

## AO/ASIF TOTAL WRIST FUSION

Indications  
 Post-traumatic arthritis  
 Rheumatoid arthritis  
 Failed wrist arthroplasty  
 Tumour resection  
 Spasticity and paralysis

Joints  
 Radio-scaphoid  
 Radio-lunate  
 Capito-lunate  
 Capito-scaphoid  
 Capito-metacarpal-III

Alternatives  
 Dorsal plate  
 Intramedullary pin (Mannerfelt)  
 Kirschner wire  
 Cerclage wire  
 Cortical graft

Ideal position  
 +10 to 15° extension  
 5° ulnar deviation

Technique  
 Straight dorsal incision  
 Reflect extensor retinaculum (step cut optional)  
 Expose wrist through floor of 2nd to 4th compartments  
 Find and divide PION  
 Incise and reflect wrist capsule to expose lunate, scaphoid and capitate

Remove dorsum of exposed carpus, distal part of radius including Lister's tubercle and base of third metacarpal

Apply AO-ASIF wrist fusion plate  
 Distal screw in first

Align plate over radius and check position

Apply remaining screws

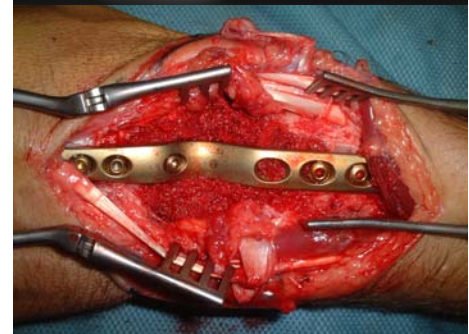
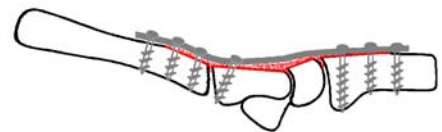
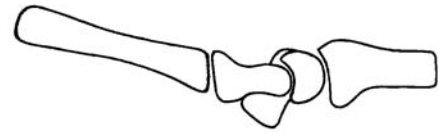
Check X-Ray

Harvest iliac crest cancellous bone graft and apply to denuded bone surfaces

Close capsule and retinaculum over plate

Skin closure ± drain

Well padded dressing including a volar cast



## AO/ASIF TOTAL WRIST FUSION

Rehabilitation	<ul style="list-style-type: none"><li>Elevate</li><li>Mobilise fingers and thumb</li><li>Drain out (iliac crest/wrist) 24hr</li><li>Dressing off and suture removal at two weeks</li><li>Provide with protective thermoplastic splint for intermittent usage</li><li>Radiograph at 6 weeks</li><li>Discard splint and use as judged by radiological and clinical signs</li></ul>
Complications	<ul style="list-style-type: none"><li>Wound (Wr+Crest)</li><li>Infection (Wr+Crest)</li><li>Haematoma (Wr+Crest)</li><li>Sensory loss (Wr+Crest)</li><li>Finger stiffness</li><li>Pain from DRUJ</li><li>Plate prominence</li><li>Tendon rupture</li><li>Non-union</li><li>Fracture</li></ul>
References	<p>Houshian S, Schroder HA. Wrist arthrodesis with the AO titanium wrist fusion plate: a consecutive series of 42 cases.</p> <p>Zachary SV, Stern PJ. Complications following AO/ASIF wrist arthrodesis. Br J Hand Surg 1995, 20A, 339-44.</p>