

# Starting Strength

## A Strong Start

by  
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An exercise consists of three parts: start, middle, and finish. I'm often asked which of the three is the most important in terms of making a heavy attempt on one of the primary movements. The answer is all three play critical roles, but the start has the greatest influence on the outcome when doing a lift with a heavy poundage. It's similar to the first step in a sprint, or the initial move of a quarterback throwing a football, or a swimmer coming off the block in a race. What happens in the beginning always has a direct bearing on what follows.

While this article is aimed at those doing the two Olympic lifts – snatch and clean and jerk – the information is also beneficial to anyone who is trying to get stronger and only doing exercises like the deadlift, squat, and bench press. Or someone who mixes dynamic movements like power cleans or power snatches into his strength routine. Any program worth its salt has at least one pulling exercise in it where the bar starts on the floor, so I'll begin with the basics and use the power clean as my example lift.

The key to having a strong start in this or any other pulling movement is to set your body correctly. Should your starting position be incorrect, your form at the beginning of the movement will also be wrong. So I'll go over the fundamental points. Your feet should be shoulder width and your toes pointed forward. The bar should be touching your shins and your frontal deltoids must be slightly out ahead of the bar. This is a key point. Whenever your frontal deltoids move behind the bar you will have less power to elevate it higher, so this should not happen until the very end of the lift.

The grip that fits most for the power clean can be found in this manner. Extend your thumbs on an Olympic bar so that they barely touch the smooth center part of the bar. That works for most, but if you have very wide or very narrow shoulders, you need to adjust your grip a bit to accommodate for that difference. Where you set your hips also varies with body type and sometimes preference. If you can set them rather high, even as much as having your back parallel to the floor, you're going to have a much longer lever to work with. However, your lower back and hips must be strong enough to allow you to hold that starting position firmly in order for that high position to be effective. If you can't, then the bar is going to run forward and this will result in a failed attempt if the weight is demanding.

Most beginners and intermediates that I have trained are unable to use a high hip starting position. Mostly because those muscle groups which are responsible for locking the hips into that position just aren't strong enough yet. So it's better to lower the hips a bit. But the same rule applies: the hips must move upward at the same rate as the bar, because even when you start with the hips low, if they rise faster than the bar, the bar will move out of the correct line of flight.

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I've also watched lifters set their hips quite low, then just before they commence the pull, their hips rise up several inches. They would be smart to fix their hips in that higher position to begin with and get rid of the wasted motion.

Grip the bar firmly, make sure your back is very flat, and your eyes straight ahead, You must be tight at the start, and to facilitate this don't think about pulling the bar off the floor, but rather think about driving your feet right down into the floor. This will help you achieve a more solid base which is critical for moving heavy weights. Ease the weight off the floor. The mistake that many make, and especially beginners, is trying to hurry the start, thinking that if the bar comes off the floor fast that will help them make the lift. What happens is just the opposite. Whenever an athlete jerks the bar off the floor, two things generally occur, and they're both bad. One, the lifter's arms bend, which means that when the bar reaches the top of the pull, he doesn't have them to use for that final "pop". Secondly, a rushed start almost always results in the back rounding slightly, which in turn takes the bar once again out of the correct pulling line.

The motion of any pull should resemble that of a whip, slow at first, picking up considerable speed through the middle, and be no more than a blur at the finish. At the same time, the bar must stay snug to your body. If it's allowed to stray forward, you're not going to be able to finish strong. When the bar reaches mid-thigh, it should be brushing your thighs, with your arms straight and your back flat with your frontal deltoids still out in front of the bar.

At this point, drive your hips forward forcefully and with your frontal delts still leading the bar, contract your traps, bend your arms, and climb high on your toes. Those last three things are done simultaneously and in a nanosecond. That final burst of power will cause the bar to jump, and that's when you dip under it and rack it across your shoulders. Lower the bar in two steps: first to your waist then down to the floor with your back flat. If you let the bar crash to the floor after racking it, odds are that your back will round and you do not want this. Keep in mind that you can injure your back while returning the bar to the floor just as you can while lifting it.

Do not get in the habit of rebounding the bar off the floor while power cleaning, power snatching, high pulling, or doing deadlifts. Eager lifters do this to set the bar in motion and make it jump higher at the start. But it's counterproductive. The rebounding motion causes your arms to bend way too soon and, once again, your back to round, leaving you in a poor position to complete the movements. This is especially true if bumper plates are available because the rubber bumps can rebound the weights a full 6-8 inches off the floor. While rebounding may, in fact, allow you to handle more weight, it's very detrimental for your start. You cannot rebound the first rep on any pulling exercise, so if you've been bypassing those groups which are responsible for this action, stop. Learn to pause at the start and take the time to check out your mechanics before doing the next rep, and when it comes time to challenge a max attempt, you'll be ready.

The power clean is the best exercise for any beginner to learn in terms of pulling exercises because once you establish the correct line of pull and have mastered the timing and coordination of bringing into play the traps, arms, and calves, you can easily move on to power snatches, high pulls, deadlifts, and shrugs. And even full cleans and full snatches.

Because relatively light poundages are used in power cleans and power snatches, a weakness in the start doesn't usually reveal itself. But once you start using heavier weights in such movements as full cleans, high pulls, and deadlifts, it will. Once an athlete has good form in the full cleans and full snatches, I have him add in high pulls, using the two different grips. I do this so they will overload all the groups involved in pulling heavy poundages off the floor, propelling them just as high as possible.

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When they approach numbers that are 50-75 more lbs. than they're handling in the two Olympic lifts, that's when a deficiency in the start shows up.

I use three exercises to remedy the situation. The first is a deadlift using 25-lb. plates. The smaller plates set the bar lower than when 45s are on the bar. This lower position at the start forces the athlete to squeeze his glutes and hips tightly and ease the bar upward because he still has to follow the basic rule of bringing the bar and hips up at the same rate of speed. Typically, when I begin a lifter on this exercise, he scoffs at the notion of using 25-lb plates. But he changes his tune rather since those seemingly innocent fifty-pound jumps add up rather quickly.

In the beginning, I have them do five sets of eight: 95, 145, 195, 245, and 295 makes for a taxing session, and every single rep has to be done precisely. They force the lifter to concentrate on tightening those groups that move the bar off the floor and the carry-over value is immediate. The very next time the lifter does a pulling movement after doing the low deadlifts, his start is greatly improved.

The second exercise that I like is halting deadlifts. These can be done with the 45s, or bumpers. The move, both up and down, is very controlled so that the lifter can fully focus on his body mechanics. The bar is pulled only to mid-thigh and held there for a one or two-second count before being lowered back to the floor. Straps are helpful for these once the weights get really demanding. The key to making these work is to do each and every rep perfectly. It should look as if you're inside a Smith Machine. Fives work well for halting deadlifts and five or six sets is usually enough as long as that last set makes your eyes water. But after doing these for several workouts, you will find that your pulling line is much tighter and this allows you to do the more dynamic movements like power and full cleans with greater confidence.

The final exercise is the toughest of the three, and for that very reason it's also the most beneficial: an isotonic-isometric pull from a low position. How low? Three or four inches lower than the height of a bar with 45s or bumps on it. You can insert these into your program on days where you did power cleans, power snatches, and full cleans and full snatches, but I wouldn't do them in conjunction with either of the two forms of deadlifts I just mentioned, or regular deadlifts or high pulls. It would be a bit too much.

Yet they fit in nicely at the conclusion of a session with the quick lifts. Not all power racks have enough holes in the uprights to accommodate short movements between the holes, but do the best you can. Standing on boards sometimes helps. The top pins are locked in somewhat lower than the normal starting height. If you can manage four inches, fine. If your rack will only let you have a two-inch separation from the top and bottom pins, work with that. All the bar really has to do is move a few inches for this to bring results.

If you're doing them after a pulling exercise, you don't have to do any extra warm-ups. However, if you choose to do them on a separate day or on a day where you didn't do any other pulling, take time to warm up those groups which are going to be put under stress thoroughly. A couple sets of power cleans is usually sufficient. To find the ideal amount of weight to use on these will take some trial and error. When in doubt, use less until you get the feel of what you're trying to accomplish. Use straps. Also, as you're learning the proper technique for this highly-concentrated movement, you might want to do a few sets with lighter weights before tackling the final, work set.

My sample lifter has cleaned 315 and deadlifted 450. For his initial set of isos, he uses 225. To further accustom him to the form of this exercise, I have him merely tap the top pins for two reps and hold it for a short three-second count on the third rep. The bar is loaded to 275 and that same sequence is repeated. If 275 was easy, I have him take 375 for his work set. If it was difficult – and by

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that I mean he was unable to hold his hips in the correct position throughout the three reps – I have him take 295 or 305. This work set consists of just one rep and the bar is locked against the upper pins for no less than eight seconds. Should he not be able to do this, the weight is lowered and he tries again. On the other hand, should he be able to hold the work set for much longer than eight seconds, he will add more weight the next time he does the exercise.

The main thing to remember when doing an isotonic-isometric movement is that time is more important than how much weight is on the bar. And the mechanics have to be absolutely perfect for the isos to have the desired effect. These three exercises will make your start in all pulling exercises, with the exception of bent-over rows, much, much stronger.

But there is more to becoming an accomplished Olympic lifter than just a strong start in the pull. He must also be able to front squat heavy weights if he wants to elevate big numbers in the clean and snatch, and in order to move heavy weights in the front squat the athlete must have a strong start out of the bottom. Great pullers with weak bottoms in the front squat will fail. The front squat is the true test of leg strength. How much do you think some of the top powerlifters who are handling a half of ton in the back squat can front squat? This assumes they have the flexibility to rack a front squat, which only a small percentage do, I'd guess way less than half. When a European Olympic lifter wanted to know how strong your legs were, he always asked, "How much can you front squat?" Never, "What's your best back squat?"

One of the things I like about front squatting is that there's no way to cheat. Lean forward and you're toast. Try to recoil out of the bottom and the bar will run forward or backward, and that's the name of that tune. The front squat has to be done in a precise manner, and it also has to eventually be explosive, both of which take great strength in the legs, hips, glutes, and lower back. Back squats are considered legal if the lifter's thighs break parallel. But try cutting off a front squat and the lift is lost. Your torso has to remain erect throughout a front squat and the movement has to be done very deep. The deeper the better, because that forces all those groups I just mentioned to work harder. Harder work translates to greater strength.

I am assuming that anyone doing the Olympic lifts knows how to front squat or he wouldn't be bothering with that sport. Here are a couple of ways to improve that initial drive out of the bottom. When that thrust is powerful enough, it will elevate the bar right up through the troublesome middle, or sticking point, and make for an easy finish.

As in rebounding the plates off the floor in a pulling exercise to get a head start, many try rebounding out of the bottom in a front squat. This may work for a time, but it's a bad idea over the long haul. One, the rebounding is stressful to your knees: really stressful if done repeatedly and with taxing weights. And just as the rebounding of the plates on pulls bypasses the groups that are responsible for the start, the same thing happens when an athlete recoils from the bottom in a front squat or full clean. When a lifter who rebounds suddenly finds himself having to stay in the bottom position much longer than usual so he can get the bar under control across his shoulders he is not able to put enough juice into the upward thrust to successfully complete the lift. That's because those groups which make up the "power pack" in the hips haven't been worked; they've been ignored.

There are two ways to make the weaker muscles stronger, and neither could be classified as fun. The first is similar to one of the exercises I suggested for strengthening the start in the pull: halting squats. Front squat a weight and sit in the bottom for a five second count. Don't be passive. Rather, stay rigidly tight and squeeze your glutes and lumbar as tight as you can. Since you are going to have to try to stand up from a dead stop, you must think about contracting those muscles dynamically as

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you begin your start. One other important note – your first move out of the bottom of a front squat is to lift your elbows upward. In the back squat, you can get away with driving out of the bottom with your hips and lower back coming up a bit because it's possible to adjust a back squat while it's climbing upward. This is not the case in the front squat, and driving upward with your hips before lifting your elbows will cause the weight to run forward. That will take you out of the proper position, and in most cases will result in the weight being dumped or you not be able to grind it through the sticking point.

Do these in sets of three. That will allow you to pay closer attention to staying very tight and elevating your elbows before punching the weight out of the hole. And that initial move upward should be done aggressively.

After doing these for a few workouts, you will be better prepared to do an isotonic-isometric front squat hold in the rack. The top pins need to be set right at, or even lower than, where you end up at the deepest part of your front squat and clean. These are killers, so one set is plenty. A bit of experimenting will be necessary for you to find the correct amount of weight to use on these. Stay with the basic rule: if you cannot lock the bar firmly against the top pins for at least eight seconds, use less weight. If you can hold it for more than twelve, load up the bar next time you do them.

When you get noticeably stronger in the bottom, you will find that even when a clean is not fixed perfectly across your shoulders and you have to take a few extra seconds to set things right, you will still be able to explode upward and make the front squat easily because now your power pack is a great deal stronger. In addition, that new strength will carry over to the full snatch. By greatly increasing strength in that deep bottom, you will have no difficulty recovering from a snatch, even if you have to take the time to make adjustments at the bottom.

However, you can further aid your cause by doing heavy overhead squats and sitting in the bottom for five or six seconds before recovering. You'll need assistance for these unless you happen to have a power rack that you can take a weight out of with your arms locked out using a snatch grip. To overload, have two training mates help you power snatch the weight to lockout and spot you as you go to the deep bottom and sit there for a count.

But even after an easy clean, you still have to jerk the weight, so that move has to be strengthened as well. Two exercises are sufficient: an overloading movement and a three-position iso-contraction. The overload I call press, or jerk, starts because it benefits both of those lifts. These can be done in a staircase squat rack or a power rack. You need to be able to front squat the weight up high enough before you begin the lift so that it doesn't hit the cross bars or pins when you dip to drive it upward – at least six inches. That's really all you should dip if you want an explosive start. It should be like a boxing punch, condensed and dynamic.

Start out with a light weight so that you can establish a pattern. The idea is to drive the bar off your shoulders just as hard as you possibly can. That means the first few warm-up sets will go all the way to lock out. That's what you're after, the notion of a full-out effort. As you steadily add weight, the bar will not travel nearly as high, but if you're still putting every ounce of energy into the thrust you're making those groups much stronger. Eventually, you must overload and end up using 40 to 50 more pounds on these than you can jerk. Do triples, and on each rep try to resist the stopped bar once it has reached its apex and then lower it in a controlled manner back to your shoulders. This final bit of negative resistance helps to build even more strength in your arms, shoulders, back, hips, and legs.

Make sure you stay extremely tight throughout these jerk starts. If any muscle group is relaxed it will adversely affect the lift. So tighten every muscle from your toes to your traps as you take the bar off the lower pins and get set to drive it as high as you can. And you must pay close attention to driving

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the bar in the correct line every time. Should you be hurling it in a different line than you use when jerking, the rewards will be greatly diminished.

Back inside the rack, start out doing an isotonic-isometric contraction from that point where you are in the lowest part of the dip for the jerk. Do one set for the usual count. Move the pins to the top of your head and do another iso, then finish off with a third set with the pins about two inches from lockout. Making the shoulder girdle stronger will greatly enhance your ability to jerk and press much heavier poundages, and even after a tough clean you'll be able to ram the jerk home.

Isotonic-isometric contractions can also be used to improve the start in flat benches and inclines, or just about any other exercise in your program. And because the lumbar play such a critical role in the two Olympic lifts, make sure you give them plenty of direct attention in the form of good mornings, almost straight-legged deadlifts, back hyperextensions, and reverse hypers. When you come to the point where your hips are moving upward at a faster rate than the bar in any pulling exercise, it's time to start making your "power pack" stronger. These recommended movements will do the trick, if you fully apply yourself and focus on form.

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