

Meniscus Repair

Physical therapy protocol for a stable vertical repair

Patient: _____ Surgery / procedure date: _____

This is the full Pacific Bone & Joint postoperative protocol. Patient-specific operative and discharge orders take precedence over this default pathway.

Selected by surgeon _____ PT start _____ Next review _____

Protection and early recovery

Use this pathway for a confirmed stable peripheral vertical or longitudinal meniscus repair. The surgeon must identify the tear pattern and stability. A repaired bucket-handle tear may need additional protection depending on tissue and fixation. Follow the signed order and the slower restrictions of any associated procedure.

Repair pattern: Early protection - Protocol selection

Stable vertical or longitudinal: Weight bearing as tolerated with crutches and brace locked straight for walking. Gentle motion 0-90 deg during weeks 0-4. - Use this pathway only when stability is documented.

Root or complete radial: Usually no weight bearing for 6 weeks; protected motion. - Use the separate root or advanced repair order.

Complex unstable or horizontal: Weight-bearing and motion restrictions usually last 4-6 weeks, individualized to fixation and tissue. - Do not apply the stable-repair pathway without surgeon approval.

Ramp repair with ligament surgery: Restrictions depend on the meniscus repair and ligament procedure. - Follow the combined surgical protocol.

Walking and motion

- For the stable pathway, use the brace locked at 0 deg while walking until adequate quadriceps control and clinician permission to unlock. Follow the discharge order for sleeping.
- Restore neutral extension early. Bend the knee gently with assistance; do not force flexion. Keep the 90 deg limit through week 6 if prescribed for the specific repair.
- Do not pivot on the operated leg. Avoid deep loaded flexion, kneeling, jumping, and rotation for at least 4 months.
- Avoid resisted hamstring curls until week 6; posterior horn, complex, or combined repairs may require a longer restriction.

Start PT within the first postoperative week unless otherwise ordered. Assess wound concerns, effusion, extension, flexion, quadriceps control, and safe transfers. If the operative pattern or weight-bearing order is unclear, maintain the discharge restrictions and contact the surgical team before advancing.

The brace and initial flexion limits are protective clinic defaults. Some stable repairs permit faster motion; any acceleration requires a specific surgeon order.

Exercise progression

Weeks 0-4

- Use ankle pumps, quadriceps sets, gentle patellar mobility when appropriate, and short sessions of assisted motion within the ordered range.
- Straight-leg raises require good quadriceps control without lag. Add neuromuscular electrical stimulation when activation is poor. Train hip and trunk strength while protecting the knee.
- Use assisted flexion initially, especially for posterior horn repairs. Avoid forceful hamstring pulling and isolated resisted knee flexion.
- Teach walking, stairs, and transfers using the prescribed brace and crutches. Manage swelling with elevation and protected cold therapy; avoid prolonged positioning with support only under the knee.

Weeks 4-8

- When the flexion limit is released, gradually restore full comfortable motion. Do not force the last degrees of flexion.
- Wean crutches when walking is pain free without a limp, quadriceps control is reliable, and swelling is minimal. Unlock and later discontinue the brace after clinician assessment.
- Introduce shallow mini squats and light leg press around 0-30 deg, supported calf raises, and balance work. Add stationary cycling when comfortable motion permits safe use.
- After week 6, introduce light hamstring resistance if the repair-specific order allows. Continue progressive quadriceps and hip strengthening.

Weeks 8-16

- Build strength and endurance using controlled bilateral then unilateral tasks. Advance squats toward 45 deg through week 12 and toward 60-90 deg during weeks 13-16.
- Progress step-ups, step-downs, single-leg balance, and cycling or elliptical exercise as mechanics and symptoms allow. Avoid twisting, jumping, and deep loaded flexion before month 4.
- Track knee motion, effusion, pain, gait, and objective quadriceps and hamstring strength. Correct dynamic knee collapse and poor hip or trunk control before adding speed or load.

The knee should tolerate the current workload without increased swelling, stiffness, pain, or limp the following day. If symptoms increase, reduce the last added load. Persistent joint-line pain, recurrent effusion, or inability to recover motion requires review rather than repeated attempts to push through the limitation.

Running and return to sport

Running readiness at 4 months or later

- Require surgeon clearance, full comfortable motion, a quiet knee, normal walking, and no mechanical symptoms.

- Document quadriceps strength at least 80% of the comparison limb and controlled single-leg squats or step-downs. Consider absolute strength and endurance, not symmetry alone.
- Begin level walk-jog intervals on alternate days. Progress duration before speed and monitor the next-day response. Jumping and agility follow successful running and controlled landing mechanics.

Unrestricted sport usually 6-9 months

- Document full motion and absence of recurrent effusion, joint-line pain, locking, catching, or giving way.
- Quadriceps and hamstring strength should be at least 90% of the comparison limb. For running or jumping sports, use an appropriate hop battery with at least 90% symmetry and good movement quality.
- Complete progressive sport practice with confidence and no symptom flare. Advance from controlled drills to noncontact practice, full practice, then competition.
- Obtain surgeon clearance. Complex tears and associated ACL, BEAR, cartilage, or osteotomy procedures can extend recovery. The minimum healing interval still applies when functional testing is good.

When to seek help

Contact the surgical team promptly for increasing calf pain or swelling, fever, wound redness or drainage, uncontrolled pain, new persistent numbness, or loss of motion. New locking, recurrent effusion, or instability also requires review. Call 911 for chest pain, trouble breathing, or a suddenly cold or pale foot.

Sources: Pujol et al. EU-US Meniscus Rehabilitation Consensus Part I, 2025.

<https://doi.org/10.26603/001c.137095> ; Prill et al. Part II, 2025.

<https://doi.org/10.26603/001c.140661> ; Mass General Brigham, Rehabilitation Protocol for Arthroscopic Meniscal Repair, revised April 2021.

<https://www.massgeneralbrigham.org/content/dam/unified-xwalk/pdf/patient-education/english/rehabilitation-protocol-for-meniscal-repair.pdf>

This protocol combines healing time and functional milestones. It does not apply to meniscus transplantation, partial meniscectomy, or a root repair.