EXERCISE TECHNIQUES

Barbell Lunge

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Starting Position

• Position a standard Olympic bar at chest level in a squat or power rack.
• Load bar evenly on both sides, and secure weights with collars.
• Step underneath the bar, and position the base of the neck/upper-middle back and the hips and feet directly under the bar.
• Grasp the bar using a pronated grip slightly wider than shoulder width.
• Place the bar evenly above the posterior deltoids at the base of the neck (high bar placement).
• Raise the elbows upward to provide a secure location for the bar to rest upon and to prevent the bar from sliding down the back during the execution of the lift.
• To lift the bar from the rack, extend the hips and knees to lift the bar off the rack and take a few (2–3) steps backward to clear the rack and allow adequate room to lunge forward.
• Feet should be between hip- and shoulder-width apart and pointing forward.
• Torso should remain erect.
• Keep chest out and up.
• Shoulders are back.
• Keep head and neck straight, with eyes looking straight ahead.
• Before stepping forward, breathe in and hold it (Figure 1).

Descent
(Forward Movement)

• Take an elongated step straight forward with 1 leg (lead leg).
• Keep the arms firm and the torso in an erect position as the lead foot goes forward and comes in contact with the floor.
• The rear leg (trail leg) should remain constant in the starting position, but as the lead leg moves forward, balance should shift to the ball of the foot of the trail leg as the trail leg begins to flex.
• Place the lead foot flat on the floor with the foot pointing straight forward.
• In order to maintain balance, ensure that the lead leg moves directly forward from its original starting position and that the lead ankle, knee, and hip remain in the same vertical plane. Avoid stepping to the right or left or allowing the knee to shift to one side or the other.
• Once balance is established on both feet, flex the lead knee to enable the trail leg to bend toward the floor. The trail leg should flex to a degree slightly

TYPE OF EXERCISE:
Lower body/multijoint

MUSCLES USED:
Gluteus maximus, iliopsoas, quadriceps (vastus lateralis, vastus intermedius, vastus medialis, rectus femoris), hamstrings (semimembranosus, semitendinosus, biceps femoris), soleus, and gastrocnemius
less than the lead leg.

- The torso should remain erect with the shoulders kept directly above the hips, and the head should be erect facing forward.
- The lowest finish position of the ascent should occur when the trail leg is 1–2 in. from the floor, the lead leg is flexed to 90°, and the knee is directly above or slightly in front of the ankle (Figure 2).
- To avoid potentially harmful shearing stress forces on the knee joint of the lead leg, it is critical that the lead knee does not extend past the lead foot.
- At the completion of the descent, a concentrated effort to "sit back" on the trailing leg should be made as if sitting on the front edge of a bench in the strength training facility.
- The depth of the barbell lunge depends upon the flexibility of the athlete’s hip joint, particularly of the iliopsoas muscles.
- The lead foot should remain flat on the floor as the toes of the trail foot are extended and the ankle is dorsiflexed.
- Continue to hold breath throughout the descent.

**Ascent**
*(Backward Movement)*

- While maintaining an erect torso, shift the balance forward to the lead foot, and forcefully push off the floor with the lead foot by plantar flexing the lead foot while extending the lead knee and hip joints.
- As the lead foot returns to the starting position, balance should shift to the trail foot resulting in the trail foot regaining full contact with the floor.
- The lead foot should be lifted back to its original starting position with feet between hip- and shoulder-width apart and pointing forward.
- Avoid touching the lead foot to the floor until the lead leg is returned to the finish position (unless balance is lost).
- Once the lead leg is returned to the starting position, divide the body weight equally over both feet.
- Torso should remain erect, similar to the beginning position.
- Exhale at the completion of the ascent.
- Pause momentarily to fully gain balance, switch lead legs, and repeat the procedure.
Returning the Weight to the Rack

- At the completion of the set, return the barbell back to the rack by slowly walking forward and returning the barbell to the support hooks of the rack.

Variation (Lunges With Dumbbells)

- If balancing a barbell is too difficult for the lifter, dumbbells held at the sides may be substituted as an alternative. ▲