

## Ask the Professional – The Complex Shoulder Complex

If you were asked about one area of the body that can negatively impact your lifestyle when not functioning properly and you thought of the shoulder, then you've probably had shoulder problems in the past! Affecting a large percentage of the population, of varying age and activity levels, shoulder pain and dysfunction can be seriously debilitating. Although the shoulder is one of the most mobile joints in the body, with motion occurring in many different directions, what we have in the way of mobility, we've sacrificed in the way of stability as the shoulder is the most commonly dislocated joint in the body. The only bony attachment to the rest of the skeleton for the whole upper limb (shoulder and arm) is at the collar bone (or clavicle), where an extension of bone from the back of the shoulder blade called the acromion attaches to the clavicle forming the acromioclavicular joint. The acromioclavicular joint is the joint that is injured when someone 'separates' their shoulder, which speaking from personal experience is quite painful! The other joints in the shoulder complex are the glenohumeral joint, where the upper arm meet the shoulder blade and the scapulothoracic joint, where the shoulder blade (or scapula) rests against the ribs. Given that there is such little bony stability for the shoulder, the muscles that allow for movement of the scapula also provide muscular support to keep the shoulder moving properly and resting in its proper position. Most people have heard of the rotator cuff muscles (and many have probably done exercises to help strengthen them) and how important they are for a 'healthy' shoulder, but very few know about how vitally important the scapular stabilizers are. A significant amount of research has been done on the shoulder, especially on over head athletes like baseball pitchers, tennis and volleyball players and it has been demonstrated that scapular stability and proper function is instrumental in minimizing the risk of injury, rehabing an already injured shoulder and helping to prevent a recurrence of a prior problem. The scapula has four primary movements; elevation upwards, depression downwards, protraction forwards and retraction backwards. If the muscles that control these movements have become weakend and deconditioned, or if there is an imbalance between these muscle groups, then the health of the shoulder as a whole can be adversely affected. Proper posture, especially when putting load or stress through the shoulder, is also very important in order to maintain appropriate alignment of the shoulder and ensuring the shoulder is not in a position that increases the risk of injury. Ensuring that the muscles and other soft tissues also have an adequate amount of flexibility is also an important component in keeping the shoulder in tip top shape. An exercise program focusing on rotator cuff strength, shoulder flexibility and especially scapular stability should be implemented by anyone who puts significant stress through the shoulder, either at work or at play.

For more information on this topic, please contact



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