Lat Pull-Downs in Front of or in Back of the Neck

Many professionals in the field of strength and conditioning consider the lat pull-down performed behind the neck to be a contraindicated exercise. The potential problem associated with this exercise, as with any exercise that requires shoulder abduction and external rotation, is that it requires the individual to have adequate flexibility in the internal rotators to extend the humerus while maintaining scapular retraction and depression throughout the duration of the exercise. Unfortunately, because of muscular imbalance between the internal and external rotators that is created by repeated bouts of improper training (training that emphasizes muscles that internally rotate the shoulders, i.e., the pectorals major, anterior deltoid, etc.), most athletes typically do not have the flexibility to perform this exercise safely.

Two possible results of performing this exercise include subacromial impingement due to extreme coronal plane abduction of the humerus and anterior subluxation of the humerus in the glenoid fossa. Repetitive stress, due to a lack of flexibility in the internal rotators, may lead to inflammation of the bursa and rotator cuff tendons. In order to avoid such pathologies, it is suggested that this exercise be performed with the bar in front of the neck. This positioning places the humerus closer to the scapular plane (at a 30–45° horizontal abduction of the humerus) while internally rotating the shoulder, thus decreasing the potential of subacromial impingement and anterior subluxation.

Optimal performance is dependent upon a pain-free range of motion and synchronous movement in the glenohumeral capsular structures. Performing lat pull-downs in front of the neck will strengthen the musculature of the latissimus dorsi, rhomboids, posterior deltoid, teres major, and the elbow flexors without jeopardizing shoulder joint integrity.

Jim Roberts, BS, CSCS
The Athletic Club
Boca Raton, Florida

The opposition by the so-called “exercise police” to many “dinosaur” exercises always surprises me. The lat pull-down behind the neck fits into this category. Whether a pull-down is performed in front of or behind the neck has never seemed to be a serious issue, provided proper technique is used. Obviously, injury may result from any improperly performed exercise.

With proper technique, I believe that the bar’s location makes very little difference in the muscular action involved in this exercise. True enough, the shoulder can take a beating if the arm is abducted and externally rotated. Extreme neck flexion may contribute to this particular phenomenon. If the head is held approximately neutral and the elbow remains under the bar and the wrist, I think the majority of trainees will avoid problems.

Of course, I also feel that the press behind the neck is not automatically a harmful exercise. It may be, especially in those who either have a history of shoulder problems or choose to modify proper technique in order to lift heavier weights. Lift properly within your limits, and shoulder problems should not result. If they do, don’t do the exercise!

Harvey Newton, MS, CSCS
NSCA, Executive Director