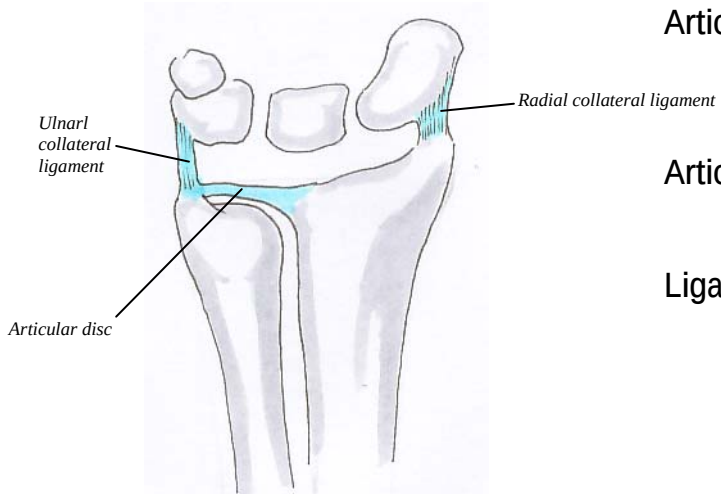
# Radiocarpal joint




## Type of joint

Condyloid (ellipsoid) type of synovial joint

## Articulating surfaces

Three of the carpal bones (scaphoid, triquetrum and lunate) articulate with the radius

The pisiform and the ulna don't participate

## Articular capsule

Stretches from the distal ends of the radius and ulna, to the proximal row of carpal bones (but not the pisiform)

## Ligaments

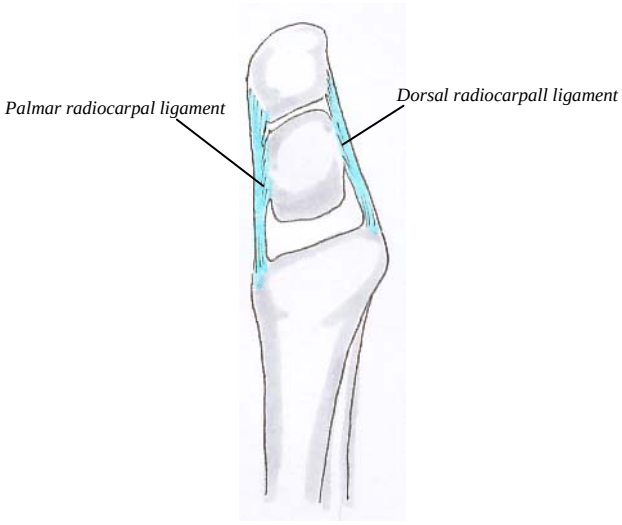
The PALMAR radiocarpal ligaments stretch from the radius to both of the two rows of carpal bones;

The DORSAL radiocarpal ligament does the same

these ligaments make sure the hand follows the radius in its rotation

the ULNAR COLLATERAL LIGAMENT passes from the ulnar styloid to the triquetrum

the RADIAL COLLATERAL LIGAMENT passes from the radial styloid to the triquetrum




## Stability factors

The radius articulates tightly with the carpus; the styloid processes of the radius and ulna limit abduction and adduction

The ligaments and tendons supply most of the stability

## Movements

The movements of this joint are augmented by the slight movements permitted by the intercarpal and midcarpal joints. These are

- flexion + extension (greater range of flexion than extension)
- flexion is produced by
  - FCR and FCU, Palmaris longus
  - APL, Flexors of the fingers and thumb
- extension is produced by
  - ECRL, ECRB, and ECU
  - Extensors of fingers and thumb
- adduction + abduction (ulnar and radial deviation) – greater range of adduction(ulnar) than of abduction, because of the larger radial styloid. Most abduction occurs at the midcarpal joint.
- Adduction is produced by
  - Simultaneous ECU and FCU action
- Abduction is produced by
  - APL, FCR, ECRL and ECRB together
- Circumduction – consists of successive flexion, adduction, extension and abduction

**Blood supply:** Branches of the dorsal and palmar carpal arch

**Nerve supply:** Anterior interosseous branch of the median nerve, posterior interossous branch of the radial nerve, and dorsal and deep branches of the ulnar nerve