

## Short course on weightlifting, It's more than you think!

With the 2008 Summer Olympics in full swing and four more days of Weightlifting on the Olympic schedule here is some information on the sport of weightlifting than I hope will help you understand, appreciate, and enjoy the sport of Weightlifting.

Weightlifting is one of the two separate competitive sports using a barbell. The first modern day Olympics were held in 1896 and weightlifting was included as an official sport. Weightlifting did not appear in the 1900 Olympics, but returned in 1904, and has been a regular event since 1920. In 1932 three lifts were standard: The clean & press (eliminated in 1972), the snatch, and the clean and jerk. Weightlifting is a weight class sport; currently there are eight weight classes for men and seven for women. Women's weightlifting has been conducted at the world championships level since 1987 and was first included in the Olympic games in 2000.

Weightlifting as a sport has always involved lifting a barbell overhead and is practiced as a sport in over 130 countries and is the only event in the Olympics involving barbells. Another barbell sport, Powerlifting, which involves the back squat, bench press, and deadlift is also widely practiced around the world but is conducted at the world games not the Olympics.

Weightlifting consists of two lifts the first lift performed in competition is the snatch, which involves lifting a barbell from the floor to arm's length overhead in one continuous motion. The second lift performed is the clean and jerk, which involves lifting the bar from the floor to the front of the shoulders in one continuous motion (the clean) and then, in a second motion, bringing the weight to arms length overhead (the jerk). A lifter is granted three attempts at each lift with the best successful effort from each lift combined for an aggregate total to decide placing. In the event of a tie in weight lifted the athlete that weighed in lightest is the winner. If both lifters were the exact same bodyweight then the lifter that lifted the weight first is the winner.

Both of the "Olympic lifts" are incredibly difficult feats requiring not only strength and power but also speed and flexibility. It surprises most people when they learn that a study conducted among various athletes at an Olympic games found that weightlifters on average were second only to gymnasts in flexibility, second only to sprinters in starting speed, and measured comparably to basketball players and high jumpers in vertical jump heights!

From the standpoint of muscular contraction the lifter is trying to accomplish triple extension. In triple extension the athlete attempts to drive the ankles, knees, and hips as straight as possible in order to elevate the barbell to a high enough trajectory that he /she can quickly pull or push their body under the bar for the "catch" phase of the lift.

As you watch weightlifting one of the key elements the lifter must accomplish is to keep the center of gravity of the barbell as close to his/her own center of gravity as possible. The closer these "centers of gravity" are kept the better chance of success the lifter has with a given load on the barbell. One of the major challenges of the sport is that as the barbell increases in weight the position of the combined center of gravity changes. Think about this as you watch a 170-pound weightlifter punch over 400 pounds overhead!

Steve Howard owns & operates the Steve Howard Fitness Studio at the Weight Room in Rapid City