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

Total Knee Replacement — Pre-Operative Information

About Your Condition

Arthritis of the knee occurs when the protective cartilage that cushions the bones wears down over time, leading to inflammation, stiffness, and pain. The most common type is osteoarthritis.

Use the "tire tread" analogy: as the cartilage deteriorates, the bones begin to rub together. The best analogy is the similarity to tire tread wearing down — eventually the tread is gone and you are down to "bone-on-bone" arthritis.

Initially many people are not aware they have arthritis. As it worsens, daily activities like walking, climbing stairs, or even standing become difficult.

Many non-surgical treatment options are available including physical therapy, strengthening programs, oral and topical medications, injections, and bracing. As arthritis worsens, these options become less effective.

When conservative treatments no longer provide relief, total knee replacement can restore comfort and mobility. For many patients, it offers a long-term solution to improve quality of life.

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

About Your Surgery

Total knee replacement (also called total knee arthroplasty) is a surgical procedure where the damaged cartilage surfaces of the knee are removed and replaced with metal and plastic components that recreate a smooth, pain-free joint surface.

The caps of damaged cartilage removed and replaced with a new smooth surface. Many patients are surprised that the vast majority of the knee remains in place including 3 of the 4 ligaments, all but the very end of the bone, and all surrounding tissue. This is essentially a resurfacing of the knee surfaces and only about 18mm of bone and old cartilage are removed.

The implant used is the Johnson & Johnson DePuy cementless cruciate-retaining system — a modern design that allows the bone to grow directly into the implant for long-term fixation. This is a high-flexion, high demand, newest-generation knee replacement by a very reputable implant company.

Surgery typically takes about 1-1.5 hours. With anesthesia preparation and setup, the total time in the operating room is about 90-120 minutes. In the vast majority of cases, this is an outpatient surgery performed at the Proliance Surgery Center at Valley (PSCV) where you will go home the same day. In some situations because of age or health, these can be done at Valley Medical Center with 1 night in the hospital.

The surgery is performed under **spinal anesthesia** combined with a regional nerve block to manage post-operative pain. Spinal anesthesia eliminates the need for general anesthesia in most cases, reducing side effects like nausea and grogginess. During surgery, a long-acting pain medication mixture is also injected around the joint and in the joint capsule.

Risks of surgery include stiffness, infection, blood clots, numbness around the incisions, continued pain and swelling, and the possibility of the implant wearing out over time. The infection prevention protocols are thorough — skin disinfection starts 5 days before surgery, the surgical area is cleaned at 5 separate points, and the surgery center uses modern laminar flow air exchange systems.

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

Start with the "Quiet Knee" principle: **The first two weeks after surgery are about controlling swelling.** Ice the knee for 20 minutes every 2 hours while awake. Keep the leg elevated above the level of the heart when resting. Do not place a pillow under the knee — place it under your calf or heel to keep the leg straight. Swelling is the enemy of early recovery: it causes pain, limits motion, and slows the return of quad strength.

You will walk with full weight on the leg from Day 1 using a rolling walker. No brace is needed.

Physical therapy should start within the first week after surgery, typically 2-3 times per week. Schedule your first PT appointment before your surgery date. Full knee straightening (extension) is the #1 priority from Day 1.

The timeline below answers the most common questions about recovery. Every recovery is different, but these milestones give you a general idea of what to expect.

Timeframe	What to Expect
Days 1–14	Walk with a rolling walker — full weight as tolerated from Day 1. Ice every 2 hours while awake. Quad squeezes and ankle pumps every hour. Focus on full knee straightening. PT starts within the first week (2–3x/week).
2–3 weeks	First clinic visit to check incisions and early progress. Transition from walker to a cane. Continue icing and elevation after activity.
3–6 weeks	Wean off the cane — most patients are walking without any device by 4–6 weeks. Second clinic visit around 6 weeks with X-rays. Return to driving when comfortable and off pain medications.
6–8 weeks	Return to low-impact activities such as golf, swimming, cycling, and walking for exercise. Swelling continues to improve but may fluctuate with activity.
3–4 months	Return to higher-demand recreational activities such as pickleball, skiing, and hiking. Progressive strengthening to match the other leg.
6–12 months	Continued improvement in strength, endurance, and confidence. Swelling fully resolves. The knee continues to feel better over the first year.

Driving: If surgery was on your right leg, typically 3–4 weeks. If your left leg, typically 2–3 weeks. You must be off narcotic pain medications before driving.

Activities NOT recommended after total knee replacement include running, jumping, and contact sports. Walking, cycling, swimming, golf, pickleball, hiking, and skiing are all excellent long-term activities.

Preparing for Surgery

Skin preparation: Starting 5 days before surgery, you will begin a skin disinfection protocol. We will provide you with detailed instructions at your pre-operative visit. This is a critical step in infection prevention.

Pre-surgical physical therapy (prehab): Physical therapy before surgery is recommended to strengthen the VMO (inner quadriceps), improve range of motion, decrease swelling, and restore normal walking mechanics. Stronger into surgery, the stronger you come out.

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 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: Sleep on the ground floor for the first 1-2 weeks to avoid stairs. Remove throw rugs and fall hazards. Set up daily items within arm's reach (medications, phone, remote, water, charger). Have pillows ready for elevation. Manage pets that might cause falls. Falls are the primary safety risk in early recovery.

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)
- ☐ Wear comfortable loose clothes (sweatpants)
- ☐ 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