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ORTHOPEDIC SURGERY | SPORTS MEDICINE

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Patellar Tendon Repair — Pre-Operative Information

About Your Injury

The patellar tendon connects the bottom of the kneecap (patella) to the top of the shinbone (tibia). It is part of the extensor mechanism — the system of muscles and tendons that allows you to straighten your leg, stand from a chair, walk, and climb stairs. When the patellar tendon ruptures, you lose the ability to actively straighten your knee, and surgery is required to restore this function.

Patellar tendon ruptures most commonly occur in younger, athletic individuals — typically men under 40. The injury usually happens during a sudden, forceful movement such as landing from a jump, missing a step, or catching yourself from a fall. You likely felt a sudden pop, followed by immediate swelling and an inability to straighten your leg. There may be a visible gap or indentation just below the kneecap.

In some cases, chronic patellar tendinopathy (degenerative tendon disease) can weaken the tendon over time and make it more susceptible to rupture, even with a relatively minor force.

Timing of repair is important. **Dr. Merritt prefers to perform this surgery within 14 days of the injury whenever possible.** An acute repair — done while the tissue is still fresh — is technically more straightforward and produces better outcomes than a delayed repair, where the tendon can retract, scar, and sometimes require additional graft material to bridge the gap.

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

About Your Surgery

Patellar tendon repair involves reattaching the torn tendon to the kneecap under the correct tension. The torn ends are identified, freshened, and the tendon is secured to the inferior pole (bottom) of the patella using heavy sutures through bone tunnels drilled in the kneecap.

An important aspect of this surgery is that the amount of knee bending (range of motion) you are allowed after surgery is determined at the time of surgery, based on the quality and strength of the repair. This means your specific motion limits will not be known until after the procedure is completed. Dr. Merritt will communicate these limits to you and your physical therapist after surgery. Typically, the initial range is 40–60 degrees of bending, advancing gradually each week.

Surgery typically takes about 1 hour. This is an outpatient surgery performed they're at at the Proliance Surgery Center at Valley (PSCV) or Valley Medical Center, depending on your insurance. You will go home the same day. You will have a general anesthetic as well as a nerve block to help with postoperative pain.

Risks of surgery include re-rupture of the repair, stiffness from inadequate early motion, infection, blood clots, wound healing issues, numbness around the incisions, continued pain and swelling, and asymmetric kneecap positioning. We will work together to optimize your recovery and minimize these risks.

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.**

After Surgery — What to Expect

After surgery it is normal to experience pain, swelling, and limited motion in the knee. These are expected and will improve over time. You will wake up with your leg in a hinged knee brace locked in full extension (straight). **You may bear full weight on your leg with the brace locked straight from the first day after surgery.** Crutches are used for comfort and safety and are weaned as tolerated. The brace must be worn at all times — including during sleep — for the first 6 weeks.

Range of motion is only performed when you are NOT bearing weight — sitting on the couch or lying down during physical therapy. You must never bend your knee while standing or walking. The specific degrees of motion allowed will be written by Dr. Merritt after surgery and communicated to your physical therapist.

Physical therapy should start within the first week after surgery, typically 2–3 times per week. You will receive a PT referral at your pre-operative clinic visit. Please schedule your first PT appointment before your surgery date.

Quad (thigh muscle) activation is the highest priority in early recovery. Because the tendon must be protected, your quad will weaken quickly. Neuromuscular electrical stimulation (NMES) and blood flow restriction (BFR) training begin immediately to prevent excessive muscle loss. These are primary interventions, not optional additions.

Patellar mobilization — gently gliding the kneecap up and down — is also started in the first week. Superior (upward) glides are especially important to prevent the kneecap from becoming stuck in a low position.

The timeline below outlines what to expect during your recovery. Every patient heals at a different pace — this is a general guide, not a strict schedule. Dr. Merritt will guide your progression based on your individual healing.

Timeframe	What to Expect
1–2 weeks	First clinic visit to check incisions and early recovery. Pain, swelling, and limited motion are normal. Full weight bearing with brace locked straight. Range of motion only when non-weight-bearing, per surgeon-prescribed limits. NMES and BFR begin immediately. PT starts within the first week (2–3x/week).
2–6 weeks	Continue brace locked for all weight-bearing activities. ROM advances per surgeon prescription, typically reaching 90° by 6 weeks. Quad sets, straight leg raises, and patellar mobilization. Brace worn at all times including sleep.

6–12 weeks	Six-week clinic visit. Brace gradually unlocked for walking in stages. Brace still used for walking but no longer needed for sleep. Stationary bike and progressive quad strengthening begin. Most patients are walking comfortably and off crutches. Brace discontinued around 3 months.
3–6 months	Progressive strengthening — leg press, step-downs, squats, lunges. Low-impact activities such as swimming, cycling, and walking programs resume. Quad strength is the central focus. Running typically begins around 6 months if strength testing is adequate.
6–12 months	Return to sport with formal testing and surgeon clearance. Studies show 83–94% of patients return to sport after patellar tendon repair, most at their prior level. Commitment to the full PT program is the single biggest factor in recovery.

Driving: For left knee surgery, typically 1–2 weeks (once off narcotic pain medication, automatic transmission). For right knee surgery, typically 4–6 weeks at minimum — you need sufficient quad strength and control to brake reliably. Safety is the benchmark.

Preparing for Surgery

Nutrition: A good diet with increased protein and collagen supplementation helps speed your recovery and prevent muscle weakness after surgery. Vitamin C can help with inflammation and stiffness. Start these before surgery if possible and continue through your recovery.

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: Remove throw rugs or obstacles that might catch a crutch and cause a fall. Make sure you have clean sheets and comfortable clothes ready. Stock the refrigerator with healthy food and buy bags of ice for the ice machine.

Handicap placard: You will be given a handicap parking pass application at your clinic visit. Get this at a DMV office before your surgery so you do not have to deal with it while recovering.

Day-of-Surgery Checklist

- ☐ Verify your check-in time and follow instructions on when to stop eating and drinking
- ☐ Schedule Physical Therapy for 5–7 days after surgery (do this before surgery)
- ☐ Bring your brace — you will be fitted at your pre-operative visit
- ☐ Wear comfortable clothes that fit over a brace (sweatpants work well)
- ☐ No perfume or lotion on your skin
- ☐ Remove or leave jewelry at home
- ☐ Have the ice machine and bags of ice ready at home for when you return

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

If Surgery is at Valley Medical Center:

Contact Information	
Questions about your surgery:	(425) 656-5060
Valley Medical Center Address:	400 S. 43rd Street, Renton, WA 98055