

CHECKING FOR SAFETY OF OVERHEAD PRESSING

Is this exercise right for you?

If it hurts - Don't do it.

If you have a history of rotator cuff tear or repair, subacromial impingement, a glenoid labral tear, or osteoporosis that has increased the curve of your thoracic spine (kyphosis) it may be best to avoid this exercise.

Moving your arms overhead can be hard on your shoulders. It is important to check to see if you have enough movement to perform this exercise without hurting your shoulders. If your upper back is restricted by limited thoracic spine (the middle part of the spine - between the lower back and the neck) mobility or if your latissimus dorsi are tight you may not have enough movement of the shoulder to perform overhead exercises without irritating the joint or soft tissues.

We have approximately 170 - 180 degrees of shoulder flexion, this would be lifting the arm straight up overhead. Part of your full shoulder motion, about 120 degrees, comes from the movement of the upper arm bone in the socket of the shoulder blade and 60 degrees comes from the movement of the shoulder blade.

Normal, healthy movement of the arms requires movement of the thoracic spine and the shoulder blades. The shoulder blades glide along the ribs on the upper back as the arm moves. The upper back will move into a slightly extended position to allow the shoulder blades to tilt backwards, this opens up the space between the shoulder blade and the upper arm bone. Some of the muscles that attach to the shoulder blade originate on the spine and ribs. When the thoracic spine moves, it positions the muscle fibers so they are most effective for moving the shoulder blade. When the thoracic spine and ribs are stiff and do not move as they should, the shoulder blade cannot move as it should, and the muscles will not work as they should. The fine control of the movement of the shoulder will be affected due to poor muscle performance and joint alignment, resulting in potential damage to the joint surface, muscles, tendons, and bursa.

It is important to determine if your motion is restricted before overhead lifting exercises, especially when using weights.

To test your thoracic mobility:

Sit on the floor, cross legged.

Put your pelvis, upper back and back of your head against the wall.

You should have a small curve in your low back – barely getting in a finger or two between your low back and the wall.

Your head should not be tipped forward or backward. Bottom of eyes approximately in line with the center of the ears. You should also have a small curve between your neck and the wall.

You should be able to get into this position with ease.

Alternatively - lie flat on your back, legs stretched out, back of head on the floor with neck in neutral - chin not tilted up or down. You should be able to lift your upper arms overhead to rest on the floor. Without – arching the low back or letting the ribs flare out.

Difficulty with getting into this position suggests restrictions in the upper back. This should be addressed before overhead lifting exercises.

To test for latissimus dorsi tightness:

Stand with your back against a wall, knees slightly flexed. Feet one foot length away from the wall and hip width apart.

Keeping the neck in neutral – looking straight ahead, not tilting your head up or down. Put the back of the head on the wall.

You should be able to easily have your pelvis, upper back and the back of the head resting on the wall. You should be able to just barely get one or two fingers between your low back, neck and the wall.

If you cannot get into this position, then your thoracic spine is restricted.

Reach the arms overhead with the elbows straight and the thumbs pointing backwards.

You should be able to easily get your thumbs to the wall, without arching the low back, flaring the ribs out, lifting the chin up, pulling the head forward off of the wall, or without bending the elbows or the wrists.

Alternately, lie face up on the floor, both knees bent and feet flat on the floor. Maintain a neutral spine, with the back of head on the floor, press the shoulders into the floor. Lift both arms overhead. Your upper arm should be able to rest on the floor without arching the low back or letting your ribs flare out.

You can further test this by lifting both legs up to the tabletop position. If your restriction is due to tight latissimus dorsi, the arms will be further from the floor.

Overhead lifting should be avoided until you are able to improve the movement of your thoracic spine and/or latissimus dorsi tightness.

Demonstrations for how decreased thoracic mobility and/or tight lats affect shoulder flexion:

- 1) Slouch by rounding the upper back more. Now try to lift your arms overhead.
Stand up tall with good posture - now try to lift your arms overhead.
- 2) Activate the lats and pull the shoulder blades down your back. Try to lift arms overhead.
Compare this with standing with good posture, shoulders back, chest open and lift arms overhead.