DR. KAISEN YAO, MD

ORTHOPEDIC SPORTS MEDICINE SURGEON

Informational Packet

MPFL Reconstruction Surgery

Northwell Health
Department of Orthopedic Surgery & Sports Medicine

Dr. Kaisen Yao, MD

Welcome

This booklet covers what to expect before, during, and after MPFL reconstruction surgery, and outlines the first steps of your recovery. If you have not already, please register for Epic MyChart to view your appointments, message your care team, and access your records online.

Keep this packet somewhere handy in the weeks before and after surgery — it answers most of the questions patients ask us during recovery.

Meet Your Surgeon



Dr. Kaisen Yao, MD

Sports Medicine & Orthopedic Surgery

Dr. Yao specializes in sports medicine and orthopedic surgery of the knee, shoulder, elbow, and hip, with a focus on ligament reconstruction, cartilage restoration and preservation, arthroplasty, and orthopedic trauma and fracture care. He completed his sports medicine fellowship at the prestigious NYU Langone Health and his orthopaedic surgery residency — serving as Chief Resident — at Lenox Hill Hospital. During his fellowship, he also worked with several professional sports teams as a team physician, including the New Jersey Devils, Washington Commanders, and Jacksonville Jaguars. A former collegiate swimmer at Washington University in St. Louis, Dr. Yao brings an athlete's perspective to helping patients return safely to the activities they love. Outside of orthopedics, he enjoys golf, swimming, classical piano, exploring new restaurants, and traveling the world.

He sees patients at the following locations:

Lenox Hill Hospital
130 E 77th Street, 7th Floor
New York, NY

Astor Place
740 Broadway, Suite 604
New York, NY

Downtown Brooklyn
68 Flatbush Avenue
Brooklyn, NY
718-208-1440

Anatomy of the Knee

The knee joint is formed where three bones meet: the thighbone (femur), shinbone (tibia), and kneecap (patella). The patella sits in a groove at the front of the femur called the trochlea, and glides up and down within this groove as the knee bends and straightens.

The medial patellofemoral ligament (MPFL) is a band of soft tissue connecting the inner (medial) edge of the patella to the femur. It is the primary structure preventing the patella from sliding out of the trochlear groove toward the outside of the knee. In the large majority of patellar dislocations, the MPFL is torn or stretched in the process.

Because the MPFL rarely heals back to its original strength on its own, the knee is often left more vulnerable to repeat dislocation after a first-time injury, especially in younger, more active patients. Anatomic factors such as a shallow trochlear groove, a laterally positioned tibial tubercle, or generalized ligamentous laxity can further increase this risk — Dr. Yao will review your imaging with you to see whether any of these factors apply.

MPFL Reconstruction Surgery

MPFL reconstruction is an outpatient, arthroscopically-assisted surgery that rebuilds the torn or stretched ligament using a tendon graft — most often taken from your own hamstring (gracilis autograft) or, less commonly, from a donor (allograft). The graft is secured to the patella and femur in the position of the native ligament, restoring the checkrein that keeps the kneecap centered in the trochlear groove as the knee moves.

Some patients have additional anatomic factors contributing to instability. Depending on your imaging, Dr. Yao may recommend combining the MPFL reconstruction with another procedure — such as a lateral retinacular lengthening or a tibial tubercle osteotomy to realign the pull of the kneecap. He will discuss whether any additional procedure is planned before your surgery, since this can affect your postoperative weight-bearing and bracing instructions.

Preoperative Instructions

1. **No tobacco.** If you use any tobacco or nicotine products, please stop. Tobacco use raises the risk of infection, blood clots, a looser graft, and a lower chance of returning to your prior level of activity. Please stop at least 4 weeks before surgery and continue avoiding it through recovery.

2. You will be notified of your arrival time the day before surgery.

3. Do not shave the surgical leg for the 5 days leading up to surgery.

4. Wear loose-fitting clothing on the day of surgery — you will leave in a knee brace.

5. Skip lotion, makeup, and deodorant on the day of surgery; some skin-prep solutions contain alcohol and can react with these products.

6. Nothing to eat after midnight the night before surgery (this includes gum, mints, and hard candy). A small amount of water is fine up until 4 hours before your check-in time. No dairy, juice, soda, or protein shakes starting at midnight.

7. Your first postoperative visit is usually scheduled 8–14 days after surgery. Starting physical therapy within the first week is important to protect your motion.

8. Please schedule your first postoperative physical therapy visit before the day of surgery. Many clinics have a 1–3 week wait for new appointments, so book as soon as your surgery date is confirmed. Let our office know if you are having trouble getting scheduled.

9. If you take a GLP-1 medication (for diabetes or weight management), plan to hold it for 2 weeks before surgery due to delayed gastric emptying under anesthesia — please still confirm the exact timing with our office and your anesthesiologist.

Crutch Instructions

Make sure your crutches are fitted properly: standing normally, there should be about two finger-widths between the top of the crutch and your armpit, and your hand grips should sit at wrist level with your elbows slightly bent. Ask us about a crutch-fitting visit before surgery if you'd like one.

- Look ahead, not down at your feet.
- Clear rugs, cords, and clutter from your walking path at home.
- Check that the rubber crutch tips are clean and in good condition.
- Bear weight through your hands, not your armpits — underarm pressure can cause numbness.
- Move the crutches about a foot in front of you with each step.
- Practice before surgery if possible; it makes the first days home much easier.

Day of Surgery

What to expect: This is an outpatient procedure — you'll go home the same day. Plan to arrive about 2 hours before your scheduled surgery time and to be discharged 1–2 hours after the procedure ends.

Anesthesia & nerve block: Most patients receive general anesthesia (you'll be asleep) along with a regional nerve block for pain control. The anesthesiologist uses ultrasound guidance to inject numbing medication around the nerves toward the front and inner portion of the leg. The block typically numbs the leg for 8–24 hours, though this varies by patient. Your anesthesiologist will review the details with you the morning of surgery.

Benefits of a nerve block include:

- Better pain control in the first day after surgery
- Lower risk of nausea, vomiting, and grogginess from general anesthesia
- Earlier ability to eat and drink after surgery
- Faster, smoother discharge from the surgery center

Postoperative Instructions: Weight Bearing & Walking

You'll wake up in a hinged knee brace locked straight (in extension). Your specific weight-bearing status is determined during surgery, depending on whether an additional procedure such as a tibial tubercle osteotomy was performed — Dr. Yao and the care team will let you know before you leave the surgery center. In most cases involving an isolated MPFL reconstruction, you may put as much weight on the leg as is comfortable while the brace is locked straight.

Walking with the brace locked straight will not stress your new graft. Most patients use crutches for balance and comfort for roughly 1–2 weeks, transitioning off crutches as confidence and control improve. The brace generally stays locked for walking until you regain enough quad control to walk without a knee buckle, usually around 3–4 weeks — your physical therapist will guide this transition.

Resting & Sleeping

Sleep with the brace locked straight, and place a pillow under your heel (not under the knee) to help the knee rest in a fully straight position overnight.

Bandages, Dressing & Bathing

A light compressive dressing is placed under your brace in the operating room — this is the cleanest dressing you'll have, so please leave it in place and dry until your follow-up visit. You may shower with the brace on, keeping the dressing dry using a plastic covering (a clean garbage bag taped above the dressing works well). Use a shower chair or other stable seat, and consider a non-slip sandal for traction. Sponge bathing is a good alternative if you'd rather not get the leg wet at all.

If the dressing loosens, becomes soaked, or falls down, re-wrap it with clean gauze and an elastic bandage and contact our office so we can see you sooner if needed.

Pain Management

Some pain, swelling, and stiffness after surgery is normal and expected - the goal of our pain protocol is to keep you comfortable, not pain-free. Your specific prescriptions will be reviewed with you at discharge. Your standard medication plan is:

- **Celecoxib 200 mg** - take by mouth twice daily for 30 days.
- **Oxycodone (Roxicodone) 5 mg** - take by mouth as needed for pain, up to 4 times a day, for the first 5 days after surgery.
- **Acetaminophen (Tylenol) 500 mg** - take by mouth as needed for pain, every 6 hours.
- **Aspirin (chewable) 81 mg** - take by mouth twice a day for 30 days to help prevent blood clots.
- **Senokot-S (sennosides-docusate)** - take 1 tablet by mouth daily, starting the day of surgery, for 14 days, to help prevent constipation from the pain medication.

If you received a nerve block, remember it will wear off over the following 8-24 hours. Start your pain medication on schedule rather than waiting for the block to wear off, since pain is easier to prevent than to catch up on. Taking medication with food can reduce nausea.

Using a cold therapy unit for roughly an hour on, an hour off while awake can meaningfully reduce pain and swelling. If you don't have a cold therapy unit, regular ice packs work well too - use them as needed, with a thin towel between the ice and your skin.

Do not drive, operate machinery, or drink alcohol while taking narcotic pain medication. If prescribed antibiotics, complete the full course.

What's Normal During Recovery

Constipation. Pain medication and anesthesia commonly slow the bowels. Stay ahead of it by walking short distances every hour, drinking plenty of water, eating fiber, and using a stool softener as directed.

Swelling. Some swelling of the leg, ankle, and foot is expected. Keep the leg elevated above heart level as much as possible in the first week, avoid letting the ankle hang below knee level for long stretches, and use cold therapy over the knee.

Bruising. Bruising can appear anywhere from the thigh down into the foot, typically 3–7 days after surgery, and will fade over time.

Low-grade fever. A mild fever (under 101°F) in the first couple of days is common. A higher or persistent fever, or worsening pain at the incision, should be reported to our office.

Blood clot precautions. Moving frequently — walking, or pumping the ankle if you're not weight-bearing — helps prevent blood clots. Seek urgent care or an ER evaluation for calf pain, worsening leg swelling, shortness of breath, chest pain, or a racing heartbeat.

When and How to Contact Us

Call our office if you experience:

- Pain that isn't improving with rest, medication, ice, and elevation
- No bowel movement for more than 72 hours despite laxatives/stool softeners
- A dressing that is soaked through with blood or fluid
- Shaking, chills, or a fever over 101°F

Practice number	718-208-1440
After hours / weekends	718-208-1440
Patient portal	Epic MyChart
Emergencies	Dial 911 or go to the emergency room at either Greenwich Village Hospital or Lenox Hill Hospital

Greenwich Village Hospital (Lenox Health Greenwich Village) — 30 Seventh Avenue, New York, NY 10011
Lenox Hill Hospital — 100 East 77th Street, New York, NY 10075

Exercises — Starting Day 1 After Surgery

Perform these gentle exercises as directed until your first physical therapy visit, which should typically be within the first week. Your physical therapist will build on this program from there.

Knee extension stretch. While seated, prop your heel on another chair and let gravity gently straighten the knee.

Quad sets. Sit with the leg straight and supported. Tighten the thigh muscle by pressing the back of the knee down toward the floor. Hold 3–6 seconds, rest up to 10 seconds. 8–12 reps, 2 sets.

Patellar mobilization. Once your incisional discomfort allows, gently glide the kneecap up and down and side to side with your fingers for a minute or two, several times a day. This helps prevent scar tissue from restricting its motion. Ask your physical therapist to confirm proper technique at your first visit.

Heel slides (knee flexion). Loop a towel around your foot and use it to gently bend the knee until you feel a stretch, then slide the heel back to start. Stay within the comfort range your surgeon or therapist has given you. 8–12 reps, 2 sets.

Straight-leg raises. Tighten your thigh and core, keep the knee straight, and lift the heel about 12 inches off the floor. Hold 3–6 seconds, lower slowly. 8–12 reps, 2 sets.

Ankle pumps. Sitting or lying down, pump the ankle up and down. 20 reps, 3 sets, several times a day to help circulation and swelling.

Gluteal sets. Lying down with knees straight, squeeze the buttocks for 3–6 seconds, then release. 8–12 reps, 2 sets. Avoid arching the low back.

Frequently Asked Questions

What if my dressing gets wet?

Call our office if it becomes saturated so we can bring you in for a change. A small damp spot can often be dried carefully with a hair dryer on the cool setting.

Do I sleep in the brace?

Yes, until you're told otherwise at a follow-up visit.

How much can I bend my knee?

You can begin gentle motion right away in most cases. Bending is generally limited to about 90 degrees for the first 2 weeks, then advanced toward full motion over the following weeks, unless Dr. Yao gives you different instructions.

How much pain should I expect?

MPFL reconstruction is not pain-free. Expect meaningful discomfort for the first 1–2 weeks, improving steadily with elevation, ice, medication, and gentle movement.

Can I remove the brace?

You may unbuckle or open it while seated or lying down and awake, letting the knee bend gently over a pillow. It must stay on and locked for walking and sleeping.

How long will I need crutches?

Most patients use crutches for comfort and balance for about 1–2 weeks, longer if an additional procedure such as a tibial tubercle osteotomy was performed.

When can I drive?

Generally once you are off narcotic pain medication, can bear full weight comfortably (for a right knee), and feel confident you could brake quickly in an emergency. Practice in a safe, empty area first.

When can I return to work?

Desk jobs: often within 1–2 weeks, once off narcotics. Physical or labor-intensive jobs: typically 2–4 months, depending on demands. We'll tailor this to your role.

When can I return to sport?

Most guidelines recommend waiting a minimum of 4–6 months (longer, closer to 6–9 months, if a tibial tubercle osteotomy was also performed), since returning earlier carries a meaningfully higher risk of repeat instability or graft injury. You'll also need to pass strength and movement testing with physical therapy before clearance.

How long will I need physical therapy?

Typically 3–4 months, tapering in frequency as strength and confidence return.

Can I get a disability/FMLA note?

Yes — ask at any pre- or post-operative visit, or call our office: 718-208-1440.

Rehabilitation Overview

0–2 weeks	Begin gentle home exercises, including patellar mobilization; start formal physical therapy within the first week. Brace locked for walking, with weight bearing as directed.
2–6 weeks	Progress knee flexion toward full motion. Wean out of the locked brace for walking as quad control improves, usually by week 3–4. Stationary biking may begin as tolerated.
6 weeks–3 months	Continue strength, motion, and balance work, with emphasis on the quadriceps and hip musculature. Full motion is expected by about 6–8 weeks. Low-impact conditioning (elliptical) often begins around 2–3 months.
3–4 months	Progress toward light jogging and agility foundations as strength and control allow.
4–6 months	Return to sport, contingent on passing strength and movement-based testing — not on time alone. Returning before 4 months is associated with a higher risk of repeat instability. Timeline may extend to 6–9 months if a combined bony procedure (such as a tibial tubercle osteotomy) was performed.

This is a general framework — your pace may differ based on graft type, any combined procedures, and how your knee responds. Your physical therapist and Dr. Yao will adjust this timeline together with you.