

BENCH PRESS

The bench press has been considered one of the “core” weight lifting exercises for many years. The reason for this is simple: this exercise is extremely effective in strengthening the prime movers of the upper extremity.

The main muscles strengthened are the triceps, anterior deltoids and pectoralis major and minor. Also, the rotator cuff and biceps work as shoulder stabilizers and are slightly strengthened with the bench press.



Preparation For The Lift

The lifter should position themselves so that the bar is located above the eyes. The back and buttocks should be firmly placed on the bench pad. The feet should be placed flat on the floor.

The grip should be centered on the bar (wrap thumbs around the bar). Most athletes will feel comfortable with the arms slightly wider than the shoulders. Longer armed athletes however, may prefer a wider grip while shorter armed athletes will find a slightly narrower grip more comfortable.

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. If the lifter requires assistance, spotters should lift with two or three fingers from the center of the bar, applying only enough force to help the athlete past the trouble area. You should have the following spotters; group of 4: Back spotter, Right Spotter and Left Spotter, group of 3: Back Spotter and Front Spotter, group of two: Back Spotter.

Proper breathing is another important aspect of the lift. The athlete should inhale as the bar is lowered to the chest. The breath is then exhaled as the bar is pressed off of the chest.



The Down Phase

The down phase begins as the lifter lowers the bar to the chest. The pectoralis major and minor, deltoids, and triceps contract eccentrically (lengthening contraction) to lower the bar at a controlled pace. The weight continues down until it gently touches the middle of the chest.

If the bar is lowered too quickly control is lost resulting in the bar bouncing off of the chest. This is improper for numerous reasons.

Striking the chest with too great a force can result in fractures to the sternum or ribs. The bounce off of the rib cage generates upward momentum, resulting in less force generation by the muscles. This will result in less strength gains by the prime movers of the chest. Ultimately this results in poor strength throughout the full range of motion.



The Pressing Phase

The pressing phase begins as the weight is pushed toward the starting position. The lifter exhales as the muscles contract to control the ascent of the weight. The pressing phase concludes with the arms fully extended and the elbows locked. The muscles can only develop optimally if they exert controlled force through the entire range of motion.

Common errors during the press phase include: arching the back and lifting the feet from the floor. Arching the back is a cheating movement that is the result of a lifter attempting too heavy of a weight. The back arch allows the lifter to cheat by utilizing the force generated by the buttocks and hips to assist the chest in the lift.

The back arch places the bones and intervertebral disks at risk of injury. The back was not designed to arch in this exaggerated manner. When the lifter arches his/her back to compensate for a lack of strength, the intervertebral joints can sustain injury due to the combination of compressive and expansion forces simultaneously affecting the joints and disks.

To correct this problem, stress proper technique. Also, the weight should be decreased to a level that is more appropriate to the strength of the lifter. This can be a problem with the competitive ego-driven male. Simply reinforce the notion that proper technique leads to proper strength gain in the target muscles.

An alternative method for correcting this flaw is to have the lifter place his/her heels on the end of the bench. This method has inherent limitations and risks. First, the bench may not be long enough for taller lifters to perform this technique safely. Secondly, moving the feet from the floor to the bench, results in a less stable support for the lifter. Feet on the floor will stabilize the lifter so that if there is a struggle he/she will not feel as if they are falling off of the bench. This should only be attempted with low weight to reinforce not arching the back.

Joints Involved

1. **Elbow**
 - a. **Joint Movement:** Extension (up) and Flexion (down)
 - b. **Mobilizing Muscles:** Triceps Brachii and Anconeus
2. **Shoulder**
 - a. **Joint Movement:** Horizontal Adduction and Flexion (up), Horizontal Abduction and Extension (down)
 - b. **Mobilizing Muscles:** Pectoralis Major, Coracobrachialis and Anterior deltoid
3. **Scapulathoracic**
 - a. **Joint Movement:** Partial Upward Rotation, Abduction (up), Partial Downward Rotation, Adduction (down).
 - b. **Mobilizing Muscles:** Serratus Anterior

Stabilizing Muscles

1. **Shoulder Blades:** Serratus Anterior, Pectoralis Minor and lower Trapezius.
2. **Shoulder Joint:** Rotator Cuff muscles and Biceps Brachii
3. **Mid-Trunk Stabilization:** Abdominal and Gluteal group, Rhomboids, lower Trapezius and Latissimus Dorsi.

Other variations and chest auxiliary exercises:

Push up, Inclined Barbell Bench Press, Decline Barbell Bench Press, Dumb-Bell Bench Press, Pec Deck Machine, Dumb-Bell flat, Bench Flys, Body-Weight Dips, Table Crosser, Resistance Band Chest Press, Incline Dumbbell Bench Press, Incline Fly, Cable Cross- Over, Frame Supported Push-Up

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

<http://www.exrx.net/Lists/ExList/ChestWt.html>