

SHROPSHIRE HOSPITALS

HAND THERAPY GUIDELINES

Wrist Joint Replacement

Introduction

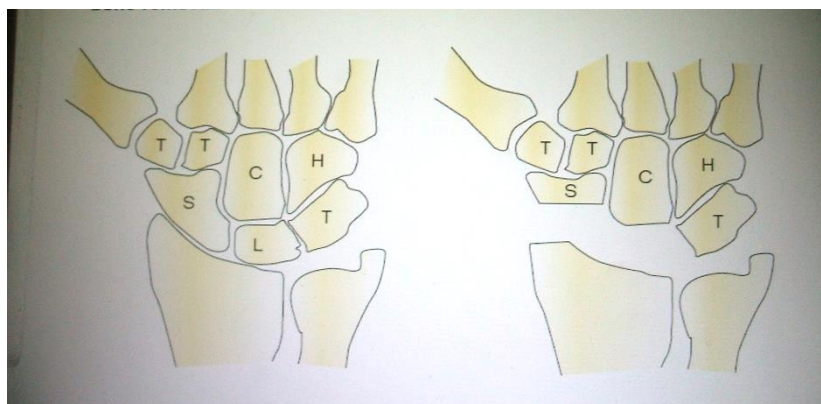
A total wrist replacement is generally indicated when a wrist that has sustained a traumatic injury or has been affected by a severe degenerative disease such as arthritis is unresponsive to other treatments and no longer able to function properly. In some cases patients suffer from severe pain in the wrist and may have lost the ability to use it.

A wrist replacement eliminates pain and can recover diminished strength in the wrist by recovering length to the muscles and tendons of the fingers and wrist – improving motion and stability necessary to perform everyday activities.

The wrist joint prosthesis of choice is the Motec. This is a ball and socket metal-to-metal articulation.



The only bone that needs to be removed is the lunate, half the scaphoid and the tip of the radial styloid.



Most of the soft tissues and ligament structures between the radius, ulnar and the carpal bones are preserved, maintaining the natural stability of the wrist. The DRUJ may function unaffected by the prosthesis.

Wrist arthrodesis as a salvage procedure is possible to perform without difficulty due to the limited bone removal.

Treatment:

Immediate Post-Op – 2 weeks

- Back slab in situ
- Elevation, control oedema
- Pain control
- Mobilization, fingers and thumb, elbow and shoulder

2 Weeks

- Removal of backslab and sutures
- Continued oedema control
- Continued pain control
- Mobilization of fingers, elbow and shoulder
- Application of full cast in a further 2-4 weeks

4-6 Weeks

- Removal of cast
- Provision of futura/thermoplastic wrist splint-wear between exercise sessions and at night
- Commencement of AROM wrist and forearm including Dart Throwers Motion (DTM)
- Scar Management
- Light functional use of the hand in the splint

6-12 Weeks

- Wean from splint
- Continued AROM wrist and forearm
- Commence strengthening
- Increase functional use of the hand – splint free

Complications:

Total wrist replacements are non-weight bearing joints. Lifting heavy weights, heavy activity, use of a walking aid and hammering use of pneumatic tools can limit the life expectancy of the implant with loosening of the prosthesis.

- Infection
- Loosening
- Subluxation/Dislocation
- Fracture
- Carpal Tunnel/Syndrome
- CRPS

Outcomes:

Primary: Patient Rated Wrist Evaluation (PRWE)

Secondary: VAS Pain Score
ROM
Power Grip

References:

Motec – Wrist Joint Prothesis – Manufacturers information/guidelines.

*National Institute for Clinical Excellence – Interventional Procedure Guidance271 (August 2008)
Wrist Joint Replacement*

Total Wrist Arthroplasty – Hand Clinics (www.handclinics.co.uk)

Wrist Join Replacement (Wrist Arthroplasty) Orthoinfo-AAOS (orthoinfo.aaos.org)

Contact:

Hand Therapy RJAH

rjah.handtherapy@nhs.net

01691 404327