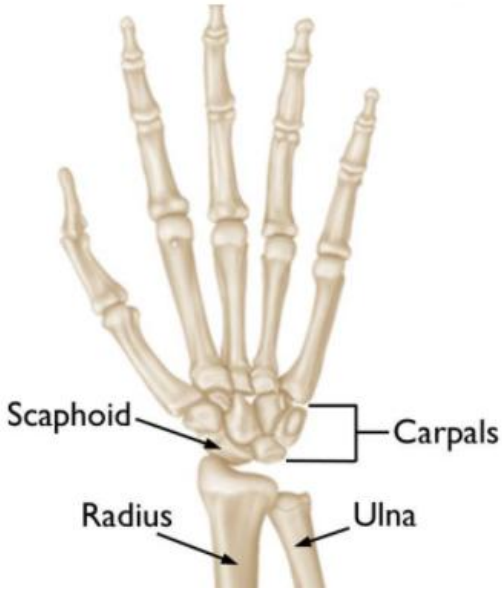
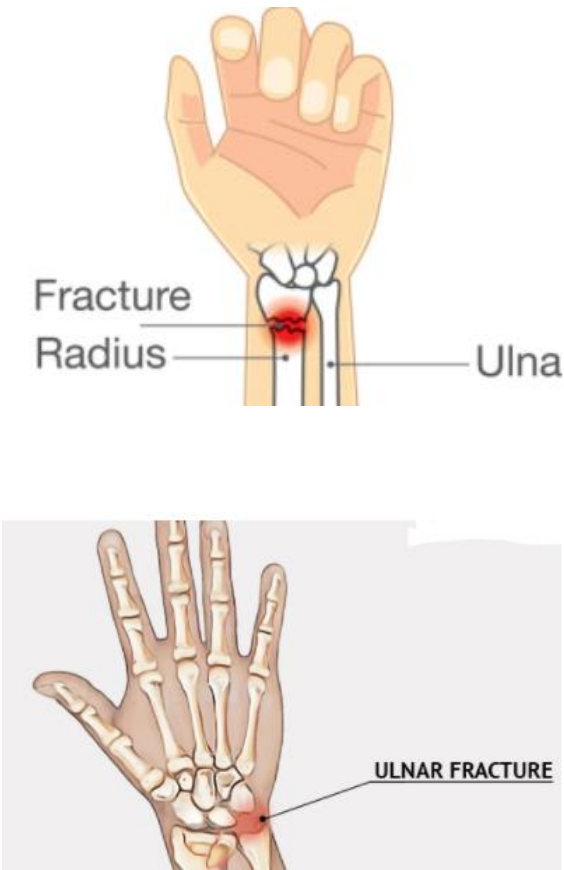
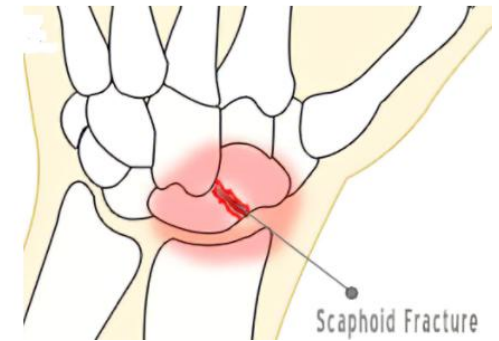


## WRIST and HAND SOFT TISSUE COMMON INJURIES AND DYSFUNCTION

Injury /condition	Description	Picture
<p>Fractures (distal radius &amp; ulna / scaphoid)</p> 	<p>Distal radius /ulna and scaphoid fractures almost always are the result of a fall onto an outstretched hand. They can also occur during sports activities or car accidents..</p> <p>A distal radius fracture can occur along with a fracture of the distal ulna or be <b>isolated</b>- no other fractures are involved. Distal <b>radius</b> fractures are the most common orthopaedic injury.</p> <p><b>Risk factors:</b></p> <ul style="list-style-type: none"> <li>Osteoporosis</li> <li>Most common in older population, higher in females</li> </ul> <p><b>Symptoms:</b></p> <ul style="list-style-type: none"> <li>Wrist pain</li> <li>Wrist swelling</li> <li>Wrist deformity</li> <li>Motion in forearm and hand limited by pain</li> <li>Tenderness forearm compartment</li> </ul> <p>Distal <b>ulna</b> fracture mostly occurs along the length of the bone and usually seen in younger people involved in sports.</p> <p><b>Symptoms:</b></p> <p>The same as with distal radius fracture</p> <p>Numbness or weakness in the fingers or wrist – rare</p> <p><b>Scaphoid</b> fracture</p> <p><b>Symptoms:</b></p> <ul style="list-style-type: none"> <li>Pain and/or swelling along the thumb side of the wrist within days following a fall.</li> <li>No visible deformity and no difficulty with motion</li> </ul> <p><b>Management and recovery:</b></p> <ul style="list-style-type: none"> <li><b>A&amp;E</b></li> <li><b>Radius</b> <ul style="list-style-type: none"> <li>Full recovery takes <b>about a year</b>.</li> <li>Some stiffness can remain for about 2 years or even permanently</li> </ul> </li> <li><b>Ulna</b></li> </ul> <p>Full recovery takes about <b>3-6 months</b></p> <ul style="list-style-type: none"> <li><b>Scaphoid</b> <ul style="list-style-type: none"> <li>Delaying treatment can cause further problems</li> </ul> </li> </ul>	

- Might require surgery
- Full recovery with right treatment takes **around 3 months**



## Carpel tunnel syndrome

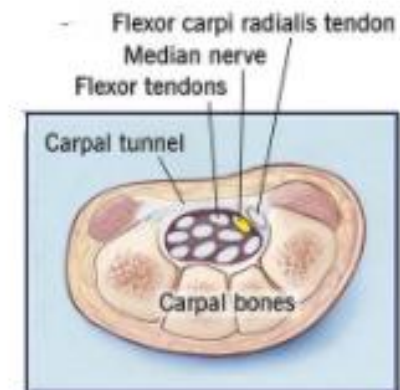
It is a common condition that causes pain, numbness, tingling and weakness in the hand and the wrist. When the carpal tunnel narrows and presses down on the median nerve and tendons, it makes them swell, which cuts off sensation in the fingers (index, middle fingers and half of the ring one), thumb and hand.

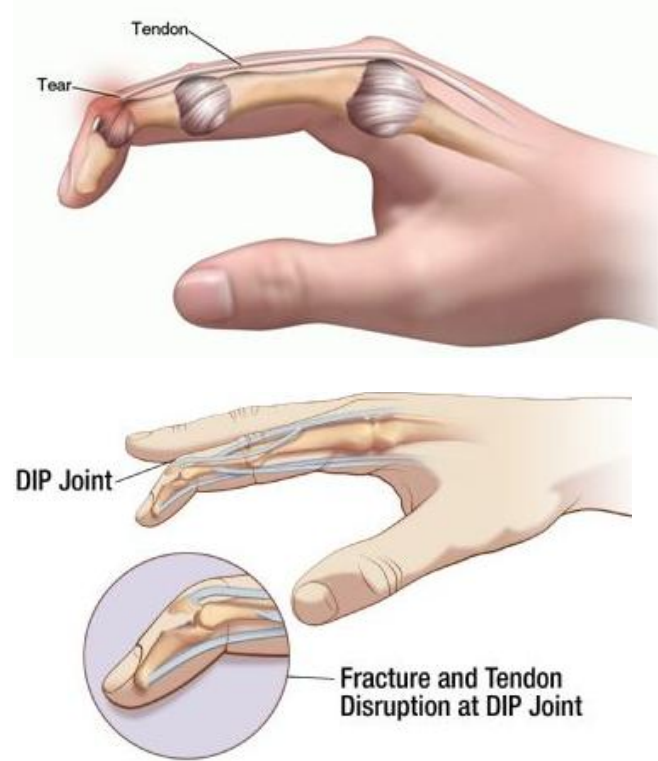
**Symptoms** usually start gradually.

- Numbness, tingling, burning, and pain—mostly in the thumb and index, middle, and ring fingers
- Occasional shock-like sensations that radiate to the thumb and index, middle, and ring fingers
- Pain or tingling that may travel up the forearm toward the shoulder
- Weakness and clumsiness in the hand: difficulty to perform fine movements such as buttoning the clothes
- Dropping things—due to weakness, numbness or a loss of proprioception
- Atrophy of the muscles at the base of the thumb

### **Risk factors:**

- Heredity
- Pregnancy
- Hemodialysis
- Wrist trauma (e.g. fracture, dislocation)
- Deformity in wrist/hand
- Rheumatoid arthritis, gout
- Hypothyroidism
- Diabetes.
- Alcoholism
- Tumour
- Aging
- Amyloid deposits (abnormal protein).
- More common in women



	<p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• Repetitive movements in finger and wrist:</li> <li>• High-force (hammering).</li> <li>• Long-term use.</li> <li>• Extreme wrist motions.</li> <li>• Vibration.</li> </ul> <p><b>Management and recovery:</b></p> <ul style="list-style-type: none"> <li>• Non-surgical treatments - for less severe cases</li> <li>• Change the environment to decrease symptoms</li> <li>• Corticosteroid injection</li> <li>• Surgical treatments - positive outcomes</li> </ul>	
Mallet finger(drop, hammer, or baseball finger)	<p>The deformity produced by inability to extend the distal interphalangeal (DIP) joint, which can be a result of avulsion fractures or distal extensor tendon ruptures.</p> <p><b>Symptoms:</b></p> <ul style="list-style-type: none"> <li>• Finger deformity: the fingertip droops, it is impossible to straighten on its own.</li> <li>• Painful, swollen or bruised finger</li> <li>• Problems with the finger nail : blood beneath it, it can be detached from beneath the skin fold at the base it.</li> </ul> <p><b>Causes:</b></p> <p>Hard blow to the tendon when unyielding object (like a ball) strikes the tip of a finger or thumb and forces it to bend further than it is intended(e.g. during playing sports-rugby)</p> <p>Forceful bending of the fingertip occurs</p> <p>Accident crushing a finger in a door</p> <p><b>Management and recovery:</b></p> <p>Wearing a splint on the finger to keep it straight</p> <p>If the tendon is not torn, it takes from 4 to 6 weeks to heal with correct treatment</p>	
De Quervain's disease- de Quervain tendinitis or de Quervain's tenosynovitis	<p>De Quervain's tendinitis is a painful swelling (inflammation) of the tendons at the base of the thumb. When the <b>abductor pollicis longus (APL) and extensor pollicis brevis (EPB) tendons</b> become swollen with repeated movements, become constricted in a tight tunnel, creating pressure on nerves, which leads to pain and numbness.</p>	

**Symptoms:**

- Pain - gradual or sudden
- Pain or tenderness over the wrist joint, at the base of the thumb, which may radiate to the forearm.
- Other symptoms include:
- Pain increase with movement of hand, thumb or wrist
- Pain progressing from ache to a sharp pain with any movement in the affected area
- Numbness along the back of the thumb and index finger
- Swelling at the base of the thumb
- “Snapping” or “catch” sensations with the thumb movement
- “Squeaking” with movement

**Causes:**

- Overuse.
- A direct blow to the thumb.
- Repetitive grasping.
- Inflammatory conditions (arthritis)
- Often, the exact cause is unknown

**Risk factors :**

- Activities –jobs, hobbies, sports, etc,-that require sidewise motion of the wrist, while gripping with the thumb:
  - Lifting the children.
  - Gardening.
  - Racquet sports (tennis, racquetball).
  - Skiing.
  - Using a hammer.
- Previous injuries, scar tissue
- Pregnancy - hormonal changes

**Management and recovery:**

- Avoiding activities that are causing pain and swelling.
- Using splints to prevent movement (24-hours-a-day for 4-6 weeks)
- Applying ice to reduce swelling
- Anti-inflammatory medication
- Steroid injection(s)
- Physiotherapy
- Surgery may be recommended.
- With correct treatment symptoms improve **within 4-6 weeks.**

