Power Clean Problems and *How to Fix Them*

Easy coaching tips to get the most out of this great exercise

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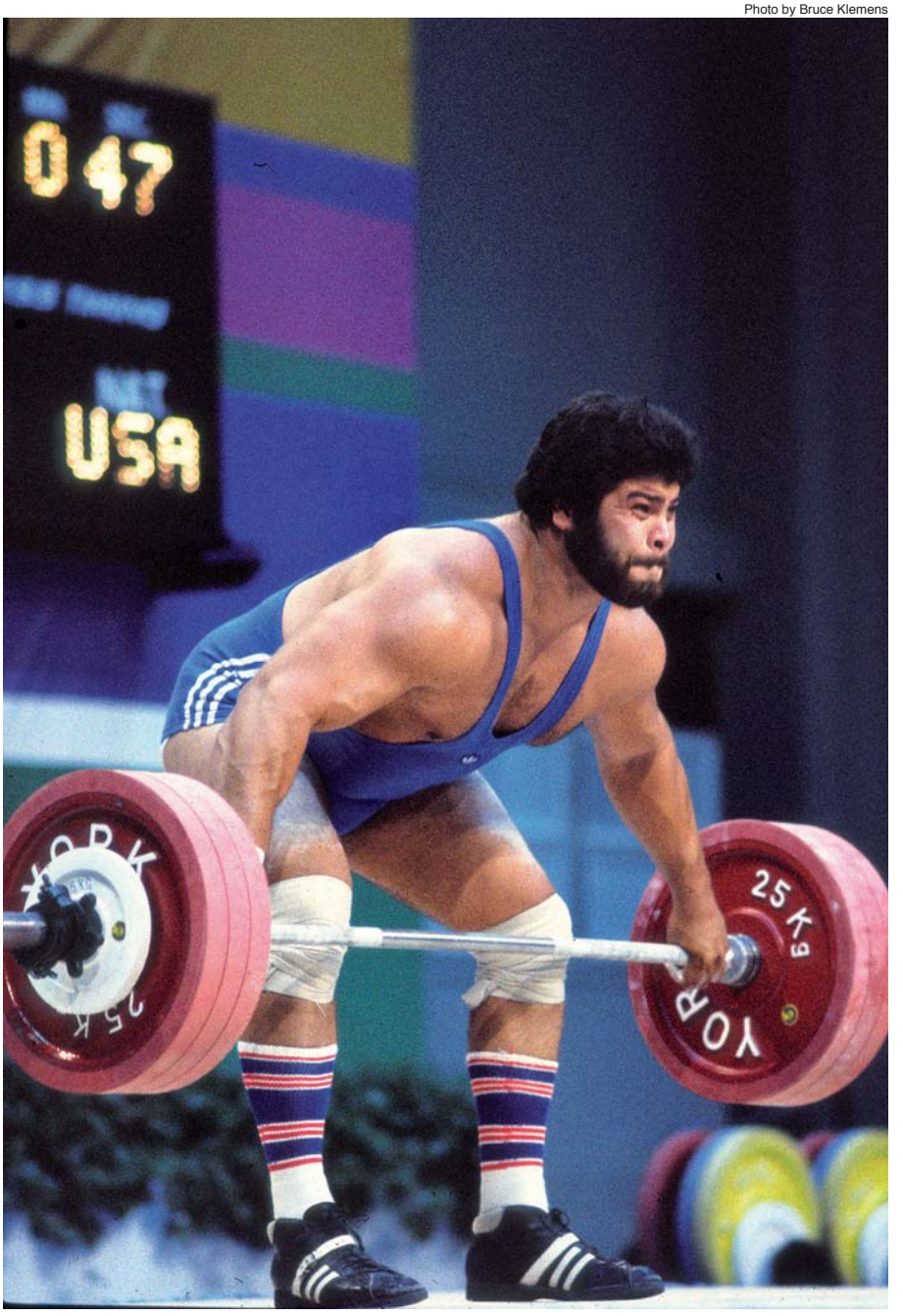
Photo by Bruce Klemens



In a perfect world, middle school athletes would begin with the BFS Readiness Program. They would learn how to stretch, run, lift and spot properly. By the time they became freshmen in high school, they would have solid technique and be physically ready to make big gains in strength and athletic fitness. Unfortunately, many high school athletes jump right into trying to lift heavy weights from day one and end up developing poor lifting habits.

The longer an athlete performs an exercise improperly, the longer it takes to correct the error. Take the case of US weightlifter Mario Martinez. I knew Martinez when he was a teenager living in Salinas, California. He was pretty much self-coached; at first he trained primarily on a 5-foot exercise bar. When he finally got an Olympic bar, he could afford only enough weights to load the bar to 220 pounds. So, he got into high-rep snatches with the Olympic bar, doing 20 consecutive reps with 220 pounds and 30 reps with a short rest after the 15th rep. In the clean and jerk he needed much heavier weights and went back to the exercise bar; in one training session he clean and jerked 295

Shown here at the 1984 Olympics, where he won a silver medal, Mario Martinez developed a habit of pulling with bent arms, which is considered a technique flaw.

for 6 sets of 6 reps! Impressive, but that sort of training had consequences.

Martinez's high-rep training made his grip become a weak link in his lifting. In the heavier lifts he would have to curl his wrists under and bend his arms to complete the high-rep sets. This became a habit, and soon he pulled all his sets with bent arms. By the time Martinez moved to San Francisco and starting working under Olympic team coach Jim Schmitz, his technique problem had become too difficult to correct.

Despite this technique flaw, Martinez went on to win 10 national championships, break numerous American records and win a silver medal in the 1984 Olympics. Nevertheless, weightlifting coaches agree that Mario Martinez was one of the greatest US lifters in our history despite his technique problems, not because of them.

On left, Lusia Angilau, a volleyball player at Southern Utah University, shows how catching the weight on your fingertips enables you to keep your elbows high. On right, BFS weightlifting scholarship winner Brittanie Mastricola shows how to use wrist straps to take the pressure off your wrists during front squats.

Cleaning Up the Power Clean

Using unconventional lifting technique compromises athletic performance and creates greater risk of injury. One of the BFS Six Absolutes is to "Spread the Chest" (or "lock in" the lower back). This absolute is essential to properly perform the power clean. If a lifter pulls with a rounded back, their lower back muscles relax and cannot adequately protect their spine – the lifter is basically hanging by their ligaments. Eventually this stress could result in chronic back pain.

Of course, telling teenage athletes that using good technique will enable them at age 50 to play with their grandchildren is not the most compelling argument. A better selling point is that having better technique, particularly in the power clean, will enable them to lift more weight.

Some young athletes give up and perform the lift from the hang or from blocks, and some coaches even argue that these partial movements are more sport specific. Some athletes just don't do power cleans at all, saying that squats and plyometrics are enough to develop what they refer to as "explosive power" (as opposed to "non-explosive power"?). Rather than watching your athletes compromise or give up, you can use the following methods to correct common technique problems with the power clean.

1. Can't rack the bar on the shoulders. When athletes can't hold the bar on their shoulders, they may secure the weight on their upper chest and place a lot of stress on their wrists and shoulders.

A common misconception is that not being able to rack the bar is primarily due to a flexibility problem in the wrists. In fact, the fault is usually in the upper back muscles.

First, simply performing front squats will help. For instance, Lusia Angilau, a collegiate volleyball player who appeared on the September/October 2009 cover of *BFS*, had terrible form when she first tried power cleans. So, as a warm-up I had her power clean a light weight and catch the bar on her fingertips, and then had her perform a front squat. As her flexibility improved, she was able to comfortably perform the lift with her elbows high, achieving a best result of 155 pounds in the lift along with a vertical jump of 27.1 inches. Doing this drill eventually enabled her to display excellent form in both her power clean and her squat clean.

Another method is to have athletes practice front squats with straps. This results in less stress on the wrists because (1) the upper arms do not have to be bent back as far as with a regular front squat and (2) the wrists are in a neutral position, as opposed to the supinated (palms up) position used with regular front squatting.

Have the athlete hook the straps around the bar at shoulder width or in the position normally used for a front squat or power clean. To perform the exercise, they will place their shoulders under the bar and grasp the straps with a neutral grip (i.e., palms facing each other). How high up they grab the straps depends upon their flexibility (the less space between the bar and their hands, the better). From this position, they simply lift the weight off the squat racks and begin front squatting. You'll find that they can keep their elbows high and the weight securely on their shoulders with this method.

Another advantage of this exercise is that if an athlete is not capable of performing front squats, this technique will improve their flexibility until they can perform them. Start by having them

The problem of swinging the weight out front so that the athlete must jump forward to catch it can often be corrected by turning the wrists under, as shown in the top photo on right. This moves the elbows out so that the bar tends to travel more straight up. Foot position also affects the bar path. The optimal foot position for most athletes is with the bar in line with the base of the big toe.

hold the top end of the straps; and as their flexibility improves, have them move their hands close to the bottom. Eventually they should be able to smoothly transition into regular front squats.

2. Can't get into proper starting position. This problem usually is characterized by the hips being too high and the back being rounded.

As for the back, the athlete may not have the body awareness to get into the proper position. Using a hex bar can help; because the hands are in line with the hips, the hex bar makes it easier for the athlete to arch their lower back. One tip is to have the athlete perform a set of light hex bar deadlifts, and then immediately try the power clean – I've found that this method often enables them to achieve the optimal position in the clean.

As for the hips being too high, often this is simply a result of having tight calves. Stretching can eventually resolve the problem, and the BFS 1-2-3-4 Flexibility Program has a stretch specifically for the calves. For a quick fix until flexibility improves, the athlete can try lifting in shoes with an elevated heel. This will enable the shins to be more inclined. Weightlifting shoes have an elevated heel for this reason, but these shoes can be quite pricey. The same effect can

Performing the reverse clean deadlift is one way to learn the proper pulling pattern for the power clean.

be achieved with a rubber heel lift placed inside the shoe. Shoe repair shops often have these inserts, and I've seen them for sale online for about two bucks.

3. Jumping back or jumping forward. In working with large groups at BFS clinics, we use the concept of "Feel the steel" when getting into the start position. We do this because one of the major faults a beginner makes is not standing close enough to the barbell, and "Feel the steel" is a simple, effective cue to use with large groups (as opposed to setting up the bar so it is aligned with the base of their big toes). For some athletes, having the barbell resting on their shins is optimal. A good general coaching tip is that if an athlete is jumping forward, they are probably standing too close to the bar; if they are jumping back, they are probably not standing close enough.

4. Pulling with bent arms. Often this fault can be corrected by simply keeping the arms long – it's unwise to tell athletes to lock their arms because they will probably end up swinging the weight out front. Have them roll their shoulders forward.

Another approach is to have athletes do a three-part drill, working the lift from the top down. Relatively light weights are used, and the drill can be used as a warm-up set. With this method, have them perform the first repetition from the hang. Without returning the bar to the platform, have them perform the next rep from just below the knee. For the third rep, have them perform the lift from the floor. Breaking down the lift in this manner enables them to focus on keeping their arms straight during the lift. If this three-part drill is used as a warm-up set, often when the athlete moves to the heavier weights from the floor, the new technique pattern will carry over to those lifts.

5. Swinging the weight out front when the bar passes the knees. Because an athlete's balance is better in a power clean than in a squat clean, they can often get away with swinging the bar forward during the pull. One cause of this is banging the bar hard off the thighs; to fix this problem often all you have to tell the athlete is to think about brushing the bar up the thighs – one effective verbal cue is to tell the athlete, "Think about sliding the bar up to your waist." It also helps to have the athlete turn their wrists under with the elbows out at the start of the lift, a technique that directs the bar straight up.

One cause of jumping forward is leaning too far forward when the bar passes the knees. The drill used to correct the next problem will also work for this one.

6. Moving the bar around the knees and using the lower back muscles improperly. Athletes who have performed cleans without proper coaching may not know how to use their legs or how to get into the correct positions for the lifts. One easy way to fix this, which I observed two Russian coaches teaching to beginners, is to simply do the first part of the lift in reverse.

Start by having the athlete stand up and rest the barbell at mid-thigh level. Then have them bend their knees slightly – do not allow the athlete to lean forward, but instead just bend straight down. Now have the athlete bend forward so their shoulders are slightly in front of the bar – if they bend over with their shoulders too far over the bar, they will end up swinging the weight and will have to jump forward to catch it. From this position have the athlete flex their legs, keeping the back angle the same, until the bar is on the floor. That's part one.

Without letting go of the barbell, the athlete then does a regular power clean – you'll find they will often follow the same movement pattern going up that they used when they lowered the bar to the floor. As a bonus, when they lower the barbell to the floor, the position of their shins often results in the best position for their feet.

Russian weightlifting coaches believe, as do we at BFS with our Readiness Program, that the best time to work on technique is when athletes are still weak. But if it's too late for that and your athletes are displaying poor technique in the power clean, use these tips to get them back on track. BFS