

## Pulling Exercises: *Hip It Before You Whip It*

Start all barbell pulls with a controlled, precise form that tracks the hips. It'll help you get big weight off the floor smoothly, and ready to accelerate upward in a blur.

Bill Starr



Learning how to pull a weight off the floor or a platform correctly can help every strength athlete to better perform a number of very beneficial exercises: power cleans, power snatches, full cleans, full snatches, clean and snatch grip high-pulls, and conventional deadlifts. (These form points do not apply to sumo-style cleans and deadlifts, which I will deal with in a future presentation.)

Although every exercise in strength training consists of a start, middle, and finish, learning how to get a strong start in those pulling exercises is most critical for success with heavy weights.

1 of 6

It has been my observation that most athletes do not pay close enough attention to this essential aspect of a lift from the floor. Instead, they casually jerk the weight upward, thinking ahead to the finish. But if the start is not perfect for a max attempt, the lift is generally missed. Unless, of course, light weights are being used. Then the finer form points aren't a big factor. However, when the weights get demanding, technique is paramount for a successful lift.

When a weight is moved off the floor incorrectly, the odds of completing the lift go way down. This is because when that first move isn't right, the middle and top are adversely affected, sometimes to a great extent. This is particularly true for power snatches and power cleans since the bar has to be pulled very high. Conversely, when the start is done perfectly, following through into the middle and finish of the lift is a great deal easier to do correctly. Should the bar move out of the proper line during the start, problems will occur. So time must be spent honing the technique for the start if an athlete wants to steadily move the top-end numbers.

### **Find Your Own Ideal Starting Position— and Keep It**

In order to do a perfectly executed start on a pulling exercise, an athlete has to first find where his strongest position is. It needs to be pointed out that there is more than one ideal starting position. These vary from athlete to athlete and are determined by height, body type, and where their seat of power lies.

For example, a taller athlete can utilize his height by setting his hips rather high at the start of a pull. This allows him to use his longer levers, which is always a plus in weightlifting. Yet, this higher starting position is only beneficial when the athlete is able to maintain it in a strict fashion. Should his hips rise up too rapidly, then he will no longer be in a strong pulling position. He will be in a posture that allows him to pull less forcefully. When this happens, he needs to lower his hips to where he can lock into that strong start. Those who possess very strong hips and legs can utilize that source of power by starting with their hips a bit lower. Again, that starting position, whether it be with the back parallel to the floor or much lower than that, must be held firmly through the initial pulling motion.

I've watched many Olympic lifters get set, and just before they break the bar off the platform, they shift their hips either up or down slightly. What they're doing is selecting their strongest position to move the weight upward. This searching move wastes energy and is not

exact. The correct thing to do is to lock into the preferred starting position and not waver an iota on every single rep. Once an athlete has learned how to do that consistently, he is well on his way to heavier poundage on all his pulling exercises.

### **The Bar's Rise Should Track the Hips, So Don't Jerk the Start or Bend Arms too Early**

The basic rule is that the bar must climb upward at the exact same rate as the hips. Concentrate on that simple idea and that movement and the rest of the lift will go smoothly.

Unfortunately, strength-training rookies often neglect the basic bar/hip equation, and rush the start on their power cleans or power snatches. They believe if they can make the bar jump off the floor, they'll have a better chance of pulling the bar higher. Not necessarily.

If that fast start is done perfectly and followed by a flawless middle and top, then it indeed is an asset. However, unless an athlete has spent a great deal of time practicing his form on the start, which beginners have not, then in all likelihood, that attempt at jerking the weight off the floor is going to be detrimental. Here's why.

Jerking the bar upward will almost always carry it out of the correct line of pull. Usually, the bar will run forward.

The quick start will also result in the arms bending too soon, the hips rising up too fast, and the back rounding. All these are negatives and will greatly reduce the amount of weight used on an exercise.

Bending the arms before the bar has passed the waist forces the lifter to lean forward, taking him out of a strong middle and top position. Plus, bending the arms too early also affects the finish. The traps need to be contracted before the arms bend. When these two groups—traps and arms—work in a smooth, coordinated movement, the bar will jump at the top, allowing the lifter to rack the bar on his shoulders or kick it out overhead.

When the back rounds, it is no longer in the ideal position to let the lifter apply full power to the bar at the critical finish portion of the exercise. So a fast start is only helpful to those who have built rock-solid bases and drilled on their form over the course of several years. It just doesn't happen overnight. For everyone else, a controlled start is a smarter approach. Then the athlete can concentrate fully on the many aspects of that initial move and when he does that correctly, the rest falls in place nicely.

In other words, to be successful with a max attempt on



*Notice the difference between the set up position and the pulling position even though the bar has yet to move. This last-minute shift is disadvantageous.*

a power clean or power snatch, *the bar does not have to come off the floor fast.* More important than speed of movement at this stage is being able to elevate the bar in a very tight line and keep all the groups involved in that effort fully contracted and locked in place. *At the start of any pulling movement, form wins out over speed.*

The speed comes later, through the middle and at the conclusion of the lift. The bar moves upward like a whip—slow at the beginning, gaining speed through the middle, and no more than a blur at the top. This means that the most important aspect of that initial pull is that it must be in a precise line.

### **A Common Pair of Problems: Lack of Mastery and Weak Links**

There are basically two reasons why beginners and others pull the bar off the floor improperly. One, they have not been taught how to do this move correctly, or haven't done enough reps to have mastered the technique. Secondly, athletes, even experienced ones, break form at the start simply because one or more of the muscle groups that are responsible for this act are not quite strong enough to hold the body in the proper position.

For example, an athlete is doing full cleans and as he works up to his target number for that day, his start is perfect. Yet, on the max attempt, his hips rise up too rapidly, causing the bar to run forward and he misses

the lift. His form break was a direct result of a relative weakness in those muscles involved in holding his hips in the correct placement at the start. This is usually the lower back, but it could also be the hips themselves or the adductors or hamstrings.

In other cases, when the weights get heavy, the athlete begins to round his back excessively, which moves the bar away from his body and out of the intended line of pull. So before an athlete can move forward number-wise on his pulls, he has to take time to strengthen the weaker area or areas. A point that's often overlooked is that form is dependent on strength. As an athlete grows stronger, he must constantly be on the lookout for signs of weaker muscles. A great many are involved in stabilizing that starting position for the pulls: hips, quads, hamstrings, adductors, abductors, calves, lumbar, lats and rhomboids, traps, shoulders, and arms. And the abs play a role as well. It would appear as if nearly every group in the body is part of the start—and this would be right.

If a certain muscle group displays a glaring weakness, it needs direct attention right away. It does no good to keep hammering away on an exercise that cannot be done with heavy weights because of a weak link. Most can be corrected in a short period of time with some specific work. Should a lifter determine that his hamstrings are the problem in not being able to hold the solid start on

his pulls, get on a machine and knock out two to three sets of twenty at every workout. A sign that an athlete has relatively weak adductors is when his knees turn inward on the heavy attempts. Again, the machine will do the job if you hit it diligently; three sets of twenty at every session.

When the back rounds too much, figure out what segment is lagging behind. It could be the middle or top, but more than likely it's the lower back causing the trouble. Start hitting the lumbar with back hypers and reverse back hypers at every trip to the gym and start leaning hard on the good mornings. While calves are not thought of as being body parts that may influence the start, if they are way out of proportion in relationship to the rest of the leg, they can indeed be responsible for a shaky start. Three sets of thirty three-times-a-week will cure that weakness in a hurry.

It's most important that you identify weak areas and if you do not have the luxury of a good coach or training mate who knows what he's doing, this can be a difficult task. While I do not encourage lifters to train in front of a mirror on a regular basis, it can be useful in this regard. An athlete may not even be aware that his hips are rising up too much. But a session in front of the mirror will quickly reveal those form flaws.

However, do not get in the habit of always lifting in front of a mirror. You'll quickly become dependent on visual, rather than tactile, cues. In a short period of time, you'll find that you can't do a lift without watching yourself in a mirror. For anyone planning on lifting in a contest, this will be extremely troublesome.

### The Finer Points of Foot Placement, Grip, Hips, and Creating a Solid Base

I'll mention several other ways to improve overall strength for the starting position, but now I want to go over the specific form points for that first move off the floor. I'll use the clean as my example. Everything pertains to any form of snatching as well, except the grip is wider.

**Foot position:** Pulling a heavy weight off the floor starts with the feet. To find the best foot placement for pulling, shut your eyes and prepare to do a standing broad jump. That's your most powerful thrusting position—feet at shoulder width with toes pointed forward.

Step up to the bar and set your feet so that your shins are touching it. This is the most common mistake beginners make. They set the bar 3-4" away from their legs. The bar must be tight against your legs if you want a perfect start.

**Handgrip:** Reach down and assume your grip. To utilize the grip that fits most, except for those with narrow or very wide shoulders, extend your thumbs on an Olympic bar until they barely touch the smooth center.

**Hips:** Setting the hips may take some trial and error. Setting them as high as parallel to the floor works well for some, while others need to lower them to a place where they feel comfortable. Regardless of where you set your hips, two things must be done:

1. Your frontal deltoids must be out in front of the bar. Not a lot, but an inch or two.
2. You must have a very flat back. No rounding at all. For those who have difficulty getting the feel of what I'm after, I have them stand up, lock their shoulder blades together, then lean down and grip the bar while maintaining that strict back posture.



*Notice that the bar and hips rise at the same rate, the back angle doesn't change, and the bar stays in contact with the shins.*

**Solid base:** Look straight ahead, not up or down. Now you're in the correct position to start the pull. But before you do, take a moment to create a solid base. First, lock your feet into the floor. This can be accomplished by trying to grip it with your toes. Imagine a bird gripping a tree limb. Once that's done, it's rather easy to tighten the muscles in the rest of your body, starting with your legs, moving on up to your hips, back, shoulders, and arms. Become a coiled spring of muscle.

### Practicing the Deadlift is Key

Since the initial move is so critical to success, it has to be done precisely. In order to achieve an ideal start, don't think about pulling the bar off the floor. Rather, think of pushing your feet down through the floor while maintaining a rock-solid body position. When you do that, the bar almost magically lifts off the floor. Once it's set in motion, keep it moving in the same controlled manner, guiding it upward still snug against your legs, with your hips rising at the exact same rate as the bar.

As readers are well aware, what I just described is a deadlift using a clean grip.

(Note: As the bar passes your knees, you enter the second or middle pull of the clean, which is covered in the article "[Scoop & The Second Pull](#).")

The deadlift is the basic move used to improve the start on a number of exercises—power or full clean, power or full snatch, or clean and snatch grip high-pulls—for a simple reason: the muscles and attachments involved in it have to be strengthened in order to lift more weight in any of those exercises.

A frequently told story about Norbert Schemansky, one of America's greatest Olympic lifters, is pertinent. A young lifter approached Ski and asked, "What can I do to improve my overhead press?" Ski replied, "Press." "Well how about my squat?" The answer, "Squat."

Simple but accurate, which in this case means that the very best exercise to do to improve strength in that start of the pull is the deadlift. I know that quite a few Olympic lifters and coaches of that sport shun deadlifts, saying they are done too slowly and belong to the powerlifters, not those doing the dynamic lifts.

Not true. Deadlifts have great value to Olympic lifters and others who incorporate some quick lifts like power cleans and power snatches into their routines. However, I'm not talking about the type of deadlifts that most powerlifters employ, where they round their backs during the lift. Also, I don't think really heavy poundages need

to be used in order for the kind of deadlift I recommend to be beneficial. Since form has to be perfect on every rep, the amount of weight used is much less than when an athlete pulls such a heavy load that the back rounds.

### The Big Three Exercises for a Strong Start

Three exercises that I utilize to build greater strength in the starting position are 1. halting deadlifts, 2. deadlifts done from a lower starting position, and 3. isotonic-isometrics pulls in the power rack. These are particularly helpful to those athletes who have moved into the intermediate or advanced levels. They also can be useful to beginners, but in most cases, they are better off attacking the weaker groups that I went over earlier.

#### Exercise #1

##### Halting deadlifts

Halting deadlifts are just what the name implies. You pull the bar up to mid-thigh and pause for a 2-3 second count, then lower it in a very controlled manner back to the floor. Both the up and down movements are done very deliberately. This forces all the groups involved to work much harder. The back has to stay flat as a board, the knees are not allowed to turn in, and the hips must climb upward in concert with the bar. And, of course, the arms stay straight throughout, the frontal deltoids are always out in front of the bar, and the bar is tucked in snugly against the legs. Pause at the bottom long enough to make sure all your mechanics are right, then do the next rep. The longer you pause at the top of the movement, at mid-thigh, the more it's going to help you, but you may not be able to hold for very long at first.

These, as everyone quickly discovers, are tough. Five reps are plenty, for four to five sets. At the first workout on these, very few are able to handle a weight equal to their best clean—which is okay. In strength training, it doesn't matter where you start, only where you end up. Halting deadlifts not only strengthen all the groups and their attachments that are involved in the start, but it also helps reveal weaker areas. These usually show up on the fourth or fifth rep of the work sets. Once these are identified, take the necessary steps to strengthen them. Start off with relatively light poundages so you can get the feel of the technique, then continue to add weight on each set just as long as your form is perfect.

However, should form break down in any way, stop and lower the weight. A set done flawlessly is worth more than one done with sloppy form with twenty more pounds. Work these regularly, once or twice a week, and you'll soon be using fifty more pounds than you did at

that first session. At that point, they will have a direct, positive influence on your power cleans, full cleans, clean high pulls, and even full deadlifts.

You can also do halting deadlifts with a snatch grip. Use straps on all of these recommended exercises. Straps will let you focus fully on the exercise itself without being distracted with trying to hold onto the bar once the weights get in the demanding range.

### **Exercise #2** **Pulling from a lower position**

Another way to improve the start is to deadlift with the bar at a lower position than normal. This is useful for beginners all the way up to very advanced strength athletes, and it's rather simple to do. Just use 25-pound plates on the Olympic bar instead of 45s. Or if you normally use bumper plates, use the metal 25s. Pulling from this slightly lower starting position brings some different muscles into the mix. The key to making these beneficial is to set the hips extra low and not allow them to climb up fast or so high that the exercise resembles an almost straight-legged deadlift. Lock the lowered hips in place and squeeze the bar off the floor. You can also do these as halting deadlifts, although most prefer to do a full-range movement.

Pulling from a lower position hits those groups that are responsible for moving the bar off the floor very directly, and the results are immediate. After your very first workout on these, you will be able to tell that your start on any form of pulling exercise is stronger. Plus, you'll be able to utilize ideal form. I had one powerlifter try these; a week later, he improved his personal best on the deadlift by 20 pounds.

### **Exercise #3** **Pulls in the power rack**

Isotonic-isometric holds—where a weighted bar is moved a very short distance, no more than a couple of inches, then locked into a pin and held for a specific count—were part of nearly every strength athlete's routine during the sixties, but then lost favor for a number of reasons that I will not go into. Suffice it to say, they are extremely beneficial for moving through sticking points and bringing weaker areas up to par. Beginners and intermediates can do these, but they're most useful to those who have been training for some time, mostly because experienced lifters are able to concentrate more fully and this enables them to put more effort into the contractions.

My rule on isometric holds is no less than eight seconds and no longer than 12. The isotonic part is when the

weighted bar is lifted up to the top pins. The isometric contraction is when the weight is held tightly against those pins for a count. With the loaded bar, it's easier to tell if you're applying 100%. With just a bar and no weight, this is more difficult.

Position the pins inside a power rack so that when you do the isometric contraction, the bar will be lower than the normal starting position when it's pulled from the floor—not much, but some. While learning to do this highly concentrated form of exercise, I find it best to do a couple of warm-up sets before tackling the work set. On the first, light set, do three reps. Tap the upper pins on the first two, then hold the third rep for two to three seconds. Do the same thing on the second set with more weight. On the work set, you can follow that same procedure and lock the third set and hold it for the required eight to twelve seconds. Or you can lock in the first rep on the work set for the count. After you become familiar with the isotonic-isometric contractions, you can just do one set, a work set.

Do these at the end of your workout or right after you've finished with a pulling exercise. These can be done at every session, but only do one work set per workout. Keep in mind that the amount of weight used is not nearly as important as being able to maintain perfect body positioning while you're locked into that isometric hold. In most cases, less is better than more in terms of weight used.

Concentrate on the various form points for the start of the pull, steadily hone your technique, identify any weaker areas, then include one or more of the exercises I've suggested to strengthen those areas, and you'll quickly be handing bigger numbers in a wide range of beneficial exercises.



### **About The Author**

*Bill Starr is the author of the books **The Strongest Shall Survive: Strength Training for Football, Defying Gravity**, and thousands of magazine articles. He was the editor of Bob Hoffman's **Strength and Health**, Joe Weider's **Muscle Builder**, and a nationally-ranked Olympic weightlifter and powerlifter back in the day. Bill was one of the first professional strength coaches in the country, has forgotten more about training than most coaches will ever have the opportunity to learn, and makes a very convincing crab cake if you can talk him into it.*

-Mark Rippetoe