Knee Cartilage Procedure (MACI/DeNovo/Osteochondral Allograft)

What is the recovery period like?
- **Brace**
  - You will wear a long brace on your leg, known as a hinged knee brace, and use crutches. You will wear it day and night, locked straight for 6 weeks. After your 6 week post-op visit, your provider will inform you how to unlock the brace.
    - While resting, it is ok to remove brace. However, the brace must be worn while sleeping or bearing any weight.
- **Weight bearing precautions**
  - Immediately after surgery you will have crutches with the Bledsoe brace locked straight. **DO NOT BEAR ANY WEIGHT** on the surgical leg until the first post-op visit, day 10-14.
  - After the first post-op visit, you’ll be informed how much weight you can put on the leg.
- **Continuous Passive Movement (CPM): 2 hrs/day x 6wks**
  - This device moves your leg for you to increase range of motion, and bathes the joint in rejuvenating synovial fluid. Remove your brace for this exercise.
    - Start 0-45 and increase to 0-60. You should be at 60° at your first post-op visit.
    - Continue to increase to 0-90, you should reach this by 6 weeks.
- **Physical Therapy**
  - Prior to starting, and in addition to formal PT, do the following home exercises:
    - Quad sets: 3 sets performed three times a daily.
      - Sit or lie on your back with leg straight. Tighten your quadriceps muscle on the front of the thigh. Hold for 3 seconds, relax. Repeat x 10.
    - Heel pumps: 3 sets preformed three times daily.
      - Sit or lie on your back with leg straight. Bend your foot up and down at your ankle joint, pumping the foot. Complete 10 pumps.
  - You will **start formal PT as soon as you feel comfortable**, typically within the first week of surgery, just prior to your first post-op visit. You will go 2x/week for 3-6 months.
    - Dedication and attendance to your sessions are critical to your recovery.
- **Driving**
  - You may not drive while taking pain medication. Additionally, if it is your right knee, you will not be able to drive for approximately 6 weeks after surgery after the brace is removed.

INSTRUCTIONS FOR IMMEDIATELY AFTER SURGERY:
- **Activity**
  - Apply ice to your knee but keep the bandages dry
  - Elevate your leg on 2-3 pillows or rolled up towels placed under the heel so that the heel is elevated higher than your knee. This will help reduce swelling and achieve full extension of the knee. **Avoid pillows under the knee.**
  - For the first 1-2 weeks after surgery, the **most important goal is to regain the ability to fully straighten the knee.** It is much more important initially than being able to bend the knee.
  - Follow the precautions outlines above.
  - Start your home exercise program
- **Bandage and Incision Care**
  - Under your brace is an ace wrap- leave this ace wrap on for the first 2-3 days. You may then remove the ace wrap. You will have a layer of bandaging under the ace wrap. You can remove this dressing. You may see a yellow material called xeroform. You may remove this material. If you see black suture material, this will be removed at your first post-operative visit.
  - You may also notice that one of the incision sites will have clear suture buried underneath the skin. Please cover this area with a bandage. If you see two strands of clear suture material, these will be removed at your first post op visit. Please leave rectangular steri-strips in place until your first post op visit.
  - You may re-apply the ace wrap as this helps to decrease swelling.
  - Do not apply creams, ointments, or lotions to your incisions.

- **Showering**
  - You may shower after you have removed the ace wrap.
  - **Do not get the incision or brace wet**, however, you must wear the brace when standing. You may use a plastic bag to cover the bandaging and brace so that this does not get wet. If you have a bathtub-shower, you can sit in the tub. If you take a bath, keep the leg out of the bath. The leg should not be submerged.

- **Pain Management and Cold Therapy**
  - See POST-OP PAIN MANAGEMENT section. Around 2 weeks out, you should only be taking the pain medication at night and after strenuous activity as needed.

- **Normal sensations after surgery**
  - Pain
  - Swelling and warmth up to 2 weeks
  - Small amounts of bloody drainage for first few days
  - Numbness around the incision area
  - Bruising
  - Low grade temperature less than 101.0 for up to a week after surgery.
  - Small amount of redness to the area where the sutures insert in the skin

- **IF ANY OF THE FOLLOWING OCCUR, CONTACT THE OFFICE IMMEDIATELY**
  - Calf pain or ankle swelling in either leg
  - Change is noted to your incision (i.e. increased redness or drainage)
  - Temperature greater than 101.0
  - Fever, chills, nausea, vomiting or diarrhea
  - Sutures become loose or fall out and incision becomes open
  - Drainage becomes yellow, puss like or foul smelling
  - Increased pain unrelieved by medication or measures mentioned above.

- **Post-op visit**
  - Please ensure that you have a post-op visit scheduled for 10-14 days after surgery.

**PAIN MANAGEMENT**

**ORAL PAIN MEDICATIONS**

- **Tylenol 500 mg**
  - Start by taking one tablet every four to six hours when you arrive home after surgery so you have some medication on board when the block wears off. You should take this on a regular schedule for the first few days after surgery

- **Naproxen 500 mg**
  - Take 1 tablet twice per day to help with pain and inflammation. You will take this for 2 weeks.

- **Tramadol 50 mg**
• This is a non-narcotic pain medication. You can take this medication every 4-6 hours as needed for moderate level pain (4-7).
  o Oxycodone 5 mg
  • This is a narcotic medication. You may take one tablet every 4-6 hours as needed for severe level pain (8-10) if the Tylenol and Tramadol medication does not control your pain.

SIDE EFFECTS OF THESE MEDICATIONS INCLUDE DROWSINESS AND CONSTIPATION. YOU SHOULD NOT DRIVE OR DRINK ALCOHOL WHILE TAKING THESE PAIN MEDICATIONS.

• OTHER MEDICATIONS
  o Aspirin 81mg
    • This medication is used to prevent blood clots. It should be taken twice a day for 4 weeks.
  o Zofran 4mg
    • This is a nausea medication that is only taken if you feel nauseous.
  o Pantoprazole/Omeprazole 40mg
    • This medication is to protect your stomach while you are on the Naproxen
  o Colace 100mg
    • This medication is for post-operative constipation.
    • Take this medication twice daily as needed for constipation.

• ICE MACHINE
  o Recommend using 1 hour on, 1 hour off for the first 2 days after surgery while awake
  o Do not place pad directly on skin – make sure there is a barrier such as a t-shirt or towel
  o After the first 2 days you may use the ice machine as needed for comfort

If you did not opt for the ice machine, you may use ice packs on the surgical area for 20-30 minutes every 1-2 hours