

SURGICAL TREATMENT BASED ON THE LOCATION OF OSTEO-ARTHRITIS

There is no radioclinical parallelism in osteo-arthritis: a destroyed joint is not necessarily symptomatic (painful); conversely, a joint with few radiological signs may be painful due to pressure on the highly innervated capsule. Treatment indications are based on clinical presentation.

Surgical treatment is only indicated when conservative treatment (splints, injections, anti-inflammatories) has failed after a sufficient period.

Surgical treatment of osteoarthritis, regardless of its location, involves several types of procedures, each with its advantages and disadvantages:

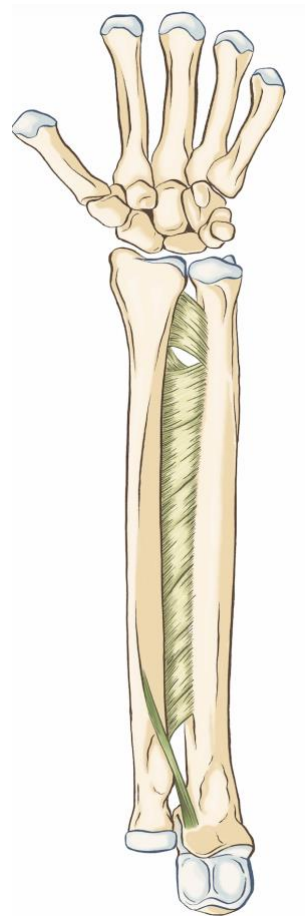
ARTHRODESIS: This procedure involves fusing the affected joint. After removing the cartilage, a bone graft is often necessary to ensure fusion. This results in the permanent loss of joint mobility, but the joint is stabilized in a functional position; pain disappears at the cost of stiffness, and strength stabilizes or increases. Bone fusion is reserved for joints where the functional loss from blocking the joint is secondary.

PROSTHESES: There are several types (sliding, hinged) that replace the failing joint, preserving a mobile, stable, and painless joint. Their prognosis is linked to potential long-term material deterioration (anchorage, friction torque) and stress (manual labor).

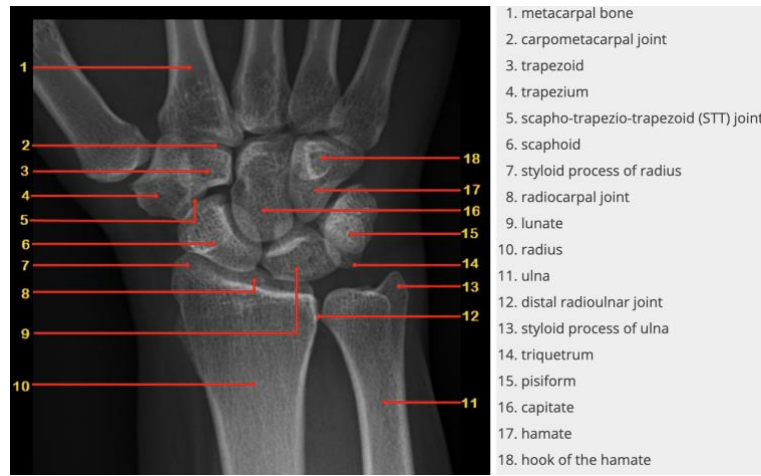
INTERPOSITIONS (ARTHROPLASTIES): This involves inserting tissue (tendon, ligament) into the joint to reduce friction and thus pain, often at the cost of strength loss.

DENERVATION: This involves surgically removing the nerves from the joint capsule to reduce pain without affecting the progression of osteo-arthritis (treating the consequence, not the cause).

Surgical indications between the different options depend on the location.



WRIST: Joint between the distal end of the radius and ulna and the carpus, composed of 8 small bones in 2 rows. The most well-known carpal bone is the scaphoid, which faces the radius in the thumb's axis.

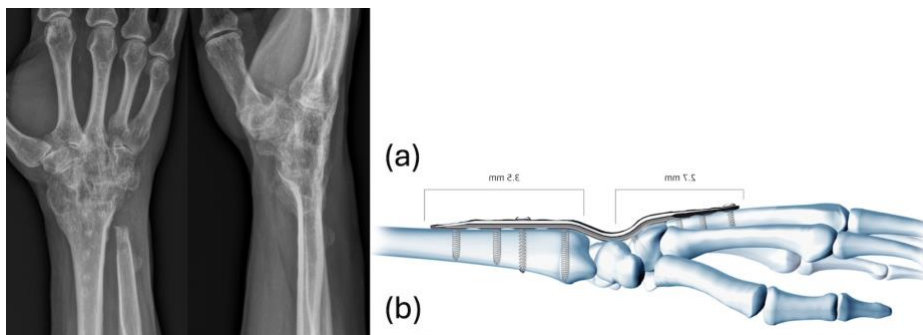


RADIOCARPAL OSTEO-ARTHRITIS: Between the radius and the carpus:

ARTHRODESIS

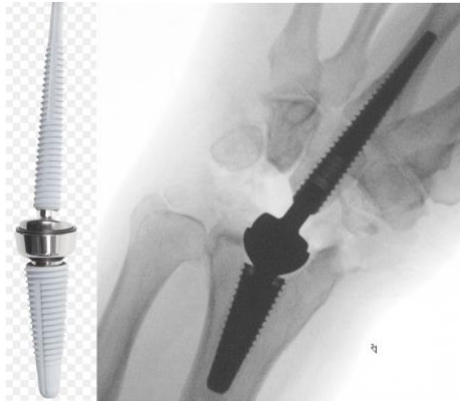


Partial wrist arthrodesis: radioscapolunate fusion



*Total wrist arthrodesis with resection of the distal ulna after hardware removal
 (a). Wrist arthrodesis plate (b). Spanning plate*

PROSTHESIS:



Total wrist prosthesis

DISTAL RADIO-ULNAR OSTEO-ARTHRITIS: Between the lower ends of the radius and ulna:



Ulna head prosthesis



Distal radio-ulnar arthrodesis with ulnar osteotomy

INTRACARPAL OSTEO-ARTHRITIS:

Between the two rows of carpal bones (midcarpal osteo-arthritis).
Post-traumatic (scaphoid fracture or scapholunate ligament injury), chondrocalcinosis, gout:



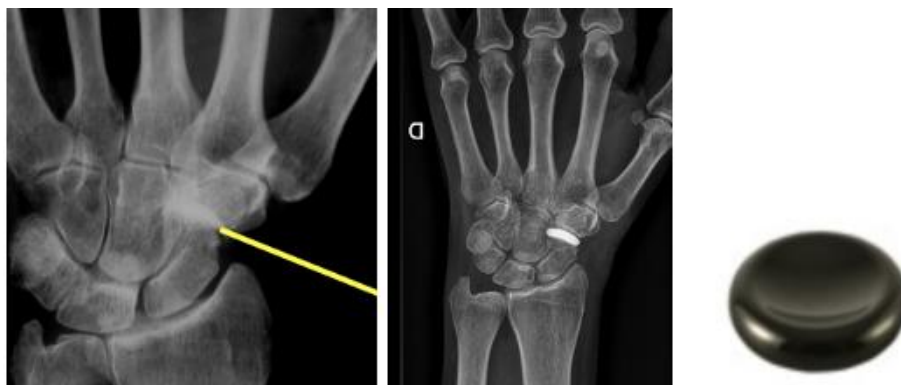
First row carpectomy (scaphoid, lunate, triquetrum)



Scaphoid removal and 4-bone fusion (lunate, triquetrum, capitate, hamate)

STT OSTEO-ARTHRITIS:

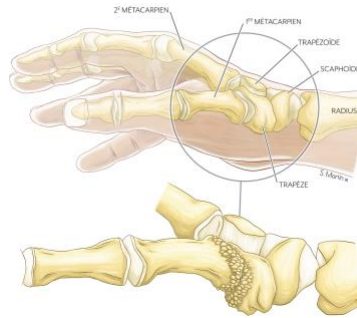
Between the scaphoid and trapezium and trapezoid (scaphotrapeziotrapezoid joint):



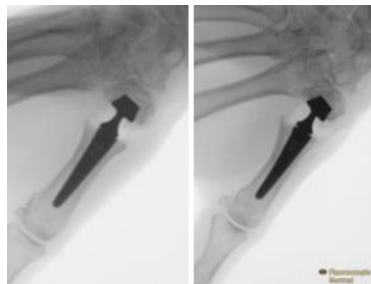
STT osteo-arthritis / Pyrocarbon prosthesis (biconcave disc)

THUMB BASE OSTEO-ARTHRITIS (RHIZARTHROSIS):

Cartilage loss between the trapezium and the first metacarpal:



Trapeziectomy-ligamentoplasty

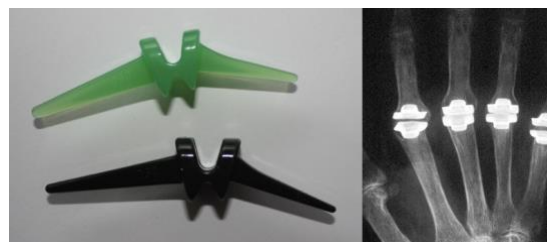


Dual mobility trapeziometacarpal prosthesis

LONG FINGERS OSTEO-ARTHRITIS:

Finger mobility is ensured 60% by the metacarpophalangeal joint, 35% by the proximal interphalangeal joint (PIP), and 5% by the distal interphalangeal joint (DIP).

METACARPOPHALANGEAL OSTEO-ARTHRITIS (MCP) :



Silastic prostheses

PROXIMAL INTERPHALANGEAL OSTEO-ARTHRITIS (PIP):



Skin incision for PIP prosthesis / Silastic PIP prosthesis



PIP prostheses

DISTAL INTERPHALANGEAL OSTEOARTHRITIS (DIP):



Arthrodesis with a shape memory staple