



Nathan A. Mall, MD

Director, St. Louis Center for Cartilage Restoration and Repair

Regeneration Orthopedics

6 McBride & Sons Center Drive, Suite 204 · St. Louis, MO 63005

office: 636.536.7000 · fax: 636.898.5709

POSTOPERATIVE INSTRUCTIONS

HIGH TIBIAL OSTEOTOMY (HTO)/DISTAL FEMORAL OSTEOTOMY (DFO)

WHAT IS NORMAL?

- Some nausea and/or vomiting is normal after general anesthesia. We try to minimize this by giving anti-nausea medications, and having the anesthesiologists use certain medications, but it is often unavoidable in some people. If this persists for greater than 24 hours please alert our office.
 - We provide everyone with a prescription for an anti-nausea medication. This is a relatively expensive prescription, so we recommend not filling the prescription unless nausea becomes a persistent problem.
- A sudden increase in pain is common when the numbing medication wears off. This typically occurs anywhere between 6 and 24 hours after the surgery. It is impossible to predict because everyone's body metabolizes the medication differently.
 - We recommend taking some pain medication even when you are relatively comfortable as once the block or numbing medicine wears off it takes a long time to catch up to the pain. If you have some pain medicine in your system it is easier to get ahead of the pain.
- A fever in the first 1-2 days after surgery is common. This is related to collapse of some of the small air sacs in the lungs which triggers a fever response. The best treatment for this is deep breathing and coughing. If the fever persists beyond 48 hours after surgery or is more than 102 degrees, please call our office.

DIET

- Begin with clear liquids and light foods (jellos, soups, etc.)
- Progress to your normal diet if you are not nauseated

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. You can purchase extra gauze or an ABD or abdominal pad at the drug store and wrap an additional ace wrap around this.
- Remove surgical dressing on the third post-operative day – if minimal drainage is present, apply band-aids or a clean dressing over incisions and change daily – you may then shave as long as the wounds remain sealed with the Band-Aid. Do NOT remove the little white pieces of tape over the incision. These help keep the incision from spreading. Dr. Mall closes all of his wounds using the same technique as plastic surgeons. The sutures will dissolve under the skin. You may

see a small clear strand of string this is part of the skin closure and should not be pulled on or cut until seen by Dr. Mall or one of his associates.

- To avoid infection, keep surgical incisions clean and dry – you may shower by placing a large garbage bag over your brace starting the day after surgery – NO immersion of operative leg (i.e. bath). Alternatively, you can wrap the leg and brace in saran wrap, assuring it is kept tight to the leg above and below the dressing/brace.

MEDICATIONS

- Pain medication is injected into the wound and knee joint during surgery – this will wear off within 8-12 hours
- Most patients will require some narcotic pain medication for a short period of time – this can be taken as per directions on the bottle
- Common side effects of the pain medication are nausea, drowsiness, and constipation – to decrease the side effects, take medication with food – if constipation occurs, consider taking an over-the-counter laxative
- If you are having problems with nausea and vomiting more than what is described as normal in the first section of this document, contact the office to possibly have your medication changed (call 314-995-0070)
- Do not drive a car or operate machinery while taking the narcotic medication
- Ibuprofen (i.e. Advil) or naproxen (i.e. Aleve) may be taken in between the narcotic pain medication to help smooth out the post-operative ‘peaks and valleys’, reduce overall amount of pain medication required, and increase the time intervals between narcotic pain medication usage.
- If you have been prescribed a medication called Toradol or ketorolac, do not take additional anti-inflammatory medications such as ibuprofen or naproxen until you have completed the prescription of Toradol (ketorolac).
- As the days progress following surgery, you can begin weaning yourself off the pain medications. Typically, patients will require pain medications every 4 hours for the first 3-4 days and then can begin spreading this out longer and longer. Pain medication is typically used at night for at least the first week.
- Dr. Mall has a strict policy regarding narcotic pain medication. If you still require narcotic pain medication 4 weeks after surgery you will likely be referred to a pain management physician to assist you in weaning from the medication or to your primary care physician.

ACTIVITY

- Elevate the operative leg to chest level whenever possible to decrease swelling. Keeping your leg above the level of your heart helps the blood travel back to your heart since you aren’t using the muscles in your leg to push it back to the heart like normal.
- Do not place pillows under knees (i.e. do not maintain knee in a flexed or bent position), but rather place pillows under foot/ankle leaving the area under the knee open. This allows gravity help you get your knee straight, which is often the hardest part of knee motion to get back.
- Use crutches to assist with walking – you are not to bear any more than 10-20% of your weight on the operative leg – unless instructed otherwise by physician (Toe Touch Weight Bearing for balance only)
- Do not engage in activities which increase knee pain/swelling (prolonged periods of standing or walking) over the first 7-10 days following surgery



- Avoid long periods of sitting (without leg elevated) or long distance traveling for 2 weeks
- NO driving until instructed otherwise by physician
- May return to sedentary work ONLY or school 3-4 days after surgery, if pain is tolerable

BRACE (If prescribed)

- Your brace should be worn fully extended (straight) at all times (day and night – except for exercises) until otherwise informed by the physician after the first post-operative visit
- Remove brace for flexion (bending) exercises done in a non-weight bearing position (i.e. lying or sitting) – if doing straight leg raises, keep brace on and locked in full extension (straight)
- If a continuous passive motion device was prescribed, remove brace during use.

ICE THERAPY

- Begin immediately after surgery
- Use icing machine continuously or ice packs (if machine not prescribed) every 2 hours for 20 minutes at a time every daily until your first post-operative visit – remember to keep leg elevated to level of chest while icing
- If you did not get an ice machine and you must be up, then you can purchase a plastic wrap roller or just use plastic wrap from a grocery store to wrap the ice bag to your knee. This will allow you to be mobile while still icing the knee. This is how we ice all of our professional athletes after games or practices.

EXERCISE

- A continuous passive motion machine may have been arranged pre-operatively to be delivered for use beginning on the first post-operative day
 - If you have technical problems with the continuous passive motion machine, contact:
- Use the continuous passive motion machine out of the brace (if prescribed) for 2 hours/3-4 times a day– begin at a rate of 1 cycle/minute, ranging from 0° of extension (straightening) to 40° of flexion (bending) - increase flexion by 5-10° (stay within a comfortable level) daily to a maximum of 90°
- Begin exercises 24 hours after surgery (heel slides, straight leg raises with brace on, quad sets and ankle pumps) unless otherwise instructed
- Complete exercises 3-4 times daily until your first post-operative visit
- Do ankle pumps continuously throughout the day to reduce the possibility of a blood clot in your calf (extremely uncommon)
- Formal physical therapy (PT) will begin after your first post-operative visit

EMERGENCIES**

- Contact Dr. Mall or his assistant Nathan Place, ATC 636-536-7000 (business hours) or at 314-995-0070 (after hours) if any of the following are present:
 - Painful swelling or numbness
 - Unrelenting pain
 - Fever (over 102° - 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 wrist or hand
 - Continuous drainage or bleeding from incision (a small amount of drainage is expected)



- Difficulty breathing
- Excessive nausea/vomiting (more than described above)
- **If you have an emergency after office hours or on the weekend, contact our exchange (314-995-0070) and you will be connected to our page service – they will contact Dr. Mall
- **If you have an emergency that requires immediate attention, proceed to the nearest emergency room.

FOLLOW-UP CARE/QUESTIONS

- Dr. Mall or Nathan Place will call you on your first day after surgery to address any questions or concerns. If you have not been contacted within 48 hours of surgery, please call our office or send us an email at mallteam@regenerationortho.com
- If you have additional questions that arise at any time, or for any non-emergent questions or concerns email us at mallteam@regenerationortho.com
- If you do not have access to e-mail, please call Dr. Mall or Nathan Place directly at 636-536-7000 (business hours) or 314-995-0070 (after hours)
- If you do not already have a post-operative appointment scheduled, please contact the office during normal office hours (636-6536-7000) and ask for appointment scheduling. You will need to be seen between 8-14 days after surgery.