



## Scapula thoracic Instability

### Scapula Thoracic Overview

The scapula is retained on the thorax by:

- Atmospheric pressure and weight of the arm
- Trapezius
- Serratus anterior
- Rhomboids

The concave-convex relationship of the scapula on the thorax is essential for the axioscapular force couple to properly stabilize. The subscapularis and serratus anterior need to remain active or possible consequential atrophy allows subsequent subscapular irritation and scapular instability.

#### Resting Position of Scapula (with arm dependent)

Lies over ribs two to seven

Superior angle – T2

Scapular spine root – T3

Inferior angle – T7 or T8

Vertebral border – 5 to 6 cm from midline

Plane of scapula is approximately right angle to plane of the glenoid

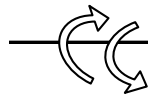
Lies obliquely between the frontal and sagittal planes, 30-45 degrees anterior to the coronal plane

A slight forward tilt is normal in the sagittal plane

The glenoid fossa has a downward inclination in normal resting shoulders (this is debatable)

#### Scapular Motion

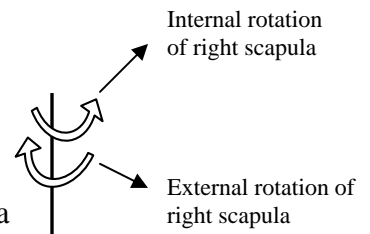
Rotation – about a sagittal axis



Rotation – about a vertical axis

Occurs primarily at AC joint

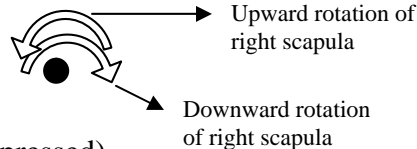
Winging – or posterior movement of vertebral border of scapula



Rotation – about a coronal axis

Scapular tipping or tilting

Upward / downward rotation



Translatory motion

Upward/downward (elevated/depressed)

Abduction/adduction

Protraction

Forward movement of linear translation away from vertebral column, rotation of scapula around the end of the clavicle (winging) and anterior movement of the lateral end of the clavicle