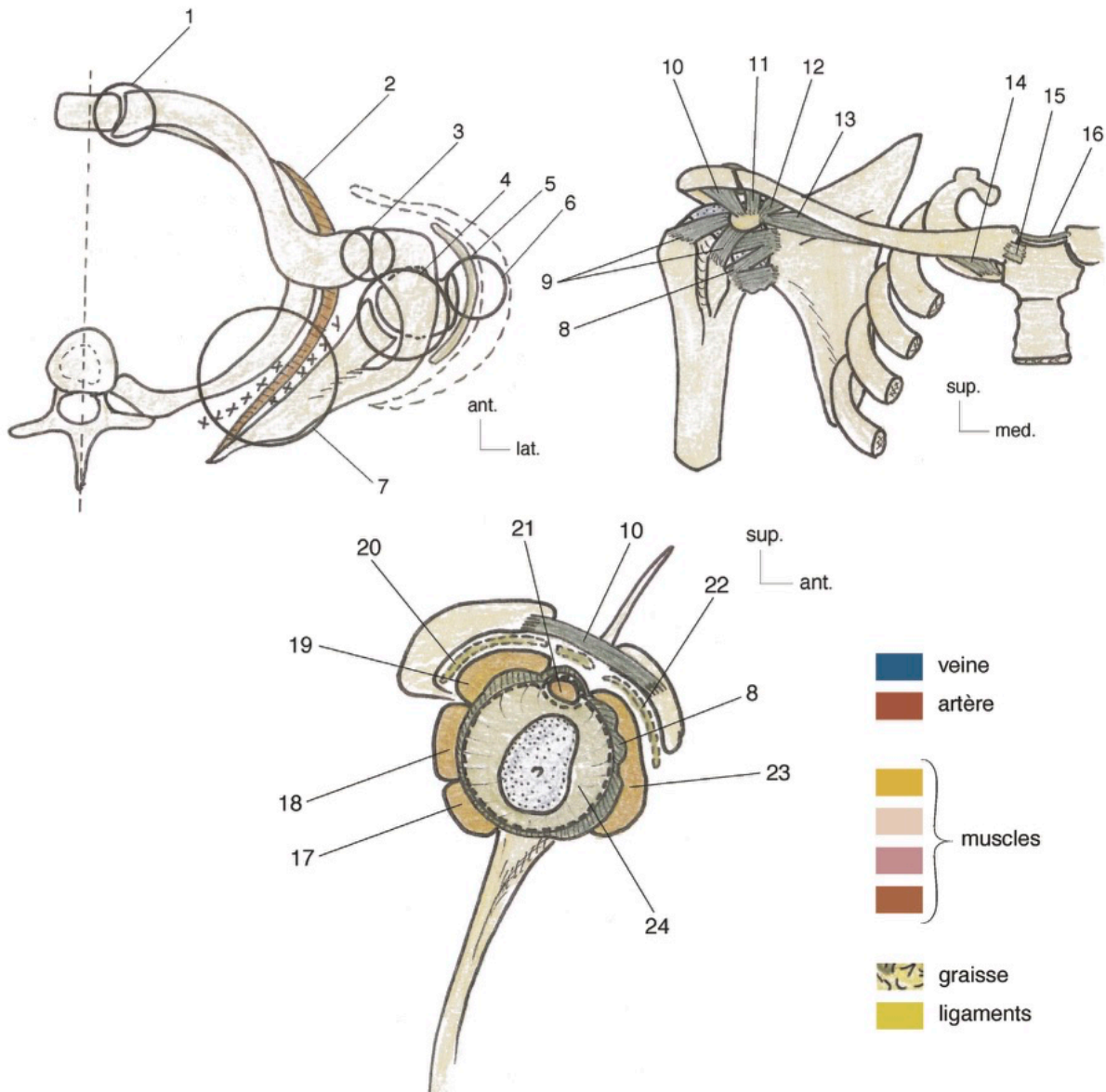


Paddler shoulder prevention exercises



Mobility exercises

The shoulder joint is often overused in canoe and kayak slalom. It results in tight muscles, and strength imbalance between internal rotators (latissimus dorsi, teres major, pectoralis major, subscapularis...) and external rotators (teres minor and infra spinatus). Therefore, it is suggested that a regular stretching of internal rotators should be done.

It is also suggested that the main shoulder joint muscles making the head of humerus to sit in a higher position in the gleno-humeral joint. The articular capsule then retracts and makes that small change in joint position to become permanent. Therefore, it is important to stretch the posterior part of the joint capsule.

Pectoralis major:



Bend your elbow 90°, raise arm 90°

Maintain a “low shoulder”

Stretch for 20” as you blow and relax, repeat 2 or 3 times on both sides

Upper trapezius



Push your shoulder down, pull you head gently on the opposite direction

Stretch for 20" as you blow and relax, repeat twice on both sides

Posterior capsule stretch



Pull your elbow towards the centerline of your body, stabilizing your shoulder blade (scapula) backward

Stretch for 20" as you blow and relax, repeat twice on both sides

Triceps and posterior capsule stretch



Push elbow up while you pull it towards the centerline
Stretch for 20" as you blow and relax, repeat twice on both sides

Strength exercises

As I said before, imbalance might have been appeared between internal and external rotators. Moreover, the external rotators are the only muscles able to lower the humeral head in the joint. A healthy shoulder needs a stable scapula and a mobile gleno-humeral joint.

External rotators strengthening



Left pictures: start position, right pictures: finish position

The scapula must be immobile, use an elastic resistance

Dynamic concentric exercises, 2 sets of 10, 15, 20 up to 60 reps depending on your fitness level.

Rest 2'

Posterior tilt with resistance band



Left pictures: start position, right pictures: finish position

The scapulae go towards the middle and down (red arrow)

Dynamic concentric exercises, 2 sets of 10, 15 or 20 reps depending on your fitness level.

Rest 2'

Serratus anterior



Left picture: start position, right picture: finish position
Arms straight, scapulae fixed
2 sets of 10 to 20 reps

Serratus anterior



Left picture: start position, right picture: finish position
Arms straight, scapulae are retracting (slides toward the spine) and protracting (slides away from the spine)
2 sets of 10 to 20 reps

Lower trapezius



Isometric contraction, spine extensors and lower trapezius

Pull the scapulae toward the spine and down as you hold a light bar (1 to 10kg) on your forearms

Maintain the position 30" to 1', 3 sets

Global posture and mobility training



Left picture: start position, right picture: finish position

Squats with resistance band in front, scapulae pulled downwards and towards the spine

6 to 10 reps, 2 sets