

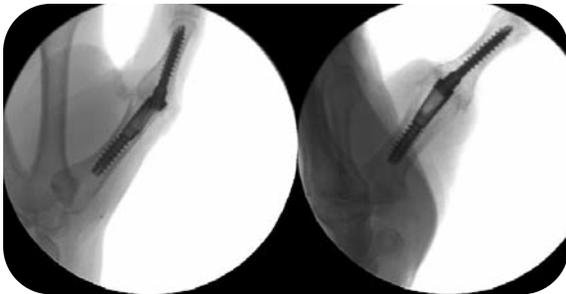
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Pre-Op Radiographs



Intra-Op Fluoroscopy



Post-Op radiographs and photographs when patient began wearing a splint and started range of motion exercises.



Metacarpal phalangeal fusion of the thumb in combination with an LRTI Arthroplasty

Pre-Op

A 57 year old female presents with mild degenerative changes and hyperextension of the metacarpophalangeal joint (MCP) and an arthritic carpometacarpal joint (CMC).

Templating was used to assess the proper size XMCP implant and to plan the level of resection to optimize bony apposition at the fusion site, recognizing that 25 degrees is built into the implant design with the angle created through the metacarpal head.

Operative Procedure

For the CMC arthritis, a trapezial resection with soft tissue interposition and ligament reconstruction was performed first.

The MP joint was exposed through a standard dorsal approach, with longitudinal incisions through the skin and extensor mechanism. A medium metacarpal implant was recessed 2 - 3 mm beneath the articular surface of the metacarpal head. Subchondral bone was removed to expose the underlying cancellous bone. The phalangeal side of the joint was prepared to the same level. A 28mm solid lag screw was inserted through the metacarpal implant and into the phalanx, creating compression at the fusion site and locking the fusion at 25 degrees.

The extensor mechanism was closed with 4-0 Vicryl and the skin with 5-0 nylon. A well padded radial gutter plaster splint was applied.

Post-Op

The patient was converted to fiberglass thumb spica cast at 2 weeks and then a removable radial gutter thermoplastic splint at 4 weeks postoperative. The patient removed the splint for gentle range of motion exercises but avoided forceful pinch until 6 weeks. Radiographs were obtained at 6 weeks which showed evidence of fusion.