

MENISCECTOMY

Physical Therapy Protocol

PATIENT

SURGEON

Andrew L. Merritt, MD

DATE OF SURGERY

PT START DATE

For the patient

Most people do a home exercise program after this surgery. Formal physical therapy is only needed if we order it. If it is ordered, it is usually 2 times a week at first. Part of your meniscus was removed, not repaired. Nothing was sewn, so there is no healing tissue to protect, and you can walk with full weight right away. Recovery is about two things: **controlling the swelling**, which switches off your quad muscle for a while, and **getting your quad strong again**. Most people walk without crutches within a few days and are back to full activity in 8 to 12 weeks. You move ahead by goals (full motion, no swelling, a strong quad), not by the calendar. Returning to sport needs quad strength of at least 90% of your other leg.

PROTOCOL AT A GLANCE

WEIGHT BEARING	Full weight from day 1. Crutches for comfort only; most people stop them within 2 to 5 days
BRACE	None. A compression sleeve for swelling is fine if you like
MOTION GOALS	0–90° by the end of week 1 , full motion (0–130°+) by the end of week 2
PHYSICAL THERAPY	Most patients do a home program. Formal PT only if ordered; when ordered, it starts 5 to 7 days after surgery, 2 times a week at first
KEY PRECAUTIONS	Control swelling before adding load. No leg-extension machine early. No running, jumping, or cutting for 6 weeks
RUNNING · SPORT	Running from 6 weeks , once criteria are met. Full sport usually 8 to 12 weeks , after strength and hop testing

Recovery Timeline

Phase	When	PT visits	Focus
1	Weeks 0–2	2× a week (if ordered)	Control swelling, full motion, wake up the quad
2	Weeks 2–6	2× a week (if ordered)	Strength, balance, normal walking, back to daily activities
3	Weeks 6–12	1× a week or as needed	Running, agility, sport drills; return to sport at ≥90% quad strength

Most patients do a home program. When formal PT is ordered, use the suggested frequency above. Most patients finish formal PT within 6 weeks.

For the Therapist

Check the surgeon notes first. They override anything else in this protocol. Questions or setbacks: call (425) 656-5060.

Surgeon notes and special instructions

General principles

- **Home program first.** Most patients do a home exercise program. Formal PT is only if ordered; when ordered, 2× a week early.
- **No healing constraint.** Arthroscopic partial meniscectomy removes the damaged, irreparable part of the meniscus. There is no repair to protect, so motion and weight bearing are limited only by pain and swelling. Progress is driven by clinical milestones.
- **Effusion control.** Swelling causes arthrogenic muscle inhibition (AMI): the knee reflexively inhibits the quadriceps. Controlling swelling early is as important as exercise.
- **Quad restoration is the priority.** Quad strength must be $\geq 90\%$ of the other side before return to sport. Do not trade adequate quad strength for an early return.
- **Expected course.** Light activity at 4–6 weeks; full sport at 8–12 weeks, depending on quad strength and resolution of swelling. No running, jumping, or cutting before 6 weeks.
- **Icing:** 20 minutes on, 20 minutes off, after each session and as needed.

PHASE

1

Early Recovery

Weeks 0–2

For the patient: what to expect

In the first 2 weeks, the goals are to control swelling, get your full knee motion back, and start waking up your quad. You can walk right away. Stop using crutches as soon as you can walk comfortably; most people do within a few days. Ice your knee after every exercise session: 20 minutes on, then 20 minutes off.

WEIGHT BEARING	Full, as tolerated, right away. Crutches for comfort only; wean as tolerated, usually within 2–5 days. No weight-bearing restriction
MOTION	Full, as tolerated. Goal 0–90°+ by the end of week 1; full motion (0–130°+) by the end of week 2. Pain and swelling are the only limits
BRACE	None. Compression sleeve for swelling if desired

Goals

- Swelling and pain controlled
- 0–90° by the end of week 1; full motion by the end of week 2
- Quad lag resolved: straight-leg raise without extensor lag
- Normal gait on level surfaces without an assistive device

Move on when

- ☐ Motion 0–90°+ by the end of week 1; full motion by week 2
- ☐ SLR without extensor lag
- ☐ Walking without crutches with a near-normal gait
- ☐ Swelling decreasing; minimal effusion at rest

Exercises

Exercise	How
Quad sets	3 × 15, every waking hour
Straight-leg raise	4 planes (flexion, abduction, extension, adduction), 3 × 10
Heel slides	Active-assisted flexion, 3 × 15
Ankle pumps	Every hour
Hamstring stretch	Supine, 3 × 30 sec
Stationary bike	From day 2–3 if motion allows; low resistance, 10–15 min
Ice and elevation	After each session: 20 min on, 20 min off

Precautions

- Do not push through significant pain: pain >4/10 with exercise means regress
- Watch for reactive effusion: if the knee is clearly more swollen the morning after exercise, reduce intensity and frequency
- No resisted knee-extension machine in Phase 1 (AMI makes it inefficient, and it risks reactive effusion)

Why: Effusion reflexively inhibits the quadriceps (AMI). Hard exercise before swelling is controlled does not build strength efficiently and may worsen the effusion. Swelling control comes first.

PHASE

2

Strengthening and Proprioception

Weeks 2–6

For the patient: what to expect

Now the focus turns to rebuilding your quad and your leg's coordination. You'll move from basic exercises to squats, steps, and balance work. You can start swimming at 4 weeks, once the incisions are fully healed. No running, jumping, or cutting yet: those wait until at least 6 weeks. By the end of this phase, most people are walking, cycling, and doing light activity without pain.

WEIGHT BEARING	Full, no restriction
MOTION	Full, unrestricted. Progress bike seat height for end-range flexion loading
BRACE	None

Goals

- Full, pain-free motion (0–130°+)
- Normal gait on all surfaces, including stairs
- Quad strength ≥ 70 –75% of the other side by week 6
- Single-leg squat and step-down without pain
- Light recreational activity (walking, cycling; swimming from week 4)

Move on when

- ☐ Full motion (0–130°+) without pain
- ☐ Step-down (8-inch) without pain or dynamic valgus
- ☐ Quad strength ≥ 75 % of the other side
- ☐ Single-leg stance ≥ 30 sec on a flat surface
- ☐ 30 min of continuous walking without pain or swelling

Exercises

Exercise	How
Stationary bike	20–30 min; increase resistance progressively
Mini squats	0–60°, progress to 0–90°; 3 × 15, add load as tolerated
Step-ups	4-inch step, progress to 8-inch; 3 × 10
Step-downs	Eccentric quad control, 3 × 10
Leg press	Both legs, progressing to single leg; 3 × 12
Hamstring curls	3 × 12, progress resistance
Hip abduction · adduction	3 × 12 each
Single-leg balance	Firm, then foam, then eyes closed; 3 × 30 sec
Walking program	Progress duration and terrain
Swimming	From week 4, once the incisions are fully healed. Straight kick; no breaststroke kick until full motion is confirmed

Precautions

- Reactive swelling after exercise (morning effusion) means too much load: regress
- No plyometrics, running, or cutting until Phase 3 criteria are met, and not before 6 weeks
- Watch for medial or lateral joint-line pain with deep flexion; it may mean residual meniscal irritation
- No pools before 4 weeks

Why: Strength recovery, not tissue healing, drives progression after partial meniscectomy. Returning to impact before adequate quad strength (≥ 80 % LSI) substantially raises the risk of injury to the remaining meniscus and nearby structures.

PHASE

3

Return to Sport

Weeks 6–12

For the patient: what to expect

In this last phase, you'll build up to running, jumping, and sport-type movement. Running starts at 6 weeks at the earliest. Return to sport is based on passing strength and function tests, not just on time. Most people are cleared for full sport between 8 and 12 weeks after surgery.

WEIGHT BEARING	Full, unrestricted
MOTION	Full, unrestricted
RUNNING	Walk-jog program from week 6, once Phase 2 criteria are met

Goals

- Quad strength $\geq 90\%$ of the other side (isokinetic or functional testing)
- Hop tests $\geq 90\%$ LSI
- Full sport or recreational activity without pain

Move on when

- ☐ Quad strength $\geq 90\%$ of the other side
- ☐ Single-leg hop $\geq 90\%$ LSI
- ☐ Running 20 min continuously without pain or swelling
- ☐ Sport movements without pain or hesitation

Exercises

Exercise	How
Single-leg squats	3 × 12–15
Lunges	Forward and reverse, with load
Leg-extension machine	If cleared; progress resistance
Running program	Walk-jog intervals to continuous running over 2–3 weeks
Plyometrics	Double-leg to single-leg jumps; double-leg to single-leg landing
Agility	Lateral agility, cutting, deceleration training
Sport skills	Sport-specific drills at increasing intensity
Hop testing	Single-leg hop, triple hop, crossover hop for distance

Precautions

- Return to sport requires meeting strength AND hop criteria; do not return on time alone
- Patients with a large meniscal resection have a higher long-term risk of compartment degeneration; counsel on weight management, activity level, and follow-up

Why: Return to sport after partial meniscectomy is a strength- and performance-based decision. Returning with a weak quad loads the articular cartilage repeatedly and may speed degeneration in that compartment.

Return to Sport

All criteria must be met before clearance.

Measure	Target
Quadriceps strength	≥90% of the other side (isokinetic at 60°/sec, or functional testing)
Single-leg hop	≥90% LSI
Motion	Full, pain-free (0–130°+)
Effusion	None after activity
Running	20 min continuous without pain
Clearance	Surgeon clearance (usually 8–12 weeks after surgery)

Functional testing

- Strength: isokinetic testing at 60°/sec, or functional testing
- Hop battery: single-leg hop, triple hop, crossover hop for distance