

## POWER CLEAN

The power clean is one of our “core” weight lifting exercises. Power cleans and other Olympic-style lifts can offer some lifters performance advantages over more common forms of weight lifting. Lifts such as power cleans involve very high power outputs and high rates of force production, both of which can transfer to increased speed and explosiveness.

As Olympic-style lifts tend to be total body exercises, they also increase neuromuscular co-ordination and that buzzword... core stability. Power cleans involve mainly the extensor muscles of the hips, abdominals and trunk.

### Preparation

Stand over barbell with balls of feet positioned under bar pointing forward, hip width apart or slightly wider. Squat down and grip bar with over hand grip slightly wider than shoulder width. Position shoulders over bar with back arched tightly. Arms are straight with elbows pointed along bar.



### Execution

Pull bar up off floor by extending hips and knees. As bar reaches knees vigorously raise shoulders while keeping barbell close to thighs. When barbell passes mid-thigh, allow it to contact thighs. Jump upward extending body. Shrug shoulders and pull barbell upward with arms allowing elbows to flex out to sides, keeping bar close to body.



Aggressively pull body under bar, rotating elbows around bar. Catch bar on shoulders while moving into squat position. Hitting bottom of squat, stand up immediately.



### Return

Bend knees slightly and lower barbell to mid-thigh position. Slowly lower bar to the floor with lower back locked and trunk close to vertical.

### Comments

Do not jerk weight from floor; arise steadily then accelerate. In clean, barbell is lifted from floor to shoulders. The lift is complete when feet are in line and bar is under control.

Spotters should be present to assist the lifter. The function of the spotter is to help the lifter when assistance is necessary. Spotters should do very little work during the lift. Their main job is to stand behind the spotter and keep them from falling backwards. Other group members are there to evaluate the lifters form and provide feedback to the lifter.

## Joints Involved

1. **Ankle**
  - a. **Joint Movement:** Plantarflexion (up)
  - b. **Mobilizing Muscles:** Gastrocnemius and Soleus
2. **Knee**
  - a. **Joint Movement:** Extension (up)
  - b. **Mobilizing Muscles:** Quadricep Group
3. **Hip**
  - a. **Joint Movement:** Extension (up)
  - b. **Mobilizing Muscles:** Gluteus Maximus and Hamstring Group
4. **Spine**
  - a. **Joint Movement:** Extension (up)
  - b. **Mobilizing Muscles:** Erector Spinae
5. **Shoulders**
  - a. **Joint Movement:** Flexion, abduction and external rotation (up)
  - b. **Mobilizing Muscles:** Deltoid, supraspinatus, infraspinatus, teres minor and Pectoralis major
6. **Scapula**
  - a. **Joint Movement:** Elevation (up) and upward rotation
  - b. **Mobilizing Muscles:** Upper Trapezius, levator scapula and serratus anterior
7. **Elbow**
  - a. **Joint Movement:** Flexion (up)
  - b. **Mobilizing Muscles:** Bicep group
8. **Wrist**
  - a. **Joint Movement:** Extension (up)
  - b. **Mobilizing Muscles:** Extensor carpi radialis longus, extensor carpi radialis brevis and extensor caroi ulnaris

## Stabilizing Muscles

The Erector spinae and Quadratus lumborum are essential dynamic stabilizers, maintaining the spinal extension. Additional stabilizers include:

1. **Shoulder Blades:** Lower and mid-trapezius, Levator Scapula, Rhomboids and Serratus anterior
2. **Arms:** Rotator cuff group, deltoids, arm muscles
3. **Trunk:** Abdominal group
4. **Hips:** Gluteus group, deep external hip rotators and adductor group
5. **Legs:** Rectus femoris and hamstrings
6. **Lower Legs:** Ankle stabilizers, tibialis anterior and gastrocnemius

## Other variations and chest auxiliary exercises:

Hang cleans are a variation of power cleans and place less emphasis on the lower body. Technique is the same as a classic power clean described above except that the starting position of the bar is hanging at the mid thigh rather than on the floor. There are many other variations as well as other Olympic-style lifts that are very effective as well.

To see samples of each of the above listed exercises and more go to the following website:

<http://www.exrx.net/WeightExercises/OlympicLifts/Clean.html>