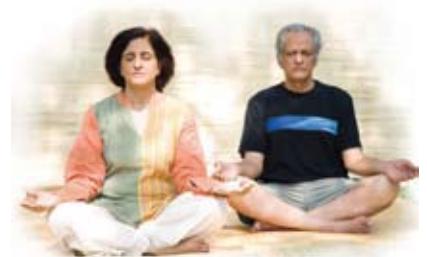
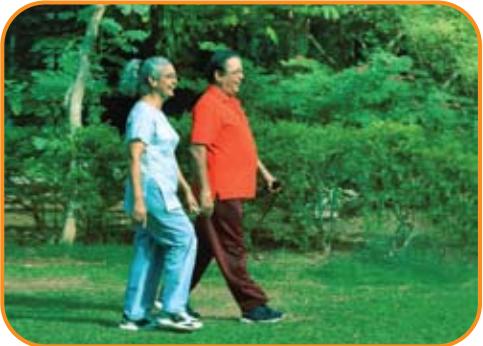




## Knee Replacement Surgery Getting Back in Motion



Pursue Life™



## BENEFITS OF THE FREEDOM KNEE®

The Freedom Knee is designed to help your surgeon enable you to return to an active lifestyle as quickly as possible after your surgery. The extensive component size selection means that the implants used will have the best fit, close to the shape of your knee, which is important for long-term durability. The Freedom Knee design allows for the natural bending motion needed to perform your daily activities in safety and in comfort.

The contents of this guide with regards to preparing for your surgery, the items that might be used during surgery, the surgery itself and recovery has been written Maxx Medical, Inc. the manufacturer of the Freedom Total Knee® System. We strongly recommend that you review this information with your orthopedic surgeon.

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## **FOLLOW THESE INSTRUCTIONS AT HOME UNTIL YOU SEE YOUR DOCTOR FOR A FOLLOW-UP APPOINTMENT**

- Use a walker or two crutches all of the time. Your surgeon will tell you how long you will have to use them.
- Thigh-high stockings should be worn when you're out of bed for 4-6 weeks after surgery. When the stockings are off, be sure to look for sores or redness.
- Do not sit for long periods of time without standing and stretching. Be sure to exercise your legs after getting up by moving them up and down through standing on your toes or by taking a short walk around the room.
- You may be feeling more tired than usual. Listen to your body. If you start to have increased pain or swelling, you may be doing too much. Avoid frequent stair climbing the first few weeks as this may increase pain and swelling. Try to limit the frequency of stair climbing to 1-3 times per day.
- Do not kneel on your operated leg.
- You may need a raised toilet seat to help you get on and off the toilet, and a tub chair for bathing. If you are of average height or shorter you may not need a raised toilet seat but will need arms for the toilet so that it is easier to get up and down. Your physical therapist will discuss what equipment is best for you.
- Remove all throw rugs as they could pose a hazard.
- Be aware of wet spots, toys, pets, small children or articles on the floor.
- Always wear rubber-soled shoes when walking to avoid slipping.

## **PLEASE REMEMBER THE FOLLOWING**

- No jumping or running.
- Do not kneel on your operated leg.
- Avoid any sudden jarring or twisting motion of your knee.
- Avoid prolonged walking, standing, or stair climbing for the first month.
- Avoid heavy lifting (no more than 10 kg).
- Avoid activities with a high risk of falling or overworking your new knee.
- No exercise equipment until you check with your surgeon.

## SKIN CARE

Have someone look at your skin every day, including elbows, heels, buttocks, hips and shoulders in particular. These areas should be kept clean and dry. You can rub them with lotion to help circulation, but do not put lotion directly on your incision. A sore will start out looking pink or red, and then the skin might break open. Let your physician know if you have any areas on your skin that are red or have an open sore.

## WOUND CARE

- You can shower when your physician says it is okay. The general rule is to keep your knee incision clean and dry.
- A dry sterile dressing should be applied until there is no drainage. Then you can take off the dressing and expose your incision to air.
- If the staples are catching on your clothes, you may continue to cover them with a gauze dressing.
- The staples will be removed in about 10 days. You'll make an appointment to have them removed.
- If you go to a rehabilitation facility they will remove your staples.

## PREVENTING INFECTIONS

Although the risk of infection after knee replacement is small, it is important to be aware of the causes and symptoms of infection. An infection following a total knee replacement procedure can result from bacteria that enter the blood during dental procedures, as a result of urinary tract infections or via skin infections. These bacteria can deposit around your incision site and cause an infection.

You should contact your orthopedic surgeon if you notice any of the following symptoms:

- Your experience chills and shaking.
- You have a fever of higher than 38°C (100°F) that lasts 48 hours.
- Your knee incision site shows increasing redness, tenderness or swelling.
- You have increasing constant knee pain during activity and rest.
- There is leaking or drainage of fluid from the knee wound.

After your knee replacement, you may be prescribed preventive antibiotics before surgical or dental procedures that could cause bacteria to enter your bloodstream. It is important to regularly talk to all your physicians and dentists, etc. to see if you require preventive antibiotics before any scheduled procedures.

You may need prophylaxis antibiotic for the following procedures:

- Dental extractions.
- Periodontal procedures including surgery, scaling and root planing, probing, and recall maintenance.
- Dental implant placement and reimplantation of avulsed teeth.
- Endodontic (root canal) instrumentation or surgery only beyond the apex.
- Subgingival placement of antibiotic fibers or strips.
- Initial placement of orthodontic bands, but not brackets.
- Intraligamentary local anesthetic injections.
- Prophylactic teeth cleaning or implants where bleeding is anticipated.
- Cystoscopy.
- Colonoscopy.

## PREVENTING BLOOD CLOTS

The most common complication after knee replacement surgery is blood clots. Blood clots, most often seen in a vein in the leg, can be serious if they block the flow of blood to the heart or if they move to the lungs. You may be prescribed a preventive blood thinner immediately after surgery for a time period determined by your orthopedic surgeon to prevent blood clots during the initial phase of your rehabilitation.

It is important to be aware of blood clot symptoms so that you can seek medical attention as soon as possible. Symptoms of a blood clot include:

- An appearance of red skin color at the incision site.
- Cramping in the legs that gets worse at night.
- Difficulty breathing.
- Discoloration of the skin, leaving a white or blue appearance in the foot or leg.
- Excessive warmth, red skin color, leg pain or swelling.
- Gradually increasing pain in the leg, in your calf, or pain while moving your ankles.
- Increase in leg pain while bending your foot.
- Leaking of large amounts of fluid or bad smell from the incision site.
- Pain in your chest.
- Fever of higher than 38°C (100°F).

In order to help prevent blood clots the following activities are recommended:

- Performing leg pumping activities of ankle bending/straightening, ankle rolling and leg lifts at least once every hour.
- Taking the anti-clotting medication if prescribed by your physician.
- Wearing your compression stockings as directed by your physician to prevent leg swelling and backflow of blood.
- Drinking fluids at least once every hour to keep your blood liquid and moving.

The following activities should be avoided:

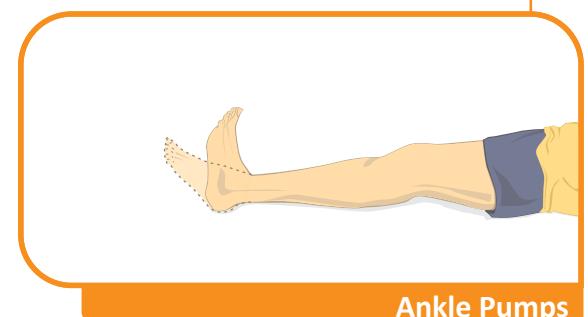
- Changing your diet without informing your doctor, as some foods may change the effects of anti-clotting medication.
- Crossing your legs, ankles or hips.
- Missing or adding doses to your anti-clotting medication.
- Pointing your toes so that they face one another.
- Sitting in a seat without armrests.
- Sitting or lying down during the day for more than one hour without moving.
- Sitting with your knees higher than your hips.
- Starting or stopping any new medication without your physician's knowledge.
- Taking estrogen unless deemed safe by your physician.

## EXERCISES

The following exercises may help your recovery process. Perform a set of 10 repetitions, holding for 5 seconds at a time, 3 times a day. Your physical therapist will instruct you when it is advisable to increase the number of repetitions.

### ANKLE PUMPS

- Move foot up toward the shin, then downward.
- Repeat.
- Switch legs.



Ankle Pumps

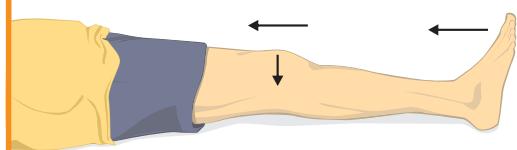
- Also try ankle rolling or moving the ankle in a circular pattern.



Ankle Roll

## QUAD SETS

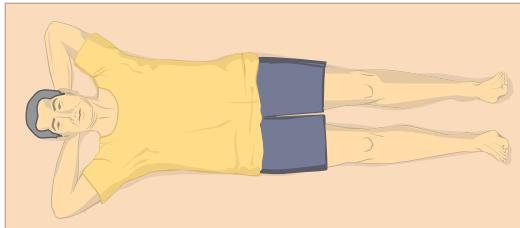
- Lie down with leg extended in bed.
- Tighten quad muscles on front of leg.
- Push back of knee into bed.
- Hold for 5 seconds and repeat.
- Do not tighten buttocks.



Quad Sets

## GLUT SETS

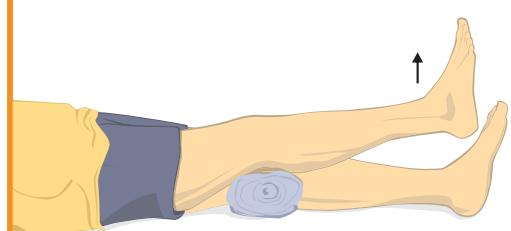
- Lie on your back with your legs straight.
- Squeeze buttocks together.
- Hold for 5 seconds.
- Repeat.
- Do not tighten quad muscles.



Glut Set

## SHORT ARC QUADS

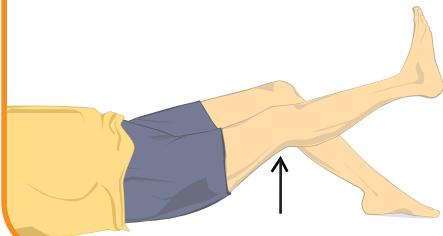
- When in bed, operated leg should be supported with a pillow to keep knee at 45 degrees (Someone should help you place the small pillow under your knee) only during physical therapy.
- Straighten leg at knee by lifting the heel only off the bed.
- Hold for 5 seconds.
- Return to start position.
- Repeat.



Short Arc Quad

## KNEE EXTENSION - STRAIGHT LEG RAISE

- Lie back with unoperated knee bent and foot flat.
- Keep the operated leg straight and toes pointed up, then lift the operated leg up one foot.
- Hold for 5 seconds and repeat.



Knee Extension (straight leg raise)

## KNEE EXTENSION - ACTIVE

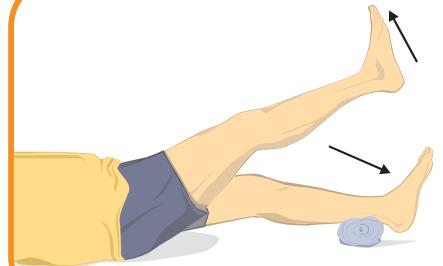
- Sit with back against chair.
- Straighten operated knee.
- Hold for 5 seconds and repeat.



Knee Extension (active)

## KNEE EXTENSION - PASSIVE

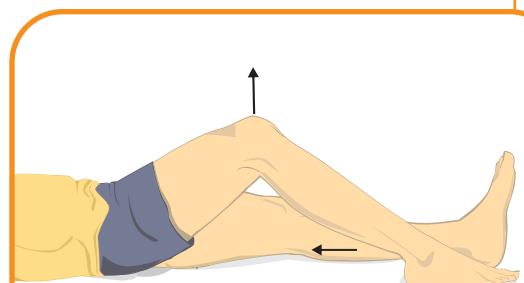
This is how your leg should be positioned in bed when you are not in the CPM (continuous passive motion machine). A pillow or roll should be placed under heel not under back of knee.



Knee Extension (passive)

## KNEE AND HIP FLEXION - HEEL SLIDE

- Lie on your back.
- Slide the heel of your operated leg up to your bottom.
- Hold for 5 seconds, slide your heel back down and repeat.



Knee and Hip Flexion (heel slide)

## KNEE FLEXION SITTING - PASSIVE

Using your unoperated leg to support your operated leg, raise your operated leg approximately 5 inches off the floor. Then, gently lower your operated leg to gain flexion or bend at the knee.



Knee Flexion (passive)

## PERFORMING DAILY ACTIVITIES

A physical therapist will work with you to help you safely perform daily activities once your body is ready and your surgeon has given approval.

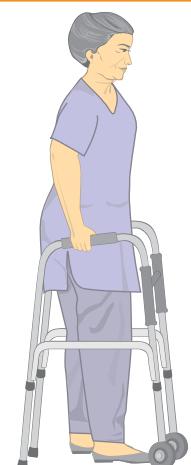
## WALKERS, CRUTCHES AND CANES

These devices provide support through your arms, limiting the amount of weight on your operated knee. Initially, after a total knee replacement, you will use a walker to move around. Your therapist will advance you to crutches and then a cane when your surgeon clears you to put more weight on your operated leg.

Your surgeon may allow the following levels of weight bearing:

- Toe touch down – almost no body weight should be placed on the operated leg; just touch the foot to the floor.
- Partial – 20% - 50% of your weight can be placed on the operated leg.
- As tolerated – as much body weight as you are able to put on the operated leg.

## USING A WALKER



Using a Walker

- Place the walker one step ahead of you.
- Lean on it and pick up the operated leg, step forward through the walker, planting the heel down first.
- Bring the non-operated leg up in front of the operated leg.
- Repeat the process.

## USING CRUTCHES



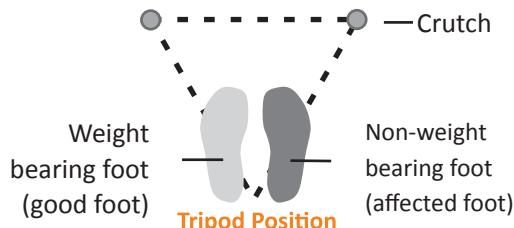
Standing with Crutches

- Place the two crutches one step ahead of you.
- Place weight on your non-operated leg and bring the operated leg up between the crutches.
- Then bring the non-operated leg up beyond the crutches.
- For example, if your right knee was operated on, the sequence is crutches, right foot, left foot.

As you gain strength and endurance, you will advance to a three-point gait pattern. This means you will move the crutches and the operated leg at the same time, and then move the non-operated leg beyond the crutches.

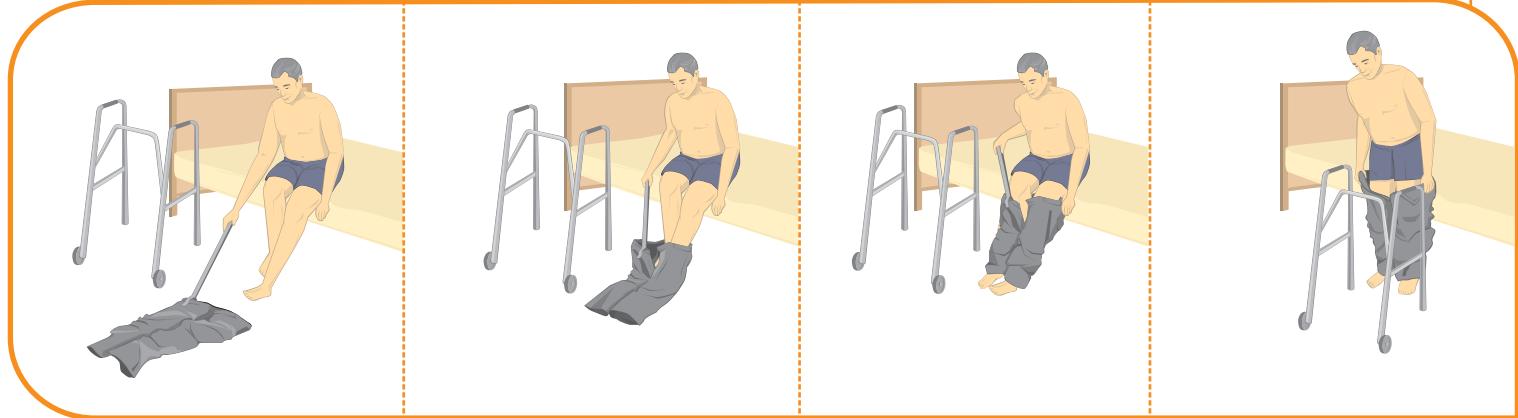


**Walking with Crutches**



It is important to remember that while standing still, the crutches should always be kept in front of you and slightly out to the side. If the crutches are even with your body when you are standing still, they will not keep you from failing. Also, do not carry your weight on the armpits when using crutches. This can cause permanent nerve damage. The weight should be on your hands and your non-operated leg. The physical therapist will instruct you in proper gait training with crutches and will discuss how much weight is allowed on your non-operated leg.

## DRESSING



Using a Dressing Stick

- Sit on the edge of the bed or chair with the adaptive equipment within reach.
- Hook the waist of the underwear or pants with the dressing stick and lower it down to the operated leg first. Then, slip pant leg over the operated leg, followed by the non-operated leg.
- Pull the pants up over your knees.
- Stand up with the walker and pull your pants the rest of the way up.

## UP AND DOWN STAIRS

### GOING UP STAIRS

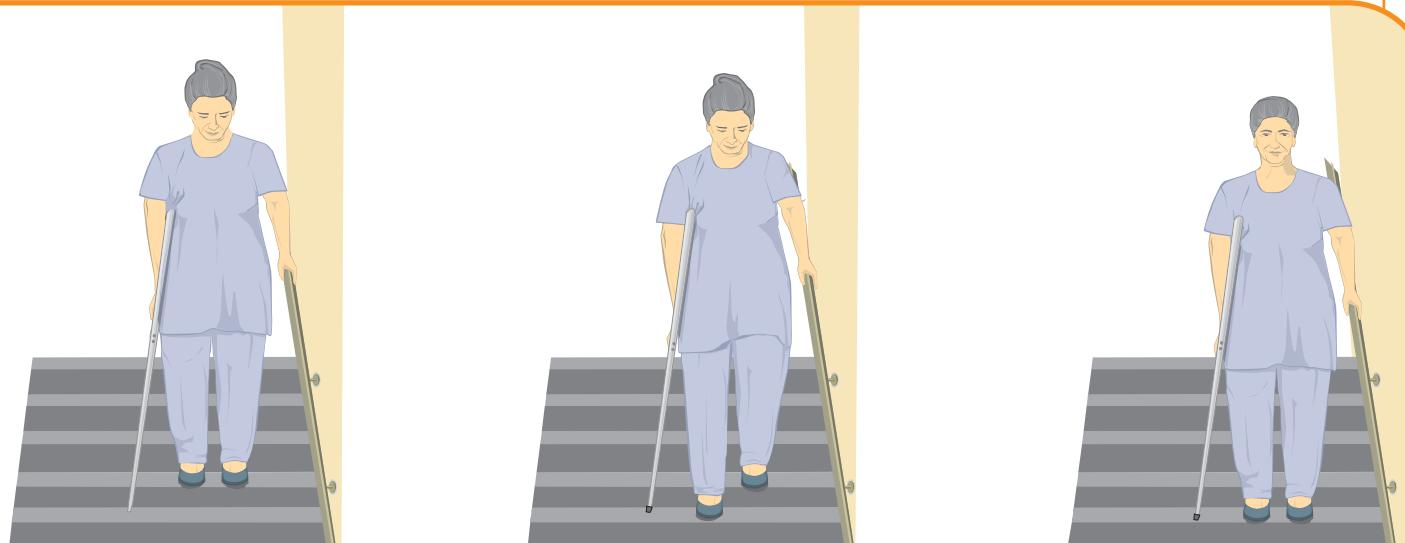


Walking Up Steps

- Hold onto the rail with one hand and the cane or crutch with the other.
- Step up with the non-operated leg first.

- Bring the cane/crutch and the operated leg up to the same step.
- Repeat the process.

## GOING DOWN STAIRS



Walking Down Steps

- Hold onto the rail with one hand and lower the cane/crutch down one step.
- Step down with your operated leg first.
- Step down with your non-operated leg to the same step.

## BED TRANSFER

### GETTING INTO BED



Getting Into Bed

- Sit down on the edge of the bed the same way you would sit in a chair.
- Push your buttocks back on the bed as far as you can angling toward the head of the bed.
- Lift both legs into the bed while lying down.

### GETTING OUT OF BED



Getting Out of Bed

- When getting out of bed, slide your legs over the edge of the bed.
- Push yourself to sitting using your arms.
- Use your walker to stand.

## STALL SHOWER

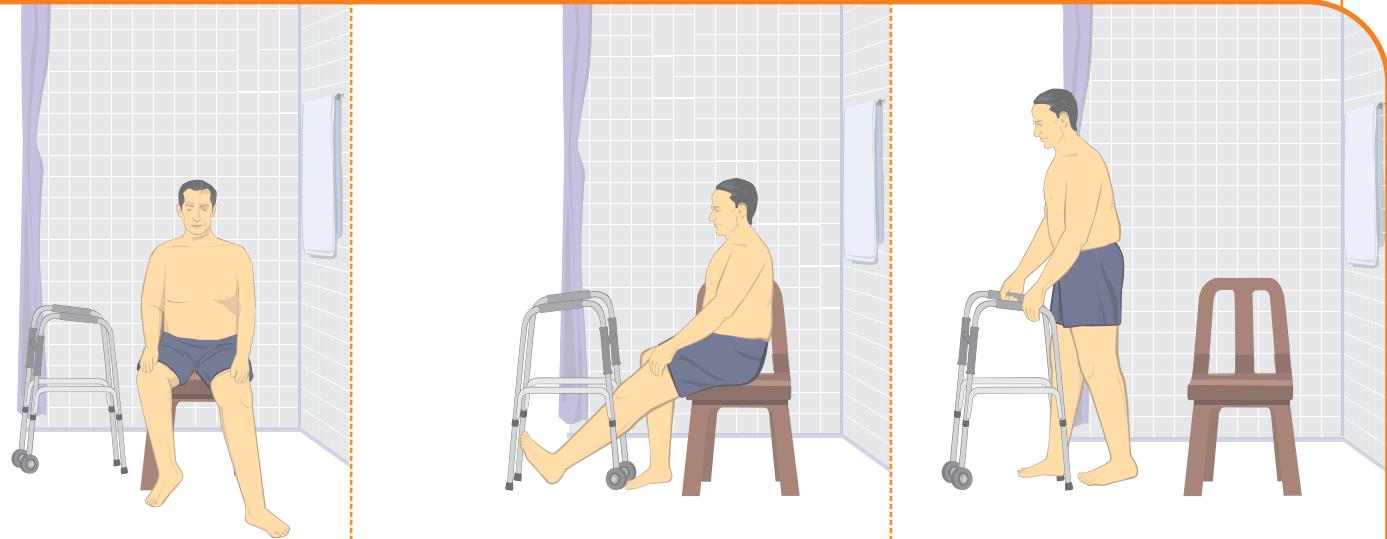
Use a stall shower if you have one. It will be easier to get in and out of. It is okay to use a tub shower, but follow the directions below:

### TO GET IN THE STALL SHOWER



- Walk to the edge of the shower with your walker.
- Lead with your operated leg and then non-operated leg into the shower.
- Follow with your operated leg then your non-operated leg.
- You can either stand up to shower or sit in a chair.

## TO GET OUT OF THE STALL SHOWER

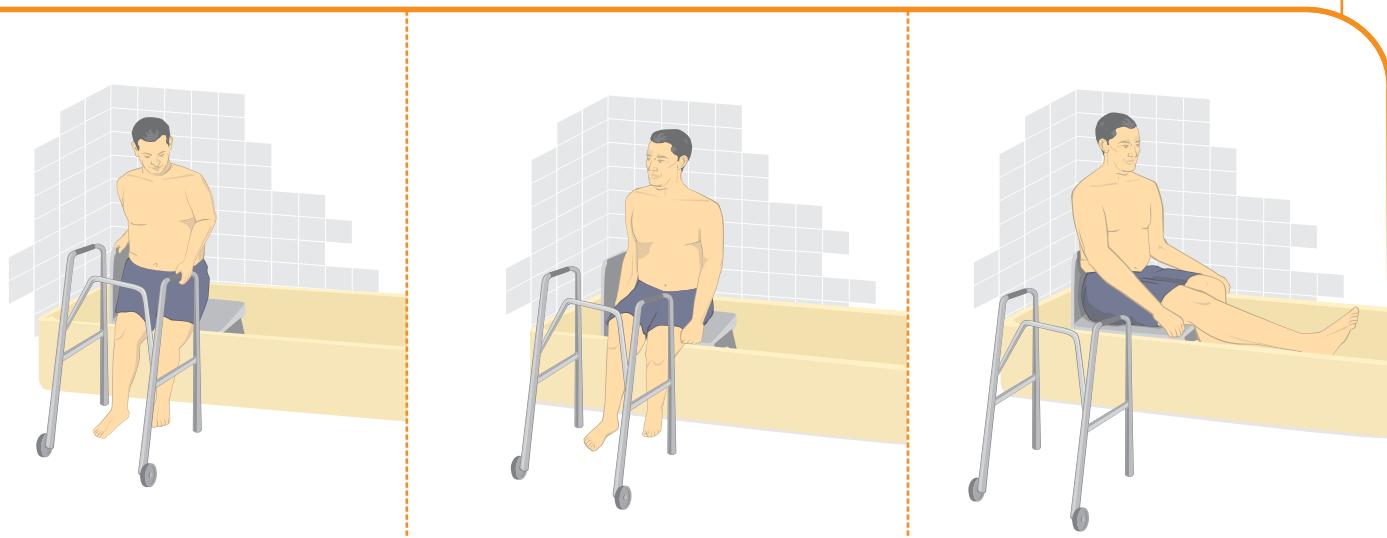


Getting Out of Stall Shower

- If seated turn on the seat and lift your legs out of the shower.
- Push off the back of the chair and keep one hand on the walker.
- Stand up straight using the walker for support.

## TUB

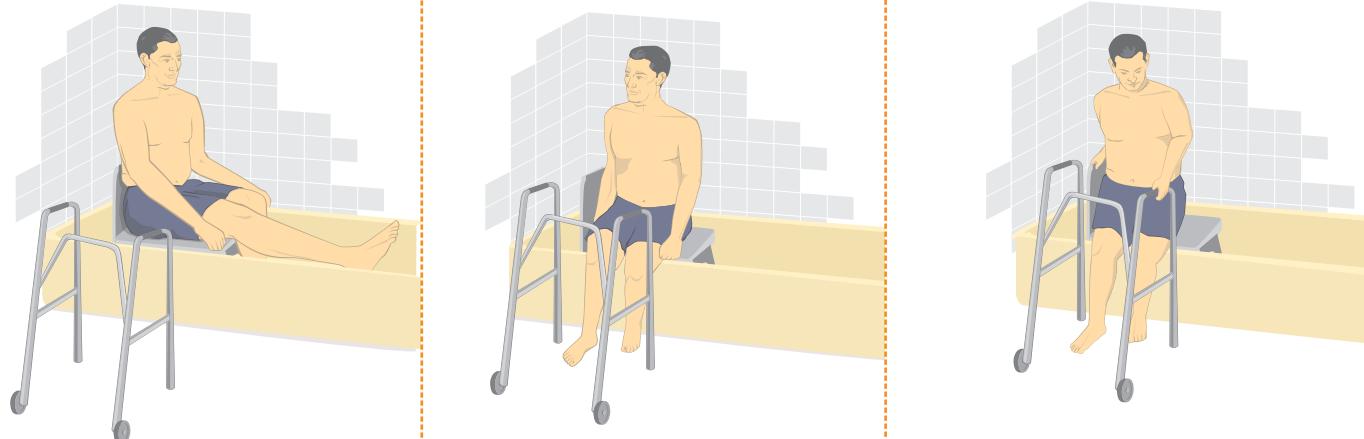
### TO GET INTO THE TUB



Getting Into Tub

- Have a chair or some type of seat in the tub. Do not sit in the bottom of the tub.
- Walk to the tub seat with your walker and face away from the tub.
- Keep one hand on the walker and reach behind with the other hand for the back of the chair.
- Gently sit down on the chair with your operated leg out straight.
- Lift your legs into the tub helping your operated leg with your hands.
- Keep your operated leg out straight.

## TO GET OUT OF THE TUB

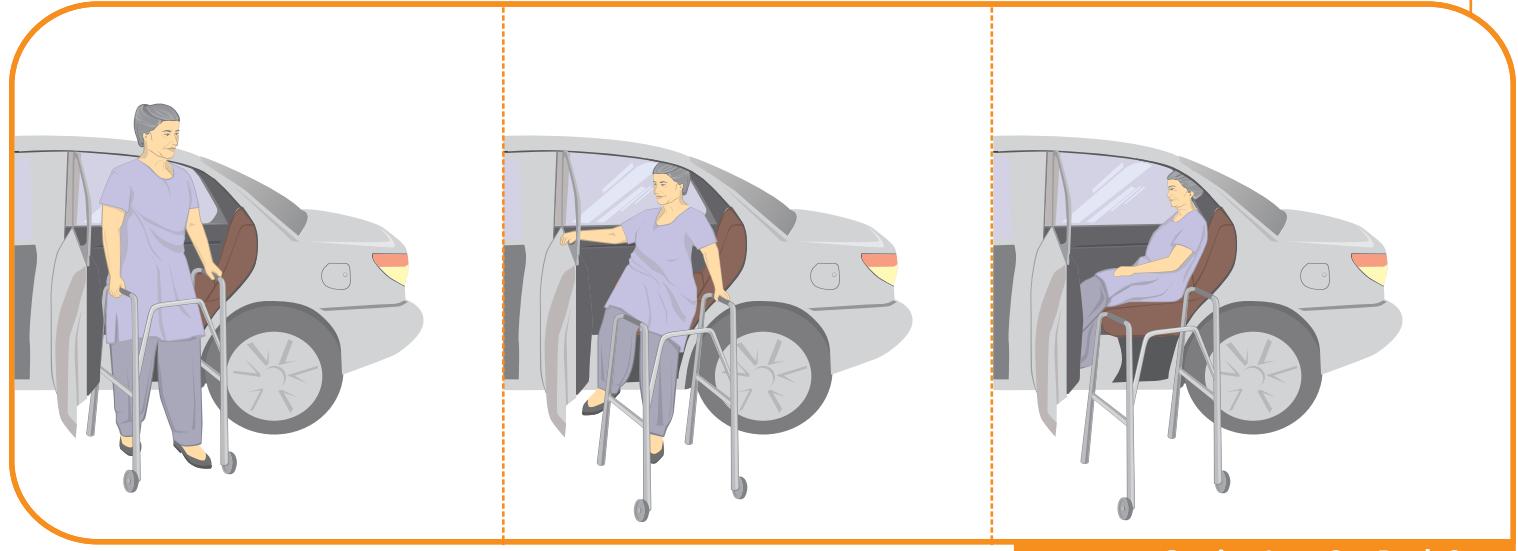


**Getting Out of Tub**

- Turn on the seat and lift your legs out of the tub.
- Push off the back of the chair and keep one hand on the walker.
- Stand up straight.

## CAR TRANSFER

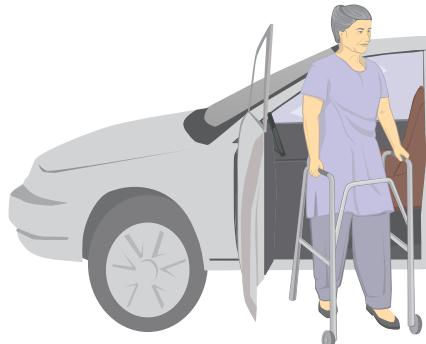
### GETTING INTO THE BACK SEAT



Getting Into Car Back Seat

- Back up to the car with the walker.
- Hold onto the car seat for support. You may also roll down the window and hold onto the door. Sit on the edge of the car with the operated leg straight out. Always get in on the side such that the seat will support your operated leg.
- **RIGHT LEG** = passenger's side **LEFT LEG** = driver's side
- Slide on the seat in a semi-reclined position.
- Note: Sitting on a plastic garbage bag may make it easier to slide back on the seat.

## GETTING INTO THE FRONT PASSENGER SEAT



Getting Into Car Front Seat

- Push the front passenger seat all the way back and recline it to a 45° angle.
- Back up to the car with the walker.
- Sit down and lift your legs into the car.
- Always ride with the seat in a semi-reclined position.

# SQUATTING

## GETTING INTO THE SQUATTING POSITION



Getting Into Squat

- Stand perpendicular to the wall, with one hand on the wall for guidance.
- With feet shoulder-width apart. Keep your head and neck straight, in line with your spine.
- Using the wall for support, slowly lower down to a squat or seated position.

## GETTING OUT OF THE SQUATTING POSITION



Getting Out of Squat

- With your feet in-line with your shoulders, slowly stand up using the wall for support.

## SIT TO STAND

### CORRECT



Correct Way to Get Up from Chair

- Slide to the edge of the chair.
- Push up from the armrests of the chair.

### INCORRECT

Do not pull up on the walker while standing up - it could cause the walker to tip over.



Incorrect Way to Get Up from Chair

## FREQUENTLY ASKED QUESTIONS

### What is the prosthesis made of?

There are different materials that the knee could be made from. The Freedom Knee is made up of a cobalt chromium molybdenum alloy which has high strength and corrosion resistance. The bearing material, which substitutes for the cartilage, is made of ultra high molecular weight polyethylene which is lightweight and has excellent wear properties.

### How much does it weigh?

About a .5 Kg (or approximately 1 pound). The fabrication materials were chosen because of their light weight.

### Will I set off metal detectors?

Yes. The surgeon will give you a card that will alert people that you have had knee replacement. It is recommended that you carry this card with you as you would carry your identification, credit card or driver's license.

### When do staples come out?

About 10 to 14 days after surgery. Your surgeon will decide exactly when the staples can be removed based on the healing of the skin around your incision.

### When can I shower?

About 4 days after surgery. It is recommended that you use a shower chair or some assistive device initially to ensure stability throughout your bathing.

### When can I drive?

Four to 6 weeks after surgery. This is the approximate time period it takes for you to gain the bending and straightening ability in your knee that is needed to operate the foot pedals of a vehicle.

### Can I sit on the floor after my surgery?

As this motion requires a great deal of knee bending, it usually takes about 3 months after surgery.

### When can I go up and down stairs?

In about a week. This training is usually provided to you during physical therapy where you will learn the proper placement of your hands and feet to help ensure safety and stability during stair climbing.

## What is gait training?

The word ‘gait’ means ‘walk.’ Gait training involves learning how to walk with crutches or a walker initially, followed by a cane and then walking independently without the use of an assistive device.

## WHEN TO CALL YOUR SURGEON

- If you have chills or fever greater than 38.3°.
- If you are having trouble breathing, chest pains or have severe nausea or vomiting.
- If you are having pain or burning during urination, or if you see significant blood in the urine.
- If you have redness, swelling, incision pain, drainage, such as blood, pus, or foul smell at incision site.
- If you develop calf pain or tenderness in either leg, swelling redness, or a low grad fever.

**Have a successful recovery.  
Enjoy an active life with your new Freedom Knee.**

## NOTES

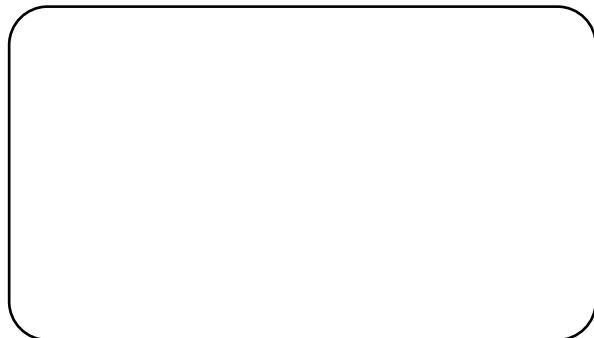
# Pursue Life™



For more information about what to expect from your knee replacement surgery, please ask your doctor about receiving these additional materials:

[Introduction & Preparation](#)

[Your Hospital Stay](#)



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