

QUADRICEPS TENDON REPAIR

Your First Two Weeks After Surgery

Your surgery is done, and now the recovery starts. This guide walks you through the first two weeks, from the day of surgery until **your PA visit at 2 weeks** (your follow-up with our physician assistant). Keep it somewhere handy. It answers most of the questions patients call us about. Your medicines are covered in the separate **Medication Guide** that comes with it.

YOUR PLAN AT A GLANCE

WEIGHT ON YOUR LEG	Full weight as tolerated with the brace locked straight. Crutches as needed
BRACE	Locked straight at all times, including sleep , for 6 weeks
BENDING	Only to the limit Dr. Merritt sets , and only when sitting or lying down
KEY RULE	Never bend the knee while standing or walking
PHYSICAL THERAPY	Starts 5 to 7 days after surgery, 2 times a week
SHOWERING	After 48 hours , incision covered until your PA visit. No baths or pools for 4 weeks
FOLLOW-UP	Your PA visit at 2 weeks
QUESTIONS	(425) 656-5060 , day or night

What We Did

Your quadriceps tendon connects the big muscle on the front of your thigh (the quad) to the top of your kneecap. It is what lets you straighten your knee. When it tore, it pulled off the kneecap. We **sewed the tendon back to the kneecap** with strong stitches passed through small tunnels in the bone.

The repair is strong enough for walking with the knee locked straight. It is **not strong enough to hold your weight with the knee bent**, and it won't be for a couple of months. Bending under load is the main way these repairs fail. That is why the brace rules matter, even when your knee starts to feel good.

Your three jobs for the next two weeks

- **Protect the repair.** Brace locked straight any time you are standing or walking. No exceptions.
- **Bend only within your limit**, and only while sitting or lying down. Early, gentle motion prevents stiffness.
- **Wake up your quad** (the big muscle on the front of your thigh). Ice, elevation, and hourly quad squeezes turn it back on.

Day by Day

What to do, and what to expect, from the day of surgery to your PA visit.

DAY 0

The Day of Surgery

Goal: Rest, ice, elevate, and keep the brace locked.

Rest today. The main goal is to **prevent swelling and pain** and get your recovery started. **Icing and elevation** are the two best ways to do that.

- **Keep the brace locked straight** at all times today, including in bed.
- **Elevate the leg** on a pillow **under your calf**, not under your knee.
- **Ice right away.** Unbuckle the brace and put the ice machine pad directly over the ACE wrap. The dressing protects your skin. Use it **20 minutes on, 20 minutes off**.
- **Avoid sitting with your leg down or walking too much** today. Both increase swelling and pain.
- **Your leg will feel heavy.** Have someone help you move it, or loop a towel around your heel to lift it.
- **Ankle pumps:** point and flex your foot 20 times every hour you are awake. This keeps blood moving in your calf.

Your nerve block

Before surgery you had a **saphenous nerve block**, numbing medicine placed near a nerve on the inside of your thigh. It numbs the inside of your knee and shin and usually wears off **12 to 24 hours** after surgery. Pain often climbs the first night as it fades. **Take your pain medicine before bed on the first night, even if you feel fine.** It is much easier to stay ahead of pain than to catch up to it. Numb skin can't feel when it is getting too cold, so **never put ice directly on bare skin.**

Before bed tonight

- ☐ Pain medicine taken
- ☐ Ice machine on, leg elevated on a pillow under the calf
- ☐ Ankle pumps done
- ☐ Brace on and locked straight for sleep
- ☐ Crutches next to the bed

DAY 1

The Day After Surgery

Goal: Take off the bulky dressing, refit the brace, and start gentle motion.

1 Remove the bulky dressing

Lie down with the leg straight. Undo the brace straps and remove the ACE wrap. **Save the ACE wrap.** Under it are gauze pads. Some dried blood on the gauze is normal. Throw the gauze away. Your incision is closed with **dissolving stitches** under the skin and sealed with **skin glue** on top. **Leave the glue alone.** It peels off on its own over a few weeks, and nothing needs to be removed. After today, cover the incision with a **clean, dry gauze pad** as needed, held by the ACE wrap. **No creams, lotions, or ointments** on the knee for 4 weeks.

If the gauze is soaked through or the incision is actively dripping, call **(425) 656-5060**.

2 Refit the brace

Put the brace back on, **locked straight**. It will feel loose now that the dressing is off. Undo the Velcro and shorten the straps to snug it up. If a strap or hinge rubs on the incision, wrap the ACE wrap between your skin and the brace.

3 Gentle bending, within your limit

Only while lying down or sitting. Your therapist will set the brace to your limit and show you how.

- Lie on your back. Unlock the brace **only to your bending limit**.
- Slide your heel toward you along the bed, using your hands or a towel to help. **Stop at your limit**.
- Let the leg slide back out straight on its own. **Don't kick it straight** with your thigh muscle.
- Lock the brace straight again **before you stand up**.

Never bend under weight

Any time your foot is on the floor holding weight, the brace must be **locked straight**. That includes standing at the sink, getting in and out of bed, and using the toilet. Bending while standing is how these repairs tear.

4 Wake up your quad

- **Quad sets:** With your leg straight and the brace locked, tighten the muscle on the front of your thigh. Hold 6 to 10 seconds, then relax. Do sets of 10 to 15, **every hour you are awake**. A gentle squeeze is safe. It keeps the muscle from wasting away.
- **Electrical stimulation (NMES):** A small device that makes the quad muscle contract. Your therapist will start it at PT and provides it there, so you don't need a home unit.
- **Straight-leg raises:** only with the brace locked, and only once your therapist says your quad is ready.
- **No kicking the leg straight** from a bent position, and no leg-extension exercises.

DAYS 2–7

The Rest of the First Week

Goal: Repair protected, motion within your limit, quad firing, PT started.

- **Brace locked straight** for all standing, walking, and sleep.
- **Gentle bending within your limit** several times a day, only lying down or sitting.
- **Quad sets every hour** you are awake.
- **Start physical therapy 5 to 7 days** after surgery. Bring your PT prescription and protocol. Your therapist will also start **kneecap glides**, gently moving the kneecap up and down so it doesn't get stuck low.
- **Shower starting 48 hours after surgery**, with the incision covered until your PA visit. See the Frequently Asked Questions.
- **Swelling peaks around days 2 and 3**, and bruising may creep down to your ankle. Both are normal. Keep icing and elevating.
- **Walk with the brace locked** and crutches as needed, short trips around the house. Rest with the leg elevated in between.
- **Start cutting back the narcotic pain medicine** as the pain allows. See your Medication Guide.

WEEK 2

Until Your PA Visit

Goal: Steady motion within your limit, a stronger quad, safe walking.

- **The brace stays locked straight** for walking and sleep until your 6-week visit.
- **Bending:** keep working within your limit. Your therapist will unlock the brace a little more each week, based on Dr. Merritt's plan.
- **Crutches:** use them as long as you need them for balance. Many people walk without them in the locked brace within a few weeks.
- **School or desk work:** most people are ready about 2 weeks after surgery, with the leg up and the brace locked.
- **Keep going to PT** and doing your home exercises.

Your PA visit at 2 weeks

We will check your incision, your motion, and your quad, review how PT is going, and answer your questions. Write your questions down as they come up, and bring this guide and your brace.

Managing Pain

Your medicines are explained on the separate **Medication Guide** that comes with this packet. Medicine is only one of the tools you have. These have been shown to lower pain and the amount of narcotic medicine people need:

- **Ice, elevation, and the anti-inflammatory medicine.** These three together are your best tools for pain and swelling.
- **Mindfulness meditation** has been shown to help with pain after surgery. Guided meditations are free at mindfulness-for-pain.mindful.org.
- **Listening to music** lowers pain levels and the need for narcotic pain medicine after surgery.
- **Accept that some pain is part of healing.** Your body sends blood flow and energy to the areas that hurt, and that is part of recovery. After the first couple of days, our goal is a pain level of about **6 out of 10 with medicine**. "Zero pain" is not the goal.

Expect pain to be worst on days 2 and 3. Most patients feel pretty good the day of surgery because of the numbing medicine used during surgery. Then things get sorer before they get better. This is normal and it passes.

Constipation

Narcotic pain medicine commonly causes constipation. Try these in order:

1. Cut back on the narcotic pain medicine if your pain allows.
2. Drink plenty of water and other decaf fluids.
3. Eat dried prunes or drink prune juice.
4. Take Senna (Senokot), an over-the-counter laxative.
5. Add Miralax, a stronger over-the-counter laxative.
6. If you have not had a bowel movement in 5 days, call the office.

Your Ice Machine

If you have an ice machine (most of our patients have the **Breg Polar Wave**), **use it a lot**. It is one of the most effective tools you have for swelling and pain, especially in the first two weeks.

- **Use it 20 minutes on, 20 minutes off**, as often as you can while you are awake.
- **Day of surgery:** Put the pad on right over the ACE wrap and bandage. The dressing protects your skin.
- **Compression is fine from day one.** If your machine has a compression setting, use it. Cold plus compression controls swelling better than ice alone.
- **After the bulky dressing comes off:** Always keep a thin layer (a t-shirt, pillowcase, or the ACE wrap) between the pad and your skin. Check your skin each time you take the pad off.
- **Keep the leg elevated while icing.** Ice works best when the leg is above your heart.
- **No ice machine?** Bags of ice or frozen peas wrapped in a thin towel work well, on the same 20 minutes on, 20 minutes off schedule.

Eat to Heal

What you eat has a **direct effect on how well and how fast you recover**. After surgery your body breaks down muscle to get the building blocks it needs for healing. Good nutrition lets it rebuild instead.

- **Protein:** Aim for 1.6 to 2.0 grams per kilogram of your ideal body weight each day. Most people eat far less. A protein shake is an easy way to close the gap when your appetite is low.
- **Creatine:** 10 grams a day. It helps muscle energy and lowers inflammation, and it is one of the most studied and safest supplements. Let your other doctors know you take it, since it can raise a kidney number (creatinine) on blood work.
- **Vitamin D:** 2,000 to 5,000 IU a day. Important for bone healing and your immune system.
- **Vitamin C:** 500 mg twice a day. Your body needs it to make collagen, the protein that holds tendons, ligaments, and your repair together.
- **Collagen peptides:** 10 to 20 grams a day, taken with the vitamin C.
- **Water:** 8 to 10 glasses a day. Well-hydrated patients have less pain, nausea, and fatigue.

The full nutrition guide is at merrittsurgery.com/surgeries/nutritional-optimization

Is This Normal?

Use this page to decide whether to wait it out, call us, or call 911.

OK
NORMAL

NORMAL — expected after surgery

- **More swelling on days 1 to 3** than on the day of surgery
- **Bruising** that spreads down the shin, calf, ankle, and even the foot over the first week (gravity pulls it down)
- Some **bloody fluid** on the bandage for the first 24 to 36 hours
- A **low fever up to 100.5°F** for the first 2 to 5 days. Deep breaths help bring it down
- **Numbness** around the incision and nearby skin. It usually improves, but can take 6 to 12 months
- A **warm** knee for several weeks
- Trouble sleeping, low energy, or feeling down for a few days

CALL
CALL US

CALL US — (425) 656-5060

- **Temperature of 101.5°F or higher**, or shaking chills
- **Redness that spreads** away from an incision, or drainage that is cloudy, smells bad, or soaks the gauze
- Any drainage that **starts or continues after day 4**
- **Calf pain or swelling that keeps getting worse**, especially if it is only in one leg
- Pain that is **not controlled** by your medicines
- Nausea or vomiting that keeps you from keeping down fluids or medicine
- **Unable to urinate** for 8 hours after surgery
- **Black or tarry stools**, vomiting blood, or bleeding that won't stop
- **Foot that is numb, tingling, cold, or pale** and doesn't improve after loosening the brace and wrap

911
EMERGENCY

CALL 911

- **Chest pain**
- **Shortness of breath** or trouble breathing
- Coughing up blood
- Fainting or passing out
- **Very sleepy, hard to wake up, or slow or shallow breathing** (possible narcotic overdose)
- Swelling of the face, lips, or throat, or a widespread rash (allergic reaction)

Don't see an answer to your question here?

Call our office at **(425) 656-5060**, day or night
Learn more at **merrittsurgery.com**

Frequently Asked Questions

How much weight can I put on my leg?

Full weight, as much as is comfortable, **as long as the brace is locked straight**. Crutches are for comfort and balance. Stop using them when you feel steady. Never put weight on the leg with the knee bent.

Do I really have to sleep in the brace?

Yes, for the first 6 weeks. People bend their knees in their sleep without knowing it, and a sudden bend can pull the repair apart. Take it off only for showering and your bending exercises, lying down.

How far can I bend my knee?

Only to the limit Dr. Merritt set at surgery. It depends on how strong the repair was, so it is different for everyone. It is written on your PT referral and usually starts somewhere around 40 to 60°. It goes up a little each week, and most people reach about 90° by 6 weeks.

When can I shower?

Starting **48 hours after surgery**. Until your PA visit, cover the incision with a waterproof bandage or plastic wrap taped at the edges, and sit on a shower chair with the leg out straight. You can take the brace off while seated, but **lock it back on before you stand**. Pat the incision dry if it gets wet. **No baths, pools, or hot tubs for 4 weeks**, until the incision is fully healed.

Do I need stitches out?

No. All of your stitches are under the skin and dissolve on their own. The skin glue peels off by itself over a few weeks. Nothing needs to be removed.

How do I do stairs?

"Up with the good, down with the bad." Going up, step up with your non-surgery leg first, then bring the crutches and surgery leg up. Going down, put the crutches and surgery leg down first, then step down with your good leg. The brace stays locked. Use a handrail whenever there is one.

What if I feel a pop?

If you feel a **pop**, have **sudden new pain**, or suddenly **can't hold your leg straight**, stop what you are doing, keep the brace locked, and call **(425) 656-5060** right away. These can be signs the repair has torn.

When can I drive?

Left knee (automatic car): often 1 to 2 weeks, once you are off all narcotic pain medicine. **Right knee:** not before 6 weeks, usually about 6 to 8 weeks. You must be **off crutches, with the brace unlocked or off, off all narcotic pain medicine, and able to brake hard**. There is no set date, and it is not up to your surgical team to release you. The rule is that you must be a safe, unimpaired driver.

When can I go back to school or work?

Desk work or school usually about 2 weeks after surgery, if you can keep the leg up. Jobs that involve standing, walking, climbing, or lifting take longer, and we'll plan that together at your visits.

Can I travel or fly?

Long car rides and flights raise the risk of blood clots. Avoid them in the first two weeks. If you must travel, get up and walk every hour, do ankle pumps often, keep taking your aspirin, and let us know before you go.

How do I get a refill?

Call **(425) 656-5060** during business hours, Monday through Friday, a day or two before you run out. Narcotic pain medicine cannot be refilled after hours or on weekends. You can also ask at your PA visit.

YOUR MEDICATION GUIDE

Sports Surgery

After surgery you go home with a small team of medicines. **Each one has a specific job**, and they work best together. This guide explains what each medicine is for, how to take it, and when to stop. Your prescription labels have your exact doses. If anything here differs from your label, follow the label and call us.

Your Medicines at a Glance

These are my standard medicines after this surgery

Your plan may be different because of your allergies, your health history, or a different plan for pain or blood thinners (anticoagulation). If we discussed a different plan with you, follow that plan and your prescription labels.

Type	Medicine	Its job	How to take it
SWELLING	Anti-inflammatory medicine usually meloxicam (Mobic)	Calms swelling and inflammation where you had surgery, which also lowers pain.	Twice a day, with food
PAIN	Acetaminophen (Tylenol)	Works on pain in a different way than the other medicines, so together they work better with fewer side effects.	Every 8 hours
CLOTS	Aspirin 81 mg baby aspirin	Thins the blood slightly to prevent blood clots after surgery while you are less active.	Twice a day, unless you were given a different blood thinner plan
PAIN	Narcotic pain medicine usually oxycodone (or hydrocodone or Dilaudid)	Takes the edge off strong pain so you can rest, sleep, and do your exercises.	As needed
HELPER	Anti-nausea medicine ondansetron (Zofran) If prescribed	Settles nausea from anesthesia or the narcotic.	As needed
HELPER	Miralax and Senna	Treat constipation from the narcotic, if it happens.	Only if constipated
HELPER	Omeprazole 20 mg Prilosec	Protects your stomach if the anti-inflammatory or aspirin upsets it.	Only if stomach upset

A Typical Day

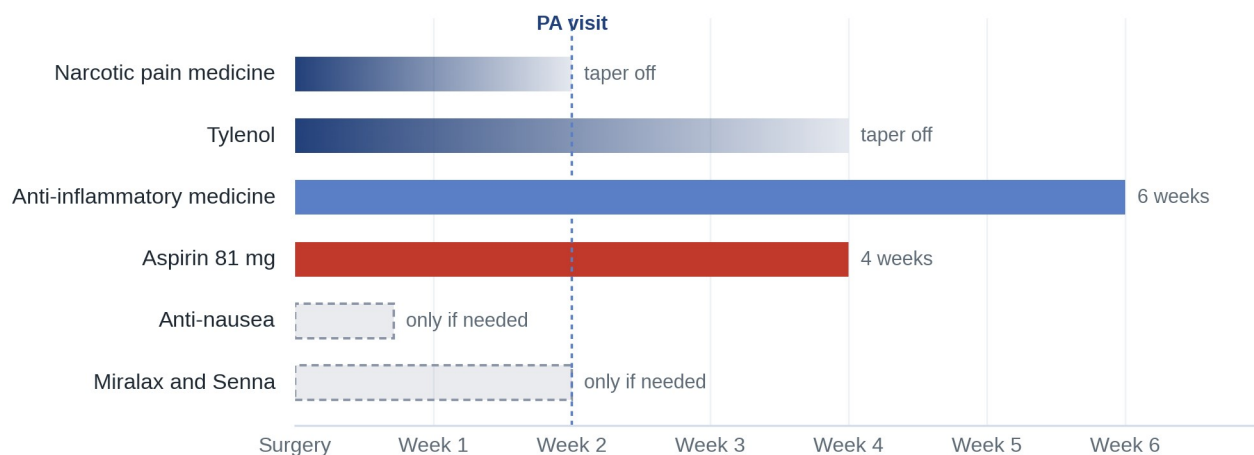
Scheduled medicines, spread through the day. Take the morning and bedtime doses with food or a snack.

Medicine	Morning with breakfast	Afternoon around 3 pm	Bedtime with a snack
Anti-inflammatory medicine	●		●
Acetaminophen (Tylenol)	●	●	●
Aspirin 81 mg	●		●

Only when needed: Narcotic pain medicine; Anti-nausea medicine; Miralax and Senna; Omeprazole 20 mg. Follow the label for how often.

How Long to Take Each One

Solid bars: take every day for the full time. Fading bars: taper off as you feel better. Dashed: only if needed.



Stop them in this order

- 1. Narcotic first.** Most people are off it within 1 to 2 weeks.
- 2. Tylenol next,** once your pain is manageable without it.
- 3. Aspirin at 4 weeks. Always finish the full course.** It protects against clots, not pain, so how you feel doesn't matter.
- 4. Anti-inflammatory last, at 6 weeks.** We can discuss more at that visit.

Each Medicine in Detail

Anti-inflammatory medicine usually meloxicam (Mobic)

Its job: Calms swelling and inflammation where you had surgery, which also lowers pain.

How to take it: Take **twice a day** (morning and evening) **with food**, as directed on the bottle. Keep taking it for **6 weeks**, even when you feel good. We can discuss continuing it at your 6-week visit.

- **Do not add ibuprofen (Advil, Motrin) or naproxen (Aleve).** They are the same family of medicine, and taking two together raises the risk of stomach bleeding.
- Not prescribed if you are allergic to anti-inflammatories. If you already take your own anti-inflammatory, keep taking yours instead.

Acetaminophen (Tylenol)

Its job: Works on pain in a different way than the other medicines, so together they work better with fewer side effects.

How to take it: Take **1,000 mg (two 500 mg tablets) every 8 hours**. Continue until your pain is manageable without it.

- **WARNING: Never take more than 3,000 mg of acetaminophen in a day from all sources combined.** Too much can seriously damage your liver.
- Some narcotic pills (such as Norco or Percocet) and many cold and flu medicines also contain acetaminophen. If yours does, it counts toward the 3,000 mg. We usually prescribe plain oxycodone for this reason. If you are not sure, ask your pharmacist or call us.

Aspirin 81 mg baby aspirin

Its job: Thins the blood slightly to prevent blood clots after surgery while you are less active.

How to take it: Unless we have discussed a different blood thinner plan with you, take **1 tablet twice a day** (morning and evening) for **4 weeks**. Finish the whole course, even if you feel great.

- **Some patients get a different blood thinner instead of aspirin**, for example if you already take one (such as Eliquis, Xarelto, or warfarin) or need a stronger one after surgery. If we have discussed a different plan with you, follow that plan instead of these aspirin instructions, and do not take aspirin on top of it unless we tell you to.
- If it upsets your stomach, take omeprazole (below).

Narcotic pain medicine usually oxycodone (or hydrocodone or Dilaudid)

Its job: Takes the edge off strong pain so you can rest, sleep, and do your exercises.

How to take it: Take as directed on the bottle, **only as needed** for pain. Use the lowest dose that keeps your pain around 6 out of 10.

- **Do not drive**, drink alcohol, or take sleeping pills or anxiety medicine (like Ambien or Xanax) while taking it.
- It causes constipation. See Miralax and Senna below.
- **This is the first medicine to stop.** See "Stop them in this order" on page 2 for how long most people need it.
- Store it out of reach, and take any leftovers to a pharmacy drop box when you are done.

Anti-nausea medicine ondansetron (Zofran)

If prescribed

Its job: Settles nausea from anesthesia or the narcotic.

How to take it: Take as directed, **only as needed** for nausea. The dissolving tablet goes on your tongue if you can't keep pills down.

Miralax and Senna (over the counter)

Its job: Treat constipation from the narcotic, if it happens.

How to take it: Only if you become constipated. Start with Senna, and add Miralax if you still need it. Follow the package directions, and see the constipation steps in your post-op packet. Stop when you stop the narcotic.

Omeprazole 20 mg (over the counter) Prilosec

Its job: Protects your stomach if the anti-inflammatory or aspirin upsets it.

How to take it: Only if you get an upset stomach or heartburn: take 1 capsule once a day, 30 minutes before breakfast.

- If you already take a stomach medicine (Prilosec, Nexium, Protonix, Pepcid), keep taking yours instead.

Questions about your medicines?

Call our office at **(425) 656-5060**, day or night.

Refills: call during business hours, a day or two before you run out.

Call 911 for trouble breathing, or swelling of the face, lips, or throat after taking a medicine.