

*Tip from the Field*

**Strengthening the Shoulder Complex for Bowling**

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The act of throwing a 15 to 16 pound bowling ball down a 60 foot lane places a lot a traction force on the glenohumeral joint. Many times bowlers will add more force to this joint by muscling their shot. Contemporary coaching teaches bowlers to use a relaxed loose arm swing such as a pendulum. However this type of swing is not easily accomplished. Overtime the anterior muscles of the shoulder become overdevelop when compared to their posterior counterparts. These conditions have manifested themselves into symptoms of multidirectional instability and impingement.

To overcome this, bowlers need to take part in shoulder strengthening exercises that concentrate on rotator cuff and scapular stabilizers. A few exercises that have shown good results include:

**External Rotation**



This exercise is done by keeping the elbow flexed at 90° and tucked in close to the body. Using a Thera-Band® elastic band as resistance, the upper arm is rotated in away from the body. External rotation is a great exercise to work part of the rotator cuff muscle and develop stability within the joint. Make sure to not let the elbow flail away from the body.

## Internal Rotation



This exercise is done by keeping the elbow flexed at  $90^\circ$  and tucked in close to the body. Using a Thera-Band elastic band as resistance, the upper arm is rotated in towards the body. Internal rotation is a great exercise to work part of the rotator cuff muscle and develop stability within the joint. Make sure to not let the elbow flail away from the body.

## Open Can



This exercise is done by raising the arm forward using a Thera-Band elastic band until it is level with the shoulder. The path of the arm should be around  $30^\circ$  in from horizontal. The open can is a great exercise to work the supraspinatus muscles of the rotator cuff.

## Protraction



To do this exercise using a Thera-Band elastic band, stand with the band fixed to a point behind the body at a height level to the shoulder. Hold on to the band with arm extended and shoulder flexed to 90° with band running under the arm pit. Keeping the arm straight slowly punch the arm forward, hold for one second and slowly return to the starting position.

## Retraction



Using a Thera-Band elastic band fixed to a height level with the elbow, stand facing the band with shoulders relaxed and elbows flexed to about 90°. Keeping the arms in this position, slowly bring shoulders back as if squeezing the shoulder blades together. This exercise is great for strengthening the muscles that stabilize the shoulder blade and allows the rotator cuff to work more efficiently.

Participating in these strengthening activities will help ensure that the accessory movements of the shoulder or performing correctly and minimizing the risk of developing overuse injuries. In return, bowlers will be able to enjoy many more years of pain free participation in the sport of bowling.

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