

Barbell Basics: The Power Rack

Rediscover this versatile training tool

Strength coaching has evolved into a profession in which there are professional organizations, peer-reviewed journals, national conventions, and coaches who make six-figure salaries. But along the way, the profession experienced a rough patch that led many athletes and strength coaches in the wrong direction in their efforts to develop physical fitness and athletic superiority.

In the 1950s, several decades before strength coaching became recognized by the sporting world, bodybuilders, weightlifters and just about anyone who wanted to get strong trained alongside each other and used the same equipment. Squats, power cleans, military presses, weighted dips and chin-ups were universally accepted exercises. Let me give you more examples.

John Grimek and Steve Sanko, both Mr. America winners in the 1940s, were on the US Olympic Team for weightlifting. Reg Park, who played Hercules on the big screen and won his first Mr. Universe title in 1951, was the first bodybuilder to bench press 500 pounds – and this was in the

days before bench shirts. Marvin Elder placed third in the 1951 Mr. America and, at a bodyweight of about 197 pounds, did 6 two-arm chin-ups with 125 pounds and a single rep in the parallel bar dip with 434 pounds. Bill Pearl won the 1953 Mr. America title and could squat 605 and military press 320 pounds. And 1968 Mr. Universe and two-time Mr. Olympia winner Franco Columbu reportedly could deadlift 750 pounds, which exceeded the world record in that lift during that time period. Then a split happened in the lifting community.

First, in 1972 the standing press was eliminated from weightlifting competition. This changed the nature of the sport. Whereas in the past up to 40 percent of a lifter's training was devoted to pressing exercises, now the pressing was irrelevant, as the snatch and clean and jerk were quick lifts. To this day, few weightlifters perform any upper body pressing or chinning exercises. The elimination of pressing exercises separated the powerlifters from the weightlifters. Further, both types of iron game athletes were losing their gyms.



Spearheaded by the late Arthur Jones and his revolutionary Nautilus machines, a strong campaign was launched against free weights for athletic training, physical transformation and general fitness. Professional football teams such as the Miami Dolphins bought into Jones' sales pitch, and the endorsement trickled down to the strength coaches. The military jumped on board, heavily influenced by a test of cadets that took place at West Point, and YMCAs and commercial gyms followed. The result was that platforms and barbells became less common – and to this day, it's rare to find a commercial gym with a platform. There is even one successful gym franchise that forbids not only dropping weights but also grunting!



As for bodybuilders, in the '60s they started to question the value of performing the same lifts as weightlifters and bodybuilders. Vince Gironda, a bodybuilding coach who trained Larry Scott, the first Mr. Olympia, promoted the idea that squats would widen the hips and bench presses would make the upper body too blocky. Gironda focused on isolation movements for bodybuilding, and as a result there was less need for free-weight equipment. After lifting platforms, the next piece of traditional weightlifting equipment to go was the power rack.

Rediscover the Power Rack

A power rack consists of four vertical posts linked together to increase its

strength (and as such is often referred to as a cage). What makes it unique compared to a squat rack is that it has bar catches that can be adjusted vertically.

With exercises such as squats, more weight can be squatted than can be lifted from the floor. Portable squat racks will elevate the bar, but they do not have safety catches, so if a lifter misses the weight, the bar will drop on the floor unless the lifter has spotters.

Weightlifters prefer to perform squats on portable squat racks and use bumper plates and no spotters – if they get stuck at the bottom, they simply dump the bar on the platform behind them and hop forward. This technique takes skill and is not recommended in a large group setting in schools because of

safety and liability concerns. For powerlifters, especially those using hyper wide foot stances and an extremely forward lean, dumping a weight is not a good idea. It can easily cause injury because the weights they use in their type of squatting can be much heavier (several powerlifters have squatted over 1,200 pounds!).

Although the power rack is seldom used for the bench press, it is ideal for this purpose. Dropping a weight on the safety catches may save the lifter from serious injury. There was a star football player at a Division 1 school a while ago who had a barbell drop on his throat – he required seven hours of surgery to repair a crushed larynx, and the case resulted in a personal injury

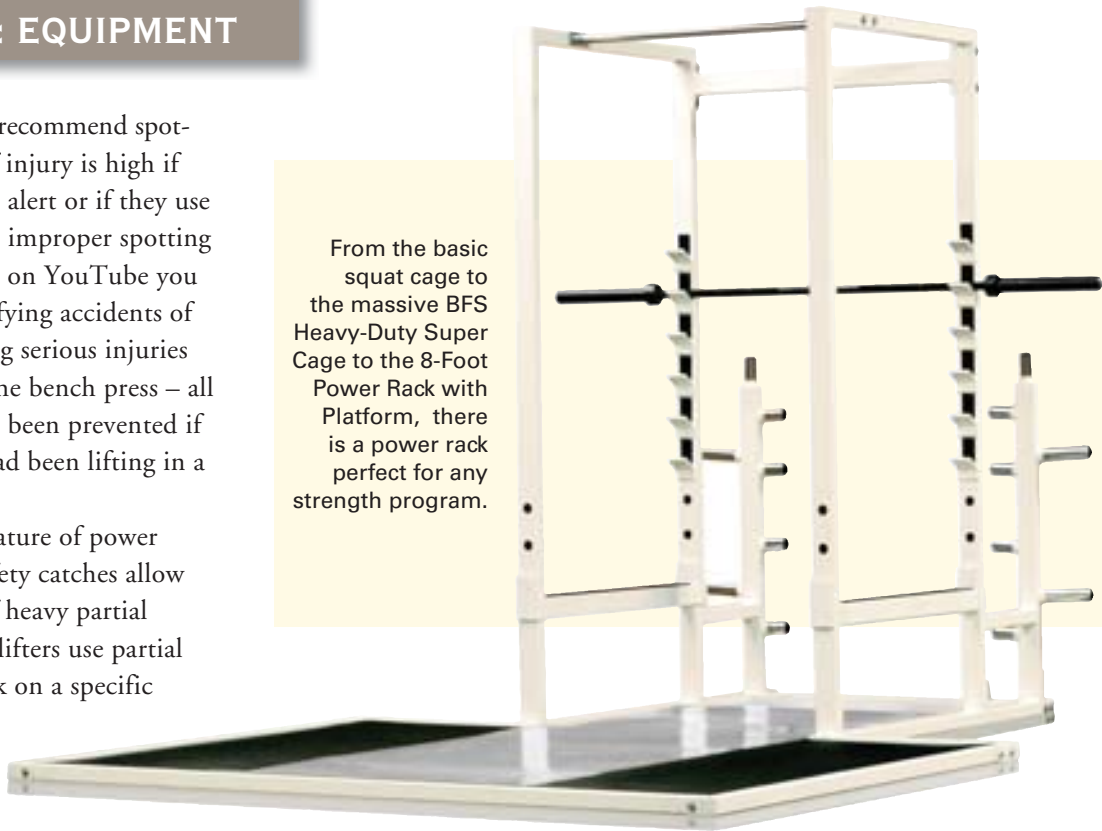
lawsuit. We always recommend spotters, but the risk of injury is high if the spotters are not alert or if they use a thumbless grip or improper spotting techniques. In fact, on YouTube you can see many horrifying accidents of individuals suffering serious injuries while performing the bench press – all of them could have been prevented if these individuals had been lifting in a power rack.

One unique feature of power racks is that the safety catches allow the performance of heavy partial movements. Powerlifters use partial movements to work on a specific range of motion in a lift, such as the finish of a deadlift, or to overload the strongest positions of a lift. Partial movements are often used in the later stages of rehab; for example, an athlete who is overcoming a pectoral injury may be able to perform the end range of the bench press. As the injury heals, the range of motion can be increased.

The vertical catches also allow the performance of isometrics, a training method that works specific ranges of motion and is used on a limited scale by advanced athletes. Although isometrics are not as popular as they were in the '60s, many strength coaches who work with elite athletes find that isometrics can help them achieve greater strength gains. To perform isometrics in the squat, for example, the safety catches will be placed at a specific height, with the barbell supports set below them. The lifter removes the barbell from the supports and then presses the bar upward against the bar catches. A typical protocol is to hold the contraction for six seconds for several sets.

When selecting the ideal power rack(s) for your facility, look at the

From the basic squat cage to the massive BFS Heavy-Duty Super Cage to the 8-Foot Power Rack with Platform, there is a power rack perfect for any strength program.



amount of space you have available and how your workout programs are designed. For example, if your space is limited, then it would be best to purchase power racks with attached plate holders – even if it means that budget restrictions will force you to wait a bit longer before your weightroom is fully equipped. Having to use plate

holders takes up a considerable amount of space, restricts traffic flow and is less convenient; besides, the cost of purchasing weight trees is not that much different from the added cost of having the attached plate holders.

Regarding your workout program, if you like to perform all your core lifts in one area, then the eight-foot



Weightlifters such as Olympic hopeful Pat Mendes often squat without spotters, but this technique is not recommended in schools with large groups.



unit is ideal. We call this the 8-Foot Power Rack with Platform because that's exactly what it is. The platform, which can be installed with a coating of Protect-All®, measures eight feet wide by six feet long and sits flush against an 8-Foot Power Rack. The crossbar in the front of the power rack

can be used for chin-ups and pull-ups.

Finally, instead of having removable steel rods, it's better to have bar catches attached to the vertical supports, as this reduces the amount of time between sets and you don't have to deal with rods left on the floor. In the high school environment

these rods often end up on the floor, whereas this is less likely to happen when the bar catches are attached to the vertical supports.

Power racks were out of favor in strength coaching for a brief period, but they are back now and making athletes stronger than ever! **BFS**



Isometrics and partial-range exercises can be performed on a power rack. Shown is Adam Nelson, an Olympic medalist in the shot put.



By creatively using the vertical supports as shown, most girls can easily perform chin-ups in a power rack.

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