Small Muscles of the Hand

ATTACHMENTS OF SMALL MUSCLES OF THE HAND

**Origin:** 4 tendons from flexor digitorum profundus, radial 2 are unipennate, ulnar 2 bipennate

**Insertion:** Extensor expansion over dorsum of proximal phalanx, distal to insertion of interossei, on radial side of fingers 2-5. NO bony attachments

**Action:** Flexion of metacarpophalangeal joints and extension of both interphalangeal joints of all fingers

**Nerve supply:** Ulnar n to ulnar 2, median n to radial 2 (can be 2:2, 3:1 or 1:3)
ACTION OF THE INTEROSSEI AND LUMBRICALS

Attached from tendon (FDP) to tendon (dorsal expansion)

Attached to bone (base of proximal phalanx) AND tendon (dorsal expansion)

ACTION OF LUMBRICALS

Flexes MPJ
Extends IPJs
**INTEROSSEOUS MUSCLES**

**Palmar (PAD)**
- **Origin:** Anterior shafts of metacarpals 2, 4, 5
- **Insertion:** Dorsal expansion & prox phalanx
- **Action:** Flex metacarpophalangeal & extend both interphalangeal joints
  - Adduct as per arrows

**Dorsal (DAB)**
- **Origin:** Inner shafts all metacarpals
- **Insertion:** Dorsal expansion & prox phalanx
- **Action:** Flex metacarpophalangeal & extend both interphalangeal joints
  - Abduct as per arrows

They act by taking up the slack in the extensor expansion so that the pull of the long extensor is not wasted wholly on the metacarpophalangeal joints.

**ACTION OF THE INTEROSSEI AND LUMBRICALS**

- **Flexion**
- **Extension**
ACTION OF THE INTEROSSEI AND LUMBRICALS

- Attached from tendon (FDP) to tendon (dorsal expansion)
- Attached to bone (base of proximal phalanx) AND tendon (dorsal expansion)

ACTION OF LUMBRICALS
- Flexes MPJ
- Extends IPJs
ACTION OF THE INTEROSSEI AND LUMBRICALS

Attached from **tendon** (FDP) to **tendon** (dorsal expansion)

**Lumbrical**

**Interosseus**

Attached to **bone** (base of proximal phalanx) AND **tendon** (dorsal expansion)

**ACTION OF LUMBRICALS**

**Flexes MPJ**
**Extends IPJs**