

## Shoulder injuries

Injuries to the shoulder (gleno humeral) occur frequently as a result of direct acute injury or chronic overuse injury. The dysfunction in the shoulder however, becomes established via poor muscle balance and incorrect posture. This is usually reinforced or caused by poor ergonomics (refer to ergonomics section) and incorrect training methods.

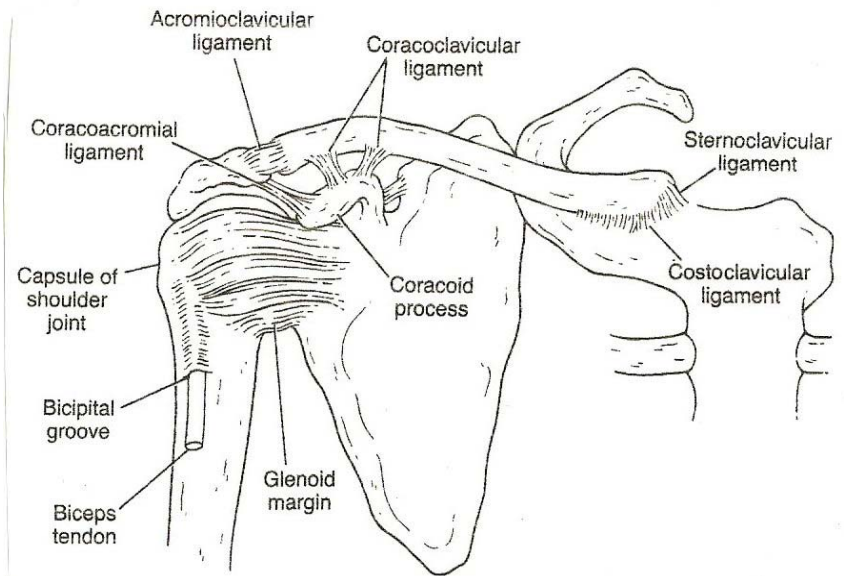


Figure1: typical shoulder anatomy

Factors that may contribute to shoulder dysfunction include:

- Poor posture and ergonomics
- Muscle imbalances
- Movement restrictions of the spine, shoulder blade, shoulder joint and arm
- Acute or Chronic injury
- Incorrect or inappropriate training
- Spinal restrictions and subluxations

The typical presentation of muscle imbalance is termed an upper crossed syndrome where the chest muscles at the front (pecs and subscapularis), the upper traps and posterior neck muscles are tighter than the neck muscles at the front and the mid back muscles (mid to lower traps and serratus anterior).

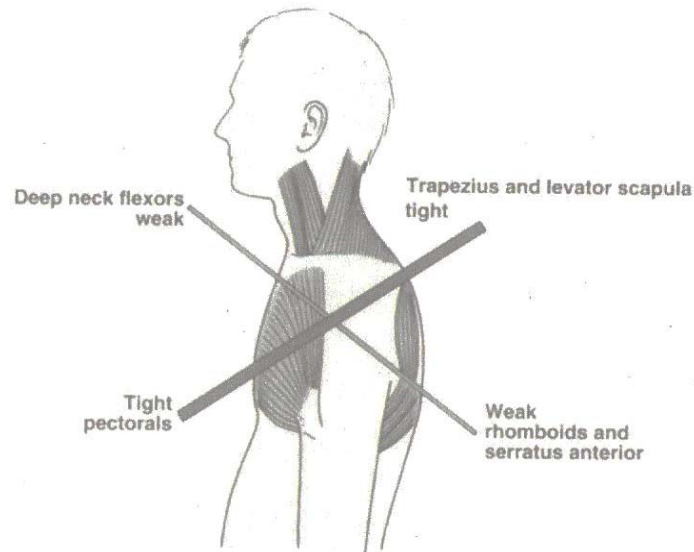


Figure 2: upper crossed syndrome

This has a multitude of effects including:

- Mid back strain
- Forward head posture
- Extended neck
- Elevated and inwardly rotated shoulder blades
- Internally rotated upper arm and shoulder joint

The most commonly presented injuries include:

- Upper neck pain and headache
- Mid back pain
- Arm pain
- Repetitive strain injury to the wrist and forearm
- Impingement in the shoulder affecting structures such as supraspinatus tendon and the subacromial bursa
- Bicep tendonitis, AC joint strain
- Wrist pain
- Frozen shoulder

Treatment for shoulder injuries involves:

- Correct diagnosis
- Postural assessment
- Biomechanical or movement assessment
- Treatment for injured tissue via massage, mobilisation, acupuncture, joint manipulation, strapping
- Postural, ergonomic and usage advice
- Rehabilitation exercises to address muscle imbalance