

## **Thumb Carpometacarpal Joint Arthroplasty**

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### **POSTOPERATIVE PHASE I: INFLAMMATION/PROTECTION (0-3 Weeks)**

Goals:

Protect the arthroplasty through splinting and activity modification/joint protection  
Reduce edema and pain  
Maintain full AROM of uninvolved joints

Precautions:

No ROM of thumb MP or CMC joints  
No ROM of wrist unless specifically prescribed by MD  
No strong pinching or other resistive activities

Treatment Strategies:

Splinting: thumb spica splint when postoperative splint is discharged by MD  
Joint protection: avoid strong pinch and any aggravating activities; use hand for light ADL to tolerance only  
Edema and pain reduction: elevation, cold modalities, retrograde massage (avoiding surgical incision until fully closed)  
ROM exercises for uninvolved joints: fingers, thumb IP joint, elbow, forearm and shoulder

Criteria for Advancement:

Edema and pain controlled (minimal)  
Patient cleared by surgeon for thumb and wrist AROM, typically at 3-4 weeks post operatively  
Note: if Kirschner's wire is used, phase II does not begin until its removal, at 4 weeks following LRTI arthroplasty and at 5 weeks following HDA

### **POSTOPERATIVE PHASE II: FIBROPLASIA (4-8 Weeks)**

Goals:

Protect the arthroplasty through continued splinting and activity modification/joint protection  
Reduce residual edema and pain  
Minimize scarring

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Restore stable AROM of thumb CMC and MP joints and wrist within tolerance

Precautions:

No resistive activities or exercises

Treatment Strategies:

Splinting: thumb spica splint is removed for therapeutic exercises and hygiene, until discharged by surgeon  
Phase I edema treatments continue; contrast baths and light compression wrapping, avoiding overly tight application  
Scar management when incision has healed: scar massage, silicone pad  
A/AAROM of thumb MP and CMC joints and wrist; PROM to regain functional motion  
Light, functional activities to encourage use of hand to tolerance, avoiding forceful pinch and any aggravating activities

Criteria for Advancement:

Minimal pain with light activities and motion exercises  
Patient cleared by surgeon for strengthening exercises and discharge of splint

### **POSTOPERATIVE PHASE III: SCAR MATURATION (8-12 Weeks)**

Goals:

Restore functional, pain-free ROM in thumb and wrist  
Achieve functional strength for pinch, grip, and wrist  
Restore independent activities of daily living (ADL) while maintaining joint protection

Precautions:

Avoid pain-provoking activities and overaggressive, resistive exercises

Treatment Strategies:

Gradual weaning from splint  
Scar management until scar is pale and flat  
Thumb and wrist ROM exercises continue, with emphasis on functional motion vs extreme end range motion  
Light resistance for wrist and grip strengthening for return to independent ADL



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Light resistance for pinch strength for return to independent ADL

Criteria for Advancement:

- Independence in home program
- Understanding and use of joint protection principles
- Functional thumb and wrist ROM
- Functional hand and wrist strength
- Independence in ADL with minimal discomfort

(JeMe Cioppa-Mosca, Janet B. Cahill, & Carmen Young Tucker, 2006)