

# Olympic Weightlifting for Sport and Fitness

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Let me guess... when someone mentions “Olympic Weightlifting,” you immediately have visions of a large Eastern European man in tights, grunting and sweating while lifting an unimaginable weight. Well, you’re partially right, but there’s much more to Olympic Weightlifting than you may think. In fact, performing Olympic Weightlifting movements can be beneficial for athletes preparing for sports, as well as others looking to enhance general strength and fitness.

The two events performed in Olympic Weightlifting competitions are the Clean & Jerk and the Snatch. In plain terms, the Clean & Jerk involves lifting a loaded barbell from the floor to your shoulders, and then over your head – essentially two movements. The Snatch, on the other hand, involves lifting the barbell from the floor directly over your head in one movement. The current World Record in the men’s heaviest weight class for the Clean and Jerk is 263.5kg (580.9lbs) with the Snatch record at 213kg (469.6lbs). Hossein Rezazadeh of Iran holds both of these records.

## Benefits of Olympic Weightlifting

In order for you to lift a weight from the floor to a position over your head, you have to use a large number of muscles – pretty much every muscle in your body. Unlike a bench press or an arm curl, Olympic Weightlifting requires you to recruit a very large proportion of muscle fibres throughout your entire body. For athletes, Olympic lifts are economical because they reduce the need to perform many lifts in a workout, thereby reducing the time in the gym.

Because Olympic Weightlifting movements are typically high velocity, high load and cover extreme ranges of motion, significant coordination and muscle control are required. These movements translate well to explosive sporting movements like jumping and sprinting. For the fitness professional, Olympic lifts can be used to add variety and increase the overall intensity of a training program. There is also a significant metabolic cost to doing these lifts because of the energy required to recruit a large

amount of musculature very quickly. Most competitive lifters – aside from the heavyweights – are very lean and have very little body fat.

Olympic lifts also require significant core strength and stability that can transfer to everyday activities. The technique required for Olympic lifts teach individuals to use proper posture, muscle firing patterns and leverage for optimal force application and safety. The spinal erectors of competitive lifters can sometimes look like two loaves of French bread.

## Challenges

Because Olympic Weightlifting is not a prevalent fitness activity, you may be hard pressed to find adequate equipment. Competitive lifters typically use a 20kg Olympic barbell that is engineered to handle heavy loads and allow the sleeves to spin effortlessly. They also use rubber bumper plates to allow them to drop the weight after a heavy lift. Large, cushioned platforms are also used to soften the impact of a dropped weight. A typical high quality setup could cost \$5,000.

The other challenge for individuals wanting to try Olympic Weightlifting is access to good instruction. Qualified coaches are available but limited. And, it is imperative to learn good technique if you want to maximize the benefit of these movements.

## Learning the Power Clean



Among athletes, the power clean is probably the most widely used Olympic Weightlifting movement. It combines power with an extensive range of motion similar to many athletic movements. The power clean typically starts from the floor and finishes with a catch on the shoulders.

**Figure 1** shows the initial pull from the floor, with the feet placed hip-width apart and the grip placed just outside the legs. It is important to keep the back straight and the torso upright with a slight lean over the bar. The quadriceps, glutes and hamstrings play an important role in setting the bar in motion.



In the second phase of the power clean, the bar is elevated past the knees with an emphasis on keeping the torso over the bar as indicated in **Figure 2**. At this point, the hamstrings, glutes and spinal erectors are doing most of the work. It is critical to maintain a bar path that is close the body for the entire range of the pulling motion. Once the bar passes the kneecaps, it should noticeably brush the quadriceps.



The pulling motion continues as the bar closely passes the hips in **Figure 3**. Notice that the elbows are still fully extended at this point, with the shoulders shrugging aggressively. The feet and hips extend dynamically – similar to the mechanics of a vertical jump. Hamstrings, calves and the trapezius muscles are active during this phase.



**Figure 4** illustrates the top of the pull with the elbows leading the movement. The high elbow position allows the bar to stay close to the body and also permits the athlete to pivot the elbows under the bar in the catch. At this point of the pull, the athlete is beginning the drop under the bar. At very heavy loads, the bar may only reach belly button height at its apex.



The catch of the barbell combines a quick lateral shuffle of the feet with a drop of the hips to allow the bar to land on the front of the shoulders. The depth of the drop ultimately depends on the height of the pull. As shown in **Figure 5**, the elbows are simultaneously rotated under the bar. The hands may open up to enhance wrist flexibility and permit the bar to rest on the deltoids. The elbows must be kept high in order to provide a proper ‘platform’ for the bar on the deltoids.

## **Pros and Cons of Olympic Weightlifting**

### **Pros**

- Large proportion of muscles used
- Enhances coordination, balance and core strength
- Provides a good total workout
- Good transfer to sporting activities

### **Cons**

- Good technique required to be effective
- Good equipment may not be accessible
- Qualified coaches and instructors can be hard to find

## **Alternatives to Olympic Lifts**

It is not uncommon for fitness gyms and facilities to have little to no space or equipment for Olympic Weightlifting. If this is the case, there are many other ways you can incorporate Olympic lifts into your workout routine. Dumbbells can be used to perform all of the Olympic lifts from the power clean, to the jerk press and the snatch. I've also recommended that clients use Body Bars (weighted, foam-covered bars for fitness) for Olympic movements. Performing a power clean or snatch with a lighter bar can have significant benefits for general muscle strength and coordination, as well as range of motion and flexibility. At higher velocities, it can be a great workout. I also encourage people to use the Olympic lifts – with a light bar or even a broomstick – to warm-up before their regular workout. I'm sure you could even develop an entire aerobics routine based around the Olympic movements.

## **Links**

If you are looking for more information on Olympic Weightlifting, you can find a good deal of information on the Internet. Some good links include:

International Weightlifting Federation	<a href="http://www.iwf.net/">http://www.iwf.net/</a>
USA Weightlifting Association	<a href="http://www.usaweighting.org/">http://www.usaweighting.org/</a>
British Columbia Weightlifting Association	<a href="http://www.bcweightlifting.com/">http://www.bcweightlifting.com/</a>
Olympic Weightlifting on the Web	<a href="http://www.liftilyadie.com/">http://www.liftilyadie.com/</a>
The Hercules Weightlifting Academy	<a href="http://www.herculesacademy.com/">http://www.herculesacademy.com/</a>

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