ANDREW L. MERRITT, MD
ORTHOPEDIC SURGERY | SPORTS MEDICINE

Proliance Orthopedic Associates
Renton | Covington | Maple Valley | Lakeland Hills
Ph: 425.656.5060 Fax: 425.656.5047

Meniscus Root / Radial Repair (Non-Weight-Bearing) Pre-Operative Information

Understanding Your Meniscus

The meniscus is a C-shaped disc of cartilage that sits between the femur and tibia in your knee. There are two in each knee — one on the inside (medial meniscus) and one on the outside (lateral meniscus). Together, they act as shock absorbers, help distribute weight evenly across the joint, and contribute to knee stability.

Meniscus tears are among the most common knee injuries. In younger, active patients, the injury usually comes from a sudden twist or pivot — a sharp cut on the soccer field, an awkward landing in basketball, or a deep squat gone wrong. In older patients, the meniscus can tear more gradually from everyday wear and tear, sometimes without a dramatic event at all.

The symptoms of a meniscus tear vary depending on the severity and location. Many patients describe a pop, followed by swelling and pain along the joint line — the inner or outer edge of the knee. Some develop clicking, catching, or a locking sensation, which happens when a torn piece of meniscus gets caught in the joint. In more severe tears, you may not be able to fully straighten or bend the knee.

Diagnosis starts with a physical exam, where I test for joint line tenderness and mechanical signs. An MRI is the gold standard — it gives a detailed look at the size, type, and location of the tear, which directly influences what treatment makes the most sense.

In this situation, you have been diagnosed with a radial tear or root tear. This is a very serious type of injury because it completely this is the meniscus and functions as if there was no meniscus remaining at all. This is different than other types of meniscus tears

Learn more at merrittsurgery.com or youtube.com @merrittsurgery

Meniscus Root or Radial Repair

Your meniscus tear involves the root or a radial pattern, which makes it mechanically different from a typical peripheral meniscus tear. The meniscal root is where the meniscus anchors to the bone of the shinbone (tibia). This attachment point is critical — it is the endpoint of the meniscus's shock-absorbing system. When the root is torn, the meniscus loses its ability to distribute load properly, which puts significantly more stress on the cartilage of the knee.

Root tears and radial tears do not always need to be fixed surgically. In fact, sometimes we cannot fix them because there is already some developing arthritis. If there is no room to bring the meniscus back into the knee, a repair will quickly fail.

We have determined that your root or radial tear is repairable. This is an important surgery with postoperative limitations to protect the integrity of the repair. Adherence to the post-operative recovery, it is important to allow the meniscus to heal before being stressed by weight-bearing.

Surgery is performed arthroscopically and sutures are used to pull the tear together or back down into the bone, depending on the location and type of tear. Very strong sutures are used to hold the meniscus together while healing occurs

Why is this repair different?

Root and radial repairs are the most protected of all meniscus repairs. When you put weight on your leg, the force goes directly through the repair site. Even putting your foot down briefly can stress the repair before it has healed. For this reason, you must stay completely non-weightbearing for six weeks. This is the most important rule of your recovery.

Surgery typically takes 60 minutes depending on the amount of work that needs to be done. With anesthesia preparation and recovery, your total time at the surgery center is usually 3 hours. This is an outpatient surgery performed at the Proliance Surgery Center at Valley (PSCV). You will go home the same day.

What happens on the day of surgery: A couple of days before surgery, the nursing staff will call you to confirm your check-in time and when to stop eating and drinking. On the day of surgery, check in at the front desk at your assigned time. You will go to the pre-op area with your family where our nurses will help you get changed, start an IV, and review your health history. You will meet with me to review the plan, and the anesthesia team will explain their approach. When the operating room is ready, you will walk back with a nurse. After anesthesia is given, you will not remember anything until the recovery room.

While you are in surgery, your family can pick up your post-operative medications at the pharmacy next to the surgery center. If you are under 18, one family member must stay at the surgery center during the entire surgery. In the recovery room, you will be monitored until you are awake, have some crackers and juice, and be made comfortable. Once ready, you will change into your clothes and be wheeled to your car. **You will need someone to drive you home and stay with you for the first 24 hours.**

Risks of surgery include stiffness, infection, blood clots (DVTs), continued pain and swelling, and numbness around the incisions. Because this is a minor procedure without reconstruction or repair, the risks are generally low. As with any procedure requiring anesthesia, there are anesthetic risks that your anesthesiologist will review on the day of surgery. We will work together to optimize your recovery and minimize these risks.

Even with excellent surgical technique, marrow stimulation, and proper rehabilitation, meniscus root repairs sometimes do not heal and can fail. Failure is more likely if weight-bearing restrictions are not followed during the first six weeks. If a repair does not heal, a follow-up procedure may be necessary.

After Surgery — What to Expect

Weight Bearing, Motion, and Bracing After Surgery

You must stay completely off your leg for six weeks. This means no weight on the leg at all — no toe-touch, no partial weight, no putting your foot down even briefly. Crutches carry all your weight, all the time. This is non-negotiable and is the most important factor in a successful outcome.

Weight bearing: Strict non-weight-bearing for six weeks. Crutches are required at all times during walking and all standing transfers. No toe-touch, no foot-flat contact, no partial loading of any kind while you are upright. Pool walking may be permitted at weeks 4–5 with my approval, since buoyancy offloads the joint.

Range of motion: Your knee must not bend past 90 degrees for the first six weeks. Full straightening (0°) is the top priority — achieve this by week one. Progress bending to 90° by weeks 2–3. All range-of-motion exercises are done lying down or seated — never standing.

Bracing: You will wear a hinged knee brace set at 0–90 degrees for the first six weeks. Wear the brace at all times including during sleep. You may remove it for exercises lying down or seated under your physical therapist's supervision.

Physical therapy: During the non-weight-bearing period, your physical therapist will use electrical stimulation (NMES) and blood flow restriction (BFR) training to keep your quad muscle active without stressing the repair. You will also do upper-body and opposite-leg conditioning to maintain fitness. These techniques are critical for preventing muscle loss during the six-week protection period.

These timeframes help answer common questions about what to expect after surgery. Your recovery may be faster or slower depending on the severity of the tear and your baseline fitness. Six weeks of strict non-weight-bearing is the foundation of a successful outcome.

Timeframe	What to Expect
Weeks 1–6	Strict non-weight-bearing. Crutches at all times, no exceptions. Hinged brace limits bending to 90 degrees. Brace worn at all times including sleep. Goal: Full knee straightening (0°) by week 1. Bending to 90° by weeks 2–3 (lying down or seated only). Quad activation with electrical stimulation and blood flow restriction training starting day 1–2. Upper-body and opposite-leg conditioning to maintain fitness. Most people can return to a desk job or school during this period if they can manage crutches at the workplace.
Weeks 6–12	The six-week mark is a major milestone — you can begin putting weight on your leg. The transition is gradual: start with bilateral crutches at partial weight, progress to one crutch, then no crutches as strength and comfort allow. The 90-degree motion restriction is lifted, and you will work toward full bending. Goal: Full weight bearing without an assistive device by weeks 8–10. Range of motion to 120°+ by weeks 10–12. Begin stationary bike, mini-squats, pool walking, and light strengthening. Important restriction: Do not squat past 90° while standing and do not kneel past 90° until the five-month mark. No impact activities during this phase.
Months 3–5	You should be walking normally and building real strength. Squats, step training, leg press, and progressive loading — while maintaining the deep flexion and impact restrictions through the 5-month mark. A running program may begin at weeks 18–20 with my clearance. Goal: Quad strength at least 75–80% compared to the other leg. Single-leg squat and step-down without pain. Running 5 minutes continuously without pain. Construction workers and laborers can typically discuss return-to-work timelines during this phase.
Months 5–6+	The five-month restrictions are lifted. You can now squat to full depth, kneel, and progress to sport-specific activities including impact, cutting, and pivoting. Full return to sport is anticipated at 6 months. Return-to-sport criteria: Quad strength at least 90% compared to the other leg. Single-leg hop test at least 90% symmetry. Running 20 minutes continuously without pain or swelling. Full pain-free range of motion including deep flexion. No effusion after sport-specific activity. I will confirm your return to full activity at your 6-month follow-up. Root repair restores the biomechanical function of your meniscus — it is worth protecting with a complete rehabilitation program.

Driving: If surgery was on your right leg, typically 6–8 weeks (you must be off crutches and off narcotic medications). If your left leg, typically 2–4 weeks. You must be off narcotic pain medications before driving.

Preparing for Surgery

Presurgical physical therapy or home exercise: In most cases, surgery is only recommended after regaining full range of motion in the knee and allowing time for swelling to decrease. The stronger you go into surgery, the easier the non-weight-bearing period will be and the faster you will recover afterward.

Crutch training: You will be on crutches for six full weeks. Make sure you are comfortable with them before surgery. If you have stairs at home, practice navigating them on crutches.

Ice Machine — My #1 Recovery Recommendation

I highly recommend purchasing an ice machine to help your recovery. An ice machine is the single best investment you can make — it allows for continuous icing without the risk of frostbite and is far easier than using ice bags or gel pads. Our clinic staff can fit you for one before surgery and show you how to get the most out of it. Stock up on bags of ice — the machine can go through a bag a day when used regularly.

Prepare your home: Make sure you have plenty of clean clothes and clean sheets to reduce the chance of infection and limit the chores you need to do while recovering. Stock the refrigerator with healthy food and buy bags of ice if you plan on using the ice machine. Set up a comfortable recovery area on the main floor to minimize stair use during the first six weeks.

Day-of-Surgery Checklist

- ☐ Verify your check-in time and make sure you know the directions and how long you need to get there
- ☐ Follow the instructions you were given about when to stop eating and drinking before surgery
- ☐ Prepare your home for your return — set up a recovery area on the main floor, have ice machine or gel pads ready, crutches at the door
- ☐ Arrange for someone to drive you home and stay with you for the first 24 hours after surgery
- ☐ Wear comfortable, loose-fitting clothing — shorts or loose pants that fit over a slightly swollen knee and a brace
- ☐ Bring your insurance card, photo ID, and any paperwork from the surgery center
- ☐ Make sure your crutches are adjusted to the correct height before surgery day

Contact Information

Questions about your surgery:	(425) 656-5060
PSCV Surgery Center:	(425) 226-2041
Surgery Scheduling:	(425) 528-7155
Pre-op Nurse:	(425) 291-1465
Billing:	(425) 291-1414
Surgery Center Address:	4009 Talbot Rd S, Ste 200, Renton, WA 98055