

Knee Replacement Surgery

Discharge Instruction

UBC Hospital
Short Stay Unit
2211 Wesbrook Mall
Vancouver BC V6T 2B5
Tel: 604-822-7121

Table of Contents

Follow-up Appointments..... Page 4

Urgent/Less Urgent Concerns..... Page 5

What to Expect Post-operatively

Swelling, Bruising and Noises from the Knee Page 6

Wound/Incision Care..... Page 6

Staple Removal..... Page 7

Pain Control Page 8

How to Wean off Pain Medications Page 12

Possible Side-effects of Narcotics/Opioids..... Page 13

Constipation Page 13

Prevention of Blood Clots..... Page 15

Hygiene Page 17

Walking Aids..... Page 17

Physiotherapy Page 18

Ice Therapy..... Page 19

Driving a Car..... Page 20

Travelling after Surgery Page 20

Antibiotics for Dental or Other Procedures..... Page 21

Comments or Suggestions Page 21

The process for recovery after partial knee surgery is the same as for total knee surgery but will happen at a faster pace. These instructions will help you have a smooth recovery from your surgery.

For Follow-Up Appointments

Please contact your surgeon's office to make an appointment.

The phone number is 604-875-5767 then please follow the prompts.

- Dr. B. Masri: 4 to 6 weeks after your surgery date
- Dr. D. Garbuz: 6 to 8 weeks after your surgery date
- Dr. M. Neufeld: 6 to 8 weeks after your surgery date
- Dr. N Greidanus: 6 to 8 weeks after your surgery date
- Dr. L Howard: 6 to 8 weeks after your surgery date

Alternatively you may email your surgeon's assistant at the email address you were provided.

- Dr. B. Masri: info@basmasri.com
- Dr. D. Garbuz: wella.liu@vch.ca
- Dr. M. Neufeld: deborah.lawrence@vch.ca
- Dr. N. Greidanus: lydia.zielke@vch.ca
- Dr. L Howard: alexa.haccou2@vch.ca

Same-Day Discharges (STAR Program)

If you had your surgery and went home the same day, expect a follow up call from a Nurse Practitioner or a resident the next day. This arrangement will be done before your discharge

Urgent Concerns

You may contact **Vancouver General Hospital 24 hours at 604-875-5000** and ask that the reconstructive orthopedic fellow on-call be called for:

- Any new or increased pain, severe redness, swelling, warmth, drainage (green or yellow and/or foul smelling) from the wound.
- Pain and/or redness in your calf in the operated leg and/or excessive swelling of the calf, thigh, foot or ankle.

Less Urgent Concerns

Please contact your surgeon's office at 604-875-5767.

- **Please remember to include your name, type of operation, date of surgery and a phone number to reach you at.**

For specific instructions please see below.

- For Dr. B. Masri's patients, he likes to be contacted directly at email info@basmasri.com or cell phone 604-961-2317.
- For appointments with Dr. B. Masri, please contact Julie at info@basmasri.com or call the office.
- For Dr. M. Neufeld's patients, you can email Deborah or call the office.



**CALL 911 IF YOU HAVE SUDDEN CHEST PAIN
OR SHORTNESS OF BREATH.**

What to Expect Post-Operatively

Swelling, Bruising and Noises from the Knee

- Your leg will be swollen and warm from the thigh all the way to the foot. This is NORMAL and you will notice this much more after you get home because of your increased mobility. Swelling and warmth will take many months to resolve and this is NORMAL and does not impede your recovery.
- Bruising – purple discoloration may appear from your buttock to your toes. This is NORMAL and will fade away over a couple of weeks to a month.
- Having a click or clunking or a crunching sound in the knee is NORMAL. This will gradually get better with time. There is no need to be concerned.

Wound/Incision Care

- At discharge your wound will be covered with a HONEY COMB or MEPILEX BORDER dressing. Either dressing is a sophisticated SILICONE dressing and it is intended to stay on for 7 days.
- Do not change the dressing and do not lift it up to look under it. There will be discoloration or appearance of bleeding on the surface of the dressing and this is NORMAL. If the dressing is soaked beyond 80% or drainage is leaking past the edge of the dressing, please call the office for further instruction.
- Remove the dressing on the **7th day** and if the wound is dry you may leave it uncovered. The staples will be visible.
- It is NORMAL to see slight redness around the staples.

continued..

Wound/Incision Care *continued...*

- A stitch abscess is common. This is a small area of pus-like material that oozes at one site within the incision. This is related to the absorbable sutures underneath the skin. As the material reabsorbs, it causes irritation, redness and a yellowish discharge. This is not a true infection, but we treat it with a short course of oral antibiotics for safety. If this happens, please let the office know.
- *If you are concerned about your wound, email a picture to your surgeon or delegate and he or she will advise you further. Dr. Masri prefers to be emailed directly at the email address above.*
- If you are ever told that you have an infection in your surgical leg, notify the Surgeon's office immediately.

Staple Removal

Staples should be removed by your family doctor 2 weeks after surgery. If the staples stay a few days longer it is not a problem.

- For Dr. Masri's patients, he prefers the staples to be removed at 3 weeks after the surgery.
- If your family doctor is not available please contact the office to arrange an appointment with your surgeon's office to remove the staples.
- If you do not have staples, you will have tiny tapes called steri-strips. Leave those alone until they gradually lift up on their own and they can then be gently peeled off.

Pain Control

Pain after knee surgery is strongest in the first days after surgery reducing to mild pain very quickly, within a few days. Pain after a knee replacement is not severe and many patients report minimal pain. You are given prescriptions for severe pain and for milder pain.

STEP 1

- Ice the surgical area as needed
- Mobilize every day as tolerated
- Rest when needed



STEP 2

Add on: Extra Strength Tylenol® (500mg per tablet):

- Take 2 tablets 4 times a day around the clock for pain relief. (This can be taken with breakfast, lunch, dinner, and at bedtime.)
- You can continue this for several weeks.
- If you have liver problems, we do not recommend taking more than 2 tablets 2 times a day.
- Alcohol consumption should be minimized while taking the recommended dose of Tylenol (liver damage).
- Do not exceed a total of 4000mg of Tylenol in 24 hours.



continued..

Pain Control *continued...*

STEP 3

Add on: Anti-inflammatories:

- If you do not have any stomach or kidney problems AND if you are not taking blood thinners **other than Aspirin®** you can take **ONE** of these anti-inflammatories.
 - If in doubt, please check with your family doctor
 - You can continue this for 1 to 2 weeks. If absolutely necessary, you can extend for another 1 to 2 weeks but follow up with you family doctor.
- a. **Regular Strength Advil® (200mg per tablet):**
Take 1 to 2 tablets up to 3 times per day with meals.
 - b. **Regular Strength Aleve® (220mg per tablet):**
Take 1 to 2 tablets two times a day with meals.
 - c. **Celebrex® (100mg per tablet):**
You could be given a prescription for Celebrex® but do not take Celebrex® if you have known coronary artery disease. The dose of Celebrex® is 100mg twice a day. A prescription can be obtained from the surgeon, nurse practitioner or from your family doctor.

STEP 4a:

Add on: Hydromorphone (1mg per tablet): For moderate-severe pain, you are given a prescription for Hydromorphone.

- Hydromorphone is a narcotic/opioid and should only be taken for the shortest possible period of time, typically no more than 1 week after surgery.
- The prescription will be for 1mg per tablet and you can take 1 to 2 tablets every 4 to 6 hours as needed. You will be given 50 tablets.
- If you did not tolerate being on Hydromorphone, we may have switch you over to another narcotic/opioid, e.g. Oxycodone or Morphine.
 - **Oxycodone (5mg per tablet):**
Take 1 to 2 tablets every 4 to 6 hours as needed.
 - **Morphine (5mg per tablet):**
Take 1 to 2 tablets every 4 to 6 hours as needed.
As your pain improves, you may choose to switch to Tramadol or Tylenol® #3 (weaker narcotics). It is not safe to take more than 1 opioid at a time.
- For safety, lock up all narcotics/opioids in a safe cupboard.
- Do not take with other sedatives, such as sleeping pills or benzodiazepines (e.g. Ativan®).
- Do not drive or operate any heavy machinery while on it.
- Avoid child care responsibilities.
- Return any unused opioids to local pharmacy for safe disposal



Pain Control continued...

Or: STEP 4b

Tramadol (50mg per tablet): For mild-moderate pain, you are given a prescription for Tramadol. You may only need to fill this prescription, **if Step 1 to 3 is not enough AND when you finished the prescription of Hydromorphone, Oxycodone, or Morphine.**

- Tramadol is a narcotic/opioid and should only be taken for the shortest possible period of time, typically no more than 2 weeks after surgery.
- The prescription will be for 50mg tablet and you can take 1 to 2 tablets every 6 to 8 hours as needed. You will be given 50 tablets. Do not stop Tramadol abruptly to prevent withdrawal effects.
- If you are taking a medication for anxiety, Parkinson's, mood disorder, migraine or seizure then the use of Tramadol may be dangerous in rare circumstances. Your prescription maybe changed to Tylenol® #3.
- Tylenol® #3 is also a narcotic/opioid. Tylenol® #3 contains Tylenol® so you will need to reduce the dose of Extra Strength Tylenol®. Each tablet of Tylenol® #3 contains 325mg of Tylenol®. Do not exceed a total of 4000mg of Tylenol® in 24 hours.




NARCOTICS OR OPIOIDS SUCH AS TRAMADOL OR HYDROMORPHONE ARE DANGEROUS DRUGS. THE SOONER YOU CAN DISCONTINUE THEIR USE THE BETTER. ADDICTION CAN HAPPEN WITHIN A FEW DAYS, SO PLEASE BE CAREFUL WITH THEM. DO NOT TAKE FOR MORE THAN 2 WEEKS.

How to Wean Off Pain Medications


STEP 1

When pain is better controlled, start taking less opioid by reducing the dose of pain medication but taking it at the same intervals. For example, if you were taking 2 tablets of Hydromorphone every 4 hours, then try taking 1 tablet every 6 hours. Do not wean off Extra Strength Tylenol® or the anti-inflammatories yet unless advised.




STEP 2

As the pain continues to improve, further reduce the opioid by taking 1 tablet of Hydromorphone every 8 to 10 hours and further increasing the interval until Hydromorphone is completely weaned off. You may not need to take Tramadol.



STEP 3

If the pain is tolerable without Hydromorphone, then use same steps from Steps 1 & 2 to wean off the anti-inflammatories.



STEP 4

If the pain is tolerable without the anti-inflammatories, then use same steps from Steps 1 & 2 to reduce the Extra Strength Tylenol®

Possible Side Effects of Narcotics/Opioids

Itchiness, dizziness, lightheaded, drowsiness, restlessness, headache, nausea, vomiting, low blood pressure, slow breathing to the point it may stop your breathing, constipation, and difficulty passing urine.

If you experience any of these side effects, please follow up with your family doctor or a walk in clinic doctor.

Constipation


To prevent constipation

1. Wean off the narcotics (e.g. Hydromorphone, Oxycodone, Morphine, Tramadol, Tylenol® #3) as tolerated to reduce their side effects.
2. Drink plenty of fluids. Aim for at least 6 to 8 glasses of water or other fluids per day. Water is best. Limit beverages that add extra calories to your diet. Sometimes a hot or warm drink helps.
3. Eat foods with fibre such as fruits, vegetables, prunes, bran, oatmeal, and other whole grains.
4. Try to empty your bowels at a regular time each day. After breakfast is often a good time as food encourages the bowels to empty.
5. Take a gentle laxative such as polyethylene glycol (Lax-A-Day® or Restoralax®). You can take 1 packet (17g) with a glass of water once a day for the first few days until your usual bowel routine return.

To manage constipation


STEP 1

If you do not have a bowel movement for 2 days, take an additional laxative such as sennosides (Senokot®) at night. Continue to take polyethylene glycol once daily.



STEP 2

If you do not have a bowel movement for 3 days, follow Step 1 and use a glycerin suppository or an enema. Keep the suppository or the enema in for at least 20 minutes.



STEP 3

If you do not have a bowel movement for 5 days or have increased abdominal discomfort, please see your family doctor.

All laxatives, suppositories, and enemas are meant for short-term relief for constipation. Do not use them for longer than 5 to 7 days. They are available over the counter at local pharmacies. The above recommendations are the general approaches to help prevent and manage constipation. Adverse effects such as diarrhea, low blood pressure, and abdominal discomfort may result from these approaches.

Talk to your local pharmacist to discuss the approaches that is appropriate for you.

Prevention of Blood Clots

Any surgery is potentially complicated by a blood clot. After a knee replacement, you will be provided with one of the following prescriptions:

***In special circumstances the length of treatment may be lengthened.**

- **Baby Aspirin® (81 mg)** for 4 to 6 weeks as per your surgeon's instructions. You need to take 2 tablets once a day or 1 tablet twice a day. You can buy this over the counter. This will be started in hospital. This is the most common medication that we use. It is for anyone without a family history of a severe blood clot or a personal history of a blood clot or other risk factors.

- **If you are at a higher risk of a blood clot, one of the following will be prescribed:**
 - **Xarelto®** (rivaroxaban) 10 mg tablets one daily. This is a blood thinner that needs to be taken once a day. On the day of discharge, do not take another one at home if you were given one in the hospital. The duration is typically 14 days.

OR

- **Fragmin®** (dalteparin) or **Lovenox®** (enoxaparin) injections – in some circumstances you will be given injections instead of blood thinner pills. These should be taken once a day and you will be taught how to perform them in the hospital. The duration is typically 14 days.

continued...

- If you are on chronic blood thinners, returning to your normal dose of warfarin (Coumadin®), dabigatran (Pradaxa®), rivaroxaban (Xarelto®), apixaban (Eliquis®) or other blood thinners, will be discussed with you in the hospital.
- Notify your surgeon right away if you are diagnosed with a blood clot in the leg after discharge. There are different ways of treating clots depending on where they are so contact your surgeon as soon as possible after you are diagnosed so that he or she can advise you on the correct way to manage your specific problem.
- If you are unsure about how or when to take your medications, please discuss with your nurse or the Nurse Practitioner before discharge or contact your surgeon's office after you are home. You should be provided with instructions.

Hygiene

- You may shower as you like after discharge. The dressing is waterproof.
- After 7 days the dressing is removed. You may continue showering with the staples in place. Gently pat the wound dry after your shower.
- Rinse soap, shampoo or other soap products off your wound before leaving the shower.
- Do NOT take a bath or go to a swimming pool or hot tub within 6 weeks of surgery.

Walking Aids

- Unless told otherwise, you can fully weight bear on the operated leg
- In the hospital, you will be taught how to use a walker or crutches. You can discard them in favor of a cane as quickly as possible and you feel safe (typically within the first week) and then simply use a cane.
- You can discard the cane whenever you feel safe and strong.
- Using a walker or crutches for an extended period of time is generally NOT recommended unless you have pre-existing mobility issues. If you are advised to continue using crutches despite the surgeon's instructions, please contact the surgeon for further clarification.
- The goal is to get you off walking aids (cane) within 4 weeks.
- You will be given specific alternate advice if these instructions need to be changed to fit your particular needs.

Physiotherapy

Physiotherapy after a knee replacement is very important. This will be arranged as an outpatient by the hospital physiotherapist.

- **It is important to start physio right away and waiting for the swelling to go down is NOT appropriate.**
- Physiotherapy will be arranged as an outpatient by the hospital physiotherapist. However, home exercises to achieve range of motion and to strengthen your quadriceps muscles (**muscles on top of the thigh**) and **to increase your knee-flexion** are very important. You will be shown how to do these exercises before you are sent home.
- Exercises for strengthening your knee abductor muscles (gluteus medius and minimus) are also important to avoid pain on the side of the knee (iliotibial band pain). These can be done by laying on the un-operated side, and lifting your legs sideways against gravity for 3 sets of 10 to 15 times. You can increase the intensity by adding weights of 2 to 5 pounds as you start to feel stronger.

Ice Therapy

- Physical modalities, such as **compression with a tensor** or **ice therapy** are highly effective. There are options of purchasing an ice machine to help with the swelling and pain. This machine circulates ice-cold water into a sleeve and does not apply ice directly. For this reason, it can be applied continuously whenever you are not walking. For best results, only have a thin layer of cloth or nothing (if able to tolerate the cold) between the sleeve and skin, and **wrap the sleeve with a tensor bandage to apply compression unless you feel that the sleeve applies enough compression.** You may need to have a steady supply of ice at home. For more information, please contact your surgeon or delegate to obtain the appropriate literature and to order the machine from distributor at a discounted price (less than retail).
- You may also use a cuff that contains removable cold packs which is held on your leg by Velcro straps.
- These can be purchased from a pharmacy or medical supply store.
- Otherwise, you may simply put cold packs in a pillow-case for placement on your knee as shown in the hospital. **If you use ice packs, they can only be applied for no more than 20 minutes on and 20 minutes off to avoid skin injury.** Never put ice packs directly on your skin to avoid an ice burn. Replace cold packs only when they warm up.

Driving a Car

- Because your surgeon cannot observe your driving ability he or she cannot give you specific advice as to when you can resume driving. The rule of thumb is that you should **NOT** be on narcotics, your pain should be controlled and your reflexes should be quick enough to allow for safe braking in emergency situations. Your vehicle should permit a position that does not violate your knee precautions. This requires individual judgment.
- **Be SAFE**, and practice in a safe environment before you start driving again.
- Despite common myth, there is no law that says that you have to wait for three months before you drive. You also do not need clearance from the surgeon before you drive.

Travelling after Surgery

- We are often asked about travelling immediately after surgery. We recommend no flights over 2 hours for the first 6 weeks to avoid risk of surgical complications. Your surgeon will discuss your future travel plans when he or she sees you at the time of your post-operative check at 6 to 8 weeks.

Antibiotics for Dental and Other Procedures

Unless you have uncontrolled diabetes or you have a suppressed immune system due to medications or you have severe illnesses, there is NO need for you to take antibiotics. You may provide your dentist with a copy of these instructions highlighting this section for her or his records. If your dentist deems that antibiotics are desirable (dental prophylaxis for dental abscess) , the recommended antibiotic is ampicillin 2000mg as a single dose before your treatment. Your dentist will provide you with a prescription.

Comments or Suggestions

Any comments or suggestions to improve this document are welcome. Also, any comments to help improve your overall experience are welcome. Please contact your surgeon or the assistant by email with any comments or suggestions.

Further information can be obtained at:
<http://oasis.vch.ca/surgery/knee/>

*Thank you and
We wish you a speedy recovery.*



Making better
decisions together
with patients
and families

For more copies, go online at vch.eduhealth.ca or
email pem@vch.ca and quote Catalogue No. **FB.135.K45**
© Vancouver Coastal Health, June 2021

The information in this document is intended solely for the
person to whom it was given by the health care team.

vch.ca