The Patient’s Guide to Outpatient Total & Partial Knee Replacement
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Preparing for Success

At this time, you and your physician have agreed that you are a good candidate for an outpatient knee replacement. It is important to understand what is happening throughout this process to be better prepared for your upcoming surgery and to ensure your journey to a better quality of life is a pleasant experience.

The first important step in this process is to arrange for a responsible adult to be your coach and support, usually consisting of a family member or friend. We advise this person to be someone who has the ability to attend pre-surgical visits, take you home after surgery and help you once you’ve returned home. We encourage you to share all this information with your coach and support group of important people who will be assisting you during this process.

The successful outcome of this procedure is dependent on your commitment, involvement and dedication. OUR GOAL IS TO ENSURE YOU HAVE THE BEST POSSIBLE EXPERIENCE AND RESULT. Please review and complete everything that has been given to you as it can help us better understand your current health status, lifestyle and goals. We at Flagstaff Bone and Joint are dedicated to helping you improve your quality of life.

IMPORTANT: As soon as you get this booklet, begin performing your pre-surgical exercises to build strength and stamina at least 4 weeks prior to your scheduled surgery (on Page 8 of this document). Use pain as your guide, avoiding any exercises that cause you pain.

Outpatient Knee Replacement - What is it?

An outpatient knee replacement resurfaces the damaged compartments of your knee. We replace the damaged areas with an artificial covering in the outpatient setting. The surgery can help to eliminate knee pain and can allow for a complete recovery at home for patients who are good candidates.

How long will surgery take? The surgery takes approximately an hour and a half. You should plan to be at the surgery center for about four to five hours.

How is the knee resurfaced? An incision is made on the front of the knee. The damaged ends of the bones are then cleared away. The surfaces are prepped and shaped to hold the new components. The new components are aligned and secured to the thigh bone and shin bone.
Outpatient Knee Replacement - What is it?

Advanced osteoarthritis of the knee is often visualized on x-ray imaging. You will have x-rays prior to your surgery as well as after your surgery. Below are images showing how the knee looks on x-ray imaging before and after surgery.

BEFORE: Advanced Knee Arthritis

AFTER: Total Knee Arthroplasty

BEFORE: Advanced Single Compartment Knee Arthritis

AFTER: Partial Knee Arthroplasty

Anesthesia

What type of anesthetic will I have? The decision for the type of anesthesia is ultimately made by the provider and/or anesthesiologist. A nerve block is given via injection which numbs the leg from the hip down. A spinal nerve block versus general anesthesia combined with a nerve block is given through an IV line or by breathing from a mask. In addition, medications for pain may also be given to you.

What is the role of the anesthesia team? The anesthesia team aims to provide you the most comfort during the procedure, to help you return to an alert state after surgery, and to provide safe and satisfactory pain relief facilitating mobility for physical therapy, home exercises, and your return home.
What are the Risks of Surgery?

The physicians at Flagstaff Bone and Joint have performed total joint replacement procedures. Here are some of the possible complications that are associated with a knee replacement surgery and the precautions that we take to ensure the safety of our patients.

**Infection:** *There is always inherent risk of infection with any surgery or procedure.* Patients pre-admission testing results will confirm you have no active infections prior to undergoing surgery. All patients undergo a course of oral and IV antibiotics which are administered pre- and post-surgically.

**Blood clots:** To reduce the risk of blood clots, you will be asked to pump your feet and exercise your ankles to increase circulation following surgery during your recovery. After surgery, you will take baby aspirin 81mg, twice a day to further help prevent blood clots.

**Pneumonia:** We recommend taking deep breaths regularly following surgery as well as coughing frequently to prevent any congestion from building up in your lungs, which can then lead to pneumonia.

**Bladder infections:** Occasionally some patients can develop a bladder infection, so it is very important to drink plenty of fluids during your recovery to help prevent this type of infection from occurring.

**Numbness:** You will experience mild numbness over the knee, the lower part of your leg and/or incision following the surgery. This is completely normal and is usually expected following surgery. This should not be a concern for you. When you undergo this surgery, the nerves around the knee joint are interrupted. As these nerves heal, you may experience a tingling sensation. It is possible you may also experience permanent numbness in a small area around your incision, however this will not affect your ability to function the knee. It is very rare to have permanent weakness or numbness to the area as a result of trauma to the nerve.

**Severe complications:** Although it is VERY rare, there is a small possibility that any of the complications from the above, or from anesthesia, could be severe enough to result in death. If you have any questions or concerns, please address them with your surgeon or your anesthesiologist.
Preparing for surgery

Scheduling
A majority insurance companies will require pre-authorization prior to scheduling your surgery. Our surgical scheduling staff will obtain authorization from your insurance company and check eligibility as needed. Expect that this could take at least one week or longer depending on the insurance company. When we receive an approval from your insurance company, you will be contacted by a surgical scheduler to discuss available surgery dates. The scheduler will also schedule other important appointments such as your pre-operative appointment (which is one week prior to your scheduled surgery), 2 week, 6 week and 3 month post-operative follow up appointments.

Medications
When your surgery has been scheduled, please inform our office if you are currently taking any of these medications below, as they need to be stopped a specific number of days prior to your surgery. Your prescribing physician will ultimately determine when you stop these medications, below are general guidelines.

- Coumadin, all blood thinners 5 days
- Aspirin 10 days
- Baby Aspirin, continue to take up to the day of surgery and begin again during your recovery
- Methotrexate two weeks
- St. John’s Wort two weeks
- Prescription diet pills two weeks
- All vitamins and supplements ten days
- Anti-inflammatory medications 10 days (Advil, ibuprofen, Aleve, Naprosyn, Relafin, Diclofenac)
- Hormone replacement therapy 7 days

Celebrex can be taken until surgery.
Preparing for surgery

Pre-surgical testing
Patients are required to go to a local laboratory or diagnostic center for basic pre-operative testing. These tests may include blood tests, nasal swab test and electrocardiogram (EKG). A surgery scheduler from Flagstaff Bone and Joint will contact you via phone to help coordinate the pre-operative testing with you.

IMPORTANT: If you start to experience a fever, rash, or cold call our office immediately regarding your change of health as your surgery may need to be postponed.

Medical history and health status
We will ask questions prior to your surgery regarding your medical history and health status. Here is an example of some of the question’s patients are frequently asked:

Clearances Questions for Surgical Intervention:
☐ Do you have any health problems such as diabetes, heart disease or high blood pressure?
☐ Do you have any current Dental Infections?
☐ Do you have a history of Pulmonary Disease?
☐ Do you have a history of a Deep Vein Thrombosis (blood clot) or Pulmonary Embolism?
☐ Do you have a history of any Autoimmune Disorders?
☐ Do you have a known history of Bleeding Disorders and/or taking Anti-coagulant medication?
☐ Do you have a history of Kidney Disorders?

*If clearance is needed prior to surgery, Patients will receive a call from our surgical scheduler within 7 to 10 days. Our surgical scheduler will be faxing a request to the physician managing the patient's condition, the patient will need to follow-up with their managing physician for clearance. You will not be able to get scheduled for your surgery until clearances are received. If the patient has any questions or concern’s they may portal message us or contact our office at (928) 440-5313.
Pre-operative visit

- Provide all necessary prescriptions for post-operative medications.

- Provide you with a knee immobilizer, crutches, walker or cane, and cold-therapy unit which will be fitted in our office at the appointment your surgery is scheduled at.
  - Bring these items with you on the day of surgery.

- Prior to your surgery, you will have 1-2 sessions of formal physical therapy where you will be instructed on the home exercise program you will be performing both pre- and post-operatively at home.

- Confirm the date and time of your surgery with the surgical scheduler.

- Review your home medication sheet and make sure you are aware of which medications to continue and which to discontinue before surgery.

- Review any pre-operative diagnostic studies.

- Review clearance information from your primary medical physician and/or specialist.
Pre-surgical exercises

Perform the below set of exercises two times a day. They should take about 15-20 minutes to complete. Do not perform any exercises that are too painful. We recommend that you begin these exercises at least 4 weeks prior to your scheduled surgery for the most optimal recovery. Failure to perform these exercises regularly may result in prolonging your recovery.

1) Quad Sets (knee push-downs on towel)

Sit or lie down on your back. Straighten your surgical knee out in front of you and press the back of your knee into the ground or towel by tightening your thigh muscles. Hold a muscle contraction, pressing the back of knee down, for 3 seconds, then release. Maintain a normal breathing pattern, do NOT hold your breath.

Repeat 20 times.

2) Gluteal Squeezes

Lie on your back, and squeeze and hold your gluteal/buttocks muscles for 3 seconds and release. Always maintain a normal breathing pattern, do NOT hold your breath.

Repeat 20 times.

3) In & Out Heel Slides (hip abduction/adduction)

While laying on your back, slide your legs out to the side, while keeping the toes pointed up and knees straight, not allowing your feet to roll to the outside. Then bring your legs back to the starting point, keeping the toes up the entire time.

Repeat 20 times.

4) Straight Leg Raise

Lie on your back with the unaffected knee bent, and foot flat. Lift the opposite leg up 12 inches while contracting your thigh muscle. Keep the knee straight and toes pointed up. Relax, and then repeat.

Repeat 20 times.
Pre-surgical exercises - continued

5) Ankle Pumps

Alternate between pointing your toes and flexing your foot upward at the ankle. We recommend that you have your leg in a degree of elevation due to the post-operative knee swelling.

Repeat 20 times.

6) Heel Slides

Lie on your back on a couch or bed. Slide the heel of your surgical leg toward your bottom, then straighten your leg back out, and repeat.

Repeat 50 times.

7) Seated Hamstring stretch

Sit on couch or chair with your leg extended. Then gently lean forward and pull the ankle up. Stretch until you feel a pull. Hold position for 20-30 seconds. Keep back straight.

Relax.

Repeat 5 times.
Pre-surgical exercises - continued

8) Heel raises

While standing, hold onto firm surface. Raise up onto your toes trying to keep your knees as straight as possible. Go back onto your heels.

Perform 10 repetitions.
Repeat 3 times.

9) Standing Hip Flexion

Standing in one spot, march in place. Hold onto a firm surface for support if needed. Raise the knee as high as possible. Perform this exercise on both sides.

Perform 10 repetitions.
Repeat 3 times.

10) Armchair Push-Ups

This purpose of this exercise is to help strengthen your arms for walking with crutches or a walker. Sit in an armchair and place your hands on the armrests. Straighten the arms and raise your bottom up off the chair seat if possible. Keep your feet flat on the floor.

Repeat 20 times.
Preparing your home for your Return

Please review and complete the following list of items prior to surgery. This will ensure a smooth transition from the surgery center to your home on the day of surgery.

- Make sure you have an armchair with a firm cushion that you can sit on.
- Following surgery, you may have swelling into your foot. Consider having a bigger shoe or non-slip sock to account for excessive swelling.
- Prepare meals ahead of time and put fresh linens on your bed.
- Arrange for pet care if needed.
- Have a comfortable rest area with tissues, phone, TV, remote control, etc. nearby.
- Have a flat, firm mattress in place. (Water beds are not recommended after your surgery.)
- Have a sufficient supply of your prescription medications available.
- In case you are by yourself for part of the day, have a portable phone and/or personal alarm with you to call for help in case of an emergency.
- Have footwear available to wear with non-slip soles around your home or rehabilitation facility.
- Set up transportation for your follow-up visits.
- Consider obtaining a higher toilet seat and shower chair.
- Place night lights in bathrooms and dark areas.
- Place non-slip surfaces such as bathmats in your tubs and showers.
- Pick up all rugs and ensure all electrical cords are out of the way to avoid falling over.
One Week Prior to Surgery

- Confirm you have your pre-operative appointment scheduled.
  - You will receive a knee immobilizer brace, crutches and a cold therapy unit.
  - Bring these with you to the surgery center the day of surgery.
  - Per request, you can also use a prescribed non-rolling walker or single-prong cane which can also be ordered at your pre-op appointment.

- Obtain over the counter medications
  Including: Aspirin 81 mg and Tylenol 500 mg.

- Pick-up prescription medications:
  Celebrex, Keflex, post--surgical pain meds (Dilaudid/ oxycodone/ tramadol), naproxen and Xarelto (if you have history of blood clots).

- Stop all anticoagulants, anti--inflammatories, aspirin, fish oil, Vitamin E and supplements. **YOU CAN CONTINUE CELEBREX if you were taking it pre-operatively.**

- Confirm you have scheduled physical therapy appointments starting 3 days post-surgery and continue your pre--surgical exercises.

- **STOP SMOKING!!!** (if you haven’t already)

Two-days before Surgery

Continue your pre-surgical exercises to build strength and stamina of your surgical leg.
One Day Prior to Surgery

☐ Refrain from eating or drinking after midnight including mints, gum or water. Your surgery may be cancelled or delayed if you do.

☐ We recommend that you eat a ‘regular’ portion sized dinner the day prior to your surgery, no large quantity meals.

☐ Take all routine medications except those already stopped – if there is any question about which medications to take, please check with our office.

Day of Surgery

At Home

☐ Wear comfortable, loose fitting clothing

☐ Refrain from using any lotions, talcum, perfume, nail polish or make-up

☐ Take heart and blood pressure medications with sip of water. Do not take insulin or diabetes medications unless instructed to do so.

☐ Take 500 mg of Naproxen (1 tablet) and Asprin 81 mg (1 tablet). Alternatively, if you have a history of a blood clot, take Xarelto 10 mg (1 tablet) and 200 mg of Celebrex (1 tablet)

☐ Do not have anything to eat or drink

At the Surgery Center

☐ Bring knee immobilizer, cold—therapy unit and walker

☐ Bring photo—ID, bag for dentures, cases for contact lenses, glasses

☐ Family member or significant other must accompany you to the surgery center
**DAY of SURGERY**

**Pre-op**

- You will sign the surgical and anesthesia consent forms
- The IV will be started and pre-op sedatives and antibiotics will be administered
- A nerve block will be performed by the anesthesiologist
- The knee will be shaved and prepped with betadine or hibiclens
- Your surgeon will meet you and your family in the pre-op area, confirm and mark the surgical site and allow for you to ask any last questions
- You will be transferred to the Operating Room (family members to the waiting area)

**DAY of SURGERY**

**Post-op / Recovery**

At the end of the surgery, anesthesia will gradually wake you up and you will be transferred to the recovery room. You will wake up with the knee immobilizer and cold-therapy unit on your knee and you will wear them when you leave the surgery center.

For 24 hours after anesthesia and while on narcotic pain medication, you are deemed to be under the influence of drugs: **DO NOT** drive, run machinery, drink alcohol, smoke, or make final decisions during this time and while on narcotic pain medications. The nurses will monitor your vital signs and keep you comfortable in the recovery area. They will administer any Medications necessary for your post-operative pain or nausea.

You will likely be monitored in the recovery area for at least a few hours. You will be discharged home once we are sure that you are stable and comfortable. The medications administered at the surgery center, as well as the nerve block, should provide excellent pain relief at home.

For pain management to be comfortable in the recovery process, it is important to follow the post-operative pain management protocol. A nurse will have you walk and confirm that you are stable for discharge and you will be given a brief home instruction sheet.

Please note: Detailed home instructions are on the next several pages of this booklet.
Discharge checklist:

- All home medication prescriptions have been filled
- All necessary home equipment has been acquired – Walker, Cane and Cold Therapy Unit
- Post-op appointment scheduled
- No showering until you have been seen at your 2-week post-operative appointment
- Family member/significant other will be with me for 24 hours after discharge

After Surgery

MANAGING YOUR PAIN
Our primary goal following this procedure is to keep you as comfortable as possible. We will ensure that your pain is assessed from the time you leave the operating room until you leave the surgery center. Our nurses will frequently be asking you to rate your discomfort on a pain scale that will help us determine if your current method of pain control is adequate or if changes need to be made. Staff members can use oral or injected pain medications to relieve discomfort if it is required.

HAND WASHING HELPS PREVENT INFECTION
It is important to be aware of a serious form of bacteria known as MRSA. This form of bacteria frequently inhabits the skin or nose of healthy people and can be harmful to patients if it is introduced into the home setting during recovery. Please be aware that your hand hygiene is the most important method of controlling the spread of bacteria. We recommend that all of your visitors and caregivers wash their hands before and after contact with you and their surroundings.
**Post-op / Recovery**

Immediately following surgery, you will be allowed to put full weight on the leg and will be able to start walking with an assistive device. You will need to start moving the knee, bending and straightening the knee as much as possible following surgery. It is important to keep the knee fully straight or fully bent throughout the day, avoiding a partially bent knee. Most people can return to work doing seated duties only within 1-2 weeks as tolerated.

**Incision Site / Bandaging:**

Keep incision clean. Wear clean clothing and use clean bedding. Follow the dressing changes/bandaging as instructed below. Your provider will either dress your knee with 4x4 gauze and an ace wrap post-surgically or with a specialty dressing/bandage. When you change the dressings, please assess the knee for redness, swelling, bruising, wound drainage, or signs of infection. Do not apply any creams, lotions, or ointments to the knee or surgical incision.

**4x4 Gauze & Ace Wrap Dressing:**

Change dressings daily until first follow-up appointment using sterile 4x4 gauze and ace bandage. Leave Steri-Strips (small white strips directly covering the incision) or staples in place. Additional dressings and ace wraps can be bought at any pharmacy. You are not cleared to shower until you are seen back in the office for your 2-week post-op appointment.

**Specialty Dressing (Jumpstart Bandage):**

If you have a specialty dressing, please allow to remain in place for 7 days after surgery. You may completely remove on Day 7 and change to 4x4 gauze and ace wrap with dressing changes (noted above) every day until follow-up appointment with provider. If drainage covers the entire specialty dressing before Day 7, it should be removed and apply 4x4 gauze dressing and ace wrap and continue daily dressing changes until follow-up appointment with provider. Additional dressings and ace wraps can be bought at any pharmacy.

To remove specialty dressing, press down on the skin with one hand and gently lift an edge of the dressing with your other hand. To break the adhesive seal, stretch the dressing and remove. (Be careful removing so you do not tear the skin).
After Surgery

TOILET USE
- When out in public, use bathrooms that accommodate people with disabilities as they should have additional support such as grab bars.
- We highly recommend you do not attempt to use your walker to help pull yourself up to stand. You should push up from the seat or railing and reach forward with one hand at a time to your walker.

STALL SHOWER
- You may NOT shower until you are seen at your 2-week visit in the office. Keep the knee clean and dry until you are seen back for your 2-week visit. No hot tubs, bathtubs, pools, or any soaking until the incisions are completely healed and you are cleared by your physician (about 6 weeks post-surgery).
- Ensure all surfaces inside and outside of your shower are non-slip surfaces. Consider using non-slip safety shower mats to decrease your risk of slipping.
- Use a long-handled sponge or brush to wash and dry legs.
- When getting into your shower, fit your cane into the shower stall for support and step in with the affected leg first. If you are not able to fit your cane into the stall, then you can step in backwards using your strong leg first.

PRECAUTIONS
- Utilize your walker or cane whenever you are walking, and weight bearing (as needed).
- Secure or move any electrical wires and phone cords on the floor where you may walk, avoid small pets and remove throw rugs to minimize your risk of falling.
- Do not lift or carry things while walking.
- Do not drive until instructed to do so by your provider.
- Ensure that you have adequate room at the side of your bed to walk.
- Avoid pivoting on your affected leg.
- Do not allow yourself to get exhausted.
- Avoid slippery or unstable surfaces.
- Consider wearing an apron or jacket with several pockets to allow you to keep your hands free.
- Use small plastic grocery bags and tie them to your walker. This will make it easier for you to take out the trash.
- Avoid reaching far overhead or down low.
- Slide any containers, bowls, dishes, pots and pans along the counter. Do not carry them to minimize your risk of injury.
Call Our Office immediately (928-773-2280) if any of the following problems arise:

- Chills or fever above 101 °F
- Trouble breathing or chest pain
- You have side effects from your medications such as nausea, a rash, or itching
- Pain not relieved by oral pain medication
- Long lasting nausea or vomiting (throwing up)
- Sudden increase in leg pain and swelling of the calf
- Any signs or symptoms of infection such as marked redness, drainage, or swelling of the knee
- or if it has a discharge that has an offensive odor.
- Pulling apart or opening of the incision
- IF YOU FEEL THAT YOU NEED URGENT MEDICAL HELP, PLEASE GO TO THE NEAREST EMERGENCY ROOM

After Surgery

Home: Post-op - night of surgery

- Keep the surgical dressing dry and intact.
- Take one Aspirin 81 mg and at 8 PM
- Begin taking Dilaudid 2 mg every 4 hours for the first 24 hours - take first dose
- If prescribed Oxycodone instead of Dilaudid, begin taking one tablet 5-325 mg every 4 hours for the first 24 hours – take first dose immediately upon arriving home. Pain medications will not take away all your pain but should increase your comfort level and allow you to manage your pain. Take these pain pills as directed, with food, allowing 30-45 minutes for the medication to start working.

  It is OK to supplement prescription pain medication with Tylenol 500 mg or Naproxen 500mg 1 tab PO twice per day as needed for pain.
  – do not take more than 6 in 24 hours (maximum 3000 mg tylenol).

- The muscle in the leg could still be weak from the nerve block following surgery for about 24 hours. Always use the knee immobilizer and walker/cane for ambulation.
Day One Post-op

- Resume Fluids, Resume Healthy Diet
- Bowel management – Take an over-the-counter laxative – pain medications are constipating.
- Take one aspirin (81 mg) twice a day until one month post-op to further help prevent blood clots.

Patients with a history of blood clots may be prescribed daily dose of Xarelto instead.

- Take 200 mg of Celebrex (one tablet, if prescribed)
- Take Oxycodone or Dilaudid (pain medication) as prescribed.
- Continue post-operative exercises.
- Use the knee immobilizer.
- When getting out of bed to go to a chair, ambulate with your walker.

Day Two Post-op

- Continue Fluids, resume healthy diet, continue laxative to prevent constipation.
- Take Oxycodone or Dilaudid (pain medication) as prescribed.
- Continue Aspirin 81 mg twice daily – until one month post-op.
- Continue Celebrex 200 mg daily until 2 weeks post-op (if prescribed).
- Ambulate with walker, discontinue knee immobilizer at 48 hours post-op.
- Use the walker to ambulate.

Day Three Post-op

- Continue Aspirin 81 mg twice daily – until one month post-op.
  - Continue Celebrex 200 mg daily until two weeks post-op (if prescribed)
- Continue to diminish use of pain medication as tolerated.
- Continue physical therapy protocol with home exercises.
- Begin Outpatient Physical Therapy.
- Transition from walker to crutches/ cane if safe and stable to do so with a physical therapist.

Day 4 through 13 Post-ops

- Continue home exercise program that was instructed to you
- Increase activity as tolerated.
- Continue Aspirin 81 mg twice daily – until one month post-op.
  - Continue Celebrex 200 mg daily until two weeks post-op (if prescribed).
After surgery
Two weeks post-op
- Continue Aspirin 81 mg twice daily until one month post-op
- Post op office visit with your surgeon or physician assistant: Xray, incision check, review physical therapists’ reports, evaluation of functional status and level of discomfort.
- Resume activity as tolerated.

Although you may feel that you are doing extremely well at this point, it is important to be seen in our office, for routine follow-up, at 6 weeks, 3 months, and 1 year from date of surgery.

Post-op Physical Therapy

**REMINDEERS FOR ALL PATIENTS** Follow all recommended precautions for at least 2 to 4 weeks post-operatively

**Safe use of your walker** - When using your walker, keep your hips straight, (Full Weight Bearing As Tolerated) normal amount of body weight as able/tolerated. Do not use the walker as a support when getting off a toilet, getting in or out of bed or up from a chair as it will not be stable enough to support you in that position. You should back up to the chair until you feel the front of the chair on the back of your legs. At this point you can then reach down for the arms and safely lower yourself into the chair.

**Getting in and out of bed** - Sit on the edge of the bed as you would with a chair. Scoot your buttocks back across the bed until hips and thighs are on the bed. Rotate your body until you are straight on the bed. Get into bed with the non-affected leg first, get out of bed with affected leg first. Use sheets and pajamas made of a slippery fabric to make scooting easier.

**Car – back seat** - The rule of thumb is that if surgery was performed on your right leg, enter the vehicle on the passenger side. If surgery was on the left leg, enter on the driver’s side. Back up to the open rear car door with your walker or cane. Lower yourself carefully into the seat and scoot across the back seat. We recommend having pillows available incase you want to position yourself in a semi-inclined position.

**Car – front seat** - When the passenger seat has been pushed back, you can gradually back up to the seat using your assistive device and safely lower yourself into the seat.

**Using Stairs- with a crutch**
When going up stairs remember the phrase “up with the good and down with the bad”. Step up with your good leg and use the handrail when going up stairs. Step down with your surgical leg when going downstairs using the crutch and handrail for support.
**Post-operative Exercises**

The following exercises will help your recovery from your Total Knee Replacement. These exercises and stretches will improve your range of motion and flexibility and restore your strength post-surgery.

1) Quad Sets (knee push-downs on towel)

   Sit or lie down on your back. Straighten your surgical knee out in front of you and press the back of your knee into the ground or towel by tightening your thigh muscles. Hold a muscle contraction, pressing the back of knee down, for 3 seconds, then release. Maintain a normal breathing pattern, do NOT hold your breath.

   Repeat 20 times.

2) Gluteal Squeezes

   Lie on your back, and squeeze and hold your gluteal/buttocks muscles for 3 seconds and release. Always maintain a normal breathing pattern, do NOT hold your breath.

   Repeat 20 times.

3) In & Out Heel Slides (hip abduction/adduction)

   While laying on your back, slide your legs out to the side, while keeping the toes pointed up and knees straight, not allowing your feet to roll to the outside. Then bring your legs back to the starting point, keeping the toes up the entire time.

   Repeat 20 times.

4) Straight Leg Raise

   Lie on your back with the unaffected knee bent, and foot flat. Lift the opposite leg up 12 inches while contracting your thigh muscle. Keep the knee straight and toes pointed up. Relax, and then repeat.

   Repeat 20 times.
Post-operative Exercises - continued

5) Ankle Pumps

Alternate between pointing your toes and flexing your foot upward at the ankle. We recommend that you have your leg in a degree of elevation due to the post-operative knee swelling.

Repeat 20 times.

6) Heel Slides

Lie on your back on a couch or bed. Slide the heel of your surgical leg toward your bottom, then straighten your leg back out, and repeat.

Repeat 50 times.

7) Seated Hamstring stretch

Sit on couch or chair with your leg extended. Then gently lean forward and pull the ankle up. Stretch until you feel a pull. Hold position for 20-30 seconds. Keep back straight. Relax.

Repeat 5 times.
Post-operative Exercises - continued

8) Heel raises

While standing, hold onto firm surface. Raise up onto your toes trying to keep your knees as straight as possible. Go back onto your heels.

Perform 10 repetitions.
Repeat 3 times.

9) Standing Hip Flexion

Standing in one spot, march in place. Hold onto a firm surface for support if needed. Raise the knee as high as possible. Perform this exercise on both sides.

Perform 10 repetitions.
Repeat 3 times.

10) Armchair Push-Ups

This purpose of this exercise is to help strengthen your arms for walking with crutches or a walker. Sit in an armchair and place your hands on the armrests. Straighten the arms and raise your bottom up off the chair seat if possible. Keep your feet flat on the floor.

Repeat 20 times.
Post-operative Exercises- continued

10) Seated knee Flexion

Sitting on chair with the affected leg outstretched, gently slide the affected leg underneath chair. While Keeping your hips on the chair, try to gently stretch and bend knee as far as possible. Plant your foot and move your bottom forward on the chair. Hold for 5 seconds each time. Repeat 20 times.

11) Seated Knee Extension

Sit in a chair and straighten the knee as much as you can without lifting your thigh from the seat of leaning back. Repeat 20 times.

12) Seated Knee Extension Stretch

Prop the foot of your operated leg up on chair. Place towel roll under ankle and ice pack over knee. Put 5-10 lbs. of weight on top of knee (a 5-10 lb. bag of rice works well).

Sit in this position for 20 minutes.

Note: It is ok to bend the knee occasionally to get some relief. This exercise will be uncomfortable, but it is VERY important.
Post-operative Exercises - continued

13) Countertop Squat

Use support as necessary from a countertop or railing if possible. With your feet shoulder width apart and flat on the floor, squat as low as is comfortable. Perform 3 sets of 10 repetitions.

**CAUTION:** You should avoid bending your knees enough to cause pain.

14) Step ups

With the foot of your involved leg, step up onto a stair and straighten that leg. Then Return. *Use a railing for support if needed.* If a stair or step is too high, use a smaller step or book. The height of the step will depend on your strength. Start low. You may also exercise the opposite leg. Perform 3 sets of 10 repetitions.

15) Seated Calf Stretch with Towel

Sit on the floor with your legs extended. Loop a towel around one foot, holding both sides of it with your hands. Gently pull your toes toward your shin until you feel the stretch in your calf. Perform 2 x 30 seconds. Repeat on the other side.
**Return to Activity**

Walking every day per therapist’s recommendation is strongly encouraged (short walks every 2 hours); and increase distance as you are able. This will help you regain your strength and function of your knee. Follow your doctor’s and therapist’s guidelines for exercise and other activity. High-impact activity (e.g. running and jumping) is generally discouraged after a knee replacement.

**Living with your resurfaced knee**

Your new joint components have resulted from many years of research, but like any device, its life span depends on how well you care for it. To ensure the health of your new knee it’s important you take care of it for the rest of your life.

**SPORTS AND ACTIVITIES** Your new knee replacement is designed for activities of daily living and lower-impact sports. Activities including walking, cycling and swimming are recommended when you’re able to perform them. Higher impact activities/sports such as running, jogging, jumping, repeated climbing and heavy lifting may compromise the function and long-term success of your joint, and therefore should be avoided.

**INFECTION** The joint components are made of metal, which the body considers a foreign object. If you develop an infection, bacteria can gather around your knee joint and become infected. If you ever become sick with an infection or high fever, you should be treated immediately.

**SURGICAL PROCEDURES** If you’re scheduled for any surgical procedure in the future, no matter how minor, you must take antibiotics both before and after the procedure. Please see the detailed protocols on the next page. Make sure your surgeon is aware that you have a joint implant.

**DENTAL WORK** It is important that you take antibiotics before you have any dental work completed including routine cleanings. This is because bacteria in the mouth can scatter throughout the bloodstream and accumulate around your knee. You must let your dentist know about your knee replacement.

Please call our office on 928-440-5313 to obtain a prescription for antibiotics prior to any scheduled dental appointments/procedures.
OTHER Instructions:
Please remember that you cannot go to the dentist or have a colonoscopy performed for 3 months after surgery. Once released by your provider, you must take antibiotics 1 hour prior to those procedures, and they should be prescribed by your physician’s office. In order to prevent infection in your surgical knee, this antibiotic precaution must be done for life. Also, an infection in other parts of your body can harm the new joint, so contact your provider if you think you may have an infection such as urinary tract infection, deep cut, animal bite, etc.

Follow-up appointments are typically as follows:
- 2 weeks
- 6 weeks
- 3 or 6 months
- Yearly with x-rays

Should you have any additional questions or concerns, please contact our medical team through the patient portal or call us at (928) 773-2280.