# Hardware Removal — General / Other Sites

Post-Operative Therapy Guidance · General Guideline

*Formal published rehabilitation protocols for isolated hardware removal are limited; this general guideline is synthesized from published hardware-removal recovery guides (Healthwise patient education distributed by Kaiser Permanente; RebalanceMD surgeon group). Formal PT is often unnecessary — most patients follow a home program — but therapy is indicated for residual stiffness, weakness, or when removal accompanies another procedure. Site-specific loading limits come from the operating surgeon.*

## AT A GLANCE

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| **TIMELINE** | 2–6 weeks for most patients; soreness may persist several weeks and screw-hole bone remodeling continues for 1–2+ months |
| **IMMOBILIZATION** | Usually none — soft dressing only; use the limb as tolerated unless the surgeon directs otherwise for a specific site |
| **KEY MILESTONES** | Incision dry and healed by ~2 weeks · normal ADL use by 2–4 weeks · high-load and impact activity after surgeon clearance |
| **RETURN TO ACTIVITY** | Desk work in a minimum of 2–4 days, physical work up to several weeks; avoid high-risk/contact activities for 1–2 months while screw holes remodel |

**KEY PRECAUTIONS**

- Refracture risk: empty screw holes temporarily weaken the bone — avoid contact sports, impact loading, and high-risk activities for 1–2 months (or per surgeon) after removal.
- Wound care: mild oozing is normal for 24–48 hours; keep the incision dry when showering for the first ~5 days and no bathing/swimming until the wound is healed and dry (typically 2–3 weeks).
- Loading is site-specific: weight bearing and lifting limits after removal from the femur, tibia, forearm, or around a joint differ — confirm the surgeon's instructions for the operated site before progressing.

## PHASED REHABILITATION

| PHASE 1 — WOUND HEALING & EARLY MOBILITY | Weeks 0–2 |
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| **GOALS** | • Uncomplicated wound healing<br>• Prevent stiffness<br>• Resume light ADLs |
| **INTERVENTIONS** | • Dressing management for 10–14 days; keep the incision dry with showering for the first ~5 days<br>• Move all joints of the limb frequently through full available range to avoid stiffness<br>• Use the arm or leg as tolerated unless otherwise directed by the surgeon for the specific site<br>• Edema control: elevation and intermittent icing during the first 1–2 weeks<br>• Graded resumption of light ADLs; expect fatigue for the first couple of weeks<br>• Monitor for infection signs and wound drainage beyond 48 hours; report to the surgeon |
| **CRITERIA TO ADVANCE** | • Incision healed and dry<br>• Full or baseline ROM of adjacent joints<br>• Independent with home program |

| PHASE 2 — GRADUATED RETURN TO FULL ACTIVITY | Weeks 2–6 |
|---|---|
| **GOALS** | • Return to work, exercise, and pre-operative activity level<br>• Protect remodeling bone at former screw/implant sites |
| **INTERVENTIONS** | • Progressive strengthening and conditioning as tolerated; formal PT only if residual stiffness or weakness persists<br>• Advance site-specific loading per surgeon (e.g., progressive weight bearing or lifting limits where hardware crossed load-bearing bone)<br>• Return to desk work within days; physically demanding work typically by 2–6 weeks per job demands<br>• Defer contact sports and high-impact activity for 1–2 months while screw holes remodel<br>• Scar mobilization and desensitization once the incision is fully closed |
| **CRITERIA TO ADVANCE** | • Pain-free ADLs and job-specific tasks<br>• Surgeon clearance for impact/contact activity<br>• Strength and ROM at or near pre-operative baseline |

## GUIDING PRINCIPLES

This protocol follows criterion-based progression over rigid time-based advancement; phased rehabilitation balancing tissue healing with controlled stress application; objective milestones (ROM, strength LSI, functional testing) to guide phase transitions; individualization based on surgical findings, tissue quality, and patient factors; and ongoing surgeon–therapist communication throughout recovery.

## REFERENCES

1. Healthwise Staff. Orthopedic Hardware Removal: What to Expect at Home. Kaiser Permanente Health Encyclopedia. https://healthy.kaiserpermanente.org/health-wellness/health-encyclopedia/he.orthopedic-hardware-removal-what-to-expect-at-home.acl5243

2. RebalanceMD. Hardware Removal: A Guide to Recovery After Surgery. https://rebalancemd.com/wp-content/uploads/2025/09/Hardware_removal_Recovery_Guide.pdf

*For clinical use by licensed physical therapists treating patients of Robert Pettit, MD. This document is a rehabilitation guideline, not a substitute for clinical judgment. Progression must be individualized based on intraoperative findings, tissue quality, and patient response. Scan the QR code for the current version of this protocol.*