



Matrix-Inducted Autologous Chondrocyte Implantation (MACI) of Knee Postoperative Instructions

Stephanie A. Boden, MD

PLEASE READ THESE INSTRUCTIONS COMPLETELY AND ASK FOR CLARIFICATION IF NECESSARY. Please note that the instructions provided below are general guidelines to be followed; however, any written or verbal instructions provided by Dr. Boden supersedes the instructions below and should be followed.

Wound Care

- Maintain your operative dressing, loosen bandage if swelling of the foot and ankle occurs.
- It is normal for the knee to bleed and swell following surgery. If blood soaks onto the ACE bandage, do not become alarmed, reinforce with additional dressing.
- To avoid infection, keep surgical incisions clean and dry – you may shower by placing a plastic covering over the surgical site beginning the day after surgery.
- Wait until your first post operative appointment to have Dr. Boden's team remove the surgical dressing.
- Please do not place any ointments lotions or creams directly over the incisions.
- Your stitches will be removed at your first postoperative visit.
- Once the sutures are removed **at least 10-14 days post operatively** you can begin to get the incision wet in the shower (water and soap lightly run over the incision and pat dry). NO immersion in a bath until given approval by our office.

Medications

- Local anesthetics are injected into the wound and knee joint at the time of surgery. This will wear off within 8-12 hours and it is not uncommon for patients to encounter more pain on the first or second day after surgery when swelling peaks.
- Most patients will require some narcotic pain medication for a short period of time – this can be taken as per directions on the bottle. You can begin the prescription pain medication provided to you upon arriving home and continue every 4-6 hours as needed for pain.
- Common side effects of the pain medication are nausea, drowsiness, and constipation. To decrease the side effects take the medication with food. If constipation occurs, consider taking an over the counter laxative.
- Zofran (Ondansetron) can be taken if needed for nausea.
- Do not drive a car or operate machinery while taking the narcotic medication
- If you are having pain that is not being controlled by the pain medication prescribed, you may take an over the counter anti-inflammatory medication such as ibuprofen or naproxen in between doses of pain medication. This will help to decrease pain and decrease the amount of narcotic medication required. Please take as directed on the bottle.



- For 2 weeks following surgery take one 81mg aspirin twice daily to lower the risk of developing a blood clot after surgery. Please contact the office should severe calf pain occur or significant swelling of the calf occurs.

You have been prescribed the following medications for use post-operatively, unless discussed otherwise:

1. Pain Medication: Unless discussed otherwise, you have been prescribed pain medication (Oxycodone, Tramadol, etc.) for use postoperatively. Take as prescribed as needed for pain. This medication should only be used in the initial postoperative period, and you should try to wean off of it over the first 1-2 weeks after surgery.
2. Acetaminophen (Tylenol): Unless discussed otherwise, or contraindicated due to other health reasons, you have been prescribed acetaminophen to help with pain control postoperatively. This should be taken on a scheduled basis. Do not use additional acetaminophen if your narcotic pain medication has acetaminophen in it.
3. Zofran (Ondansetron): Take as prescribed if needed for nausea.
4. Anti-Inflammatory: Unless discussed otherwise, or contraindicated due to other health reasons, you have been prescribed a non-steroidal anti-inflammatory drug (Celecoxib, Ibuprofen, etc.) for use postoperatively. If you have no personal history of adverse response to anti-inflammatories (NSAIDs), take as prescribed with food to help reduce swelling and pain.
5. Aspirin 81mg: Please take one (1) 81 mg baby aspirin twice daily for 30 days following surgery. This is to help minimize the risk of blood clot (extremely rare). If you are under age 16 or unable to take aspirin for other medical reasons, you do not need to take aspirin after surgery.

Activity

- Elevate the operative leg to chest level whenever possible to decrease swelling.
- Do not place pillows under knees (i.e. do not maintain knee in a flexed or bent position), but rather place pillows under the foot/ankle.
- **Use crutches to assist with walking. Maintain no more than touch down weightbearing of surgical extremity, unless instructed otherwise.**
- Do not engage in activities which increase knee pain/swelling (prolonged periods of standing or walking) for the first 7-10 days following surgery.
- Avoid long periods of sitting (without leg elevated) or long distance traveling for 2 weeks.
- NO driving. You will be cleared to drive after the first postoperative visit if narcotic pain medication has been discontinued.
- You may return to sedentary work ONLY or school 3-4 days after surgery, if pain is tolerable.

Brace

- Keep brace locked in full extension at all times when upright or ambulating.
- Keep brace locked and on always at nighttime and when sleeping until the first postoperative appointment
- Brace should be removed for exercises beginning on the first postoperative day and can be removed during periods of rest (i.e., watching TV)
- Brace straps may be loosened during use of ice machine if desired.



Ice Therapy

- Icing is very important in the initial post-operative period and should begin immediately after surgery. Use icing machine continuously or ice packs (if machine not prescribed) for 30-45 minutes every 2 hours daily until your first post-operative visit – remember to keep leg elevated to level of chest while icing. Care should be taken with icing to avoid frostbite to the skin.
- You do not need to wake up in the middle of the night to change over the ice machine or icepacks unless you are uncomfortable.
- When using “real” ice, avoid direct skin contact > 20 mins to prevent damage / frostbite of the skin. In either case, check the skin frequently for excessive redness, blistering, or other signs of frostbite. When using the ice machine, it is okay to ice continuously as long as you check the skin frequently.

Exercise

- Knee stiffness and discomfort is normal following surgery. It is safe and preferable to bend your knee up to 90° while lying or sitting (unless instructed otherwise).
- Begin exercises 3x daily beginning the day after surgery (quad sets, straight leg raises, calf pumps, and leg hangs) unless otherwise instructed. See attached pictures of exercises on the last page for reference. If the exercises cause pain, stop and try again later in the day.
- Discomfort and knee stiffness is normal for a few days following surgery. It is safe to bend your knee in a non-weightbearing position when performing exercises unless otherwise instructed. Avoid flexing past 45 degrees.
- Complete exercises 3-4 times daily until your first post-operative visit – your motion goals are:
 - 0-2 weeks: 0-30°
 - 2-4 weeks: 0-60°
 - 4-6 weeks: 0-90°
- Perform calf pumps continuously throughout the day to reduce the risk of developing a blood clot in your calf.
- Formal physical therapy (PT), if indicated, typically begins after your first post operative appointment 10-14 days after the procedure. A prescription and protocol will be provided at your first post-op visit.

Diet

- Begin with clear liquids and light foods (jello, soup, etc.).
- Progress to your normal diet as tolerated.

Emergencies

- Contact Dr. Boden’s office if you experience any of the following:
 - Painful swelling or numbness (note that some swelling and numbness is normal)
 - Unrelenting pain
 - Fever (over 101° - it is normal to have a low grade fever for the first day or two following surgery) or chills
 - Redness around incisions
 - Color change in distal arm and/or hand
 - Continuous drainage or bleeding from incision (a small amount of drainage is expected)



- Difficulty breathing
- Excessive nausea/vomiting
- Calf pain

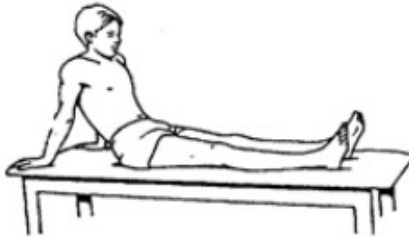
***** If you have an emergency that requires immediate attention proceed to the nearest emergency room.**

Follow-up Care

- If you do not already have a post-operative appointment scheduled, please contact our scheduler at 502-588-3630.
- Typically the first post-operative appointment following surgery is 10-14 days following surgery.
- If you have any further questions please contact the office or sent a message through MyChart.

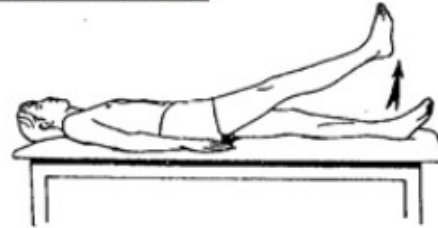
KNEE POSTOPERATIVE EXERCISES

QUAD SETS



Tighten muscles on top of thigh by pushing knee down to floor or table.
Hold 1-2 seconds. Repeat 10-15 times
Do 3 sessions per day.

STRAIGHT LEG RAISE



Tighten muscle on front of thigh then lift leg 8-10 inches from floor keeping knee locked.
Hold 1-2 seconds. Repeat 10-15 times
Do 3 sessions per day.

CALF PUMPS



Relax leg. Gently bend and straighten ankle. Move through full range of motion. Avoid pain.
Hold 1-2 seconds. Repeat 10-15 times
Do 3 sessions per day

LEG HANGS WITH GRAVITY



Allow leg to hang w/ gravity and bend as tolerated for 60-90 seconds

Do 3x per day