

Competencies AN2.29

- ▣ AN2.29
- ▣ TYPE OF THE JOINT
- ▣ BONES FORMING THE JOINT
- ▣ RELATIONS OF THE JOINT
- ▣ MOVEMENTS AND AXIS
- ▣ LIGAMENTS OF THE JOINT
- ▣ MUSCLES CARRYING OUT THE MOVEMENTS
- ▣ NERVE SUPPLY & ARTERIAL SUPPLY
- ▣ ACTIONS
- ▣ References: google images

CARPOMETACARPAL JOINT OF THE THUMB AS TRAPEZIOMETACARPAL JOINT OR BASAL JOINT OF THE THUMB

-type of joint : saddle or sellar type of Synovial joint

-bones : distal articular surface of trapezium

Base of the 1st metacarpal bone



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Anterior aspect of the wrist and hand



7.38

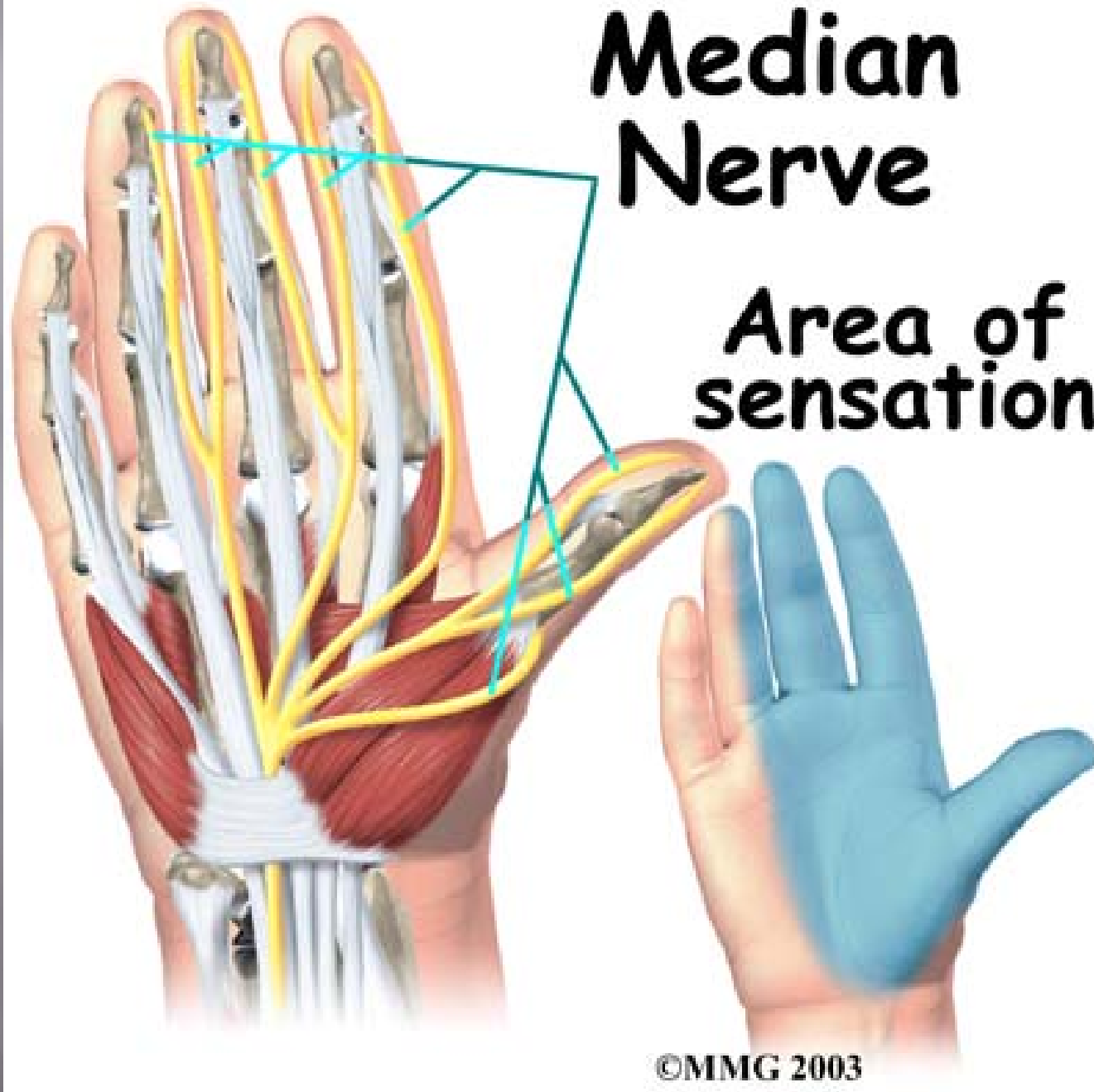
Anterior aspect of the wrist and hand: bones

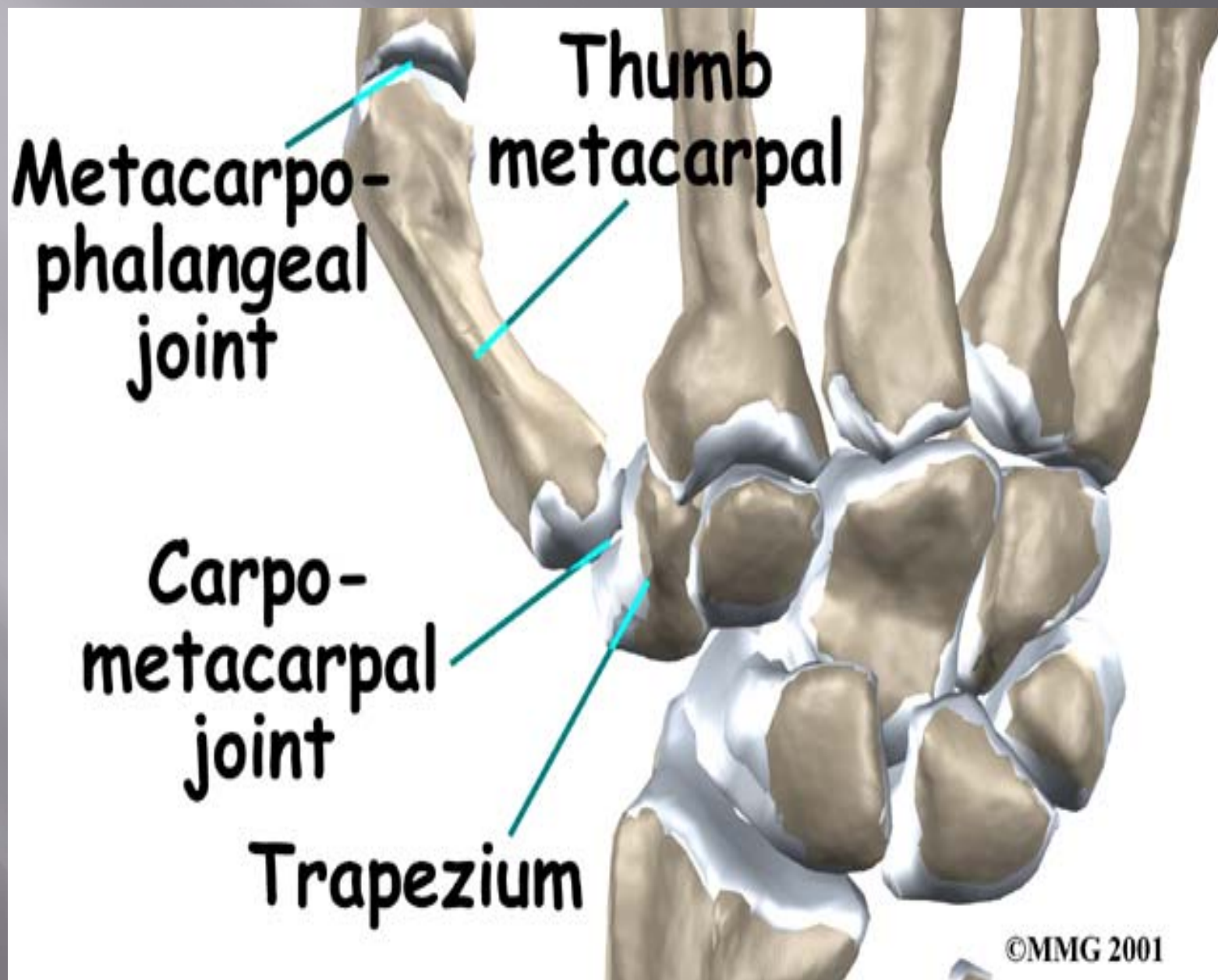
Note the relation of bones to the skin creases

- | | |
|--------------------------|-----------------------|
| 1 Ulna | 10 Hamate |
| 2 Radius | 11 Hook of hamate |
| 3 Ulnar styloid process | 12 Capitate |
| 4 Radial styloid process | 13 Trapezoid |
| 5 Pisiform | 14 Trapezium |
| 6 Triquetrum | 15 Ridge of trapezium |
| 7 Lunate | 16 Metacarpals 1-5 |
| 8 Scaphoid | 17 Phalanges |
| 9 Scaphoid tubercle | |

Median Nerve

Area of
sensation





Synovial joints

▣ **According to shape of the articular surfaces:**

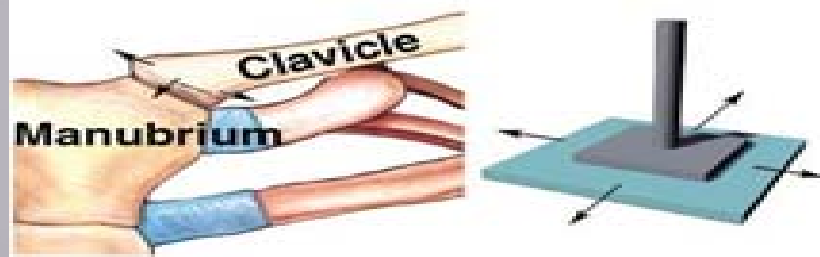
-plane variety

-hinge joint

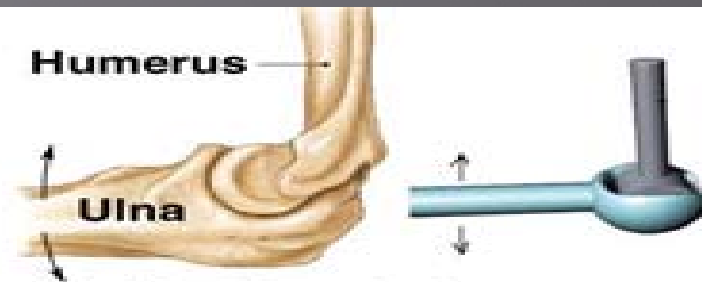
-pivot joint

-saddle or sellar variety :allows wide range of movements : examples are:

- Ellipsoid type



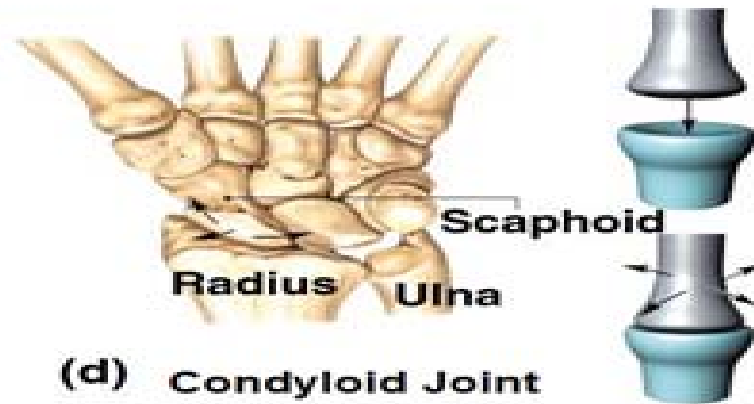
(a) Plane Joint



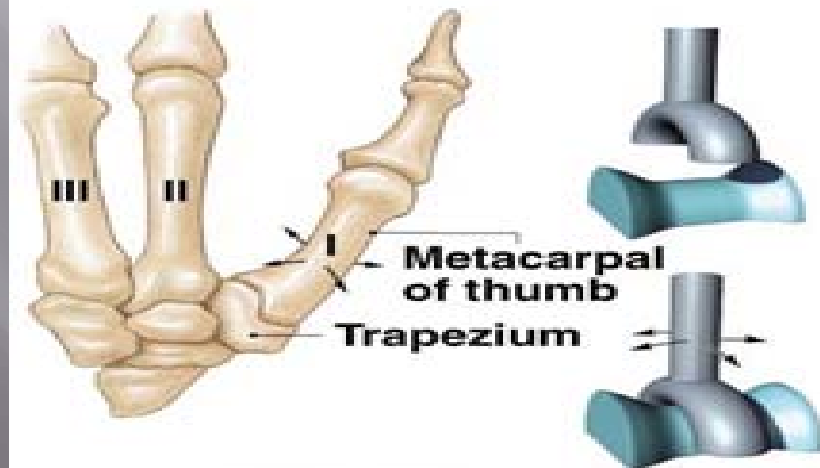
(b) Hinge joint



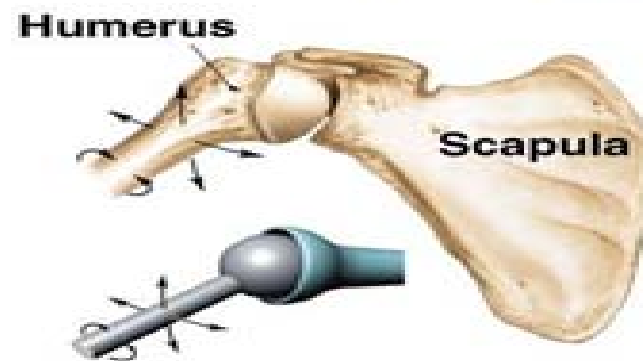
(c) Pivot joint



(d) Condyloid Joint



(e) Saddle joint



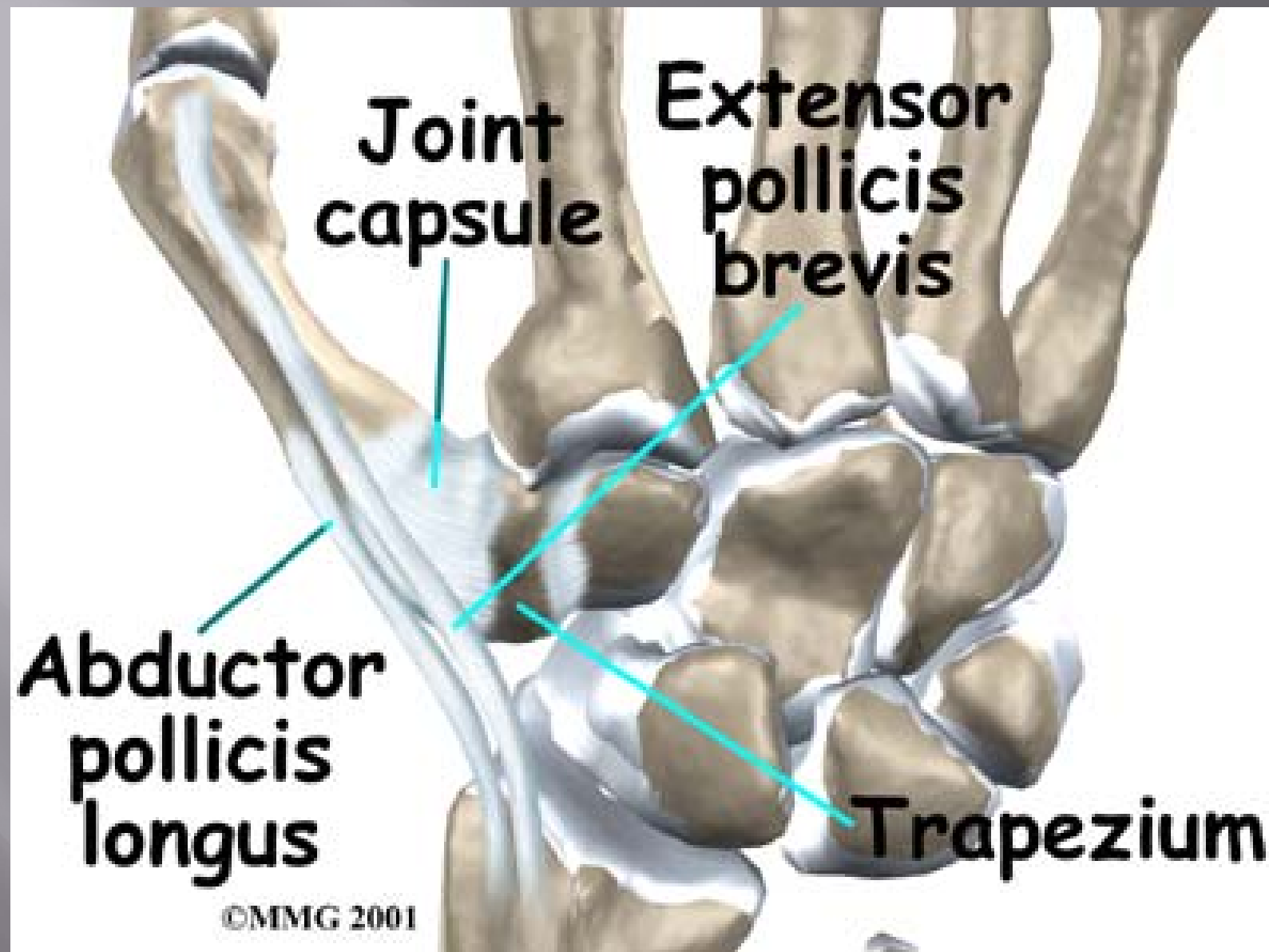
(f) Ball-and-socket joint

Ligaments of the joint:

- ▣ Capsular ligament
- ▣ Lateral ligament
- ▣ Dorsal ligament
- ▣ Palmar ligament

relations

- ▣ Front
- ▣ Back
- ▣ Medial
- ▣ lateral

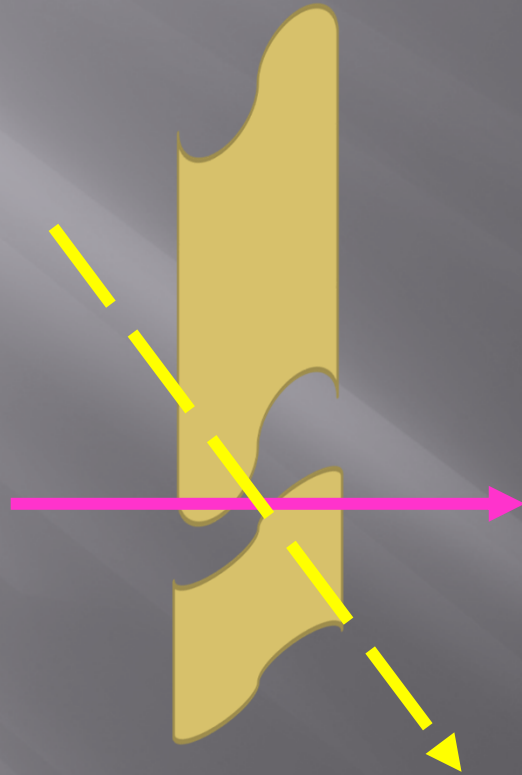


Movements, AXIS and Muscles:

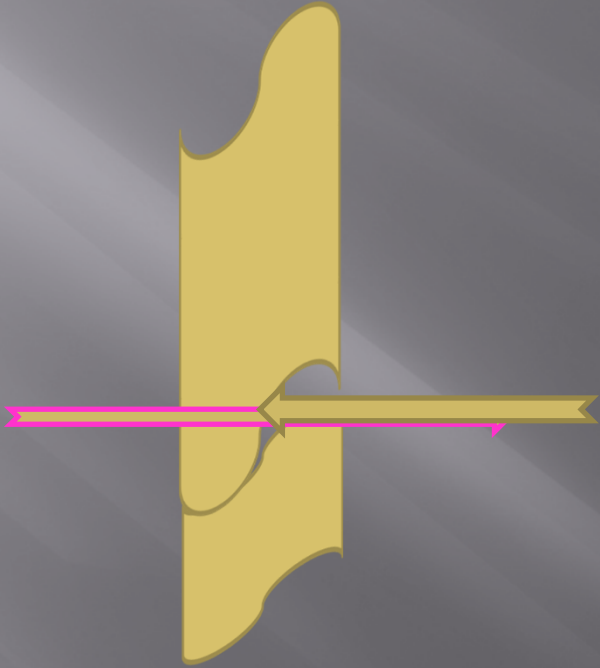
- ▣ Flexion , extension : TRANSVERSE AXIS. ,
Conjunct medial, lateral rotation
- ▣ Abduction , adduction: ANTERO-POSTERIOR
AXIS Opposition: ABDUCTION → FLEXION → OPPOSITION
- ▣ circumduction

-:muscles producing movements:-

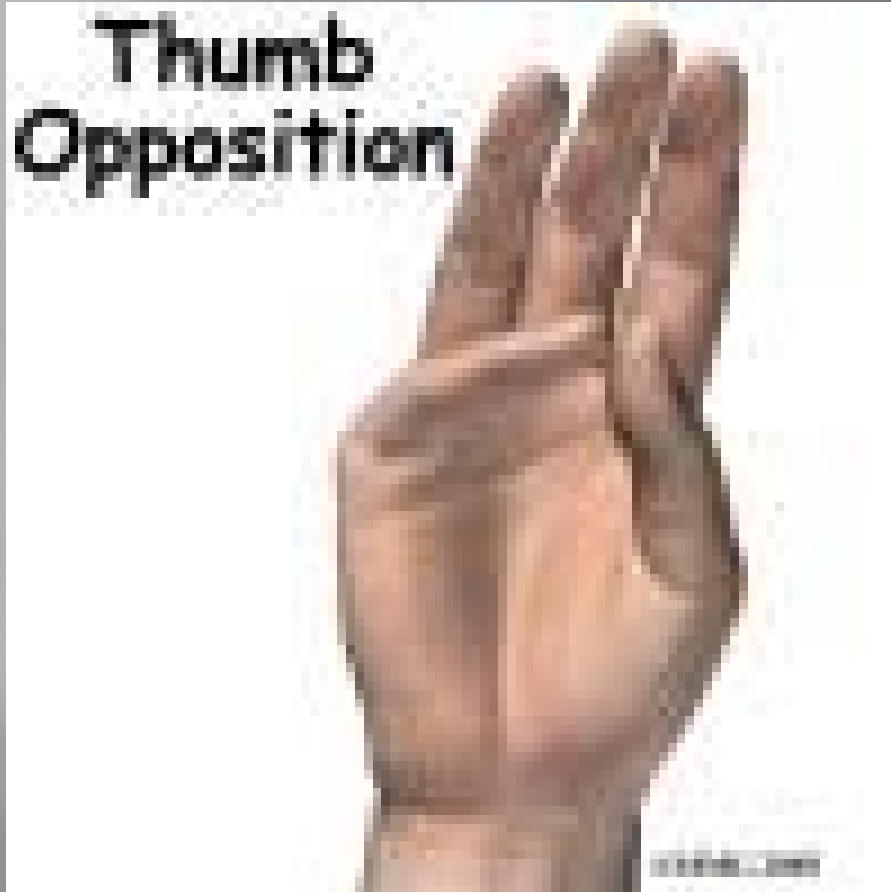
axis



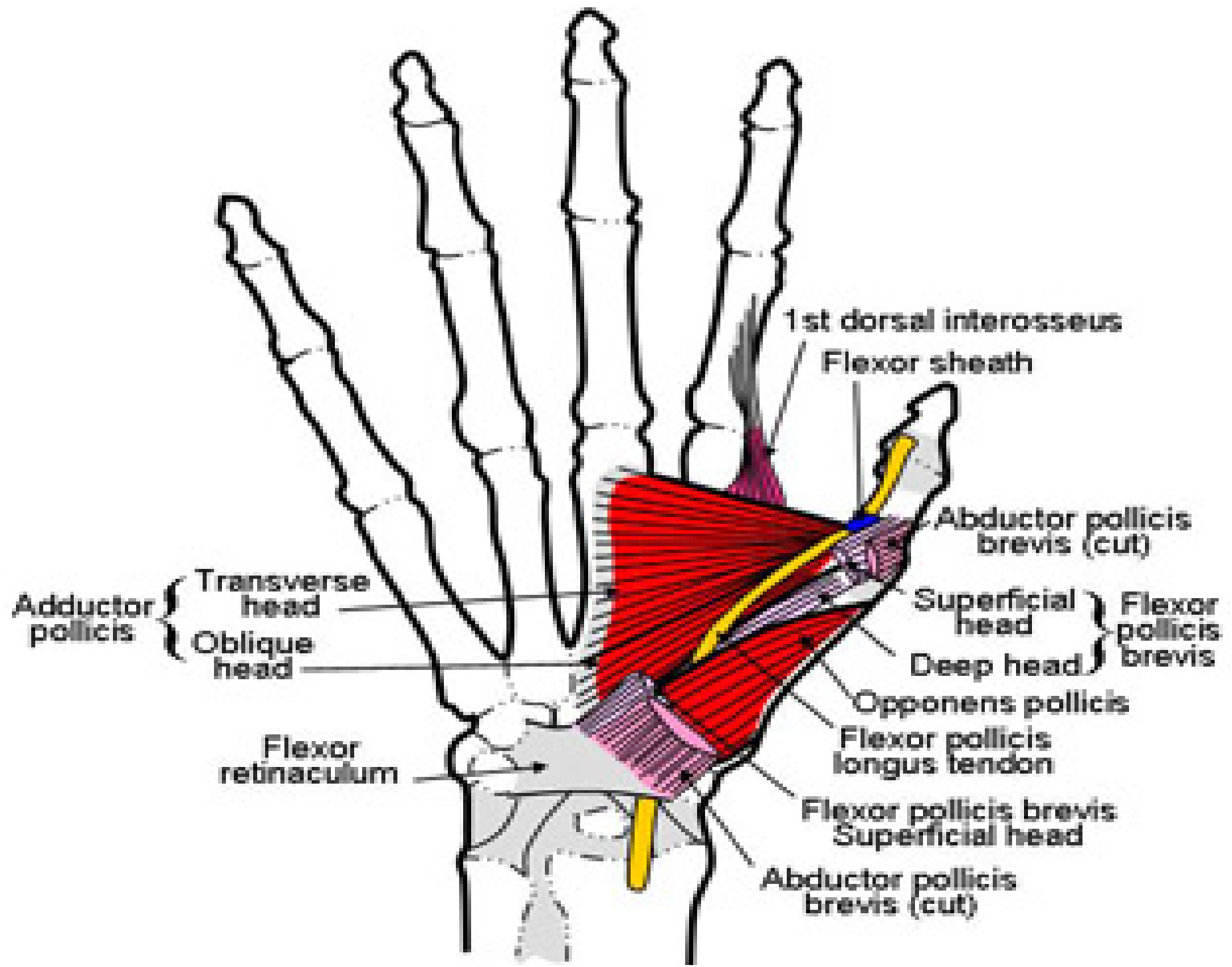
axis



Thumb Opposition



Characteristic of human hand

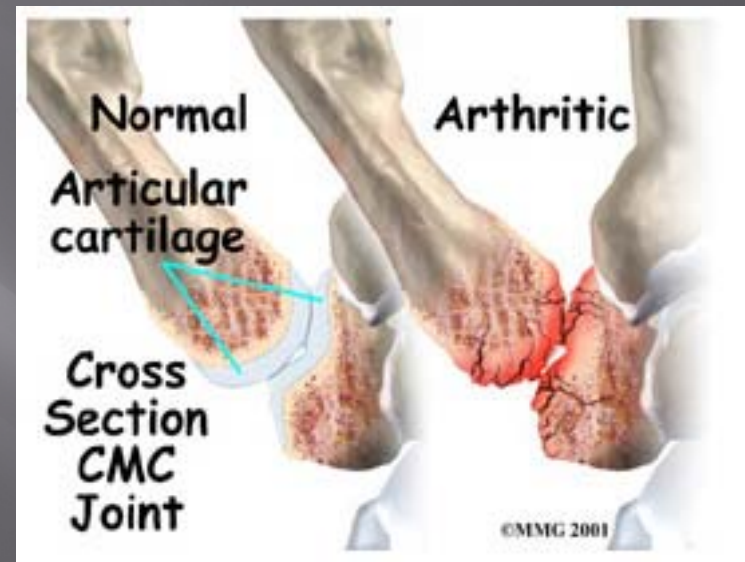


Blood supply:radial artery
nerve supply:median nerve

▣ Applied anatomy:
-the thumb pain: arthritis :
ligaments and joint
capsule become
thin,weak,unstable
and painful

▣ Arthrodesis: bone fusion

▣ QUERVAIN'S TENOSYNOVITIS : tendons of
extensor pollicis brevis & abductor pollicis longus get
inflamed leads to painful movements of the thumb



Functional two units

- ▣ Radial tripod

- ▣ Medial hook