting fingers, your body has probably learned the right path.



THE SHOULDER PRESS

The shoulder press is an essential element of fitness. The first step is to clean the kettlebell and hold it in the racked position. It's important that the body is fully tensed on impact, as it stores a lot of tension ready for the press. The abdominal muscles are locked tight, the waist is tight and the glutes are tense to maximise the stability of the body. The knees are locked, the inner thighs tensed (as if you're riding a horse) and the toes gripping the ground (imagine you're stomping down hard). The grip is tight on the bell, and the lats on the pressing side are flared. From here, move the bell to the side, then press. Exhale when pressing.

TIPS ON KEEPING 'TIGHT' WHILST PRESSING

- Focus on gripping the kettlebell handle as tight as possible.
- The core (abs, obliques and lower back) must be tensed. Imagine a 24kg rock. If you put that on a pile of jelly (representing a soft, flabby core) the weight will go crashing down. Now put the same rock on a marble statue (representing your soon-to-be, honed and chiselled torso), and it

will be supported. Allow the shoulder to be fully stretched before pressing. A stretched muscle is one ready to contract, and contract is what you want the shoulder to do when you press. This is done after the clean by actively pulling the shoulder down and keeping the elbow tight against the waist. Flare the lats - they act as synergists (supporting muscles) during the press. Crush grip the handle - this will assist in recruiting even more muscles through the principles of muscular irradiation. Irradiation is the principle of tensing muscles other than those directly involved in an exercise to add extra strength. For example, you'll find that tensing the abs and glutes will increase strength on almost all exercises. It illustrates that it is impossible to truly isolate a muscle as the body will always work as a unit.

The finish position is critical here. They must get to what is termed the 'head through the hole' position. The 'hole' or 'window' is the imaginary window that is outlined by the shoulders on the bottom, the bell across the top, and the arms on the side. The head must poke through this window. Not dropping the bell on your head at this stage helps. The shoulder and arm joints should be locked. Your shoulder should be shrugged up.



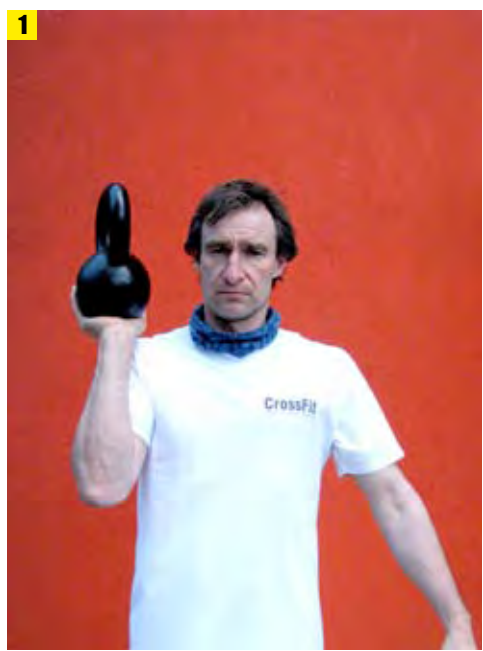


THE WAITER PRESS

If like many people you enjoy variety in your pressing, you can vary the kettlebell press by cradling the bell in your upturned palm and serve it up like a high class waiter.

For an extra challenge, you can cradle the bottom of the bell on your fingertips with your fingers straight or flexed. Start with a light weight, though.

Do be careful with the waiter press as your grip on the bell is not as solid as other presses. Don't drop it on your head!



THE BOTTOM-UP PRESS

A great grip challenge. Flip the bell up from the clean with assistance from your other hand so it rests upside down. Grip that handle, and press. In the learning stage, keep the other hand hovering around to help with balance. Start off light. Once again, don't drop it on your head and kill yourself.



THE SNATCH

THE BELL FOLLOWS A CIRCULAR PATH DURING THE SNATCH



The snatch is an exercise where the kettlebell is lifted from the ground to the overhead position in one smooth action.

The energy generation phase is the same as the clean, a deadlift, a shrug with the energy transmitted through the arm. Here the elbow pulls up higher.

If you were snatching a dumbbell, the move from here becomes easy. When the elbow breaks and allows the arm to straighten, a dumbbell will continue straight up and finish balanced in your extended hand.

A kettlebell is nasty. It follows a circular path and will end up on the back of your wrist. Its up to you to coordinate the punch-through of your arm upwards so you 'match and catch' the bell. There is a comparison with catching: the aim is not to collide with the incoming object, but to match its speed

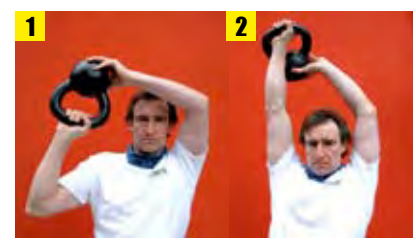
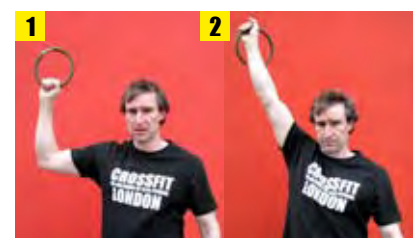
So the first thing to do is to understand what to do with the bell at the top. Make a small loop out of some hose pipe and gaffer tape. Hold it, release it and punch your fist up. Aim to get your wrist on the loop first, rather than letting the loop 'fall' on you.

Once you are comfortable with the mechanics, hold a

light kettlebell, supported and spotted by your other hand and punch up.

Now the whole thing: deadlift, shrug – and now, as your elbow 'breaks', punch up as fast as you can.

If you are worried you can buy some martial arts leg protectors and slip them over your wrists for protection.





THE TURKISH GET-UP

The Turkish get-up is one of the few remaining free-style lifts. As a simple description, you bench press a kettlebell, stand up – allowing the bell to end up overhead – then lie back down again.

It is advisable to run through the following stages without a kettlebell to learn them.

1 Start off lying on the ground with the kettlebell at one side

2+3 Turn on your side, get two bent arms to the bell, and turn back,

4 Chest press the bell to full extension.

5 Bend the knee on the same side as you are holding the bell.

6 Lift the bell-supporting shoulder up from the ground, like the small twist you would use when performing a twisting crunch.

7 Make an extra twist and pop up onto your elbow. Another effort brings you supported on your hand, which should be to the side of you, not behind you.

8 Raise your bottom and your extended leg.

9 Now bend your extended leg, bring it underneath you and adopt a lunge position. Your torso will be flexed to your supporting arm side.

10 Straighten your torso.

11 Stand.

To sit down, do the opposite.

PERFORMANCE TIP

Don't let go of the bell and drop it on your head. Self harm is for celebrities, not you. You could also try looking at the bell at all times. It's useful to know where it is.





THE WINDMILL

The windmill builds oblique strength and flexibility. The best way to learn the correct motor pattern for the windmill is to start off empty handed and treat it as a good stretch. Start with the feet just over shoulder width apart.

There is much variation in where the feet should be placed. One authority insists that the right foot points straight ahead and the left foot points 45° to the left. Others settle for a toed out position.

1 Raise the right hand overhead and keep the left hand loose by the left thigh whilst kicking the right hip out.

2 Inhale. Look at the right hand and fold the body at the waist down to the left whilst partially exhaling. The left hand is used as a guide by sliding down the left thigh and calf as the body continues to fold leftwards. The left knee may bend, which is perfectly acceptable form.

3 The right leg should be kept locked - if it is allowed to bend, the obliques

relax which defeats the objective of the drill.

4 The range of motion is governed by the lower hand; when it touches the ground stop, and reverse the movement.

5 Clench the buttocks tight and exhale on the way up.

The windmill is easy to overdo so start off with a light weight. Simply hold the bell in the lower hand. Once the bell touches the ground, reverse directions. Once you are comfortable with this, perform the windmill with a kettlebell overhead. Finally, for a real challenge, perform the two-handed windmill. Have a heavier bell in the lower hand.

At the risk of sounding like your mother, Don't let go of the bell while

it is over your head. Maiming is not fun. Just say no.

KEY PERFORMANCE POINTS

- Focus on lengthening the body as well as folding down. This keeps the back in proper alignment when windmilling. Fold to the side and front, don't try and lean back. Keep the gaze on the upper hand
- Inhale and tense the core (abs, lower back and glutes) before you move. This 'inflates' the abdominal region and helps protect the spine. Partially exhale on descent and exhale the rest on the way up.
- Remember, supporting leg straight, the other leg can bend - if you must.

WE RECOMMEND THAT YOU SEEK MEDICAL ADVICE BEFORE UNDERGOING ANY EXERCISE ROUTINE TO ENSURE THE SUITABILITY FOR YOU AND YOUR CURRENT LEVEL OF CONDITIONING. CROSSFIT LONDON IS NOT RESPONSIBLE FOR ANY INJURIES SUSTAINED WHILST FOLLOWING PROGRAMMES WITHOUT CORRECT SUPERVISION.



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Crossfit London UK is the UK-based affiliate of the American Crossfit system developed by Greg and Lauren Glassman. In 100 words the system advocates

- Eat meat and vegetables, nuts and seeds, some fruit, little starch and no sugar. Keep intake to levels that will support exercise but not body fat.
- Practise and train major lifts: deadlift, clean, squat, presses, C&J and snatch.
- Similarly, master the basics of gymnastics: pull-ups, dips, rope climb, push-ups, sit-ups, presses to handstand, pirouettes, flips, splits, and holds.
- Bike, run, swim, row, etc, hard and fast.
- Five or six days per week mix these elements in as many combinations and patterns as creativity will allow.
- Routine is the enemy.
- Keep workouts short and intense.
- Regularly learn and play new sports.

Thanks to Sally from Gubernatrix
and Chet from FK UK

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CROSSFIT SEEKS TO ESTABLISH THREE BASIC HALLMARKS OF ELITE FITNESS

CROSSFIT FITNESS STANDARD: ONE

● There are ten recognised general physical skills. They are: cardiovascular/respiratory endurance, stamina, strength, flexibility, power, coordination, agility, balance, and accuracy. You are as fit as you are competent in each of these ten skills. A regime develops fitness to the extent that it improves each of these ten skills. Importantly, improvements in endurance, stamina, strength, and flexibility come about through training. Training refers to activity that improves performance through a measurable organic change in the body. By contrast improvements in coordination, agility, balance, and accuracy come about through practice. Practice refers to activity that improves performance through changes in the nervous system. Power and speed are adaptations of both training and practice.

CROSSFIT FITNESS STANDARD: TWO

● The essence of this model is the view that fitness is about performing well at any and every task imaginable. Picture a hat filled with an infinite number of physical challenges where no selective mechanism is operative, and being asked to perform feats randomly drawn from the hat. This model suggests that your fitness can be measured by your capacity to perform well at these tasks in relation to other individuals. The implication here is that fitness requires an ability to perform well at all tasks, even unfamiliar tasks, tasks combined in infinitely varying combinations. In practice this encourages the athlete to put aside any set notions of sets, rest periods, reps, exercises, order of exercises, routines, etc. Nature frequently provides largely unforeseeable challenges; train for that by striving to keep the training stimulus broad and constantly varied.

CROSSFIT FITNESS STANDARD: THREE

● There are three metabolic pathways that provide the energy for all human action. These 'metabolic engines' are known as the phosphagen pathway, the glycolytic pathway, and the oxidative pathway. The first, the phosphagen, dominates the highest-powered activities, those that last less than about ten seconds. The second pathway, the glycolytic, dominates moderate-powered activities, those that last up to several minutes. The third pathway, the oxidative, dominates low-powered activities, those that last in excess of several minutes. Total fitness, the fitness that CrossFit promotes and develops, requires competency and training in each of these three pathways or engines. Balancing the effects of these three pathways largely determines the how and why of the metabolic conditioning or 'cardio' that we do at CrossFit. Favouring one or two to the exclusion of the others and not recognizing the impact of excessive training in the oxidative pathway are arguably the two most common faults in fitness training.

- As an overriding principle, Crossfit views the needs of an Olympic athlete and our grandparents as differing by degree not kind. One is looking for functional dominance the other for functional competence. Competence and dominance manifest through identical physiological mechanisms
- We scale load and intensity; we don't change programmes.

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