

The Shoulder

-Balls, Sockets, Muscles-



You got 10 seconds to tell me what I wanna know.

Strong, stable shoulders let you:



Play archer!



Wrestle cobras!

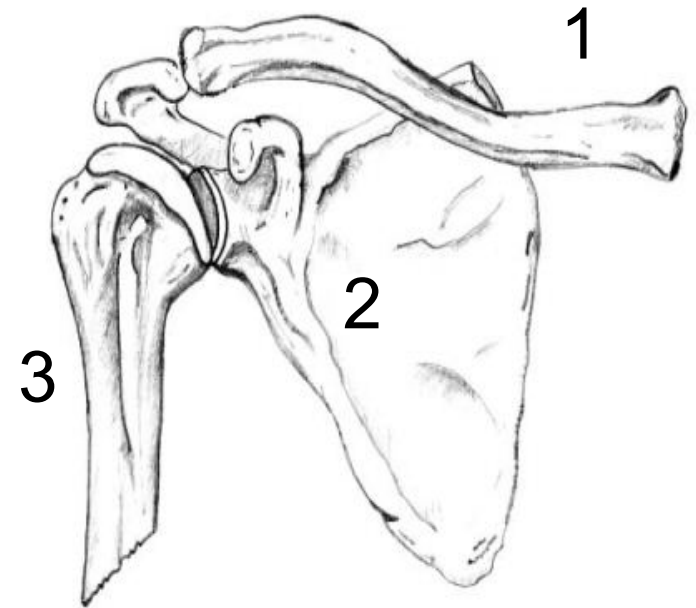


Tickle your friends!

What bones make a shoulder?

- Includes the:
 1. Clavicle (collar bone)
 2. Scapula (shoulder blade)
 3. Humerus (arm bone)

Even I can remember
that



How it moves:

The glenohumeral joint between the humerus and shoulder blade works like a ball & socket



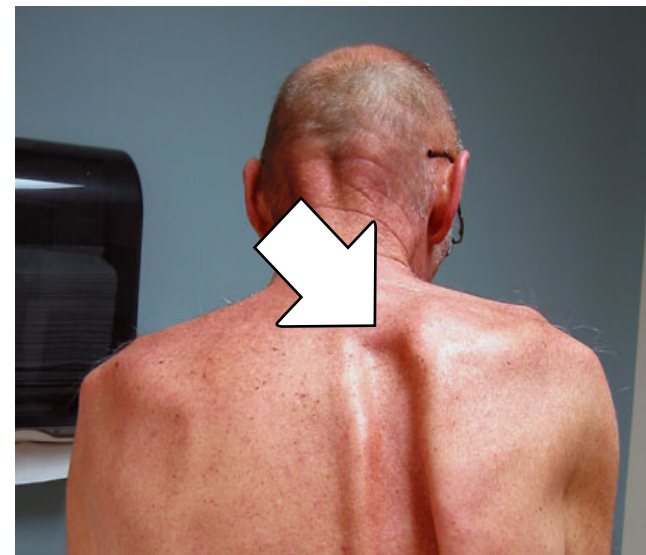
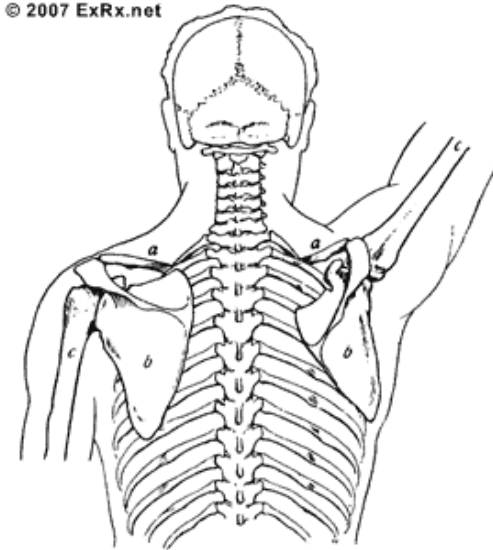
The ball & socket gives just over HALF the total movement! Second half is owed to the shoulder blade moving over the rib cage

How it moves:

The scapulothoracic joint between the shoulder blade and rib cage slides along the shape of the rib cage.

Attached only by muscles, there are NO bone to bone connections between the rib cage and shoulder blade. So, the muscles better be strong or this (winging) can happen!

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Muscles of the Shoulder

2 main categories: Movers & Stabilizers

- Big muscles like pec, deltoid, and trapezius are movers
- Smaller muscles like rotator cuff stabilize the joint

17 muscles attach to the shoulder blade alone!

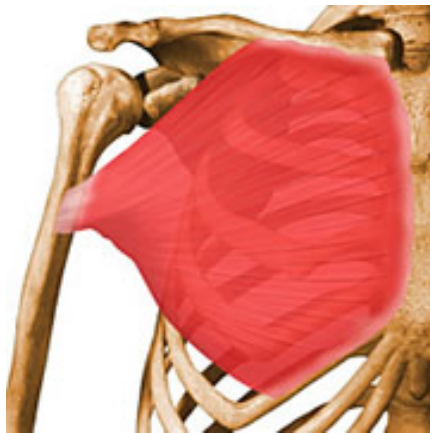
You mean
these!?



Movers vs Stabilizers

Movers
insert farther from joint

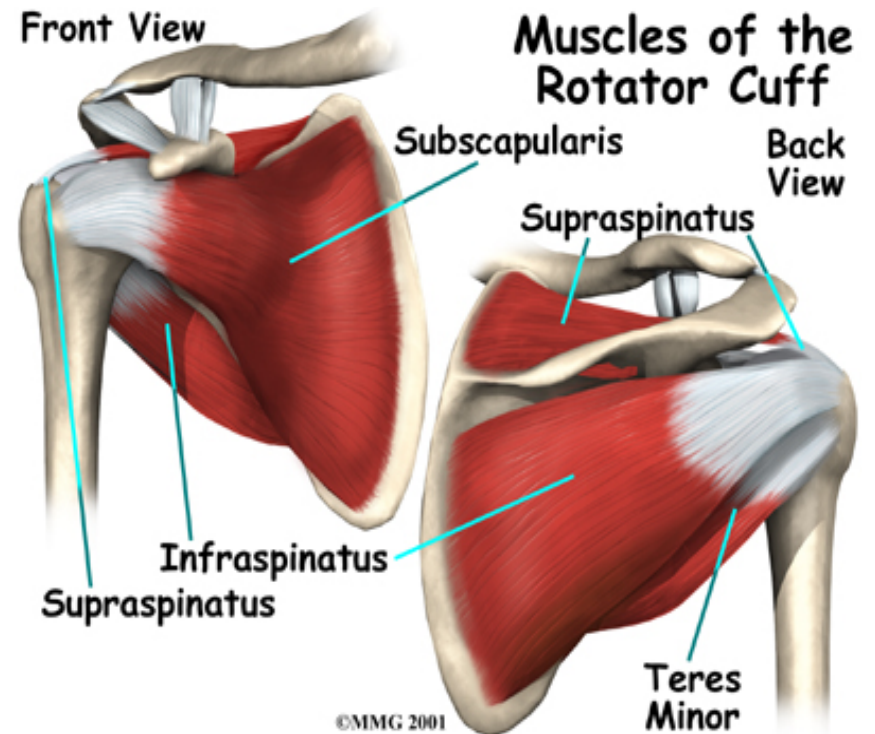
Pec Major



Deltoid



Stabilizers
insert closer to joint



Bigger better?

Big movers **destabilize** the humerus by tugging it away from the socket or smash it into the shoulder blade causing wear & tear and eventually pain.

Stabilizers hold the humerus in place and give it a comfy place to hang out in, like a hammock!

If only I knew
earlier!



Top 2 injuries for dragon boat

Impingement and Rotator Cuff Tears

- Essentially different stages of the same injury
- Impingement can lead to tearing

A destabilized shoulder lets the humerus slam into the shoulder blade with reaching movements, which rubs the rotator cuff tendons against the bone. Over time, the tendons get rubbed so much that they can tear and break.



Hang on! There's more!

Stabilizer weakness isn't the **ONLY** reason for tears. Since the shoulder blade moves along the rib cage, when your posture sucks you have increased risk of impingement.

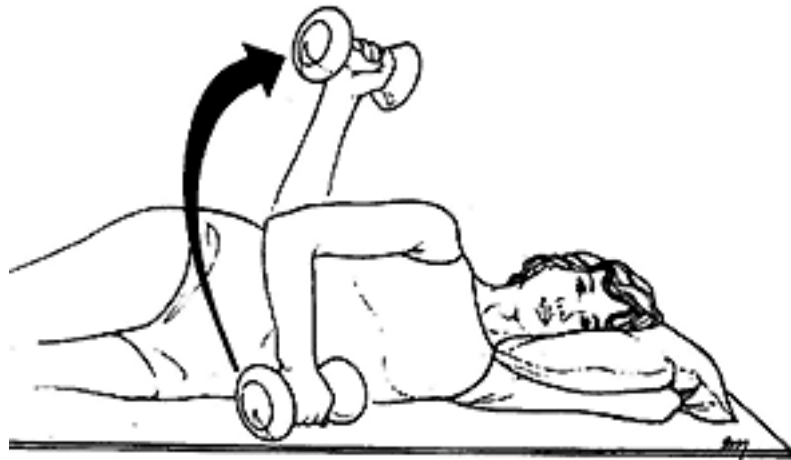
So work on that neutral spine!



Working your stabilizers

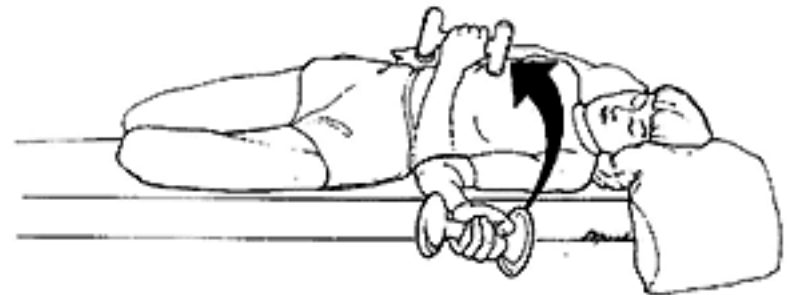
External Rotation

- Pull your shoulder blade back & down (setting it)
- Lay on your side with top arm in line with body
- Bend your elbow 90 deg
- Bring your hand out to the side
- DON'T roll your body, let your elbow leave 90 deg or lift off your body
- Try without weight and add light weight from there
- Perform 20 reps x 3 sets



Internal Rotation

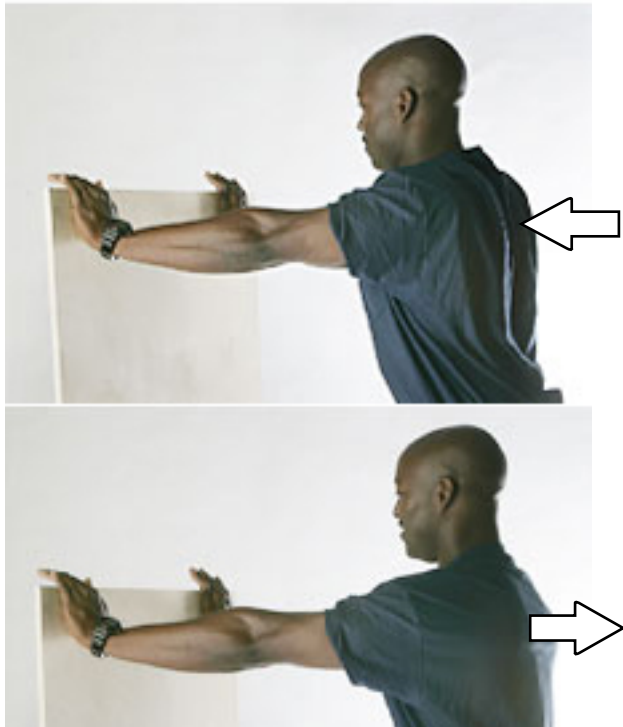
- Set your shoulder blade
- Lay on your back or side so that your hand can touch the ground when going down
- Bend elbow 90 deg
- Bring hand across stomach
- Add resistance if you can keep good form
- Perform 20 reps x 3 sets



Working your stabilizers

Serratus Anterior

- Get in a pushup position (on knees is easier, on feet is harder)
- Straighten your elbows
- Without bending your elbows or sagging your back, let your chest fall closer to the floor
- Push your shoulder forward to bring your chest away from the floor
- Don't go for speed, make ea rep slow & deliberate
- Perform 14 reps x 3 sets



Side Plank

- Assume the side plank as shown below (on knees is easier, on feet is harder)
- Keep your shoulder down (not creeping up towards your ear) @ all times
- Rotate so your top hand swings down to touch the floor
- Reverse the movement to return to the start position
- Perform 14 reps x 3 sets
- Repeat on other side



More shoulder workouts...

With good stability, you can do pretty much any shoulder workout you want. It is important to remember:

- Get your shoulder blades squeezed down and together before starting your reps
- Always have good control w/ reps since shoulders are naturally unstable
- Get those stabilizers strong and THEN work on the movers!

Dragon Boat Technique

Bottom arm: push your shoulder forward on the reach, pull it back and down (like in the exercises) on the pull

Top arm: more trunk rotation, choking up on the paddle grip/having a paddle that is sized well can help avoid getting into that "impingement zone"

Rotator cuff tears freq happen w/ repetition!

- Take breaks if you hurt
- Paddle offside
- Play with your stroke technique to be pain free

Final words

Your health is in your hands! Get strong, not mad!

