

Knee Arthroscopy Rehabilitation Protocol

Michael J. Huang, MD
Sports Medicine
Colorado Springs Orthopaedic Group
4110 Briargate Parkway, Suite 300
Colorado Springs, CO 80920
(719) 632-7669
Fax: (719) 632-0088
www.huangortho.com



GENERAL INSTRUCTIONS

The recovery process after knee arthroscopy surgery is straight-forward and this document is designed to help you and your physical therapist to get the best outcome!

Please visit Dr. Huang's website for post-operative care and early motion exercises. This page has many resources for you including training videos on dressing removal, crutch instruction, brace instruction, and even range of motion exercises!

The website is: <https://www.huangortho.com/knee-surgery-patients>

AFTER SURGERY

1. Medications: we give you a variety of medications to try to make the recovery go smoothly. Remember that most of these medications are AS NEEDED. So, if you do not need them, do not use them.
 - a. Pain medication (usually oxycodone or hydrocodone). This is the narcotic. It is to take the edge off of surgical pain. It will not eliminate the pain. These are addictive so please use sparingly.
 - b. Stool softener (Colace). While taking the narcotic, please take a stool softener to counteract the constipation caused by the pain medication.
 - c. Anti-nausea (ondansetron or phenergan). This is provided if you have nausea after surgery.
 - d. Muscle relaxant (cyclobenzaprine or other). This is provided to help with muscle spasms that can occur after surgery. This can be taken with the pain medication or all by itself. Please be aware that it makes most patients sleepy.
 - e. Blood thinner (aspirin or other). All surgical patients are at risk for blood clots. Based on your personal risk, we will prescribe one. Duration is based on the complexity of the surgery and the duration of risk.
2. Knee Brace: most knee arthroscopy procedures DO NOT require a brace, but if your surgery requires one, it will be placed before you leave the operating room.
 - a. The postoperative knee brace helps to maintain extension and is to be worn at all times while walking, otherwise it can be removed.
 - b. For the first 24 hours, we recommend keeping it on at all times and it will be locked straight to protect you.
 - c. After removing the dressing on the first day, you may unlock the brace. See video on Dr. Huang's website (www.huangortho.com)

3. If you chose to have a N'Ice or GameReady machine, we will help you set this up ahead of time. Please give us advanced notice.
 - a. For either machine, you can leave the cold compression on for 30-45 minutes before giving it a break.
 - i. **Please note that the N'Ice or GameReady may not be reimbursed by your insurance company and that the patient may incur the cost of these devices.**
 - b. Ice packs or frozen bag of peas can be a great way to provide cold therapy to the knee. We recommend keeping these on for 20 minutes at a time and then allowing the knee to warm back up for another 20 minutes. Always keep a wash cloth or other layer between the skin and the ice pack.

RETURN TO WORK

1. As far as returning to work, if you have a desk type job you can return to work when your pain medication requirements decrease, and you can safely walk with your crutches. Typically, this is between 5 - 10 days after surgery.
2. Patients who have jobs where light duty is not permitted will be out of work for a minimum of 6 - 12 weeks. Please discuss this with us as soon as possible so we can help you get all the details right!

WHEN CAN I DRIVE A CAR?

REMEMBER, IT IS ILLEGAL TO TAKE PRESCRIPTION PAIN MEDICATIONS AND OPERATE A MOTOR VEHICLE!

1. First, you must not be taking any prescription pain medications.
2. Patients who have had surgery on the left knee, and who have an automatic transmission may drive when they can comfortably get the leg in and out of the car.
3. Patients who have had surgery on the left knee and have standard transmissions, should not drive until they have good muscular control of the leg. This usually takes 1-4 weeks.
4. Patients who had surgery on the right knee should not drive until they have good muscular control of the leg. This usually takes 1-4 weeks.

KNEE ARTHROSCOPY PROTOCOL

The intent of this protocol is to provide the therapist and patient with guidelines for the post-operative rehabilitation course after arthroscopic knee surgery. This protocol is based on a review of the best available scientific studies regarding knee rehabilitation. It is by no means intended to serve as a substitute for one's clinical decision making regarding the progression of a patient's post-operative course. It should serve as a guideline based on the individual's physical exam/findings, progress to date, and the absence of post-operative complications. If the therapist requires assistance in the progression of a post-operative patient they should consult with Dr. Huang.

Progression to the next phase based on Clinical Criteria and/or Time Frames as Appropriate.

POSTOPERATIVE DAYS 0-14

- Goals:**
- * **Control pain and swelling**
 - * **Care for the knee and dressing**
 - * **Early range of motion exercises**
 - * **Achieve and maintain full passive extension**
 - * **Prevent shutdown of the quadriceps muscles**
 - * **Gait training**

Control Pain and Swelling

1. Control Swelling. Following discharge from the hospital you should go home, elevate your leg and keep the knee iced using ice, ice packs, the N'Ice or the GameReady. Remember that when using ice to keep a towel between the skin and ice itself to avoid frostbite burns.
2. Control Pain. You will be sent home with a prescription for a strong narcotic medication such as Oxycodone. You should take this for severe pain, as directed on the prescription bottle label.
3. Muscle spasm: A prescription for a muscle relaxant (see above) is often given to you as well to control muscle spasm. It can be used independently or with the oxycodone to help with pain.
4. As your pain and swelling decrease, you can start to move around more and spend more time up on your crutches.

Caring for your knee

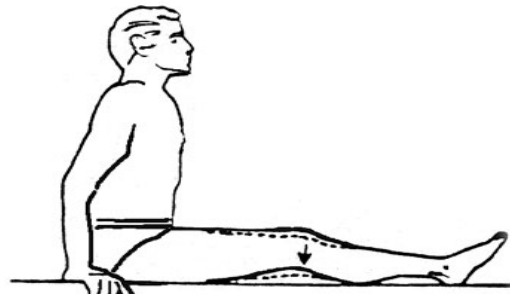
1. The first night and day after the surgery you can expect some drainage on the dressings (often blood tinged). This is normal!
2. Weight bearing: we recommend no weight bearing the first 24 hours. Once full sensation has returned, you will start at 30% partial weight-bearing for the first 2 weeks and increase to full weight-bearing with the help of your physical therapist after that.

3. You may shower, but you must keep your incisions dry for the first 10-14 days. This can be achieved by wrapping your knee in saran wrap or press and seal or use a waterproof plastic bag over your leg. See video on Dr. Huang's website.
4. The sutures are absorbable and do not need to be removed.
5. You may remove the knee brace while doing exercises or if you are in a safe, protected environment. However, the knee brace should be worn while sleeping for the first 4 weeks.

Suggested early exercises:

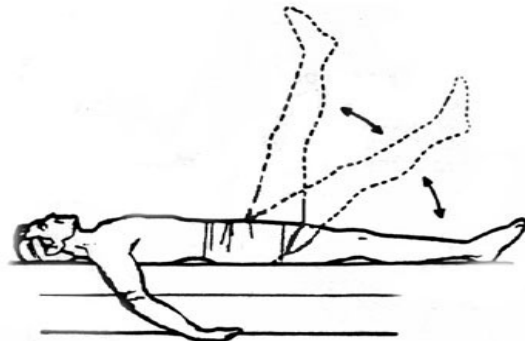
1. Quadriceps Isometrics Strengthening

Sit on a flat surface with legs out straight. Tighten the knee without moving the leg out of position. To get the idea of this exercise have someone their hand behind your knee (push against the hand attempting to flatten your knee). Relax and repeat slowly, holding the knee in the tightened position approximately two seconds each time. Repeat this exercise at least 25 times every hour that you are awake. This can also be preformed at odd moments also such as in your car while you're a passenger or, as you're a driver and stopped at a stoplight or while your sitting in a chair, etc.



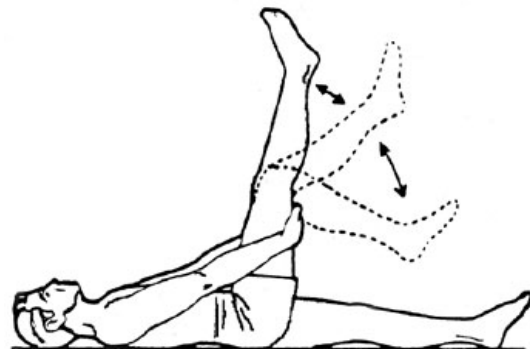
2. Straight Leg Raises

Lie on Your back with your legs out straight, knees unbent holding onto a solid object (bed frame or couch, etc...) lift your heel slowly off the bed. Raise the leg as high as possible. Slowly lower the leg to the bed keeping the knee straight. Repeat ten times; perform three times a day.



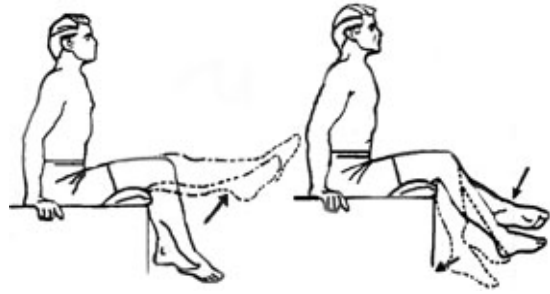
3. Knee Flexion Exercise

Raise the leg straight upward as in exercise # 2. Support the lower thigh just above the knee with hands clasped in back of the knee. Relax the knee muscles and let the weight of the leg bend the knee; then, with no additional aid straighten the knee to its previous position. Repeat, each time permitting the leg to bend further.



4. Sitting Knee Flexion Exercise

Sit on side of bed with pillow under knees and legs dangling. Straighten injured leg, using foot of good leg for support, let it drop by gravity, then force it to bend, using other foot to exert pressure on top of the ankle to limits of pain tolerance; repeat.



5. Movement with assistance from healthy leg

Sitting high on table or bed, let injured leg dangle with minimal or no support, and tighten hamstring muscles. Use opposite foot to gradually bend the injured leg by exerting pressure on the **TOP** of the ankle.



6. Imaginary Bicycling

Perform bicycling-type exercises, lying on your back with your feet extended into the air. Imitate the movement as if you were on a bicycle and pedaling. Stretch your leg as far as you can straight into the air while at the same time bending the opposite leg as close to your chest as possible, letting gravity pull it toward your body.



7. Bicycling

Use a stationary bicycle or a regular bicycle placed on jacks, with the seat placed in highest position. When you are able to make a full revolution comfortably, lower the seat. Increase the tension as you are able to lower the seat even more and have achieved 110 degrees of bend in your leg. Gradually increase the duration of time on the bike. When you can cycle comfortably for 20 minutes you may increase resistance.



8. Hamstring and Knee Stretches in Prone Position

Lie on your stomach and bend the injured knee by lifting foot from table. You may force the knee to bend by pulling a strap or towel looped over your foot. Gently pull on the strap until you feel pressure in your knee and hold for 2-5 seconds. Then, gently allow the leg to move back toward the ground with the assistance of gravity and the use of the strap (preventing it from falling to quickly).

