Exercise: Deadlift

John F. Graham, BS, CSCS, *D
Allentown Sports Medicine and Human Performance Center
Allentown, Pennsylvania

Type of Exercise:
Lower-body/multijoint.

Muscles Used:
Gluteus maximus, erector spinae, hamstrings (semimembranosus, semitendinosus, biceps femoris), quadriceps (vastus lateralis, vastus intermedius, vastus medialis, rectus femoris), trapezius, rhomboids, deltoids, and finger flexors.

Starting Position
• Use a standard Olympic bar.
• Load bar evenly on both sides and secure weights with collars.
• Lifting position is identical to the power snatch and power clean except for the hand position.
• Feet are between hip and shoulder-width apart and point forward or just slightly outward.
• Squat and grasp the barbell with an alternated grip (one palm supinated [facing forward] and one palm pronated [facing backward]) and hands slightly wider than shoulder-width apart.
• Arms are outside the knees with the elbows extended and pointing outward.
• Stand so that the barbell is over the balls of the feet and close to the shins (Figure 1).
• Back is rigid and flat or slightly arched.
• Head is up or slightly hyperextended.
• Chest is held up and out.
• Shoulder blades should be

Figure 1. Starting position.
squeezed together.
• Trapezius and upper back should be relaxed and in a slight state of stretch.
• With the heels always remaining in contact with the floor, body weight should be balanced between the balls and middle of the feet.
• Shoulders are slightly in front of or over the barbell.

**Ascent (Upward Movement)**

- Initiate the deadlift by extending the hips and knees at the same rate, maintaining a constant torso angle in relation to the floor.
- While keeping the body weight over the middle of the feet, ensure that the hips do not rise faster than the shoulders, and keep the back rigid and flat or slightly arched.
- Shoulders should remain slightly in front of or over the barbell, and elbows should be fully extended.
- Keep the bar as close to the shins as possible during the ascent, and slightly shift the body weight back toward the heels.
- As soon as the bar reaches the knees, shift the body weight slightly forward toward the balls of the feet while keeping the heels on the floor.
- The back should remain rigid and flat or slightly arched, the shoulders should remain slightly in front of or over the barbell, the elbows should remain fully extended, and the head is up or slightly hyperextended.
- Continue to simultaneously extend the hips and knees until the body reaches a fully erect torso position (Figure 2).
- The elbows should remain fully extended, like 2 steel rods, throughout the execution of the ascent.
- During the ascent, the breath should be held until the barbell reaches the knees before exhaling and then breathing normally.

**Descent**

- Keeping a rigid and flat or slightly arched back, flex the hips and knees and lower the bar back to the floor with control.
• The barbell should remain close to the body (knees and shins) throughout the descent.
• Lightly touch the plates on the barbell to the floor and come to a stop without releasing the tension on the barbell.
• Inhale during the descent.
• Begin the ascent for the next repetition.

**Variation**

• The deadlift may be performed with a shoulder-width grip with both hands pronated to simulate the starting position utilized on a power clean. With this grip position, wrist straps may be utilized to improve the grasp on the bar.

**COLUMN EDITOR’S NOTE:**

I welcome your suggestions, comments, or to have you author an Exercise Technique Column. Exercises can include not only free-weight and resistance training, but also plyometric, speed, agility, quickness, stability ball, etc. Please feel free to E-mail me at JGSTRENGTH@aol.com with your ideas, comments, or suggestions. I look forward to hearing from you.