

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)