

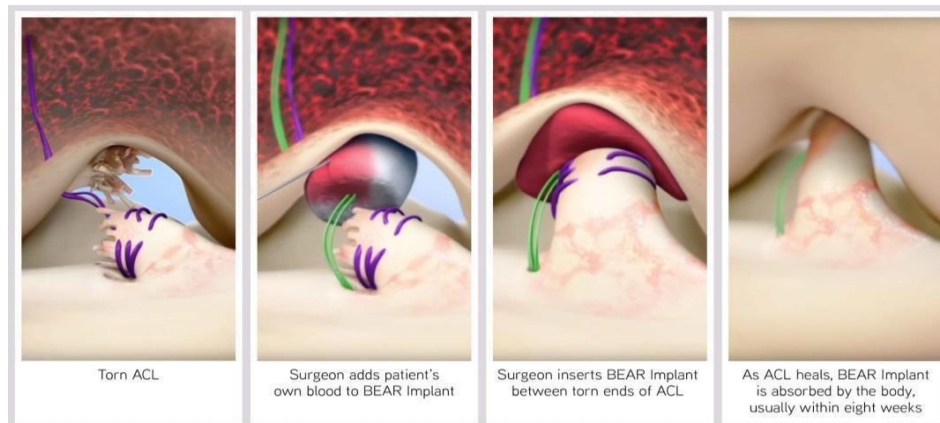
After Surgery Instructions for BEAR® Implant patients

Instructions for Surgical Team: Please review the contents of this document with the patient and/or guardian, including the home exercises, at the last preoperative appointment.

Congratulations, you just received the BEAR Implant. Below are the important things you need to know and do as you progress through the stages of ACL healing and rehabilitation.

What you need to know:

1. **The BEAR Procedure is different than ACL reconstruction (ACLR).** The BEAR Implant and Procedure are designed to help your body restore your own ACL, not replace it.
2. Following your BEAR Procedure, your body will be working hard to replace the BEAR Implant with your own ACL tissue. During this time your new ACL is delicate, so attention should be given to protecting your injured knee.
3. The BEAR Implant rehabilitation protocol is carefully designed to meet important rehabilitation goals. To obtain the best result, please follow this protocol and any instructions from your surgeon.



What you need to do:

1. **Prior to surgery, ensure your physical therapist (PT) receives the BEAR Rehabilitation Protocol.**
2. **Schedule your first physical therapy visit within the first week after your surgery.** At this visit your physical therapist will review and provide instruction for your home exercises.
3. To meet your range of motion (ROM) goals, **begin the Home Exercises within the first week after your surgery.** Your surgical team will teach you these exercises at your last preoperative visit.
4. **Carefully read and follow the Instructions** in the pages that follow.
5. If you have any **questions or concerns, please contact your surgeon's office.**

AFTER SURGERY INSTRUCTIONS FOR PATIENTS

There are clinical scenarios when your surgeon may alter your specific rehabilitation protocol, like in the case of a secondary procedure to the BEAR Implant, such as a meniscal repair or additional ligament reconstruction or repair. In these cases, please follow the instructions you receive from your surgeon/surgical team.

Cryotherapy and Elevation:

- Keep your operative leg elevated and apply cold compression for the first 24 hours or until post-operative swelling is controlled
- Apply cold compression device once every hour for 15 minutes. After that period, apply the cold compression device 3 times per day for 15 minutes
- Do not sleep with automated device running while on the knee
- Keep a layer of fabric, or ace wrap between skin and icing device at all times

Crutch Use Instructions:

- Beginning the day after surgery, you will be partial weight bearing (PWB) with crutches while walking and standing.
- Your goal is to be able to put half or 50% of your total body weight on your operative leg without pain.
 - For example, if you weight 150lbs, your goal is to put 75lbs of weight on your operative leg while standing and walking.
- To help you get a feel for what “partial weight bearing” feels like, you may do one or both of the following tests:
 - 1) Using your crutches, stand with all your body weight on your non-operative leg. Gradually shift small amounts of weight to your operative leg until both feet are flat on the floor and your weight evenly distributed.
 - 2) Using your crutches and a floor scale, stand with all your weight on your non-operative leg. Place your operative leg on the scale. Gradually shift small amounts of weight to your operative leg until the scale reaches half of your total bodyweight
- Use a “heel-toe-gait” while walking with your crutches.
 - A “heel-to-toe” gait means that the heel of your foot on your operative side should hit the floor first. Then roll to the ball of your foot, then toes.
- Under the direction of your physical therapist (PT) and operating surgeon, you may begin to wean off crutches between 4 to 6 weeks, some people may take longer. Follow the instruction provided by your PT to do this safely.



Knee Brace Instructions:

- Keep your brace locked fully straight (zero-degrees) for the first 24 hours after surgery.
- After 24 hours, allow your knee to bend to the specified degrees in the chart below during non-weight bearing activities (sitting activities) such as watching TV, riding in car, sitting at computer, eating meals, and while performing your rehab exercises at home and with your PT.
 - Gaining and maintaining your knees Range of Motion (ROM) is important for leg strength, gait, and stability
- During this time also continue to work on getting your leg fully straight (see leg exercises below)
- Manual manipulation, also known as manual Passive Range of Motion (PROM), to bend or straighten your operative leg is not recommended.

Time Frame	Brace range setting	Description
First 24 hours	Keep brace lock at zero-degrees	Keep your brace locked at zero degrees until 24 hours after your surgery
After the first 24 hours until 2 weeks after your surgery	Set your brace range 0 to 30- degrees	Set your brace so that it allows your knee to bend from fully straight to 30-degrees while non-weightbearing and performing rehab exercises. Lock your brace at zero while walking for the first 4 weeks and while sleeping for 6 weeks
From weeks 2 to 4 after your surgery	Set your brace range 0 to 60-degrees	Set your brace so that it allows your knee to bend from fully straight to 60-degrees while non-weightbearing and performing rehab exercises. Lock your brace at zero while walking for the first 4 weeks and while sleeping for 6 weeks
From weeks 4 to 6 after your	Set your brace range 0 to 90-degrees	Set your brace so that it allows your knee to bend from fully straight to 90-degrees while non-weightbearing and performing rehab exercises. Lock your brace at zero while walking for the first 4 weeks and while sleeping for 6 weeks
After weeks 6	PT will advise	Your physical therapist and surgeon will evaluate your range of motion (ROM) and provide further instruction.

Glossary of Terms:

- **Flexion/Extension:** Leg bent/ leg straight
- **Partial Weight Bearing (PWB):** Only putting a portion of your body weight on your operative leg (example: Half your body weight (50%) on your surgical leg)
- **Range of Motion (ROM):** The measure of flexion and extension for a specific joint
- **Passive Range of Motion (PROM):** The manual manipulation of a joint (example: your PT manually bends your leg as opposed to allowing your own muscles to bend your leg for you)
- **Active Range of Motion (AROM):** Using your own muscles to bend and extend your leg (example: you bend your leg to achieve a 60-degree bend)

Home Exercises

Begin within the first week after surgery

Knee Straightening Exercise: Wearing your brace set to the specified degrees, perform the following exercise. You can do this in one of following two ways. 1) Sit in a chair and rest the foot of your operative leg on an adjacent chair. Then gradually let your leg relax so that you feel a gentle stretch on the back of your knee. 2) Put a small roll, pillow or rolled towel under your ankle so the back of your leg is lifted off the bed or floor. Then gradually let your leg relax so that you feel a gentle stretch on the back of your knee. You should not push on the top of your knee or force your knee manually, just allow the weight of your leg to do the work. **Do this two times per day for 4 to 5 minutes**



Home Exercises

Begin within the first week after surgery

Knee Bending Exercise: Wearing your brace set to the specified degrees. Sit in a chair with your operative leg out in front of you. Slide your foot along the floor back towards yourself to slowly bend your knee. When the knee starts to feel tight, stop and rest for 3 to 5 minutes. Then try to slide the foot back another inch. Wait again. Then try to slide it back another inch. Keep repeating for twenty minutes (may be best to do while reading, in class or watching TV). Do not flex your knee past the specified degrees in the chart above (30, 60 or 90), depending on the number of days you are out from your date of surgery. **Do 1 to 2 sets of 10 repetitions with a 5 to 10 second hold, at least 2 times per day**



Home Exercises

Begin within the first week after surgery

Quad set, also called Isometric Contraction Exercise: While lying flat on a table with knee straight, place heel on a rolled towel. Heel must be high enough so that your thigh and calf are off the table or ground. Tighten your quadriceps muscles on the front of your thigh by pressing your knee down into the bed. Hold this position (muscle contraction) for 10 seconds, then release. **To properly perform this exercise, hold the position for 10 second for 3 sets, do this 10 times in a row. Do these 2 to 3 times per day.**

*****If comfortable doing so, you may remove your brace for this exercise only, then put back on immediately.**



Your quadriceps are a group of muscles on the front of the thigh located above your knee. They are responsible for extending your leg and helping with movements such as walking and jumping.

Home Exercises

Begin within the first week after surgery

Double toe and heel raise: For this exercise, use a table or chair for stabilization. Gently raise your toes off the floor, balancing on your heel, then ease slowly back down. Then gently raise your heel off the ground, balancing on the balls of your feet, then slowly ease back down.

Do 10 double toe heel raises 2 times per day.

