



Partial Meniscectomy: Post-surgical Recovery Process, Expectations, and Timelines

Joseph Lamplot, MD

Orthopaedic Sports Medicine and Shoulder Surgeon

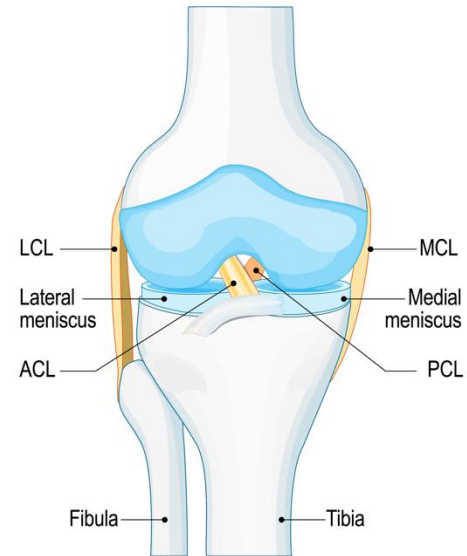
Team Physician – Chicago Fire FC

Director of Sports Medicine Research – Endeavor Orthopaedic & Spine Institute

What is the meniscus?

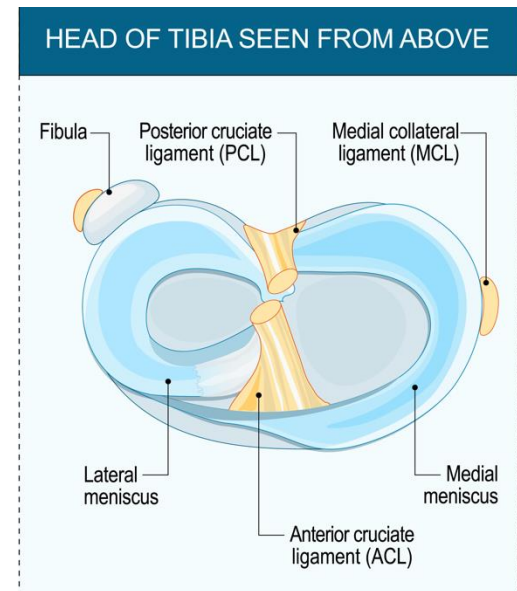
- **C-shaped rubbery cartilage disks that cushion knee joint**

- Medial (inside part of knee) is more commonly torn
- Lateral (outside part of knee) is less commonly torn



- **What does it do?**

- Acts as a shock absorber to transmit weight across knee joint
- *If torn, the torn portion is no longer functional unless repaired*



How do meniscus tears happen?

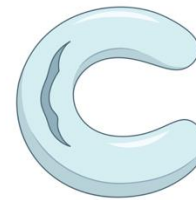
- **Acute/Traumatic**

- Generally, from a twisting, pivoting, or landing injury
- Can result in knee pain and swelling

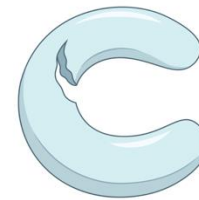
- **Degenerative**

- Due to a combination of age, wear and tear, and genetics without specific injury

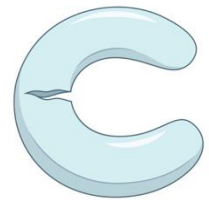
Types of Meniscus Tears



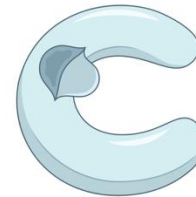
Longitudinal Tear



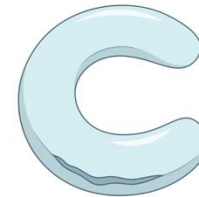
Parrot beak tear



Radial Tear



Flap Tear



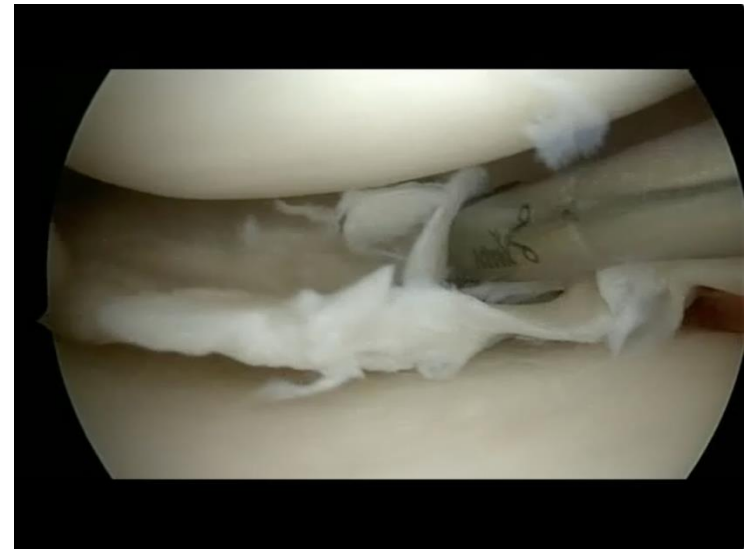
Horizontal Tear



Bucket Handle Tear

Indications for Meniscus Surgery

- Repairable (stitchable) tear types
- Mechanical symptoms
 - “Stuck knee” – cannot fully straighten or bend
- Failure of non-surgical treatment
 - Oral and topical anti-inflammatory medicine (i.e. Aleve, Voltaren gel)
 - Physical therapy
 - Knee injections (cortisone)
 - No/minimal knee arthritis



Torn meniscus tissue being resected with metal biter visualized using camera (arthroscope)

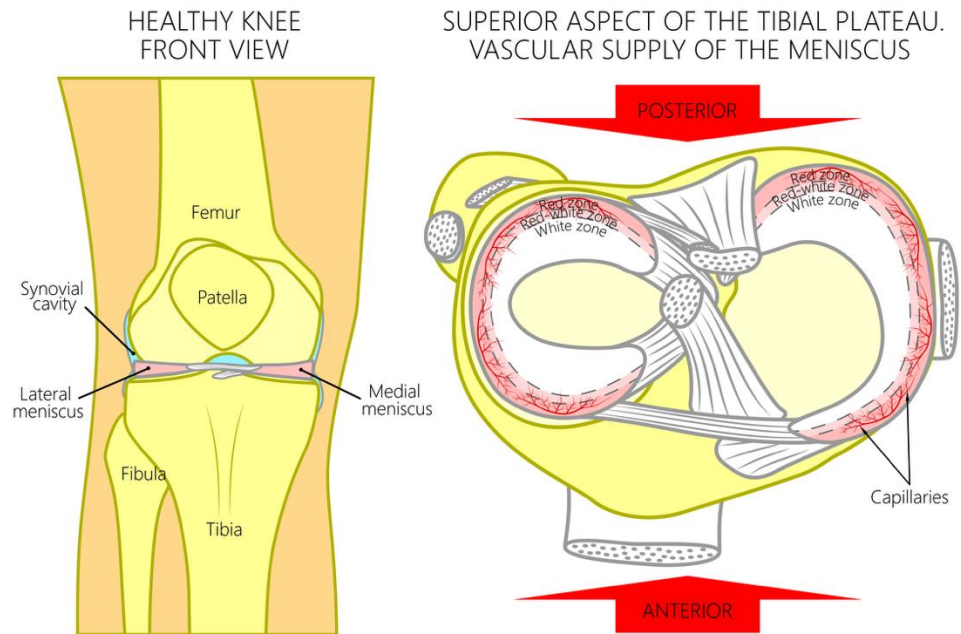
How is Surgery Performed?

- Arthroscopic (minimally invasive)
- 2 ¼” incisions below the kneecap on front of knee
- 20-minute outpatient procedure
 - General anesthesia (asleep)
 - Torn tissue removed with small tissue shavers and biters
 - Incisions closed with dissolvable stitches



Why did was my tear “trimmed” instead of stitched together?

- Many meniscus tears will not heal if stitched together
- Tear-specific factors
 - Tear location
 - Tear type
 - **Meniscus tissue quality**
- Patient-specific factors
 - Age
 - **Severity of cartilage wear (arthritis)**
 - Previous attempted repair



Inner 1/3 of meniscus has insufficient blood supply to facilitate healing after attempted meniscus repair

Expectations for Day of Surgery

Day of Surgery: At Surgery Center

- Will arrive to surgery center approximately 2 hours prior to surgery
 - Surgery center will call with specific time day before surgery
- Nothing to eat or drink after midnight
- Shower with Hibiclens night before and morning of surgery
- Time at surgery center:
 - **Before surgery:** Check in, paperwork, IV placement, meet anesthesia team (1-2 hours)
 - **Surgery:** Roll back to operating room, go to sleep, surgery performed, wake up (1 hour)
 - **After surgery:** Roll to recovery room. Pain will be controlled. Water and crackers administered. Roll to car for family member/friend to take you home.



Day of Surgery: Home

- Ice and elevate knee above level of heart
 - 15 mins on and 15 mins off
 - Recommend ice machine (purchase on Amazon) or compressive device (rent/purchase GameReady)
- Resist temptation to place pillow under knee – **KEEP KNEE STRAIGHT WHEN RESTING!**
- Take medications as directed on discharge instructions for pain and inflammation
- Light diet on day of surgery - avoid heavy/greasy foods
- Limit time on feet to minimize swelling, **but you may put full weight on surgical leg!**
- Limit narcotic use – do not “stay ahead” of the pain



Day after Surgery: Home

- Continue to ice and elevate knee above level of heart to control swelling
- Resume your regular diet
- Use crutches until your limp resolves
 - Your physical therapist will help you wean them
- May shower the day after surgery
 - Remove Ace bandage
 - Leave waterproof dressings in place until follow-up visit
 - Wrap knee in Saran wrap/food cling and discard after shower

Home Exercises:
***Start prior to outpatient Physical
Therapy the day after surgery***

*Please note in all pictures, the involved leg is the right leg which is identified with a yellow band around the right ankle. If it is your left knee that is injured (involved), follow these directions using your left leg.

Knee Extension

It is very important to get your knee fully straight prior to surgery

- Lie on your back with both legs straight.
- Place a rolled up towel under the heel of your injured leg.
- Relax and let your involved knee straighten as much as possible.
- Try to maintain this position for 2-3 minutes.
- Then place the towel under your knee for a 30 sec rest period.
- Repeat this sequence 4-5 times.
- Perform 3-5 times per day until your knee is fully straight.
- A cold pack can also be applied during this exercise.



Quadriceps Set

- Lie on your back with a towel roll under your involved knee and your noninvolved knee bent.
- Tighten your quadriceps (the muscles on the top of your thigh) and gently press the back of your knee into the towel roll. NOT as hard as you can. Do NOT lift your heel off the bed
- Should you experience any pain or discomfort, make the towel roll thicker/bigger.
- Hold 10 seconds. Rest 10 seconds. 15 repetitions. 5-7x /day.
- Goal is 100 repetitions per day.



Knee Bending (Flexion) and Straightening (Extension): Active / Active-Assisted Range of Motion

(1) Sit at the edge of the bed or a firm surface. Support your involved leg (band) with your non-involved leg.

(2, 3) Gently allow your involved leg to bend by supporting it with the assistance of your non-involved leg. When your knee bends to an angle of approximately 70 degrees (or at an angle that you deem comfortable) slowly remove your non-involved leg from behind your involved leg and dangle as tolerated

(4) Attempt to bend your involved knee under the bed or firm surface. Hold a gentle stretch for 5 seconds

(6) Place your non-involved leg back behind your injured leg for support. Straighten your involved knee with the assistance of your non-involved leg

Repeat 20 times. 3-5 times per day.

When range of motion improves, advance this exercise by:

(5) Placing your non-involved leg in front of your involved leg and together with your involved leg gently bend your involved knee back until you feel a gentle stretch. Again hold 5 seconds.



SUPPORT



RELAX TO BEND



RELAX TO BEND



DANGLE



BEND



STRAIGHTEN WITH SUPPORT

Straight Leg Raise (Lying on your back)

- Lie on your back with your involved knee straight and your other knee bent as shown.
- Tighten your stomach, tighten the muscles on top of your thigh (quadriceps), keep the leg completely straight, and then raise it to the height of your other knee.
- Hold for 1 second and slowly lower.
- Perform 1 set of 10 repetitions, 3 times per week
- Advance to 2 sets of 10, then 3 sets of 10 as tolerated.
- Use a brace if recommended by your physician or if you can't keep your knee straight when lifting.



Calf Stretch

- Sit Up with your knee straight with a STRAP or Towel around the ball of your foot.
- With your hands, gently pull the strap/towel (foot) towards you to feel a stretch in your calf and behind your knee.
- Hold 30 seconds. Repeat 3 sets. Perform 2 times per day.



IMPORTANT!!!!

- DO NOT PUT PILLOW OR BLANKET UNDER KNEE WHEN RESTING OR SLEEPING!
- **CRITICALLY IMPORTANT** TO REGAIN KNEE EXTENSION (STRAIGHT KNEE) AFTER SURGERY



Outpatient Physical Therapy
Start 2-3 days after Surgery

Outpatient Physical Therapy

Make sure to call ahead, as they often book out weeks in advance

Goals of Physical Therapy

1. Control pain
2. Regain full range of motion
3. Activate (early) and strengthen (later) quadriceps muscles
4. Wean off crutches
5. Return to desired activity level

Please discuss goals with Physical Therapist

1. Specific job demands (i.e. manual labor job)
2. Fitness goals
3. Return to sport (competitive/recreational)

Expectations: Symptoms

Weeks After Surgery	2 weeks	4 weeks	6 weeks
Noticeable knee swelling			
Leg bruising			
Weakness of surgical limb			
Knee soreness with daily activities (walking, standing)			
Knee stiffness			

Note: Recovery timelines are general expectations and vary from person to person based on a variety of factors including severity of cartilage loss (arthritis), baseline strength and activity level, body habitus, compliance with postoperative instructions including home exercises and physical therapy, and other health factors.

Expectations: Function

Weeks After Surgery	Immediately	2 weeks	4 weeks
Driving (surgery on left knee) *must be off narcotic pain meds	Once off narcotic pain meds		
Driving (surgery on right knee) *must be off narcotic pain meds	Once able to bear weight and push pedals confidently. Start on side streets or parking lots and once comfortable, OK for busy streets/highways		
Desk work	Plan for at least 1-2 days off. May resume when comfortable. Strongly recommend not working while on narcotic pain meds. Avoid prolonged sitting with knee bent.		
Walking without crutches	Weaning from 2 crutches to 1 to none typically starts 2-3 days after surgery. Crutches are typically discontinued within one week of surgery.		
Long distance walking	Avoid prolonged walking if possible	Progressively increase distance. Stop if soreness or swelling occurs	No limits
Running/jumping/high impact activity	Avoid	Avoid unless directed by physical therapist	Progress as tolerated, stop if soreness or swelling occurs
Manual labor	Avoid	Progress as able, light duty can be provided if needed	As tolerated

Note: Recovery timelines are general expectations and vary from person to person based on a variety of factors including severity of cartilage loss (arthritis), baseline strength and activity level, body habitus, compliance with postoperative instructions including home exercises and physical therapy, and other health factors.

Additional Considerations

- **Females over 40 years old:** Take 5000 IU Vitamin D (over the counter) once daily for one month unless already taking **prescription** Vitamin D or bone density medication (i.e. bisphosphonate, Foreto)
- **Optimize body weight:** Decreased load through knees will improve longevity of knee joint and prolong need for joint replacement surgery
- **Low-impact exercise:** “Smooth” exercises (elliptical, stational bike/spin class, rowing machine, weight machines) may be more beneficial and less painful than high-impact (i.e. running and jumping)
 - OK to modify group fitness classes (you do not have to do Burpees or box jumps)
 - *Long walks do not adequately strengthen the quadriceps muscle* – focus on leg presses, spin class, and other exercises that better strengthen the quadriceps muscle
- **Maintenance Program: Your work does not stop when physical therapy ends** – make a lifestyle change and continue physical therapist-directed fitness program to prevent recurrence of knee pain

Crutch Fitting

Crutch Height:

adjust so the pad is 2 finger widths below the armpit



Hand support:

aligns with the crease of the wrist when the arm is hanging relaxed



Final Fit:

Elbows are slightly bent when the hands are grasping the supports



Questions?

Contact us via:

Northwest Community (NCH) – MyChart

NorthShore – NorthShore Connect