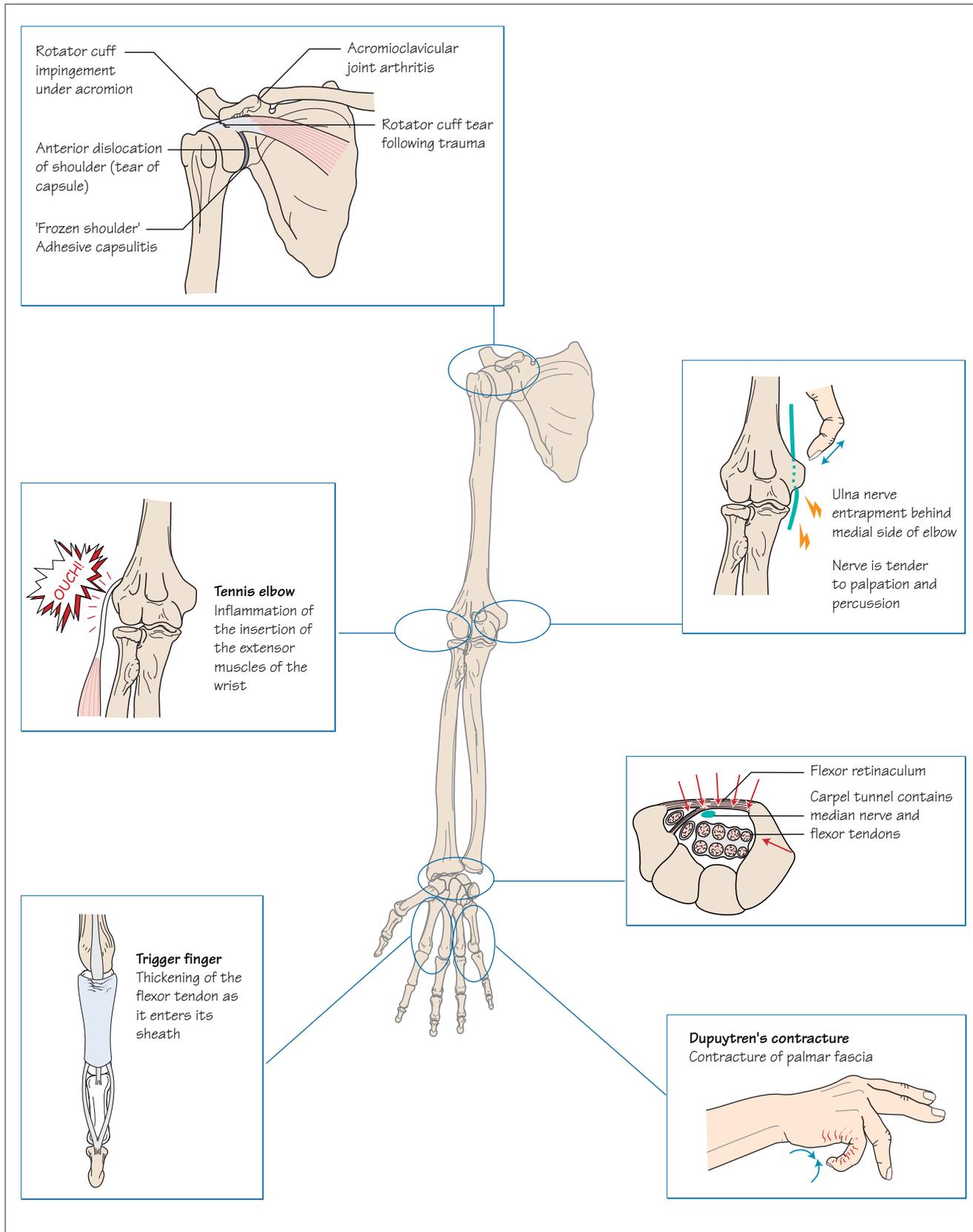


7 Problems presenting in the arm



Shoulder

Function

Loss of shoulder movement severely compromises the function of the upper limb. A patient with limited mobility in the shoulder should, if possible, be able to put their hand behind the head to brush their hair, behind the back to wipe their bottom, and flex forward to bring their hand to the mouth to eat. Scars on the shoulder can be very disfiguring if they form keloid.

Presentation

- **Rotator cuff impingement.** Several of the muscles around the shoulder insert into a cuff around the head of the humerus, which then inserts into the edge of the glenoid. This rotator cuff has a poor blood supply and must pass through the narrow cleft between the head of the humerus and the acromion. The underside of the acromion becomes beaked with age. It may then rub on the underside of the acromion producing a painful arc. This can produce weakness as well as pain. The acromion can be trimmed back using an arthroscope. Major tears in the rotator cuff can be repaired but unfortunately the blood supply is poor, so healing is not always good.
- **Frozen shoulder.** Strenuous use of the shoulder (such as painting a ceiling) or injury to a shoulder can lead to the gradual onset of a frozen shoulder. Over a period of days and weeks the shoulder becomes stiffer and more painful until the pain dominates the patient's sleeping and waking hours. The natural history of the condition is that over a period of months the pain and stiffness gradually improve until near full function is restored. There appears to be no treatment that can cure the condition or even hasten its natural history.
- **Arthritis of the shoulder (glenohumeral joint)** is common and painful. Fusion of the joint leaves a fairly good range of movement because the scapula is so mobile on the thorax. A shoulder replacement should give pain relief and even better movement, but it will wear out in time.

Arthritis of the acromioclavicular joint

The acromioclavicular joint is commonly injured following a fall onto the point of the shoulder, but the pain from this injury usually settles spontaneously in time. If the joint is then unstable, it may develop arthritis and produce a painful lump on the point of the shoulder. This interferes with rucksack straps. The joint can be excised without loss of function. This should relieve the pain.

Elbow

Function

The movements of the elbow are flexion, extension, and pronation and supination. If **flexion** is lost, the patient may not be able to bring the hand to their mouth. If **extension** is lost, they may not be able to reach things with the hand. **Pronation** and **supination** are crucial in positioning the hand, and loss of this movement significantly reduces the function of the upper limb. Cosmesis is a problem in the elbow if there is a growth abnormality and the elbow is left with a major varus or valgus deformity.

Presentation

- **Ulnar nerve entrapment.** The ulnar nerve can become trapped in the cubital tunnel at the back of the elbow. If this occurs, there

may be numbness and wasting on the ulnar one and a half fingers of the hand and wasting of the interosseous muscles. The nerve can be released surgically.

- **Tennis elbow.** A common problem, which produces pain in the elbow whenever the patient grips something, pronates their forearm or fully flexes the wrist. Each of these manoeuvres puts strain on the common extensor tendon origin on the lateral epicondyle of the elbow. A similar problem over the common flexor origin (medial epicondyle) is called **Golfer's elbow**. Physiotherapy or local steroid injection sometimes helps.
- **Arthritis in the elbow** is not uncommon, particularly in rheumatoid arthritis. If it is the radial head that is particularly painful, this can be removed, but elbow replacements are becoming increasingly successful and can produce a painless, strong and mobile elbow joint.

Wrist and hands

Presentation

- **Arthritis in the wrist** commonly follows trauma or inflammatory arthritis. Fusion of the wrist can be useful because it relieves pain, stabilises the joint and improves the strength of grip.
- **Carpal tunnel syndrome.** Most common in middle-aged females and during pregnancy, the patients describe hanging their hand out of bed at night to relieve the pain and numbness. They also notice that they are clumsy, dropping things all the time. On examination there is wasting of the muscles at the base of the thumb, and loss of feeling in the thumb and first two fingers. Nerve conduction studies show the median nerve trapped at the wrist. Steroid injections and splinting may help but surgical decompression of the carpal tunnel will relieve symptoms more reliably.

Dupuytren's contracture

A contracture in the fascia in the palm of the hand draws the fingers into flexion (usually the little and ring finger). The condition runs in families. If caught early the tightening fascia can be removed surgically and function is returned to the hand. If it is left late, amputation of the obstructing fingers may be the only option.

Trigger finger

Repeated trauma to the palm of the hand may lead to thickening of the flexor tendons to the fingers. They may then not be able to run freely in and out of the narrow mouth of the tunnels through which they pass from the palm into the finger. If this happens the finger jams (triggers), flexing with a click, then refusing to extend until helped when once again it triggers. Steroid injection may help. Surgical treatment merely involves opening the mouth of the tendon tunnel slightly.

Tips

- The shoulder frequently gets an impingement problem
- The elbow joint has the ulnar nerve ('funny bone') running close to it
- The median nerve gets trapped at the wrist—carpal tunnel syndrome
- Trigger fingers look normal until the patient tries to move them