

BEAR ACL Repair + Meniscus Repair

Physical therapy protocol

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 _____

Select the repair and protect both tissues

Use for a skeletally mature patient after BEAR ACL restoration with meniscus repair. The surgical team must identify the meniscal tear and select the column below before therapy advances. For a root, complete radial, or complex repair, follow the more protective column unless a different written order is provided.

Repair type: Stable body or vertical repair Root or complete radial repair Complex repair with specified restrictions. Meniscus and location: _____.

These are proposed combined clinic defaults. The operative report and any more restrictive cartilage, osteotomy, or ligament instructions take precedence. A less restrictive meniscal order never removes the BEAR restrictions.

Item: Stable body or vertical repair - Root radial or protected complex repair

Weeks 0 to 6 loading: At most 50% body weight with two crutches. - No weight through the operated leg; two crutches.

Weeks 0 to 2 motion: 0-45 deg for permitted exercises and sitting. - 0-45 deg for permitted assisted exercises and sitting.

Weeks 2 to 6 motion: 0-90 deg without forceful stretching. - 0-90 deg without forceful stretching.

Brace for walking: Locked at 0 deg through week 6 unless specifically changed. - Locked at 0 deg through week 6.

Brace for sleep: Locked at 0 deg for the first 4 weeks; longer if ordered. - Locked at 0 deg through week 6 unless otherwise ordered.

Precautions that remain in effect

- No continuous passive motion. No aggressive flexion stretching or end range pressure before week 12. Gentle assisted motion within the prescribed limit is permitted.
- No pivoting, running, jumping, or deep squatting in the protection phase. Avoid deep loaded bending for at least 4 months; a longer restriction may be ordered for the repair.
- For root or radial repair, use assisted knee bending and avoid active hamstring pulling for the first 6 weeks. Do not begin isolated resisted hamstring curls before week 12.
- No aggressive scar massage before week 7. Progress only when both the ACL and meniscus restrictions permit the activity.

Start PT within the first week. Review the brace, transfers, stairs, home exercises, and the actual weight bearing limit. The early goals are comfortable extension, controlled swelling, and quadriceps activation while the repairs heal.

Exercises and staged progression

Weeks zero to six

Teach ankle pumps, heel supported extension, gentle patellar mobility, quadriceps sets, and hip and core exercises that keep the knee protected. Use NMES for quadriceps inhibition. Straight leg raises require good activation and no lag; maintain the brace as directed. Assisted bending stays within 0-45 deg initially, then 0-90 deg after week 2.

Root and radial repairs need assisted flexion without pulling the heel back using the hamstrings. Avoid loaded knee flexion, twisting during transfers, and unsupported standing. Ice with a barrier and elevate for swelling. Review wound healing and calf symptoms at visits.

Weeks six to twelve

After the six week surgical review, increase weight bearing in controlled steps under PT guidance. Keep crutches until gait is normal and loading does not cause pain or reactive swelling. Unlock or wean the brace only when quadriceps control and the repair orders permit it.

- Restore flexion gently beyond 90 deg and maintain full extension. Aggressive end range bending remains restricted until week 12. Address a motion plateau with the surgical team.
- Add cycling when motion and wound healing permit, shallow closed chain strength, controlled step ups, calf and hip work, and balance after weight bearing is allowed.
- For a stable body repair, comfortable hamstring sets or curls may begin from week 7 if cleared. For root or radial repairs, defer isolated resisted hamstring curls until week 12.
- Progress unloaded knee extension and later resistance according to the BEAR protocol and symptoms. Avoid deep loaded bending and exercise that reproduces joint line pain.

Months three to six

Build quadriceps, hip, and calf capacity with good alignment and no persistent effusion. Introduce hamstring resistance gradually once allowed. Progress cardiovascular exercise without impact and single leg control within the meniscal limits.

For a stable body repair, consider supervised straight line jogging at 4 months or later, after meniscal clearance and all BEAR running criteria are met. Do not add landing or hopping before BEAR week 20 and clearance of both repairs. For root or radial repair, defer running and impact until at least six months and surgical clearance.

Do not automatically add jumping at BEAR week 20 if the meniscus remains protected. New catching, locking, joint line pain, or next day swelling requires reassessment. Loaded deep flexion may resume only after the minimum protection period and explicit approval.

Criteria for running and sport

Return to running

Meet the later of the BEAR and meniscus timelines. Stable body repair may be considered at 4 months or later after surgeon approval and BEAR running criteria; root or radial repair requires at least six months. Before starting, require full motion, no effusion, normal gait, adequate single leg control, and quadriceps strength at least 80% of the other side. Meniscal healing must also be cleared.

Begin with short walk and jog intervals on a treadmill or level protected surface. Progress only if there is no joint line pain, limp, instability, or swelling during the session or the next day. Running clearance does not include pivoting or sport.

Advanced training

No cutting or pivoting before the BEAR advanced phase at 30 weeks, and only after surgeon clearance. Before that phase, require symptom free running, good single leg strength, quadriceps symmetry at least 80%, 60 seconds of single leg balance, and functional hop assessment. Meniscal restrictions can extend this timeline.

During weeks 30-36, introduce planned direction changes and sport drills at 50-75% effort. Progress only with controlled landing and deceleration, no mechanical meniscal symptoms, and quadriceps and hop performance approaching at least 85% symmetry.

Unrestricted sport usually nine to twelve months

- Operating surgeon clearance after both repair pathways. The BEAR sport phase begins at 36 weeks; unrestricted sport is considered at 9-12 months, not automatically at phase entry.
- Full motion and no pain, effusion, locking, joint line symptoms, or giving way.
- Quadriceps and hop testing at least 90% of the other side; aim for 95% for unrestricted pivoting sports. Consider absolute strength and movement quality as well as symmetry.
- Confident full speed sport movements and successful progression from individual drills to practice and competition.

Stop and seek review

Call the surgical team for a motion plateau, new locking or giving way, repeated effusion, increasing wound drainage or redness, or calf pain and swelling. Chest pain, shortness of breath, or fainting requires emergency care. Continue medication and clot prevention exactly as separately prescribed.

Sources: Miach BEAR Rehabilitation Protocol ML-1014 Rev M, May 2026:

<https://miachortho.com/patients-and-families/post-operative-instructions> . Pujol et al. EU-US Meniscus Rehabilitation Consensus Part I, 2025:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC12099113/> . Combined loading, hamstring, and root running intervals are conservative clinic defaults requiring repair-specific selection.