

Rehabilitation Treatment Plan

Post-Total Knee Arthroplasty (Right Knee) — 62-Year-Old Patient

Patient Information

Report Type:	Rehabilitation Treatment Plan	Date:	April 13, 2026
Age/Sex:	62 years / Male	Primary Dx:	M17.11 (Primary OA, R knee)
Procedure:	Right Total Knee Arthroplasty	Procedure Date:	April 10, 2026
BMI:	29.4 kg/m ²	ASA Class:	II
Comorbidities:	HTN (controlled), mild T2DM, BPH	Surgeon:	[De-Identified]

Primary Rehabilitation Goals (SMART)

- **Short-Term (2 weeks):** Achieve 0–90° active knee ROM, independent transfers, ambulate 150 ft with walker, VAS pain $\leq 4/10$ at rest
- **Mid-Term (6 weeks):** Attain 0–110° ROM, independent ambulation with cane, negotiate stairs reciprocally, resume light household ADLs
- **Long-Term (12–16 weeks):** Full functional ROM ($\geq 120^\circ$), ambulate without assistive device, return to recreational walking/golf, KOOS score ≥ 75

Core Interventions

- **Physical Therapy:** 3×/week outpatient PT (Weeks 2–12); daily home exercise program; progressive weight-bearing per protocol
- **Pain Management:** Multimodal analgesia — scheduled acetaminophen 1g TID + celecoxib 200 mg daily; short-course oxycodone PRN (taper by Week 2); cryotherapy 20 min QID
- **DVT Prophylaxis:** Rivaroxaban 10 mg daily \times 14 days; ankle pumps hourly while awake; TED hose bilateral

Critical Considerations

- **DVT/PE Risk:** BMI 29.4, age 62, major ortho surgery — anticoagulation mandatory; monitor for calf swelling, dyspnea, chest pain
- **Weight-Bearing:** Weight-bearing as tolerated (WBAT) with walker immediately post-op; progress per pain and stability
- **Wound Monitoring:** Surgical incision must remain clean/dry; staple removal at 2-week follow-up; report erythema, drainage, fever $>101^\circ\text{F}$
- **Glucose Control:** Monitor fasting glucose; target <180 mg/dL peri-operatively (per ADA perioperative guidelines)

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1 Phase I — Acute Recovery (Days 1–14)

1.1 Therapeutic Interventions

- **Day 0–1 (Inpatient):** Bed mobility training, ankle pumps q1h, quad sets (10 reps × 3 sets), seated knee flexion, edge-of-bed transfers with walker
- **Day 1–2:** Ambulation 50–100 ft × 3/day with rolling walker (WBAT); commode/toilet transfers; continuous passive motion (CPM) machine 0–60°, advance 5–10°/day as tolerated
- **Days 3–14 (Home/HH PT):** Home health PT 3×/week; progress ambulation distance to 150+ ft; supine SLR (straight leg raise), standing hip abduction, heel slides; seated knee extension with gravity
- **Cryotherapy:** Ice/cold therapy 20 min, 4–6×/day to manage swelling
- **Edema Control:** Elevation above heart level when resting; compression stockings

1.2 Phase I Milestones

Milestone	Criteria	Target
Pain Control	VAS ≤5/10 with oral analgesics	Day 3–5
Quad Activation	Active SLR without extensor lag	Day 5–7
Knee Flexion	Active ROM ≥70°	Day 7
Knee Extension	Active extension to 0° (full)	Day 7–10
Ambulation	150 ft with walker, minimal assist	Day 10–14
Wound Healing	Staples removed, incision clean/dry	Day 14

1.3 Pain Management Protocol — Phase I

Medication	Dosing	Notes
Acetaminophen	1000 mg PO TID	Scheduled (not PRN); hepatic monitoring
Celecoxib	200 mg PO daily	With food; hold if GFR <30; avoid with anticoagulants if bleeding
Oxycodone	5 mg PO q4–6h PRN	Taper over 7–10 days; provide naloxone Rx
Gabapentin	100 mg PO THS	For neuropathic/nighttime pain; titrate if needed
Cryotherapy	20 min QID	Apply over dressing; avoid direct skin contact

2 Phase II — Early Rehabilitation (Weeks 2–6)

2.1 Therapeutic Interventions

- **Outpatient PT 3×/week** (45–60 min sessions):
 - Active-assisted → active ROM exercises (flexion/extension)
 - Progressive resistance: mini-squats, step-ups (4-inch), leg press (low resistance)
 - Stationary bike (no/low resistance, seat elevated initially)
 - Balance training: tandem stance, single-leg stance (supported)
 - Gait training: progress walker → single-point cane by Week 4

- Soft tissue mobilization / patellar mobilization as indicated
- **Home Exercise Program (daily):** Heel slides, wall slides, prone hangs (extension), SLR all planes, seated knee extension, standing calf raises
- **Aquatic Therapy (from Week 4):** Pool walking, ROM exercises once incision fully healed

2.2 Phase II Milestones

Milestone	Criteria	Target
ROM	Active flexion $\geq 110^\circ$, extension 0°	Week 6
Ambulation	Independent with cane, 500+ ft	Week 4
Stairs	Ascend/descend 12 steps with rail, step-over-step	Week 5–6
Opioid Cessation	Discontinued all opioid analgesics	Week 2–3
Driving	Resume driving (automatic transmission, left TKA or per surgeon)	Week 4–6

3 Phase III — Advanced Rehabilitation (Weeks 6–12)

3.1 Therapeutic Interventions

- **Outpatient PT 2×/week** (progressive intensity):
 - Progressive strengthening: wall squats, lateral band walks, single-leg press, hamstring curls
 - Proprioception: wobble board, single-leg stance (unsupported), perturbation training
 - Endurance: stationary bike 20–30 min (progressive resistance), elliptical trainer
 - Functional training: sit-to-stand from low surfaces, floor transfers, gardening simulation
 - Soft tissue/scar mobilization as needed
- **Home Program (daily):** Continued strengthening, 30-min walking program, flexibility

3.2 Phase III Milestones

Milestone	Criteria	Target
ROM	Flexion $\geq 120^\circ$, full extension maintained	Week 10–12
Strength	Quad strength $\geq 80\%$ of contralateral limb	Week 12
Balance	Single-leg stance ≥ 15 sec; TUG < 12 sec	Week 10
Endurance	Walk 30 min continuously, no assistive device	Week 10–12
Function	KOOS score ≥ 70 ; independent all ADLs/IADLs	Week 12

4 Phase IV — Return to Activity (Weeks 12–16+)

4.1 Therapeutic Interventions

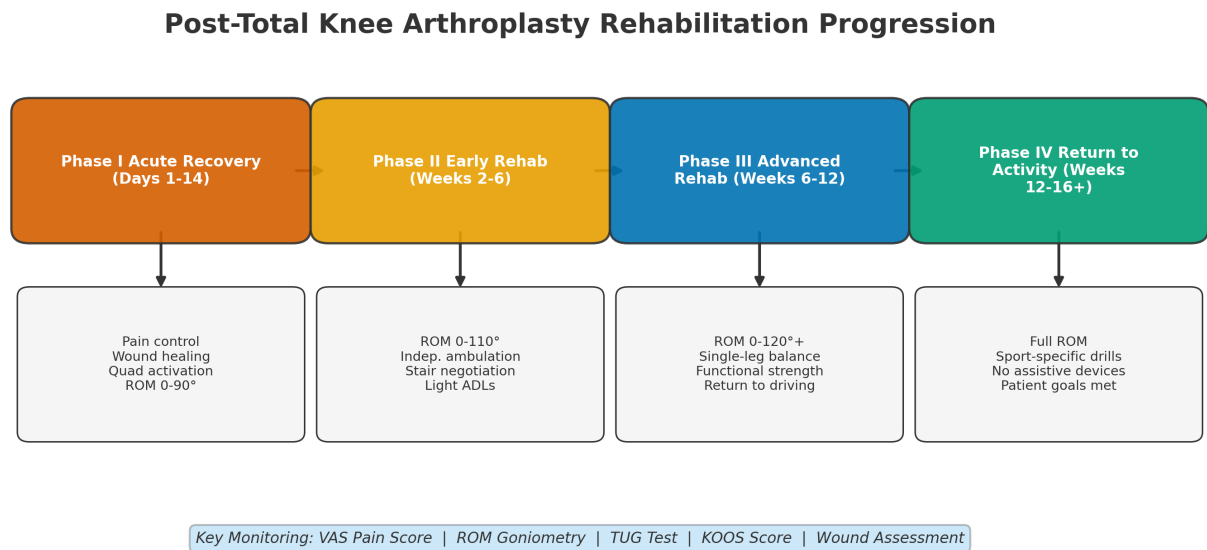
- **PT 1×/week or independent gym program**
- Sport-specific conditioning: golf swing mechanics, doubles tennis footwork (if applicable)
- Advanced strengthening: lunges, lateral step-downs, resistance machines
- Community reintegration: walking on uneven terrain, prolonged standing tolerance

- Lifelong maintenance: 30–45 min exercise 5×/week (walking, cycling, swimming); avoid high-impact activities (running, jumping, heavy squats)

4.2 Phase IV Discharge Criteria

- Active ROM 0–125°+ (or patient-specific functional ROM)
- Ambulation without assistive device on all surfaces
- Independent stair negotiation and floor transfers
- KOOS score ≥ 75 ; VAS pain $\leq 2/10$ with activity
- Patient-identified functional goals achieved (e.g., return to golf, gardening)

5 Rehabilitation Timeline



TKR = Total Knee Replacement | ROM = Range of Motion | ADLs = Activities of Daily Living | TUG = Timed Up and Go

Figure 1: Post-Total Knee Arthroplasty Rehabilitation Milestone Progression. Four phases span acute recovery through return to full activity over 12–16 weeks, with key milestones and monitoring parameters at each stage.

6 Monitoring and Outcome Measures

Measure	Frequency	Target / Purpose
VAS Pain Score	Each PT visit	$\leq 4/10$ (Phase I); $\leq 2/10$ (Phase III–IV)
ROM Goniometry	Weekly (PT)	Flexion $\geq 90^\circ$ (Wk 2), $\geq 110^\circ$ (Wk 6), $\geq 120^\circ$ (Wk 12)
Timed Up and Go (TUG)	Wks 2, 6, 12	< 12 sec by Week 10
KOOS Questionnaire	Wks 6, 12, 26	$\geq 75/100$ by Week 12
6-Minute Walk Test	Wks 6, 12	≥ 400 m by Week 12
Wound Assessment	Each visit (Phase I)	No signs of infection; staple removal Day 14
Quad Circumference	Wks 2, 6, 12	< 2 cm deficit vs. contralateral by Week 12
Knee Effusion	Each PT visit	Trace or less by Week 6

7 Follow-Up Schedule

Visit	Timing	Focus
Surgeon F/U #1	2 weeks post-op	Wound check, staple removal, X-ray, clear for outpatient PT
Surgeon F/U #2	6 weeks post-op	ROM assessment, X-ray, medication review, driving clearance
Surgeon F/U #3	12 weeks post-op	Functional outcome assessment, discharge from acute rehab
Surgeon F/U #4	6 months post-op	Long-term outcome, KOOS, activity level, patient satisfaction
Annual Follow-Up	Yearly	Implant surveillance, X-ray, function, activity counseling
PCP Coordination	Ongoing	HTN management, diabetes monitoring, medication reconciliation

8 Patient Education — Key Points

Patient Instructions

- **Activity:** Walk frequently (short bouts, increase gradually). Avoid kneeling, deep squatting, and high-impact sports. Use ice after exercise sessions
- **Wound Care:** Keep incision clean and dry. Steri-strips fall off naturally. No soaking (bath, pool) until surgeon clearance (~4 weeks)
- **Medications:** Take pain medications on schedule (not just when pain is severe). Continue blood thinner for full 14-day course
- **Home Safety:** Remove throw rugs, install grab bars in bathroom, use raised toilet seat, shower chair as needed
- **Diet:** High-protein diet to support healing. Adequate hydration. Fiber/stool softener to prevent constipation from opioids

Emergency Contacts & Red Flags

- **Call 911 or go to ER immediately for:** sudden chest pain, shortness of breath, severe calf swelling/pain (possible DVT/PE)
- **Contact surgeon’s office for:** fever >101°F, increasing redness/warmth/drainage at incision, sudden loss of knee motion, fall with inability to bear weight
- **Surgeon’s Office:** [Phone Number] (business hours)
- **After-Hours Nurse Line:** [Phone Number]
- **Physical Therapy Clinic:** [Phone Number]

This treatment plan was developed in accordance with AAOS Clinical Practice Guidelines for Surgical Management of Osteoarthritis of the Knee (2022) and APTA post-TKA rehabilitation evidence-based protocols. Plan is individualized based on patient comorbidities, functional baseline, and surgical approach. To be reviewed and updated at each follow-up visit.

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