

9 Basic Movements of CrossFit

Air Squat

Front Squat

Overhead Squat

Deadlift

Sumo-Deadlift High Pull

Shoulder Press

Push Press

Push jerk

Medicine Ball Clean

AIR SQUAT

THE AIR SQUAT IS FOUNDATIONAL TO THE FRONT SQUAT AND OVERHEAD SQUAT.

1. LEARNING THE MOVEMENT

SET UP:

- Stance = Shoulder Width
- Full Extension at hips and knees

EXECUTION:

- Weight on heels
- Lumbar curve maintained
- Chest up
- Butt travels back and down
- Bottom of Squat is below parallel
- Knees track parallel to feet
- Return to full extension at the hips and knees to complete movement
- Head position is neutral

2. CORRECTING THE MOVEMENT

FAULT: Lazy Lumbar curve, or Losing It (i.e. “Butt Wink”)

- Fix – Lift the chest while engaging the hip flexors by anteriorly rotating the pelvis strongly
- Fix – Raise the arms as you descend to the bottom of the squat

FAULT: Weight shifts forward to balls of feet

- Fix – Exaggerate weight in the heels by floating the toes slightly throughout the entire movement.

FAULT: Not low enough

- Fix – Squat to a 10” box or medicine ball to develop awareness of depth.

FAULT: Knees roll in

- Fix – Push knees out or “Spread the ground with your feet.”
- Fix – Push knees out with elbows at bottom of squat to familiarize yourself with knee position.

FAULT: Immature Squat: Lumbar curve is maintained, depth might be there, and heels are in contact with the ground, but the athlete has to cantilever forward excessively onto the quads to maintain balance

- Fix – Squat Therapy: Set up facing a wall with a 10” box under butt. Set up in the proper stance, with heels to the box, chest close to wall. Squat to box while maintaining control and weight in heels.

FRONT SQUAT

The Setup, Execution, Points of Performance, and Corrections carry over exactly from the Air Squat. We now add a load in the FRONT RACK POSITION.

1. LEARNING THE MOVEMENT

SET UP:

- Stance= Shoulder Width
- Full extension of knees and hips
- Bar “racked” on the shoulders (create a shelf for the bar to sit on with the shoulders), hands outside shoulders, loose fingertip grip
- Elbows high, upper arm parallel to ground

EXECUTION:

- Weight on heels
- Lumbar curve maintained
- Chest up
- Elbows high; arms stay parallel to the ground throughout the whole movement
- Butt travels back and down
- Bottom of squat is below parallel
- Knees track parallel to the feet
- Return to full extension at the hips and knees to complete movement
- Head position in neutral

2. CORRECTING THE MOVEMENT

FAULTS: Bar not in contact with the torso or holding bar out in front

- Fix – Get elbows high and allow bar to roll back onto fingertips

FAULTS: Elbows drop and chest comes forward

- Fix – Pull elbows up and aim chest at ceiling. Stress a hard lumbar curve.
- Fix – Have someone place their hand or arm under elbows to help them maintain position

OVERHEAD SQUAT

The Setup, Execution, Points of Performance, and Corrections carry over exactly from the Air Squat. We now add a load in the OVERHEAD POSITION.

1. LEARNING THE MOVEMENT

SET UP:

- Stance = Feet shoulder width apart
- Full extension at hips and knees
- Bar held overhead, in the frontal plane, with a wide grip
- Active Shoulders (Shoulders pushed up into the ears)
- Elbows locked

EXECUTION:

- Weight on heels
- Lumbar curve maintained
- Chest up
- Maintain constant upward pressure on the bar, and active shoulders to support the load
- Bar remains in the frontal plane or slightly behind
- Butt travels back and down
- Bottom of squat is below parallel
- Knees track parallel to the feet
- Return to full extension at the hips and knees to complete movement
- Head position is neutral

2. CORRECTING THE MOVEMENT

All faults and fixes from the Air Squat apply to this movement, plus the following:

FAULT: Lazy elbows and shoulders

- Fix – Actively press the bar up and press shoulders into ears

FAULT: Bar goes forward of the frontal plane

- Fix – Press bar up and pull it back to overhead or slightly behind

SHOULDER PRESS

The key elements of the Shoulder Press, and all the overhead lifts, are the setup position, the overhead position, tight belly, and the bar path. These are foundational to all the overhead lifts.

1. LEARNING THE MOVEMENT

SETUP (This setup is exactly the same for all 3 overhead lifts):

- Stance = Hip Width
- Hands just outside the shoulders
- Bar in front, resting on the “rack” or “shelf” created by the shoulders
- Elbows down and in front of bar; elbows are lower than in the front squat
- Tight midsection
- Closed grip, with thumbs around the bar

EXECUTION:

- Drive through the heels; keep the whole body rigid; tight belly
- Bar travels straight up to locked out, with active shoulders, directly overhead
- Head accommodates bar (bar path has a straight line)
- To move head out of way of bar path, pull head back – Do not look up

2. CORRECTING THE MOVEMENT

FAULT: Bar forward of frontal plane

- Fix – Press up and pull back on the bar as it travels to overhead

FAULT: Leaning back, ribs sticking out

- Fix – Tighten abs/suck ribs cage down

FAULT: Passive shoulders or bent elbows

- Fix – Obtain active shoulders by pressing shoulders into ears

FAULT: Bar arcs out around the face

- Fix – Pull head BACK out of the way of the bar
- Fix – Check that the elbows are not too low in the set up

FAULT: Movement in feet, knees, and/or hips

- Fix – Maintain no motion of feet, knees, and/or hips during entire movement.

PUSH PRESS

The Push Press builds on the same setup and overhead position as the Shoulder Press. We add velocity with the dip and drive of the hip. The focus here is on a dip and drive that is explosive and straight down and up.

1. LEARNING THE MOVEMENT

SETUP:

- Stance = Hip width
- Hands just outside the shoulders
- Bar in front; resting on the “rack” or “shelf created by the shoulders
- Elbows down and in front of the bar; elbows are lower than in the front squat
- Tight midsection
- Closed grip, with the thumbs around bar

EXECUTION:

- The cue for the action is: Dip – Drive – Press
- Dip: Perform a shallow dip (flexion) of the hips, where the knees push forward slightly, the butt goes back, and the chest stays upright
- Drive: Extend the hip rapidly and fully
- Press: Press the bar to overhead with locked arms

PRIMARY POINTS OF PERFORMANCE:

- Torso drops straight down on the dip. There is no forward inclination of the chest and no muting of the hip.
- Aggressive turnaround from the dip to the drive.

2. CORRECTING THE MOVEMENT

All faults and fixes from the Shoulder Press apply to this movement, plus the following:

FAULT: Out of sequence: Press begins before hip opens up

- Fix – Repeat Dip – Drive with a fast tempo

FAULT: Cocking: Pausing at the dip

- Fix – Repeat Dip – Drive and more aggressive turnaround of the hip

FAULT: Forward inclination of the chest

- Fix – Hold in the dip position and make adjustments to the true upright torso
- Fix – If dip is too deep, obtain a shallower dip
- Fix – Dip Therapy: Stand with back against wall, with heels, butt, and shoulder blades all touching the wall; then dip and drive, keeping everything in contact with the wall.

FAULT: Muted hip

- Fix – Turn the pelvis over (anterior rotation) strongly

PUSH JERK

The Push Jerk builds from a good setup, a good overhead position, and a solid dip/drive. Now we focus on coordinating this movement so that the hip comes to full extension before the catch, and the catch occurs with the bar locked out overhead.

1. LEARNING THE MOVEMENT

SETUP:

- Stance = Hip width
- Hands just outside the shoulders
- Bar in front; resting on the “rack” or “shelf created by the shoulders
- Elbows down and in front of the bar; elbows are lower than in the front squat
- Tight midsection
- Closed grip, with the thumbs around bar

EXECUTION:

- The cue for the action is “Dip, Drive, Press, and Dip”
- Dip: Perform a shallow dip (flexion) of the hips, where the knees push forward slightly, the butt goes back, and the chest stays upright
- Drive: Extend the hip rapidly and fully
- Press and Dip: Retreat the hip downward and drive the body under the bar, while rapidly pressing the bar overhead.
- “Catch” the bar with arms locked out overhead and in a partial squat position
- Stand to full extension with bar overhead

2 CORRECTING THE MOVEMENT

All faults and fixes from the Shoulder Press and Push Press apply to this movement, plus the following:

FAULT: Movement pattern out of sequence

- Fix – Break it down via the progression and build back up to the full movement. It is as simple as a jump and land in the partial squat

FAULT: Hip never gets to full extension

- Fix – Exaggerate fully extending the hip by making your body 1-2 inches taller than your standing height. If you are 5’10”, Dip and Drive yourself to 5’11”.

FAULT: Landing too wide with feet

- Fix – Execute the movement without the feet moving from under the hips
- Fix – Therapy: Block the feet with plates or boxes or some object so you can’t jump too wide
- Fix – Punch up and pull back on the bar. Active shoulders

FAULT: Not standing all the way up with the bar before re-racking it on the shoulders

DEADLIFT

The Deadlift is foundational to the Sumo Deadlift High Pull and the Medicine Ball Clean.

1. LEARNING THE MOVEMENT

SETUP:

- Stance = between hip width and shoulder width
- Weight in heels
- Back arched/lumbar curve locked in
- Shoulders slightly in front of bar
- Bar in contact with shins
- Arms locked out straight
- Symmetrical grip outside the knees, just wide enough not to interfere with the knees.
- The back is slightly slanted up with head and chest up
- The hamstrings are above parallel and stretched

EXECUTION:

- Drive through the heels
- Extend legs while hips and shoulders rise at the same rate
- Once the bar passes the knees, the hip opens all the way up
- Bar maintains contact with the legs the entire time
- Head neutral
- On return to the floor, push the hips back and shoulders forward slightly; delay the knee bend
- Once the bar descends below the knees and the torso angle is set, return the bar down to the setup position by bending the knees slightly

2. CORRECTING THE MOVEMENT

FAULT: Loss of lumbar curve

- Fix – Pull hips back and lift chest
- Fix – Abort and decrease the load to where the lumbar arch can be maintained

FAULT: Weight on or shifting on toes

- Fix – Settle into heels and pull hips back, maintaining tension in the hamstrings at start of movements, and focus on driving through the heels
- Fix – Check that the bar stays in contact with the legs throughout the movement

FAULT: Shoulders behind bar on setup

- Fix – Raise hips to move shoulder over or slightly in front of bar

FAULT: Hips rise before the chest (Stiff-Legged Deadlift)

- Fix – Allow the shoulders and chest to rise sooner. Lift the chest and hips at the same rate until the bar passes the knees

DEADLIFT con't

FAULT: Bar travels around the knees instead of straight up

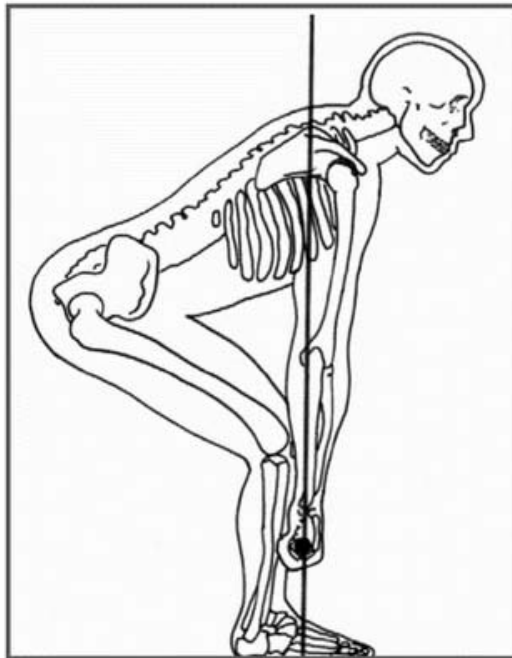
- Fix – Be sure to set up correctly: Weight in heels and with shoulders in front of the bar. Push knees back as chest and hips rise
- Fix – Stick Trick: Have a partner place 2 PVC pipes on either sides of the bar and execute a lift without hitting either stick

FAULT: Bar collides with knees on descent

- Fix – Initiate the return by pushing the hips back and delay the knee bend

FAULT: Bar loses contact with legs

- Fix – Pull the bar into your legs the whole time



SUMO DEADLIFT HIGH PULL

The Sumo Deadlift High Pull (SDHP) builds on the Deadlift, widening the stance, bringing the grip inside the knees, adding a shrug, an upward pull with the arms, but, most importantly velocity.

1. LEARNING THE MOVEMENT

SETUP:

- Stance = Wider than shoulder width, but not so wide that the knees roll inside the feet
- Weight in heels
- Back arched/lumbar curve locked in
- Shoulders slightly in front of the bar
- Bar in contact with the shins
- Arms locked straight
- Symmetrical grip inside the knees (about 4-6 inches apart)

EXECUTION:

- Accelerate through the heels from the ground to full extension of the hips and legs
- Shrug, with arms straight
- Arms follow through by pulling bar to the chin with elbows high and outside
- Return the bar back down fluidly in the reverse sequence: arms, then traps, then hips, then knees, back to the setup position

PRIMARY POINTS OF PERFORMANCE:

- Hips open before the shrug and arm bend
- Bar is pulled up just to below the chin
- Fast and aggressive
- Elbow travel and finish high and outside; elbows are higher than the hands at all times during the movement

2. CORRECTING THE MOVEMENT

All faults and fixes from the Deadlift apply to this movement, plus the following:

FAULTS: Pulling too early with the arms, hip not completely open before the shrug or arm pull

- Fix – Go to step 3 in the progression. Emphasize that the hip needs to fire first, before the arms. Try 2 Sumo Deadlift Shrugs for every full SDHP; do as many times as needed

FAULT: No shrug

- Fix – Back to progression. Do 2 Sumo Deadlift Shrugs and one High Pull; do as many times as needed

FAULT: Incorrect descent (Hips before arms)

- Fix – Slow down the movement; return the arms then hips, then legs, then speed it up again

SUMO DEADLIFT HIGH PULL con't

FAULT: Segmenting the movement

- Fix – Accelerate or jump the bar off the ground

FAULT: Losing control and levelness of bar

- Fix – Widen the grip a bit. Make sure the grip is symmetrical to the bar

FAULT: Running the bar into the knees

- Fix – Narrow the grip and make sure the hips aren't too low in the setup position

MEDICINE BALL CLEAN

The medicine ball clean builds on the set up and movement pattern of the Sumo Deadlift High Pull adding a pull under the object.

1. LEARNING THE MOVEMENT

SETUP:

- Stance = Shoulder width apart or slightly wider
- Weight in heels
- Back arched/lumbar curve locked in
- Shoulders are over the ball
- Ball on the floor between the legs with clearance for the arms
- Arms straight, palms on outside of the ball; fingertips pointing down

EXECUTION:

- Accelerate through the heels from the ground to full extension of the hips and legs
- Shrug, with arms straight
- Hip retreats; land in a full front squat with the elbows beneath the ball
- Stand to full extension with the ball in the rack position to complete the movement
- Return to setup

PRIMARY POINTS OF PERFORMANCE

- Hips reach full extension
- Hip is extended and shrug is initiated before arms pull
- The ball is caught in a low (below parallel) and tight (not collapsed) front squat position
- Fast and aggressive throughout
- Athlete stands all the way up with the ball in the rack position to finish

2. CORRECTING THE MOVEMENT

All faults and fixes from the Deadlift apply to this movement, plus the following:

FAULT: Hip does not open all the way

- Fix – Go back to step 2 of progression (Deadlift Shrug). Do 2 Deadlift Shrugs for every Med Ball Clean
- Fix – Tactile Cue: Have a partner place their hand 1-2 inches above your head while you are standing up straight. Then do a Med Ball Clean being sure to hit your partners hand with the top of your head before dropping into the front squat position.

FAULT: No shrug

- Fix – Go back to step 2 of progression (Deadlift –Shrug). Do 2 Deadlift Shrugs for every Med Ball Clean.

MEDICINE BALL CLEAN con't

FAULT: Pulling with the arms

- Fix – Deadlift Shrug, 2 reps for every Med Ball Clean.
- Fix – Two “Shrug and Drop Unders” (step 4 from the progression) for every Med Ball Clean

FAULT: Tossing the Med Ball

- Fix – Hold the ball without your fingers, using only palms or fists only

FAULT: Curling the ball

- Fix – Back to progression: Deadlift Shrug, 2 reps for every 1 Med Ball Clean
- Fix – Have partner stand in front of you to prevent curling. Can also be done with a wall.
- Fix – Have the laces of the ball remain up for the entire movement.

FAULT: Squat collapses in the catch

- Fix – Go back to Step 4 of the progression (Shrug and Drop Under). Focus on a tight lumbar arch, and keeping the chest up at the bottom of the catch.

FAULT: Unable to drop under the ball fully

- Fix – Do 2 “Shrug and Drop Unders” (step 4 in progression) for every 1 Med Ball Clean
- Fix – Tactile Cue: Have partner hold ball at the peak of the shrug and then drop under the ball as your partner holds it.

PROGRESSIONS FOR MOVEMENTS

PUSH PRESS

1. Dip (check chest and hip)
2. Dip-drive slow
3. Dip-drive fast
4. Dip-drive-press (full Push Press)

PUSH JERK

1. Jump and land with **hands at sides**. Stick the landing.
2. Jump and land with **hands at shoulders** throughout the move. Stick the landing.
3. Jump with **hands at shoulder** and extend them **overhead** at the same time as the land.
4. **With stick** in hands, full Push Jerk.

SUMO DEADLIFT HIGH PULL

1. Sumo Deadlift
2. Sumo Deadlift-Shrug slow
3. Sumo Deadlift-Shrug fast
4. Full Sumo Deadlift High Pull

MEDICINE BALL CLEAN

1. Deadlift (focus on good setup)
2. Deadlift-Shrug (focus on fast extensions and shrug with no arm bend)
3. Front Squat (focus on depth of the catch)
4. Shrug and Drop Under (focus on shrug and beating the ball down, catching it low and tight)
5. Full Medicine Ball Clean

9 Movement Pictures

AIR SQUAT

- Weight in heels
- Butt below parallel
- Chest up
- Tight lumbar curve



FRONT SQUAT

- Same criteria as Air Squat
- Triceps parallel to ground
- Loose fingertip grip on bar
- Bar rest on Shoulders, not wrists



OVERHEAD SQUAT

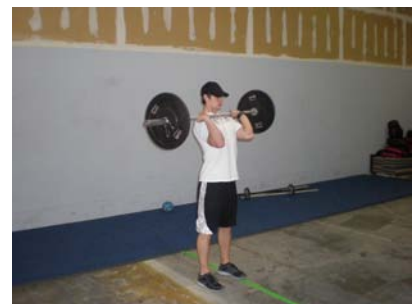
- Same criteria as Air Squat
- Bar above heels
- Chest facing forward
- Arms cover ears
- Shoulders in ears and Elbows locked



SHOULDER PRESS

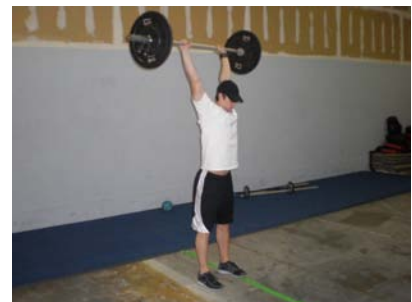
Set Up

- Feet under hips, not shoulders
- Weight in heels
- Bar rests on Shoulders, not wrists
- Elbows in front of bar
- Head looking straight ahead
- No movement of Hips, Knees, or Feet during entire movement



Finish Position

- Feet under hips
- Weight in heels
- Arms straight up
- Head pushed thru arms
- Elbows locked and arms straight



9 Movement Picture

PUSH PRESS

- Set up and Finish same as Shoulder Press
- 1st part of movement is Dip
- Weight in heels
- Knees track over toes
- Shoulders and Butt drop straight down
- No forward lean of chest
- Do not press until hips and knees have fully extended



PUSH JERK

- Set up and Finish same as Shoulder Press
- Dip – Drive – Dip
- Execution of Dip and Drive same as Push Press
- Once you Dip and Drive, press yourself UNDER the bar
- Land in partial Squat with Shoulders in ears and Elbows locked
- Stand weight up to finish movement



DEADLIFT

- Feet under hips or slightly wider
- Hands outside legs
- Tight lumbar curve
- Hips up to stretch Hamstrings
- Lift with legs first lifting Chest and Hips at same rate



SUMO DEADLIFT HIGH PULL

Set Up

- Feet outside Shoulders
- Knees track over toes
- Tight lumbar curve
- Chest up – Butt down



Execution and Finish

- Lift bar by lifting with legs
- Do not pull the bar up until Hips and Knees have fully extended
- Once Hips and Knees have fully extended, bring bar to chin
- Elbows high and outside



9 Movement Pictures

MEDICINE BALL CLEAN

Set Up

- Same as Sumo Deadlift High Pull
- Fingers facing down
- Arms are straight down towards the ground
- Weight in heels

Execution

- Same as Sumo Deadlift High Pull
- Deadlift – Shrug- Drop
- Lift with Legs
- Once hips and knees hit full extension, shrug
- Do not shrug until you hit full extension
- Once you shrug, drop under the ball into the Front Squat position
- Do not curl the ball up. Slide hands around ball.
- The ball travels no higher than what the 2nd picture shows
- Stand with ball to finish movement



