Fascia, Septa, Tendon Sheaths and the Potential Spaces of the Hand

These fascial layers are continuous with the fascial sleeve of the forearm. Centrally the fascia of the palm thickens in the centre, where the palmaris longs tendon attaches to it, which is also where it merges with the flexor retinaculum. This whole thickened area is called the palmar aponeurosis. Distally, the palmar aponeurosis divides into four bands which attach to the bases of the proximal phalanges, and there it becomes a part of the digital sheaths.

**The Thenar Space**
- The Thenar fascia
- Palmar Aponeurosis
- The lateral fibrous septum of the palm, which stretches from the palmar aponeurosis to the 3rd metacarpal.
- The medial fibrous septum of the palm, which stretches from the palmar aponeurosis to the 5th metacarpal.
- Of the two septa, the lateral is the strongest.

**The Midpalmar Space**
- Unlike the thenar space, this one is continuous with the anterior compartment of the forearm - it communicates with it via the carpal tunnel.

**Palmar Aponeurosis**
- So thick and tough that any infections in the palmar spaces will actually cause the weaker dorsal fascia to bulge out.
- In Dupuytren’s contracture, the palmar aponeurosis becomes nodular, fibrosed, and thickened.

**Digital Synovial Sheaths**
- Common flexor sheath: FDS and FDP
- Digital synovial sheath for Flexor Pollicis Longus
- Digital synovial sheath for Flexor Carpi Radialis