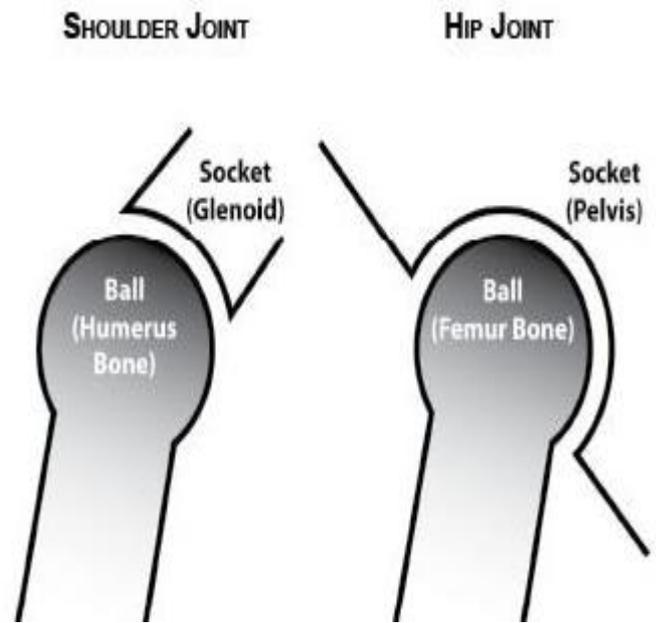


# MUSCULOSKELETAL

## SHOULDER ANATOMY- ROTATOR CUFF

- The human shoulder has evolved to allow a huge range of movement of the upper limb.
- It is a ball and socket joint, held in place by the rotator cuff.
- To allow this range of movement it has become an extremely shallow joint, likened to a golf ball (the head of the humerus) on a golf tee (the glenoid fossa).
- Compared to other joints it is much more reliant on surrounding structures to maintain its stability than other joints e.g. the hip
- So it is said to have resulted in an “evolutionary trade- off”; the joint is extremely mobile, at the cost of relative instability and is prone to dislocation.

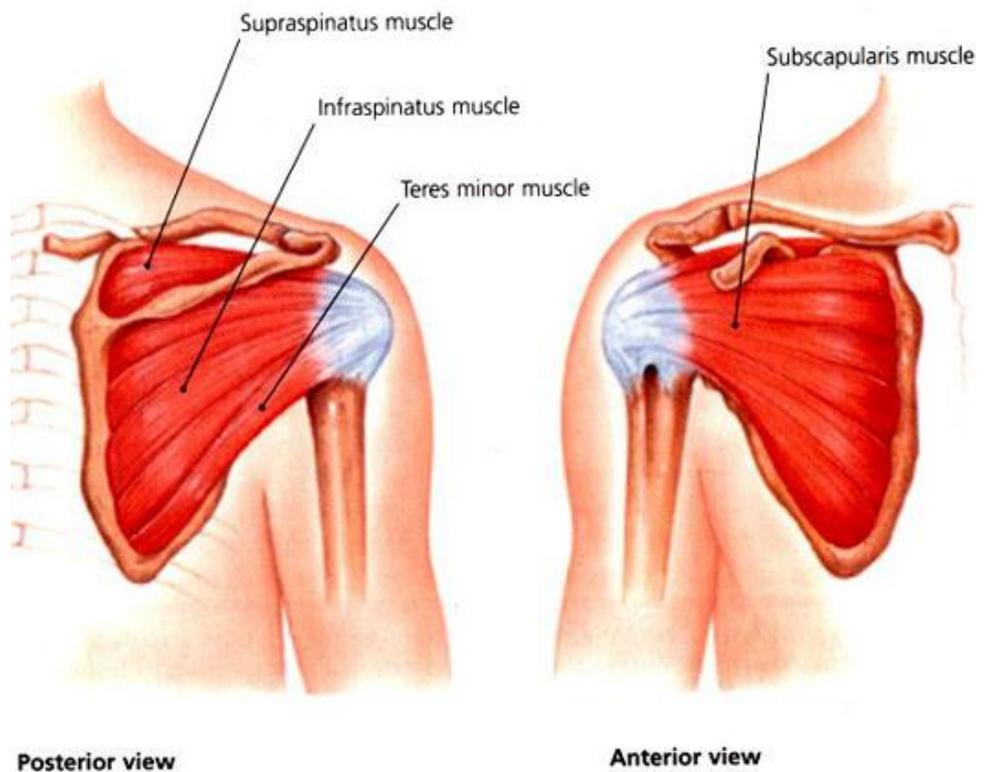


**The rotator cuff** is the group of muscles and their tendons that **act as the main stabiliser of the joint**

It consists of:

- Supraspinatus
- Infraspinatus
- Teres minor
- Subscapularis

During abduction of the shoulder by the deltoid, these muscles compress the head of humerus into the glenoid fossa, preventing it riding out of the joint



These muscles also have individual functions for shoulder movement:

Muscle	Function	Innervation
Supraspinatus	Abducts the humerus (first 15°)	Suprascapular nerve (C5)
Infraspinatus	Externally rotates the humerus	Suprascapular nerve (C5-6)
Teres minor	Externally rotates the humerus	Axillary nerve (C5)
Subscapularis	Internally rotates the humerus	Upper & Lower Subscapular nerve (C5-6)

## EXAMINATION

### TERES MINOR & INFRASPINATUS

External rotation of shoulder

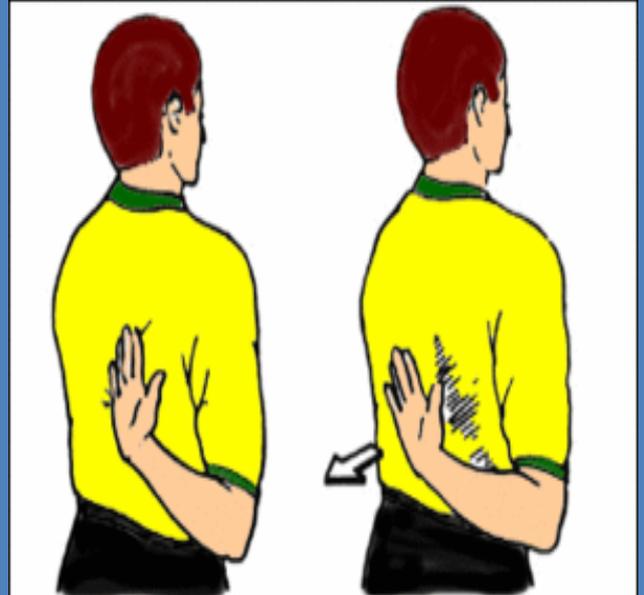
Elbow must be bent & to the patient's side, pushing out against the examiner, both sides can be tested at the same time



### SUBSCAPULARIS

'Lift off' test

Dorsum of hand against posterior thorax and patient attempts to lift it off their back



### SUPRASPINATUS

'Empty can' test

Ask the patient to hold their arms in front parallel to the ground.

Get them to pronate their forearm as if emptying two drinks cans. This isolates supraspinatus.

Ask them to push up against

