Skin
- Thick and show many flexure creases
- Flexure creases are important landmarks.
  - Proximal palmar crease.
  - Distal palmar crease.
- Thenar Eminence.
- Hypothenar Eminence.
Palmar aponeurosis

- A triangular-shaped thickening of the deep fascia in the central part of the palm.
- **Apex:**
  - Attach to Flexor Retina.
- **Base:**
  - Fuse to proximal phalanx of medial four fingers.
6 structures pass superficial to flexor retinaculum:
- 4 ulnars
- 2 palmar

Radialis indicis A.
1st Lumbrical M.
1st interosseous M.

Recurent branch of median N.

6 Palmar branch of median N.
Radial A., superficial branch

Palmaris longus

5 Flexor carpi ulnaris
Flexor carpi radialis
Radial artery
Brachioradialis

Fibrous digital sheath
Superficialis tendon
Palmar digital artery
Palmar digital nerve
Abductor digiti minimi

Superficial palmar arch

Ulnar nerve
Ulnar artery
Palmar branch of ulnar N.
Small muscles of the Hand

Arranged in five groups:
- Thenars 3.
- Hypothenars 3.
- Lumbricals 4.
- Palmar interossei 4.
- Dorsal interossei 4.
- Adductor pollicis 1.
Short muscles of the thumb

3 thenar Muscles

- All moves the thumb according to their names.
- All supplied by median nerve.
Short muscles of little finger

3 hypothenar muscles

- All moves the little finger according to their names.

- All supplied by ulnar N.
Lumbricals

O: FDP tendons
Ins: Lateral side of extensor expansion.
Actn: Writting position
NS: 1,2 = Median / 3, 4= Ulnar

Flexor pollicis longus
Flexor digitorum profundus
Flexor digitorum Superficialis

1st & 2nd Lumbricals
3rd & 4th Lumbricals
4 Palmar interossei

O: 1, 2, 4 and 5 MC
Ins: Base of proximal phalanx of 1, 2, 4, 5 fingers and extensor expansion.
Actn: Adduct all to axial line.
NS: Deep ulnar nerve.
4 Dorsal interossei

- **O**: 2 heads from 2 adjacent MCs.
- **Ins**: Ext. expansion, Prox. phal. of 2, 3, 4 fingers.
- **NS**: Deep ulnar N.
- **Actn**: Abduct fingers from axial line.

- **Axial line**
- **Abduction**
- **Insert into extensor expansion**
- **Insert into base of proximal phalanx**
- **Radial artery**
Adductor pollicis

Adductor pollicis, Transverse head
O: 3 MC

Base

Sesamoid bone

Adductor pollicis, Oblique head
O: 2, 3 MC

Action: Adducts thumb
NS: Ulnar nerve

Deep palmar arch
Radial artery
Superficial palmar arch

- Mainly from superficial branch of ulnar A + superficial branch of radial A.
Deep Palmar arch

- Mainly from deep branch of radial A. + deep branch of ulnar A.
**Cutaneous nerve supply to the hand**

**Median Nerve:**
Lateral 2/3 of palmar skin & Palmar aspect of the Lateral 3 & 1/2 fingers + their Nail beds

**Radial Nerve:**
Lateral 2/3 of the Dorsal aspect of hand & Dorsal aspect of the 3 & 1/2 fingers except Nail beds.

Demarcation site of NS of hand’s skin is at Ring finger.