

Total arthroplasty of the thumb carpometacarpal joint

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Thumb carpometacarpal joint arthritis is a common condition and is traditionally treated with trapeziectomy and some variation of suspensionplasty. The results of trapeziectomy are generally favorable but strength and functional recovery are slow and can take many months. While total arthroplasty has been utilized previously, challenges with trapezium fixation and early loosening have not seen increased uptake of the procedure.

Recent advances in implant design with conical cup design, dual mobility design and dual porous titanium and hydroxyapatite implant coating report low dislocation rates and 10-year survival as much as 90%. Patients recover strength and function within a few weeks making it particularly a desirable option for patients in gainful employment and for the elderly living independently. Total joint arthroplasty is fast becoming an accepted treatment modality for management of Eaton stage 3 arthritis of the thumb carpometacarpal joint.

This video lists patient selection and indications for thumb CMC replacement arthroplasty. Critical caveats of radiographic assessment, implant design and trapezium cup positioning will be discussed. The surgical technique and outcome will be demonstrated in a patient.