“The clinical anatomy of the Hand”
The distal part of the upper limb is divided into three regions:

1. The wrist (carpus)
2. The hand (metacarpus)
3. The digits (fingers)

The landmarks of this region are: the head and the styloid process of the ulna; the styloid process of the radius; pisiform bone; proximal wrist crease, distal wrist crease; proximal palmer transverse crease, distal palmer transverse crease, the thenar eminence; the hypothenar eminence; mesothenar; 5-th metacarpal bones; the proximal, middle and distal phalanx; the tendons of abductor pollicis longus, extensor pollicis brevis from the on site and extensor pollicis longus from the over site bounds the anatomical snuff box.
Landmarks of Wrist and Palm of the left hand

- Thenar eminence
- Distal wrist crease
- Proximal wrist crease
- Digital flexion crease
- Proximal transverse crease
- Distal transverse crease
- Hypothenar eminence
- Mesothenar (middle compartment)
Anterior surface of the left forearm and wrist
The projection ligne of the metacarpophalangeal, proximal and distal interphalangeal joints
Extensor pollicis longus
Abductor pollicis longus
end extensor pollicis brevis
Anatomical snuff box
Dorsal venous network
Head of ulna
Anatomical snuff box

Abductor pollicis longus
Extensor pollicis longus
The prohibited area (the branches of the medianus nerve)
Carpometacarpal Joint

Distal radioulnar joint
Articular disc
Intercarpal Joint
The layers of the palmar regions of the wrist

1. The skin is thin

2. The subcutaneous tissue is thin

3. The superficial fascia

4. The deep fascia make here retinaculum flexorumum between the bones of the wrist: from the radial site Scaphoid + Trapezium and Pisiform + Hamate – osseofibrous Carpal tunnel formed by retinaculum stretches between the ends of these bones.

5. The carpe-ulnar tunnel, covered by superficial fascia, lie laterally to the tendon on the flexor carpi ulnaris. the contents of this channel are – a.v.n.ulnaris.

6. The carpe-radialis channel contents is tendon of m. flexor carpe-radialis.
The layers of the dorsal region of the wrist

1. The skin is thin
2. The subcutaneous tissue is thin (v. basilica, v. cephalica)
3. The retinaculum extensorum: under retinaculum extensorum there are 6 synovial sheaths which occupy six osseofibrous tunnels and contain nine tendons:

   I. M. abductor pollicis longus and extensor pollicis brevis;
   II. Mm. Extensoris carperadialis longus et brevis;
   III. M. extensor pollicis longus
   IV. Mm. extensor digitorum communis and indicis.
   V. m. extensor digiti minimi.
   VI. m. extensor crape-ulnaris.
The layers of the palmar region of the hand

1. The skin is thick because it is required at the work and play it is richly supplied with sweat glands.

2. The subcutaneous tissue contain fibrous septums which pass it from skin to palmer aponeurosis and make cells full with fat tissue.

3. The deep fascia is thin over the thenar and hypothenar, it is thick in the middle region (mesothenar), it forms the palmar aponeurosis with tendon of palmar longus m.

4. Between palmar aponeurosis and the flexor tendons are the subaponeurotic space (palmar arterial superficial arch (between a. unaris and palmar branch of radial artery), 4 digital common arteries, branches of the ulnar and median nerves).
5. The 8 tendons of the flexor digitorum superficialis and profundus.

6. The subtendinous space in which are the lumbricales muscles.

7. Palmar interossei muscles.

8. Dorsal interossei muscles.
Transverse sections through the middle of the palm of the right hand

Palmar aponeurosis
The layers of the dorsal region of the hand

1. The skin is thin, loose and is covered by hair especially in males.

2. Superficial fascia.

3. The subcutaneous tissue is thin contain veins network, the beginning of the cephalic and basilica veins; superficially branches of the radialis nerve and dorsalis branches of the ulnar nerve. Fibrous septums which pass it from skin to palmer aponeurosis and make cells full with fat tissue.

4. The deep fascia.

5. Palmar interosseus dorsales muscles.
1. Dorsal digital artery; 2. Tendon of the extensor digit; 3. the bone of phalanges; 4. flexor digitorum superficialis; 5. the synovial sheaths of the tendons (layers of sheath parietal(8) and visceral(9)) is a lubricating device that envelops the long digital tendons which contain synovial fluid; 6. Mesotendon; 10. flexor digital profound tendon. 11. Palmar digital vessels and nerves.
1. Digital skin;  
2. Nail;  
3. Nail bed;  
4. Projection de la lunule unguéale marquant la limite entre matrice fertile (7) et zone stérile du lit unguéal (6);  
5. Eponychium;  
6. Nail bed;  
7. Fertile Matrix.

1. Arcade distale;  
2. Arcade proximale;  
3. Arcade pulpaire;  
4. Arcade superficielle;  
5. Artère collatérale palmaire.
The incisions on the digits in case of panarices
Acute infection classification:

**Whitlow** - The clinical term whitlow is applied to an acute infection, usually followed by suppuration, commonly met in the fingers, less frequently in the toes.

**Tenosynovitis.** Applicable pain along the tendon sheath with passive extension of the digit often is the first clinical sign of this hand infection.

**Felon** is an abscess of the distal pulp or phalanx pad of the fingertip.

**Paronychia** is an infection of the perionychium (also called eponychium), which is the epidermis bordering the nail.
Thanks, for your attention !!!