Preventing Shoulder Injuries by Modifying the Bench and Incline Presses

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THE BENCH PRESS IS CONSIDERED a popular and core exercise for a number of sports. However, when a shoulder injury occurs (rotator cuff strain, impingement, etc.) on the field or on the court, the first stage of the rehabilitation process calls for a period of active rest.

This consists of rotator cuff and scapulothoracic strengthening exercises. Eventually the athlete will be able to return to the bench press, but he or she needs to know how to modify the exercise so as not to re-aggravate the injury.

An athlete who has been unable to use his or her shoulder for an extended period of time, such as after surgery, may want to start with a bench press machine. The machine would share the responsibility of balance and stability needed for performing the bench press successfully. This will allow the athlete to build confidence in the exercise without placing excessive stress on the shoulder.

Athletes can also use dumbbells for the bench or incline. An advantage of the dumbbells is that they allow the athlete to keep the movement within a range that is pain-free. Dumbbells also allow one to better isolate the involved shoulder during the exercise. Both the machine and dumbbells are excellent alternatives for the athlete to use before returning to the more traditional forms of the press.

Before beginning the traditional bench and incline presses, the athlete must understand the motions that occur at the shoulder or glenohumeral (G-H) joint during these exercises. These motions can change with different grips. The traditional grip for the horizontal or flat bench press calls for the forearm to be perpendicular to the floor when the bar is closest to the chest. This wide grip creates horizontal adduction/abduction at the G-H joint.

Excessive horizontal abduction can place the shoulder in a vulnerable position, especially for an athlete with impingement or anterior instability (Photo 1). To prevent this, the athlete can use a more narrow grip or place a towel roll or pad approximately 3 to 5 in. thick on the center of the chest parallel with the sternum (Photo 2).

Either will prevent the shoulder from excessive horizontal abduction.

During the incline press (30–40° above the horizontal), the traditional grip causes more adduction/abduction at the G-H joint. Abduction movements tend to aggravate impingement conditions at the shoulder. By narrowing the grip, the athlete can get more flexion at the shoulder and therefore decrease the chance of impingement (Photo 1).

The towel roll can also be used to modify the incline press to avoid excessive horizontal abduction. Using the narrow grip for the flat and incline press not only places less stress on the G-H joint but has also been shown to cause increased electromyographical activity in the triceps and clavicular head of the pectoralis major (Barnett et al., J. Strength Cond. Res., 9:222-227, 1995).

By knowing how to make the appropriate modifications in the

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Modified bench press with narrow grip and pad on sternum. Limiting the amount of horizontal abduction prevents excessive strain on the anterior joint capsule.

Modified incline press with narrow grip and pad on sternum (the pad for the incline is tucked under the shirt). This places the shoulder in more flexion than abduction and reduces the chance of impingement during the lifting phase.

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bench and incline presses, the athlete will be able to make a safe return to his or her lifting program while avoiding lifting injuries in the future.

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