

Simplified and Strong: Abductor Pollicus Longus Suspension Arthroplasty with Biotenodesis Screw Fixation in the Base of the Index Metacarpal

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Abstract: Surgical treatment of thumb basal joint arthritis is aimed at pain relief, restoration of pinch strength and stability. We describe a variation of the abductor pollicus longus (APL) suspension arthroplasty originally described by Thompson that maximizes strength of repair and is technically simple to perform. The technique consists of a trapeziectomy followed by resection of a slip of the APL and secure docking of the tendon into the base of the index metacarpal base. Stability is enhanced with a 3.0mm biotenodesis screw (Arthrex Inc, Naples Florida). From March 2009 to September 2011, 51 patients treated at our institution. Early results showed consistent pain relief, functional improvement and minimal complications. The data support APL suspension arthroplasty with tenodesis screw fixation as a safe and effective treatment for CMC arthritis.

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