

KETTLEBELL LIFTING

LEVEL 1

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THE AIMS OF THE IRON EDGE LEVEL 1 KETTLEBELL WORKSHOP ARE TO:

- Teach you the fundamental skills you need to use your kettlebells safely and effectively.
- Teach you how teach others to use kettlebells safely and effectively.
- Teach you how to identify common mistakes in kettlebell lifting and give you the skills to correct these.
- Give you information on basic programming for kettlebell training using the kettlebell lifts and positions taught in the workshop.
- Provide ongoing support to assist with your development a a kettlebell trainer.

When beginning kettlebell training the main objective is to develop flawless technique in the basic exercises and positions. This lays the foundation to perform the exercises safely, allowing you to increase your workload without fear of injury and will allow you to safely move onto more difficult exercises when you're ready. The importance of solid foundation of excellent technique cannot be emphasised enough.

This workshop has been designed in conjunction with a physic therapist so that safety and injury prevention in kettlebell lifting are prioritised.





WHAT ARE KETTLEBELLS AND WHERE DID THEY COME FROM?

Kettlebells are simply a cast iron or cast steel ball of varying weight with a handle. It is believed that they originated in Russia over three centuries ago and were originally used as counterweights to measure out portions of goods (such as grains) at markets. People started swinging them and throwing them around for fun and eventually their utility as a fitness tool was recognised.

The military were among the first to see the GPP (general physical preparedness) potential as a fitness tool and kettlebells became widely used in Soviet Union armies. In 1948 kettlebell sport, which originated in the Russian army, became the Soviet Union's national sport and over the last decade kettlebell lifting has become increasingly popular in the West.

HOW ARE KETTLEBELLS DIFFERENT FROM DUMBBELLS?

- The centre of mass of the kettlebell sits away from the handle, unlike a dumbbell where the centre of mass is in the middle of the handle.
- The 'displaced centre of mass' and the unique shape of the kettlebell make the kettlebell behave very differently from a dumbbell and requires different techniques to be used when holding and lifting it.
- The round shape of the kettlebell body and its displaced centre of mass make it particularly well suited to ballistic lifting – things like swinging, throwing, juggling and scaled down versions of Olympic lifts.
- The kettlebell can be easily passed from hand to hand.
- The kettlebell can be lifted 'bottoms up'.
- Ballistic lifting with kettlebells trains the body's ability to absorb shock and in doing so strengthens connective tissue.

BALLISTIC LIFTS VS GRINDS

A ballistic lift is an explosive lift, so speed is an important element of a ballistic lift. Explosiveness in a lift is synonymous with power, and power equals force times velocity (velocity is essentially the speed of something moving in one direction) – so in a nutshell you can't do a ballistic lift slowly or it's no longer a ballistic lift. Olympic lifting is ballistic lifting.

Grinds, on the other hand, are lifts where speed is not necessary, so they can be performed at any pace (although there will be an optimal pace for good technique or the desired training effect). Powerlifting is made up of grinds.

WHAT ARE THE DIFFERENCES BETWEEN COMPETITION (PROFESSIONAL GRADE) AND STANDARD (CLASSIC) KETTLEBELLS?

Competition kettlebells are standardised in size and have a handle that can be readily chalked. The competition kettlebells, being designed for long timed sets, tend to be a bit more ergonomic and are better balanced for ballistic lifts.

The classic kettlebells are sufficient if you're just looking at doing some simple kettlebell lifting and if you're more interested in doing grind, rather than ballistic lifting. Classic kettlebells come in 4kg and 6kg weights while the competition bells start at 8kg.

COMPETITION	STANDARD
Bell and handle size are standardised which means technique learnt with one bell weight will transfer to any bell weight	Bell size and handle size tend to increase with weight so that small changes in technique are required with a weight change
Ergonomic design for maximum comfort when performing high repetition work	Design varies with classic kettlebells and comfort will often be dependent of the manufacturer
Balanced weight in the kettlebell body for optimal performance in ballistic lifts	Denser body that is better suited to grinds than ballistic lifts
Made from cast steel	Made from cast iron
Raw steel handle that is ideal for chalking	Often have a powder-coated or rubber-coated handle that isn't suitable for chalking

WHAT ARE KETTLEBELLS GOOD FOR?

Kettlebells are very well suited to strength endurance or power endurance work. As mentioned above, kettlebells are especially good for high repetition ballistic lifting, and this is something that is difficult to train safely with other tools such as barbells and dumbbells.

Some of the benefits of high repetition ballistic lifting include:

- Simultaneous power endurance and cardiorespiratory training.
- Development of strong connective tissue through repeated shock absorption.
- Builds excellent stability throughout the entire body.
- Promotion of speed in lifting that translates well to many athletic pursuits.
- Development of high levels of skill and coordination.
- When performed correctly, this type of lifting is very gentle on the body and has extremely low injury rates.
- Improves mobility, in particular improves mobility under load.

Kettlebells are also great for things like complexes as they make it very easy to transition smoothly from one lift to the next.

Kettlebells are very effective for general conditioning and fat loss. This means they are ideal for the average client who just wants to improve their general fitness, or for the athlete who requires specific power endurance work or supplementary conditioning.

Because you can train many aspects of fitness simultaneously (strength or power endurance, mobility, coordination, cardiorespiratory fitness) with a few weights (or even just the one weight) in a small space and in a small amount of time, kettlebells are a great tool for personal trainers and can work well for small group training. They are also a great tool for mobile trainers.

Kettlebells are not well suited to heavy lifting and one rep maxes, so are not ideal for pure strength or power training. In particular, kettlebells are not good for very heavy overhead lifting because if the lifter fails the kettlebell is stuck on their hand and cannot be dumped like a barbell can. For pure strength or power training things like powerlifting and Olympic lifting with a barbell are a much better option.

STYLES OF KETTLEBELL LIFTING

People will argue that there are different "styles" of kettlebell lifting, such as "Hardstyle", which promotes the use of maximal tension in all lifts and "Soft Style" or "Fluid Style", which is used in the sport of kettlebell lifting.

Discussions on style are becoming increasingly obsolete as we are getting more information from the best lifters in the world, who all agree there are no "styles" only good lifting and not-so-good lifting, efficient and inefficient lifting, safe lifting and risky lifting.

Highest on the list of priorities is always safety, and this is our focus when educating trainers. What we teach may not be the only way to lift a kettlebell, but we have sought information from the very best in the world to ensure that we promote safe and highly effective kettlebell lifting.

Be careful when using things like YouTube as a resource for kettlebell training. We are only just accessing the best information on kettlebell lifting from Eastern Europe and this means there isn't the body of knowledge underpinning kettlebell lifting in the West that this is for other types of weight training such as powerlifting and Olympic lifting. As a result, anyone can get on YouTube and call themselves an expert kettlebell trainer and frequently these 'experts' are ignorant of the basic safety requirements when it comes to kettlebell lifting technique.



PRE-EXERCISE SCREENING FOR KETTLEBELL TRAINING

When screening clients the kettlebell should initially be treated as just another resistance exercise tool, so all of the normal screens for performing any form of resistance exercise should be performed first (so your standard PAR-Q form will usually be the first consideration). There is a general readiness for exercise questionnaire in Appendix 1 of this manual.

EXPERIENCE LEVEL AND AGE

Kettlebell training is suitable for any level of experience and any age, provided the individual has been deemed suitable for resistance exercise and sensible progressions are followed.

SPECIFIC MOVEMENT SCREENS

Once you have deemed a client suitable for resistance exercise, you need to assess their ability to perform certain movements safely. This means taking into consideration medical conditions (for example overhead lifts increase blood pressure so may be contraindicated for those with high blood pressure, always get medical clearance if you are unsure).

You also need to perform movement analysis on your clients before they perform any kettlebell lifts to ensure their movement patterns and muscle activation patterns will allow them to perform certain types of kettlebell lifts safely. There are specific movement analysis screens provided for each exercise in this manual.

NEVER GO TO FAILURE

Never go to failure when lifting a kettlebell. Because the kettlebell is often locked in on your hand, failure during a lift means a very high chance of serious injury, especially in the wrist, elbow or shoulder (and by extension the neck and back). It is very important you only ever lift as long as you can maintain good, safe form. Not going to failure also means avoiding very heavy lifting, especially 1 rep max lifts, which frequently result in failure.

FOOTWEAR

It is advisable to wear flat, thin-soled shoes when lifting kettlebells, or Olympic weightlifting shoes. You want to have a solid base when lifting weights and shoes that facilitate, rather than hinder, proprioception. For these reasons, thickly cushioned running shoes are not ideal for kettlebell training.

TAKING CARE OF YOUR HANDS AND FORFARMS

With swinging based movements, your grip will get an intense workout and this means you need to be careful to take care of your hands to prevent blisters, tearing calluses and overtraining your forearms. There are techniques that can help with this when lifting and these are outlined for the relevant exercises.

Those doing a lot of swinging based movements will inevitably develop calluses on the palms of their hands. These calluses should be maintained so that they are kept flat (when they build up they are more likely to pinch off). There are a number of tools you can get from your local chemist that help remove excess hardened skin, like pumice stones.

Wearing gloves while doing kettlebell training is not advisable, particularly if you are performing lifts where the kettlebell handles moves around your hand. Gloves can hinder the movement of the kettlebell handle, and impair the lifter's ability to feel exactly where the kettlebell is on their hand, which can result in the kettlebell landing in an unsafe manner.

The forearms are made up of a lot of small muscles and are therefore relatively easily overtrained and an area in which muscular imbalances can quickly progress into conditions such as tendonitis. Techniques that help take the stress off the forearms are outlined under the relevant exercises. It is also a good idea to take care of the forearms with regular stretching and massage if performing a lot of swing based lifts.

TWO TYPES OF BREATHING

There are two types of breathing that can be used with kettlebell training: power breathing and anatomical breathing.

Power breathing is the type of breathing most people who do weight training are familiar with, and on a basic level involves exhalation at some point during the concentric phase of the lift and inhalation on the eccentric phase of the lift.

Power breathing, particularly high tension variations where the breath is held at certain points during the lift to increase intra-abdominal pressure in order to provide a brace for the spine, is best suited to heavy lifting.

Anatomical breathing is a type of breathing that works best for endurance work because it is highly efficient. Anatomical breathing involves exhaling whenever the ribs and diaphragm are compressed (this facilitates exhalation) and inhaling when the ribs and diaphragm are expanding (it's easy to inhale at this point). Anatomical breathing is not limited to use with kettlebell training; it is suitable for any strength or power endurance work.

WARM UP AND COOL DOWN

Ideally, warming up for kettlebell training should involve general joint mobility (with a particular focus on the joints that will be used in the training session), followed by movements that will increase core temperature and heart rate and finally the lifts planned for the session with light weights.

Cool down can include more joint mobility and static stretching if desired.



KETTLEBELL DEADLIFT

INTRODUCTION

The kettlebell deadlift is a safe way to pick the kettlebell up and is one of the most simple kettlebell exercises. Deadlifting a kettlebell is easier than deadlifting a barbell so can be a good introduction to deadlifting for beginners or a less technical way to deadlift for those who may not be able to perform a barbell deadlift.

The kettlebell deadlift is also an important movement screen that should be performed before moving onto any swing-based lifts.

MOVEMENT ANALYSIS SCREENS

Sitting into a chair/box squat to test ability to maintain lumbar lordosis. If lumbar lordosis cannot be maintained or if the movement cannot be controlled (i.e. the person drops into the chair) this needs to be addressed.

Wall squat with feet 4cm off wall to test spine/ hip mobility and ability to move at the hips before the knees. If the knees hit the wall, if there is any flexion of the spine or if the person cannot get to a half squat position rehab/prehab work needs to be done to correct movement patterns and mobility.

ROUGH GUIDE FOR REP RANGE AND WEIGHT

- 8 + reps.
- · 8RM weight or lighter.

SETUP

Have a roughly shoulder-width stance with the kettlebell handle lined up between your heels.

EXECUTION

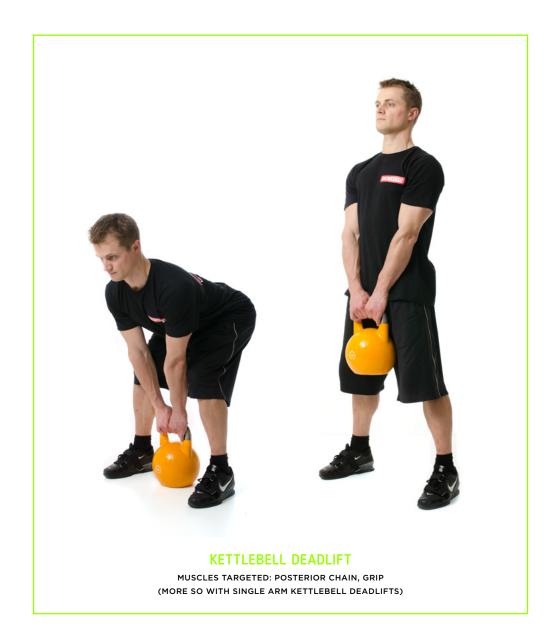
- Hinge at the hips, push your butt back and keep your weight on your heels.
- Soften your knees.
- Keep your spine neutral and be especially careful to ensure you maintain a normal lumbar curve.
- · Your shins should remain almost vertical.
- Look forward (so cervical spine is neutral.
 This will mean looking down at about a 45 degree angle when you are bent over to pick up the kettlebell) and grab the kettlebell handle in your hands.
- Stand up while pushing through your heels.

TEACHING POINTS

- Any flexion of the spine during this lift is dangerous.
- Full hip and leg extension (with the exception of those have hypermobile knees possibly only going to anatomical lockout in the legs) is essential to take the pressure off the lower back.
- Aim for a hip dominant, Romanian deadlift to target the posterior chain as this will carry over better to swings – cue to push the butt back.

VARIATIONS

- One kettlebell picked up with both hands.
- · One kettlebell picked up in a single hand.
- Two kettlebells, one picked up in each hand.



AROUND THE BODY PASS

INTRODUCTION

The around the body pass (ATBP) is a simple exercise that is great used in warm ups, cool downs or as active rest. The ATBP is also a good way of teaching people important skills required for kettlebell lifting, such as the ability to relax the grip at certain points and keeping the upper body relaxed during swing-based lifts.

MOVEMENT ANALYSIS SCREENS

- · The kettlebell deadlift.
- · Rough guide for rep range and weight
- 5 + reps each side.
- · 15RM kettlebell deadlift weight or lighter.

SFTUP

Pick the kettlebell up, holding it in both hands.

EXECUTION

- Let go of the kettlebell with one hand.
- Pass the kettlebell to your other hand in front of your body, passing knuckle to knuckle.
- Swing the kettlebell around the back of your body and pass between your hands again.
- Swing the kettlebell back around to the front of your body so it is continuing in a circle and pass between your hands again.
- To change direction swing the kettlebell around the front of your body and instead of passing it to the other hand, push the body of the kettlebell off the other hand.

- Passing knuckle to knuckle is easiest for beginners and means they can maintain contact with the kettlebell at all times, making it less likely that they will drop it.
- The upper body should be relaxed when performing this exercise – watch for tension in the traps, elbows and wrists.



FIGURE OF EIGHT

INTRODUCTION

The figure of 8, like the ATBP, involves passing the kettlebell from hand to hand, this time between the legs in a 'figure of 8' pattern. The figure of 8 is a full body exercise that is a good introduction to ballistic kettlebell lifts and teaches important skills such as the ability to relax the grip at certain points and keeping the upper body relaxed during swing-based lifts.

MOVEMENT ANALYSIS SCREENS

- · The kettlebell deadlift
- ATBP
- Rough guide for rep range and weight
- 5 + reps each side
- · 15RM kettlebell deadlift weight or lighter

SETUP

Pick the kettlebell up, holding it in both hands.

EXECUTION

- Let go of the kettlebell with one hand.
- Hinge at the hips and soften the knees as you pass the kettlebell through the front of your legs to the other hand, passing knuckle to knuckle.
- Stand up as you swing the kettlebell around the back of your leg (the leg on the same side as the hand that's holding the bell) to the front.
- · Repeat the previous two steps, this time passing through the opposite leg so the kettlebell completes its figure of 8 path.

- It is very important to maintain neutral spine throughout this exercise, be sure to keep the chest up and push the butt back as looking at the kettlebell will usually pull the spine into flexion.
- Standing up between each pass is advisable for beginners as it will take the pressure off the lower back.
- · Passing knuckle to knuckle is easiest for beginners and means they can maintain contact with the kettlebell at all times, making it less likely that they will drop it.
- The upper body should be relaxed when performing this exercise - watch for tension in the traps, elbows and wrists.



TACTICAL LUNGE

INTRODUCTION

The tactical lunge, like the figure of 8, involves passing the kettlebell between the legs in a 'figure of 8' pattern, with the tactical lunge a reverse lunge is added between each pass.

MOVEMENT ANALYSIS SCREENS

- · The kettlebell deadlift.
- Bodyweight lunges static, forward, backward and alternating backward.
- · Rough guide for rep range and weight
- 5 + reps each side.
- · 15RM kettlebell deadlift weight or lighter.

SETUP

Pick the kettlebell up, holding it in both hands.

EXECUTION

- · Let go of the kettlebell with one hand.
- Lunge back with one leg while you pass the kettlebell from the inside of the opposite leg, passing knuckle to knuckle.
- Stand up as you swing the kettlebell from the back of your body to the front around your leg.
- Repeat the previous two steps, this time passing through the opposite leg so the kettlebell completes its figure of 8 path.

- It is very important to maintain neutral spine throughout this exercise; be sure to keep the chest up as you lunge back to avoid flexion.
- Passing knuckle to knuckle is easiest for beginners and means they can maintain contact with the kettlebell at all times, making it less likely that they will drop it.
- The upper body should be relaxed when performing this exercise – watch for tension in the traps, elbows and wrists.



TWO ARM SWING

INTRODUCTION

The kettlebell two arm swing is a unique, ballistic movement that is ideal for training power endurance in the posterior chain. The posterior chain is a good area to target as it is weak in most people (particularly those who are sitting all day) and it is the posterior chain that powers most athletic movement – running, kicking, jumping, striking etc. For these reasons, we consider a hip dominant swing more useful than a squat swing. All swing-based lifts are ballistic.

MOVEMENT ANALYSIS SCREENS

- Shoulder impingement test (one hand on opposite shoulder and lift elbow).
- KB deadlift to test ability to maintain lumbar lordosis under load.

ROUGH GUIDE FOR REP RANGE AND WEIGHT

- 10+ reps.
- · 12RM weight or lighter.

SETUP

- Pick the kettlebell up, holding it in both hands.
- Start the swing by hinging at the hips, softening the knees and pushing the kettlebell back between your legs as if you were going to put it back down on the floor, but only go half way.
- More advanced lifters can lift the kettlebell up from about a foot in front of their feet and swing it back between their legs to get started – this is called the pre-swing.

EXECUTION

- Once the kettlebell is behind you, immediately stand up, fully extending hips and legs to propel the kettlebell forward.
 The quicker you stand up the more the kettlebell will swing.
- When the bell reaches the peak of its amplitude, immediately allow it to free-fall back between the legs, through the same arc that brought it to the top.
- Absorb the downward momentum with your stance by sitting way back, loading the hamstrings and allowing the kettlebell to swing back between your legs.

BRFATHING

Power:

- · Exhale at the apex of the upswing.
- · Inhale on the backswing

Anatomical:

- · Inhale on the upswing.
- Long, deep exhalation on the backswing.

TEACHING POINTS

- It is essential to safety that neutral spine is maintained throughout this lift.
- Full hip and leg extension at the top of the swing are important and will reduce the amount of load taken by the lower back.
- Proper glute activation is essential for protecting the lower back during swings, so including glute activation exercises (especially isolation exercises for glute max and glute med) in the warm up is a good idea.
- The upper body should remain relaxed, it shouldn't be lifting the bell – if the kettlebell drops below the line of the hands or if the swing is performed slowly it is likely the lifter is grinding through, rather than swinging.

To achieve a hip dominant swing, which better targets the posterior chain, you can use two different cues:

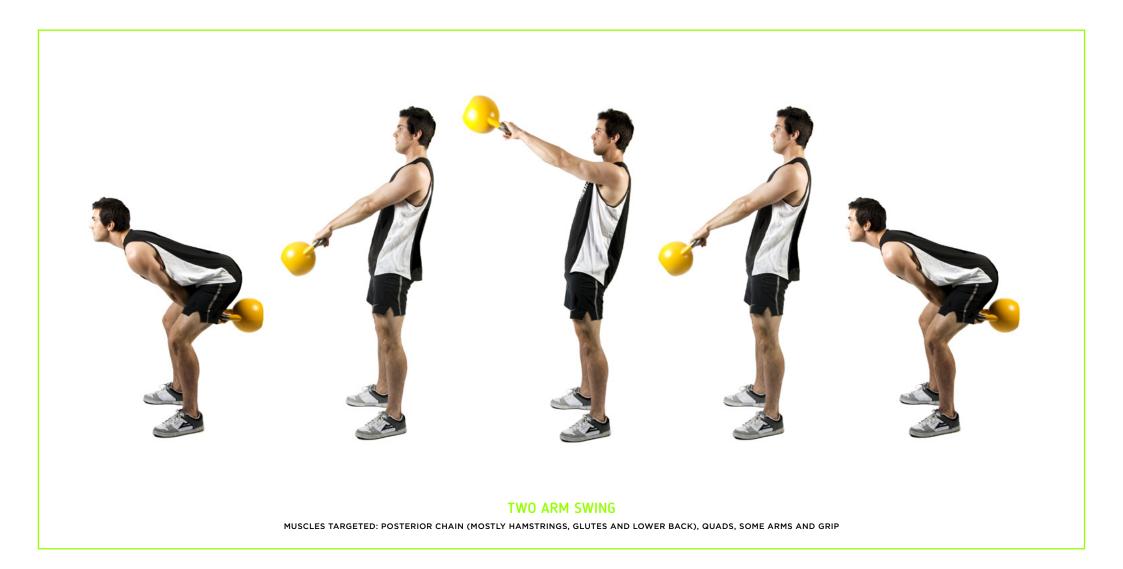
- Place the kettlebell on the sacrum and push it back with the hips, softening the knees and maintaining neutral spine.
- Pretend the hips are locked on two horizontal rails and can only move backwards and forwards, not up and down.

The height of the swing should be dictated by the power generated by the hips. A full overhead swing is a very advanced lift and is not suitable for beginners or the general population.

- Make sure the power that you generate is proportionate to the kettlebell you're swinging.
- Use the contrast between tension and relaxation to lift more
 efficiently, improve power production and increase speed you
 shouldn't be trying to apply maximal tension throughout the entire
 movement.
- Don't look up or try to keep the chest too upright, this will cause the kettlebell to flick on the backswing.
- At the end of the backswing, your upper arms should be connected to your body.



TWO ARM SWING



ONE ARM SWING

INTRODUCTION

Like the two arm swing, the one arm swing is ideal for training power endurance in the posterior chain. The one arm swing will also train the grip endurance and works the upper back more than the two arm swing. The one arm swing is the precursor to other swing-based lifts such as cleans and snatches.

MOVEMENT ANALYSIS SCREENS

Same as for the two arm swing.

ROUGH GUIDE FOR REP RANGE AND WEIGHT

- 10 + reps each side.
- · 12RM weight or lighter.

SETUP

- Pick the kettlebell up in one hand, holding the kettlebell in the finger lock (thumb over forefinger) on the inside corner of the handle.
- When you begin, you can bounce the kettlebell off your leg to get it swinging.
- More advanced lifters can use the pre-swing.

EXECUTION

· Swing the kettlebell back so that the shoulder is internally rotated and the handle swings back on a 45 degree angle.

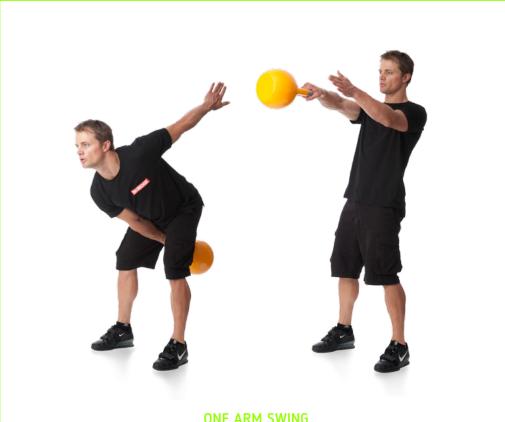
- · At the end of the backswing the torso should be rotated so the swinging shoulder is lower.
- Once the kettlebell is behind you, immediately stand up, fully extending hips and legs to propel the kettlebell forward. The quicker you stand up the more the kettlebell will swing.
- · Retract the scapula of the swinging arm at the top of the swing so you finish the lift standing up with a square chest.
- When the bell reaches the peak of its amplitude, immediately allow it to free-fall back between the legs, through the same arc that brought it to the top.
- · Absorb the downward momentum with your stance by sitting way back, loading the hamstrings and allowing the kettlebell to swing back between your legs.

BREATHING

Same as for the two arm swing.

TEACHING POINTS

- All of the teaching points for the two arm swing are applicable to the one arm swing
- · Rotation of the torso at the end of the backswing is safe, so long as there is no flexion.
- It is important to reverse the rotation of the torso on the upswing and retract the scapular so that the shoulder isn't yanked forward.
- · The non-lifting arm should mirror the lifting arm.



MUSCLES TARGETED: POSTERIOR CHAIN (HAMSTRINGS, GLUTES, LOWER BACK, UPPER BACK) AND GRIP

KETTLEBELL SPORT SWING

INTRODUCTION

The kettlebell sport swing is a variation on the one arm swing. This particular swing changes the trajectory of the bell on the upswing from outwards to upwards. For this reason, the kettlebell sport swing is the most efficient and best translates to cleans and snatches. The main difference between the kettlebell sport swing and the one arm swing is that the former has two leg extensions, or 'dips', while the latter has only one. The kettlebell sport swing is analogous to Olympic lifting and can be thought of as having a first or slow pull (from the backswing to just in front of the knees) and a second or fast pull (from just in front of the knees straight up).

MOVEMENT ANALYSIS SCREENS

Same as for the two arm swing.

ROUGH GUIDE FOR REP RANGE AND WEIGHT

- 10 + reps each side.
- · 12RM weight or lighter.

SETUP

- Pick the kettlebell up in one hand, holding the kettlebell in the finger lock (thumb over forefinger) on the inside corner of the handle.
- When you begin, you can bounce the kettlebell off your leg to get it swinging.
- · More advanced lifters can use the pre-swing.

EXECUTION

- Swing the kettlebell back so that the shoulder is internally rotated and the handle swings back on a 45 degree angle.
- As the kettlebell swings back between your legs dip your legs down then shift your weight back into your heels and extend your legs (they don't need to extend to full lock).
- At the end of the backswing the torso should be rotated so the swinging shoulder is lower.
- Once the kettlebell is behind you, start shifting your weight forward into your mid-foot and dip your legs again by flexing the knees and reversing the leg extension you had on the backswing.
- As soon as the kettlebell passes in front of your knees, quickly extend your legs and stand up (this will change the bell path from outwards to upwards and will also increase the speed of the bell).
- The arm should follow the kettlebell up, with the elbow high.
- Retract the scapula of the swinging arm at the top of the swing and rotate the torso so the swinging shoulder is further back than the non-swinging shoulder.

BREATHING

Anatomical:

- · Inhale on the upswing.
- · Long, deep exhalation on the backswing.

- All of the teaching points for the one arm swing are applicable to the kettlebell sport swing.
- It is easiest to develop the pattern for the leg movement without a kettlebell.
- You can break this swing down into two parts: the low swing (from backswing to just in front of the knees) and the high swing (the full swing).
- The low swing should finish with the kettlebell just in front of the knees, legs extended, arm extended, upper arm contacting the body and chest square.
- The high swing should finish in the position described in the execution.
- It is difficult to teach this swing after doing the standard one arm swing, so if you want people to move onto cleans and snatches this is the best swing to start with.
- The arm should follow the kettlebell, not pull on it, and should only be responding to what the legs are doing.



KETTLEBELL SPORT SWING



ALTERNATING SWING

INTRODUCTION

The alternating swing involves switching hands at the apex of the swing. The alternating swing is good for furthering the ability to release the grip while training with kettlebells so carries over well to lifts like cleans. The alternating swing is also good for teaching hand-eye coordination, developing strong connective tissue in the hands, wrists and elbows and is a simple way switch hands if you want to work continuously with the kettlebell without putting it down. The alternating swing is also the most basic juggling move.

MOVEMENT ANALYSIS SCREENS

- · Same as for the two arm swing.
- ATBP to assess ability to be able to safely release the grip while lifting a kettlebell.

ROUGH GUIDE FOR REP RANGE AND WEIGHT

- 10 + reps each side.
- 12RM weight or lighter.

SETUP

- Pick the kettlebell up in one hand, holding the kettlebell in the finger lock (thumb over forefinger) on the inside corner of the handle.
- When you begin, you can bounce the kettlebell off your leg to get it swinging.
- · More advanced lifters can use the pre-swing.

EXECUTION

- Swing the kettlebell as you would with a one arm swing or kettlebell sport swing.
- At the top of the swing, slide the non-lifting hand over the top of the lifting hand, then slide the lifting hand out from underneath.
- Let the kettlebell fall back into the backswing, now holding it in the opposite hand.

BREATHING

Anatomical:

- · Inhale on the upswing.
- · Long, deep exhalation on the backswing.

- All of the teaching points for the one arm swing are applicable to the alternating swing.
- The kettlebell sport swing carries over to the alternating swing better than the one arm swing does because of the upwards bell path in the kettlebell sport swing – if using the one arm swing be careful to stand up at the top of the swing so you don't get dragged forward by the bell.
- Optimally, everything should be the same as in the kettlebell sport swing, but when people begin the main thing is to ensure they change hands safely, so things like the finger lock and rotating the handle back on the 45 degree angle can wait until they have the basics in place.

- There are many ways you can switch hands, but for beginners sliding one hand over the other is easiest as it allows them to maintain contact with the kettlebell at all times.
- As confidence increases, the kettlebell can be released completely before catching again.



RACK POSITION



INTRODUCTION

Rack position (holding the kettlebell at your chest) is a fundamental of kettlebell lifting and will allow you to do a range of exercises, from simple rack squats and lunges through to overhead presses and more complex lifts such as jerks. Due to the kettlebell's displaced centre of mass and odd shape, it is racked in a very different position from a barbell and must be racked in a particular manner for safety.

MOVEMENT ANALYSIS SCREENS

Hip flexor flexibility (lunge stretch).

SETUP

- Beginners can pick the kettlebell up in one hand and use the other hand to roll the kettlebell around the wrist so the body of the bell comes to rest in a "V" between the biceps and forearm.
- More advanced lifters can clean the kettlebell into rack position.

EXECUTION

- The handle should sit diagonally across the palm with one corner between the webbing of thumb and forefinger and the other side of the handle locked in on the forearm.
- The pressure of the handle should sit on the heel of the hand.
- The body of the kettlebell should sit in a "V" made by the forearm and biceps.
- The hand should be roughly in line with the midline of the body, and should be positioned medially to the elbow.
- The elbow should be in contact with the body (ideally the iliac crest). If this isn't possible, as much upper arm contact with the body as possible.
- The legs should be locked (or at anatomical lockout for those who are hypermobile).
- Some glute activation is required in rack to protect the lower back, however maximal tension in the glutes isn't necessary.
- The weight of the kettlebell should be largely supported by the lower body and should sit directly over the hip and heel.

TEACHING POINTS

- A neutral wrist should be able to be maintained without activating the forearm flexors i.e. the wrist should be relaxed.
- To check whether the handle is too high on the hand, check for a gap between the forearm and handle – if you can slide your hand down between the forearm and bell handle, hand sliding perpendicular to the wrist, the handle is sitting too high.
- The forearm and biceps should support the body of the bell evenly: the weight of the bell should not rest entirely on the forearm.
- The hand should not pass outside the armpit or shoulder and should never be positioned laterally to the elbow.
- The hand doesn't need to touch the body and the palm should not be facing the body (having the palm facing between about 90-120 degrees from the body is good).
- In order to get the hips under the bell you may need to push them forward slightly, and have a slightly hyperextended lumbar spine, however you do not want a large amount of hyperextension and there certainly shouldn't be any pain or discomfort in the lower back in this position.
- You can test the stability of the kettlebell by placing downward pressure on the body of the bell - if it feels stable rack position is probably good, if it feels like it's going to be pulled out to the front or side rack position needs to be adjusted.



RACK POSITION

MUSCLES TARGETED: ALL OF THE BODY

Ideally, though, the muscles are resting as much as possible in order to recover from each rep and reset before performing the next (this is also important in power generation for push presses and jerks).



CLEAN

INTRODUCTION

The clean is a swing-based lift that has the advantage of a rest position (so pace can be regulated) and is a means of getting the kettlebell into rack for other lifts. Before attempting the clean you must master the one arm swing (preferably the kettlebell sport swing as this has the best carryover) and the rack position.

MOVEMENT ANALYSIS SCREENS

- · Same as for the two arm swing.
- ATBP or alternating swing to assess ability to be able to safely release the grip while lifting a kettlebell.

ROUGH GUIDE FOR REP RANGE AND WEIGHT

- 10 + reps each side.
- 12RM weight or lighter.

SETUP

- Beginners can perform one arm swings to get started.
- More advanced lifters can perform a pre-swing and then go straight into the clean on the upswing.

EXECUTION

- Swing the kettlebell as you would with a one arm swing or kettlebell sport swing.
- Let the kettlebell swing forward until it's just in front of your knees.
- Extend your legs and hips, as you do this bring your lifting shoulder back so that your chest is square – all of this should get the kettlebell moving up towards rack position.
- As the kettlebell passes hip height, release your grip and allow the kettlebell to roll around your wrist so that it lands in the "V" between your forearm and biceps.
- The kettlebell should finish in rack position.
- Let the kettlebell roll off your body and into the backswing to begin the next clean rep.

BRFATHING

Power:

- · Exhale as the kettlebell lands in rack.
- Inhale on the backswing

Anatomical:

- · Inhale on the upswing.
- · Exhale as the kettlebell lands in rack.
- · Inhale in rack to reset.
- · Long, deep exhalation on the backswing.

TEACHING POINTS

- The first step in teaching the clean (once rack and one arm swing/kettlebell sport swing have been mastered) is the "Top Down Drill":
- Use both hands to get the kettlebell into rack position, do a check of handle position and stability.
- Let the kettlebell roll off the body into a swing (keep the elbow close to the body as you do this).
- Do a few swing reps and then use both hands to get the kettlebell back up into rack position and start again.
- There should be no tension in the arm when the kettlebell rolls into the backswing and technique should be exactly the same as with the swing – finger lock, handle on a 45 degree angle, other arm mirroring etc.
- Once the Top Down Drill has been mastered you can try bringing the kettlebell back up to rack with a clean.
- There are two main problems when bringing the kettlebell back up: impact on the forearm or biceps and the handle landing in the wrong position on the hand.

These two problems can be avoided by:

- Bringing the kettlebell directly up the midline of the body.
- Keeping the kettlebell close to the body the kettlebell should start moving up (rather than out) as soon as it passes in front of the knees, no earlier and no later.
- Releasing the grip early land the kettlebell in rack with an open hand.

You can condense the above three points into two cues:

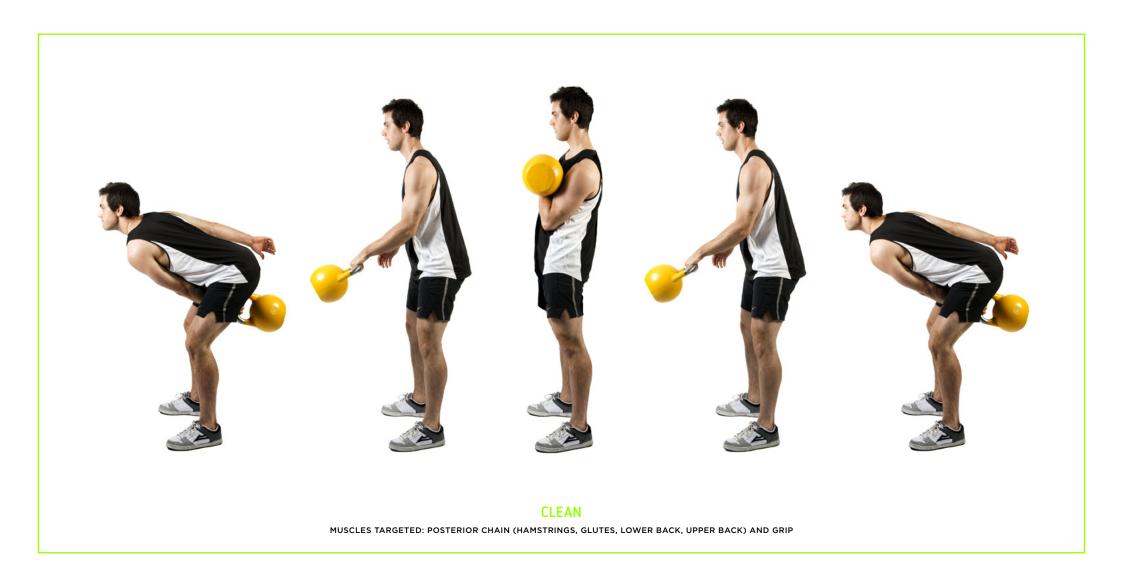
- Zip up the jacket and slide the hand into the glove.
- Keeping the elbow close to the body on the way down and up will promote a bell path that is efficient and reduces impact on the body.

If someone continues to swing the bell out too far in front before bringing it back to rack, and as a result has too much impact on the forearm, you can get them to stand about 15cm in front of a line and tell them to bring the kettlebell up as soon as it gets to that line.

- If someone has trouble releasing the grip early enough, go back to alternating swings or ATBP to get them relaxing their grip and try again.
- If someone is cleaning to their shoulder, cue them to bring the kettlebell straight back to rack so their hand finishes at the midline of their body.
- There is no need for a second knee dip with a kettlebell clean, clean directly back to a straight leg position.



CLEAN



OVERHEAD LOCKOUT POSITION

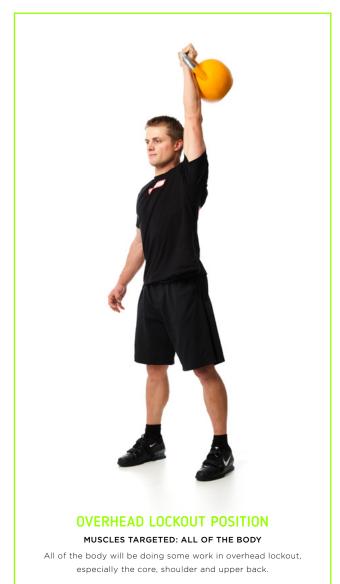
INTRODUCTION

Overhead lockout position, like rack position, is a fundamental of kettlebell lifting and will allow you to do a range of overhead exercises with the kettlebell, from simple overhead presses or things like overhead lunges to more complex lifts such as jerks and snatches. Due to the kettlebell's displaced centre of mass and odd shape, it must be held in overhead lockout in a particular manner for safety.

MOVEMENT ANALYSIS SCREENS

- Overhead broomstick squat on 4cm chock, arms vertical, to test for shoulder and thoracic mobility – should be able to get to a quarter squat with vertical arms.
- Neck range of motion looking over shoulders, up and down and ear to shoulder. Any restrictions, discomfort, pain or significant differences between left and right sides need to be addressed.
- Standing lumbar extension 5-10 reps. If these progressively mobilise and free up the lower back then that's good, if repetition reduces range of motion or causes pain/discomfort this needs to be addressed.
- Neck extension 5-10 reps. If these progressively mobilise and free up the neck then that's good, if repetition reduces range of motion or causes pain/discomfort, this needs to be addressed.

- · Shoulder impingement test (same as for swing).
- Lying on back (neutral spine) and extending arms overhead to test for passive range of motion. If arms can be fully extended so that elbows are straight and biceps are in line with ears then passive range of motion is sufficient.
- Reach up behind back to test difference in flexibility between left and right shoulders, any significant difference here needs to be addressed.
- Perform overhead lockout position without weight. If passive range of motion was fine but they cannot keep the arm vertical while standing they have a basic shoulder stability issue that needs to be addressed.





OVERHEAD LOCKOUT POSITION

SETUP

- Beginners should test overhead lockout position without a weight to begin.
- More advanced lifters can press the kettlebell into overhead lockout position.

EXECUTION

- The handle should sit diagonally across the palm with one corner between the webbing of thumb and forefinger and the other side of the handle locked in on the forearm.
- The pressure of the handle should sit on the heel of the hand.
- The arm should be vertical and locked (or at anatomical lockout for those who are hypermobile).
- The biceps should be roughly in line with the ear or a little bit forward of the ear. The arm should never be behind the ear.
- The shoulder should be slightly externally rotated overhead so that the little finger is turned in towards the body and the palm is turned in about 30 degrees.
- Pack the shoulder down using the upper back muscles.
- There should be a very slight anterior tilt of the pelvis so that the weight of the kettlebell sits directly over the hip and heel. This ensures the lower body is helping to support the weight and creates a stable overhead lockout position.

- A neutral wrist should be able to be maintained without activating the forearm flexors i.e. the wrist should be relaxed.
- To check whether the handle is too high on the hand, check for a gap between the forearm and handle – if you can slide your hand down between the forearm and bell handle, hand sliding perpendicular to the wrist, the handle is sitting too high.
- The arm must be vertical any bend in the arm or positioning the arm to the front or side of the shoulder will result in and unstable overhead position that puts too much pressure on the shoulder joint.
- The shoulder should not be neutral or internally rotated as this will position the kettlebell over the head and puts the shoulder in a weak, vulnerable position that will be exacerbated with fatigue.
- There will be slight hyperextension of the lumbar spine with the slight anterior pelvic tilt but
 there should not be excessive hyperextension
 and there certainly should not be discomfort or
 pain in the lumbar spine in overhead lockout.

- Even in those who are quite flexible in the shoulder the biceps should not pass behind the ear as this will require excessive lumbar hyperextension to get the hips under the bell.
- The hand doesn't need to touch the body and the palm should not be facing the body (having the palm facing between about 90-120 degrees from the body is good).
- In order to get the hips under the bell you
 may need to push them forward slightly, and
 have a slightly hyperextended lumbar spine,
 however you do not want a large amount of
 hyperextension and there certainly shouldn't
 be any pain or discomfort in the lower back in
 this position.



OVERHEAD PRESS

INTRODUCTION

The overhead press is a grinding overhead lift that is also a means of getting the kettlebell into overhead lockout to perform other overhead lifts. Due to the displaced centre of mass and odd shape the kettlebell overhead press has to be performed in a particular manner for safety. Before attempting the overhead press you must master the rack position and master overhead lockout position without a kettlebell

MOVEMENT ANALYSIS SCREENS

Same as for overhead lockout position.

ROUGH GUIDE FOR REP RANGE AND WEIGHT

- 5 + reps each side.
- · 8RM weight or lighter.

SETUP

Rack the kettlebell

EXECUTION

- Press the kettlebell in a strictly vertical line directly into overhead lockout position.
- · Lower the kettlebell back to rack position.

BREATHING

Power:

(can be used in conjunction with high tension throughout the body)

- Inhale through the nose into the belly in rack position.
- Hold the breath until you reach the sticking point (somewhere around the last third of the overhead press) and then exhale through pursed lips for the remainder of the lift.
- · Inhale through the nose into the belly in overhead lockout position.
- Hold the breath until about the last third of the descent, then exhale as you bring the kettlebell back to rack.

Anatomical

- Inhale as you press the kettlebell up.
- · Exhale as you bring the kettlebell back to rack.

- It is important that the elbow moves in a direct vertical path in the overhead press - any shoulder abduction and external rotation that can be used to gain leverage in a dumbbell press is unsafe when overhead pressing a kettlebell.
- Standing with the pressing shoulder next to a wall will help maintain a vertical bell path and prevent the elbow from flaring out to the side.
- There should be very little rotation of the hand as the kettlebell is pressed overhead, it should move directly from rack position to the position where the palm of the hand is turned in slightly overhead.
- Don't let the shoulder get pulled into an internally rotated position at the top of the overhead press.





These exercises can be good for beginners or for use in classes (either pure kettlebell or mixed implement circuit classes) or in any situation where more technical lifts such as swings and cleans may not be practical or safe to use. This section assumes a basic knowledge of how to assess suitability for and teach fundamental movements such as squats and lunges.

Using simple kettlebell exercises combined with bodyweight exercises can be sufficient for fun and effective training sessions, particularly with groups.

HOLDING THE KETTLEBELL BY THE HORNS

The 'horns' are the vertical sections on either side of the handle. Grasping one of these horns in each hand is a very simple way to hold the kettlebell that requires little skill. You can hold the kettlebell by the horns either upright or upside down; the difficulty of using either one of these options will depend on the exercise.

Here are some relatively simple exercises that can be performed holding the kettlebell by the horns:

- Russian twists (sitting on the floor with knees bent and moving the kettlebell in an arc across the body from hip to hip).
- Squats.
- · Lunges.
- · Step-ups.

HANG POSITION

You can hold the kettlebell like a shopping bag by your side and perform a range of exercises like this. Holding the kettlebell in hang will incorporate more grip work into these exercises.

Exercise examples:

- Lunges
- Step-ups
- · Suitcase deadlift
- Farmers walks (just walking with the kettlebells in hang)

RACK POSITION

Once rack position has been mastered, you can perform a variety of relatively simple exercises with the kettlebell in rack. Performing simple exercises in rack position can increase upper body involvement, for example performing a rack squat with a kettlebell will require more upper body stabilisation of the weight than a barbell rack squat.

Exercises examples:

- Squats
- Lunges
- Step-ups
- · Walking in rack

EXERCISES WHERE YOU CAN SUBSTITUTE A KETTLEBELL FOR A DUMBBELL

- There are many exercises that are usually performed with a dumbbell that can be done with a kettlebell. Some relatively simple exercises that you may want to try:
- · Bench supported one arm rows.
- Knee supported one arm rows.
- · Bent over rows.
- Floor press (just be careful that the forearm stays vertical to prevent shoulder injury).

PROGRAMMING

IMPORTANT SAFETY CONSIDERATIONS

As mentioned in the introduction to this manual, the kettlebell is not well suited to heavy lifting, particularly for overhead lifts, and this must be taken into account when programming. It is also very unwise to go to failure with any kettlebell lifts as the spine, shoulders, elbows and wrists are likely to be in vulnerable positions when you fail, making the risk of injury on failure of a rep very high.





ALWAYS START LIGHT

Always start with a very light weight and build the skill required for each lift. It is often tempting to use a heavier weight to 'force' correct technique with lifts like cleans but this is unsafe and should be avoided at all costs. Skill must always be perfected before load is added and even a strong person should be able to perform flawless reps with an 8kg kettlebell.

GROUP CLASSES

It is becoming more popular for people to run group classes with kettlebells, and the kettlebell certainly lends itself well to group exercise, however there are some guidelines that should be followed to ensure safe use of the kettlebell in groups:

If the class will only use, or predominantly use, kettlebells then there should be no more than 8 participants per trainer.

Appropriate screens must be performed on class participants before they use a kettlebell. One way to assess people is to incorporate the screening movements into the warm up and observe.

People should only be allowed to progress to more technical lifts such as the clean when they have demonstrated clearly they have the skills to perform them safely, this means that people either need to attend some sort of beginner's course to build fundamental skills or that classes need to provide options for different levels of skill. For example, in a class some options for similar exercises that will allow people of different skills to work at their own level include:

Box squats / Kettlebell deadlift / Two arm swing

There should be a skill component included at the beginning of any kettlebell class.

Class instructors should always make sure they are highly proficient with the lifts themselves and are comfortable teaching them to a wide range of people.

BALANCE AND ORDER IN PROGRAMMING

Always take into consideration the movements you combine when programming to ensure you don't create detrimental imbalances in the body. For example you want a balance between pushing and pulling movements and between use of the posterior and anterior chains of the body. Combinations like cleans and presses are great in this regard as they work the entire body in a balanced fashion.

You also want to consider the order in which exercises are performed, particularly in things like complexes, as this will influence difficulty and the skill level required to perform a workout safely. For example, doing very high repetition swings at the end of a session when the legs and glutes are very fatigued from running may not be suitable for a beginner as their ability to use their hips (and therefore not overload their lower back) may be significantly reduced.

WORKING FOR TIME

Working for time can be a great way to use kettlebells. Using a timer like a Gymboss allows you to focus on your clients' technique while the timer regulates things such as when they change hands or exercises. This can be especially helpful in group training situations.

Working for time also allows you to introduce the concept of pace, which is something many people don't consider when doing weight training. Pace is another variable that can allow you to manage progress and manipulate training effect (e.g. 10 reps done in one minute is very different from 10 reps done in 2 minutes). Shorter, faster sets may be used for anaerobic training, whereas longer medium paced sets may be used to get more of a cardio and muscular endurance training effect.

Setting a pace can also help you make sure clients are lifting in a safe and thoughtful manner. For example, anything above about 20 reps per minute for cleans is too fast for people to complete each rep safely so you may recommend a pace below that.

COMPLEXES

The kettlebell is a great tool for complexes as it's very easy to transition smoothly from one lift to the next. Complexes can be a fun way to train many aspects of fitness simultaneously, so are perfect for general fitness, fat loss and conditioning.

Some examples of simple complexes:

- · Clean and press
- · Swing, clean and press
- Clean, squat and press
- Clean, squat, lunge and press
- Clean, rack lunge, press



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