

GUIDEBOOK

Total Knee
Replacement



Table of Contents

Overview of Service	3
Guidebook Welcome and Overview	4
Before Surgery	5
Exercises	6
Pre-Admission Testing	7
Pre-Hospital Checklist	7
Your Hospital Stay	9
Day of Surgery	10
Anesthesia Care	11
Pain Management	13
Length of Stay	14
After Surgery	15
Medications	16
Preventing Complications	18
Physical and Occupational Therapy	19
Exercises for the Upper Body	20
Exercises for the Knee	23
Negotiating Stairs	27
Special Considerations	28
Driving/Returning to Work	28
Post-Surgery Activities	28
Preparing Your Home	28
Reaching Devices	29
Preventing Falls	29
OT Equipment Used in Joint Replacement	30
Next Steps After Ellis Hospital	31
Case Management at Ellis Hospital	32

Overview of the Ellis Medicine Joint Replacement Service

We offer a unique program. Each step is designed to encourage the best results after surgery. Features of the program include:

- **Dedicated nurses and therapists trained to work with joint patients**
- **Private and semi-private rooms**
- **A recorded class to prepare you for surgery — <https://bit.ly/EllisJRP>**
- **This comprehensive patient guide**

Your Joint Replacement Team

Orthopedic Surgeon: The orthopedic surgeon is the specially trained doctor who will perform the procedure to repair your damaged joint.

Physician Assistant (PA): The PA works with your doctor to prescribe, diagnose and treat health care problems. Physician assistants often see you before, during or after joint replacement surgery.

Registered Nurse (RN): The RN is a professional nurse who is responsible for managing your nursing care following your surgery while using the surgeon's instructions to guide your care. RNs offer educational information to you and your family about health and safety needs – before and after surgery. RNs also provide care and education in your surgeon's office.

Case Manager: This registered nurse works closely with your surgeon and the other team members to understand your needs, plan for your care in the hospital and help you prepare for discharge. Your plan may include outpatient therapy, home equipment, and/or any skilled nursing care, if needed.

Physical Therapist (PT): The physical therapist will guide your return to functional daily activities. They will train you and your coach in safe transfer techniques and teach exercises designed to regain your strength and motion after surgery.

Occupational Therapist (OT): The occupational therapist will teach you about performing daily tasks such as bathing and dressing with your new joint. They will also teach you how to use special equipment that can assist you with such tasks after you receive your replacement.

Welcome to the Joint Guidebook!

This guidebook is for patients planning a Total Knee Replacement Surgery.

Overview:

- To help prepare you for your surgery and hospital experience.
- To guide you through your recovery pathway.
- To prepare you for your post-hospital rehabilitation program and at-home recovery.
- To help you achieve your optimal goal by becoming an active participant in your care program.

Will include:

- **Physical Therapy Plan of Care:**
 - > Pre-procedure exercise program
- **Occupational Therapy Plan of Care:**
 - > Home Preparation
- **Hospital Discharge and Post-Hospital Rehabilitation Plan:**
 - > Discharge to Home
 - > Outpatient Physical Therapy

Please bring this book to the hospital with you. You should refer to this guide while you are in therapy and during your hospital stay. The information in the guidebook covers many details, so it may look overwhelming. You and your support team should carefully read this entire book at a comfortable pace for you. Refer to it as needed throughout your recovery process. You should keep your guidebook as a handy reference for at least the first year after your surgery.

Your physician, physician assistant, nurse, or therapist may add to or change any of the recommendations in this guidebook. Always use their recommendations first and ask questions if you are unsure of any information.

Before Surgery

Section Topics:

- Pre-Operative Exercise Program
- Pre-Admission Testing
- What to Bring to the Hospital

Exercises Before Surgery

Exercises prior to surgery are important to improve flexibility and strength. This will make your recovery easier.

Refer to exercises on pages 20 – 26 for illustrations. You will start by performing all exercises 5 times each. If this is easy for you, you will want to increase each exercise to 10 repetitions. Depending on your tolerance to exercise, you may add light weights, such as a can of soup for arm exercises or a heavier shoe on your foot for leg exercises. These are also the exercises you will be performing in your recovery after surgery.

You will need to strengthen your arms. This will help you use a walker after surgery and you will rely on your arm strength to support you during ambulation, getting off the toilet/chair and getting in and out of bed.

Do not do any exercise that is too painful.

Pre-Admission Testing

Prior to your surgery, you will be scheduled for Pre-Admission testing. Please expect your pre-surgical screening appointment to be 30 – 45 minutes. It may include:

- Pre-Operative Teaching
- Nursing Assessment
- Diagnostic Testing
- Blood Work and EKG if needed

Please have a list of your current medications (prescription, vitamins, herbals, and over-the-counter drugs), and medical history information. You will be instructed which medications to take on the morning of your surgery, with a sip of water.

Pre-Hospital Checklist

- Nothing by Mouth (NPO) after midnight**
 - > This is necessary to avoid vomiting while under anesthesia which could result in development of pneumonia.
 - > DO NOT eat or drink anything including water, candy, gum.
 - > Certain medications may be allowed with small sips of water.
 - > Your surgery will be cancelled if you have not fasted.
- Shower with Chlorohexidine scrub.**
- Comfortable walking shoes or sneakers.**
- Transportation to home arranged.**
- DME (Durable Medical Equipment) in place – DO NOT bring yours to the hospital!**
- Anticoagulation picked up.**
- Outpatient Physical Therapy scheduled.**

Your Hospital Stay

Section Topics:

- Anesthesia Options
- Use of Pain Rating Scales
- Post-Operation Daily Routine
- Establishing a Comfort Goal
- Pain Control Options

Your Day of Surgery



You will go directly to the Welcome Center, which is located on A-2 outside the Operating Room and Day Surgery Unit. The admitting staff will complete your admission process and escort you across the hall to the Day Surgery Unit. Your vital signs (temperature, heart rate, blood pressure, etc.) will be checked. Please **DO NOT** eat or drink anything after midnight on the night before your surgery unless you have been otherwise instructed.

The **Day Surgery Unit (DSU)** nursing staff will complete your final preparations before surgery:

- Registered Nurse will review your previously completed admission assessment with you.
- An intravenous (IV) infusion will be started to provide a route for fluids and medications. If you need to have any further blood testing, your nurse will draw the blood at this time.
- An IV antibiotic will be connected to your intravenous tubing, so that it can be administered upon your arrival in the Operating Room.
- Your anesthesiologist will meet with you to discuss anesthesia options appropriate for you.
- During your surgery, your family members are welcome to wait in the Main Lobby, located on A-1. Your surgeon will talk with your family when your operation is completed. If your family is unable to be present after your surgery, please give your surgeon a telephone number where they can be contacted.

Anesthesia Care

Department of Anesthesiology

The department of anesthesiology is a group of specialty-trained Physicians and Certified Registered Nurse Anesthetists that are committed to providing you with safe and effective anesthesia care.

- You will meet with your anesthesiologist the morning of your surgery to discuss your general health, medical history, medications you currently take, and anesthesia options.
- After speaking with you and your surgeon, your anesthesiologist will decide on an anesthesia care plan that is most appropriate for your specific procedure and physical condition. Your wishes and personal goals are also important factors which will be considered when determining your specific plan of care.
- Your Anesthesia Care provider will be with you throughout your surgical procedure, no matter what type of anesthesia you choose. While in the Operating Room, your anesthesiologist or Nurse Anesthetist not only administers your anesthesia, but also:
 1. Provides continual medical assessment.
 2. Monitors and regulates your vital signs (heart rate and rhythm, breathing, blood pressure, body temperature, and fluid balance).
 3. Controls your pain and level of consciousness to ensure your safe and successful surgery.

Types of Anesthesia:

GENERAL ANESTHESIA: This is the type of anesthesia that most patients think of when having surgery. Anesthetic medications are given to produce muscle relaxation, pain relief, and induced sleep causing you to be unaware of your operation. These medications are stopped or reversed at the end of your procedure and you typically wake up shortly after arriving in the **Post Anesthesia Care Unit (PACU)**.

REGIONAL ANESTHESIA: This type of anesthesia blocks the transmission of nerve impulses to a specific region of the body. This procedure is performed by injecting a local anesthetic (numbing medicine), along a selected nerve pathway. Before receiving the injection, you may be given a mild sedative through your intravenous (IV) line to reduce discomfort from the injection, and any anxiety or tension you may feel. This sedation may continue during your surgery allowing you to sleep through your operation. Common types of regional anesthesia are spinal and/or epidural.

Post Anesthesia Recovery:

- Your anesthesia care also continues after your operation. When your surgery is completed, you will be moved from the Operating Room to the Post Anesthesia Care Unit (PACU) for attentive care and monitoring while you recover from anesthesia.
- In the PACU, you will receive oxygen, IV fluids, and continuous monitoring. You will be cared for by registered nurses with advanced training in the care of patients recovering from anesthesia. Your anesthesiologist will oversee your recovery process in the PACU until you are ready for discharge or transfer.
- Your Pain Management Program will be initiated in the PACU. You will remain in the PACU until your pain is under control, your anesthesiologist determines when you are ready and you have met certain milestones for discharge or transfer.
- Visitation in the PACU is not usually permitted in order to promote patient privacy, decrease the risk of infection, and enhance the healing process. Every effort will be made to provide your family with the most updated information about your condition.

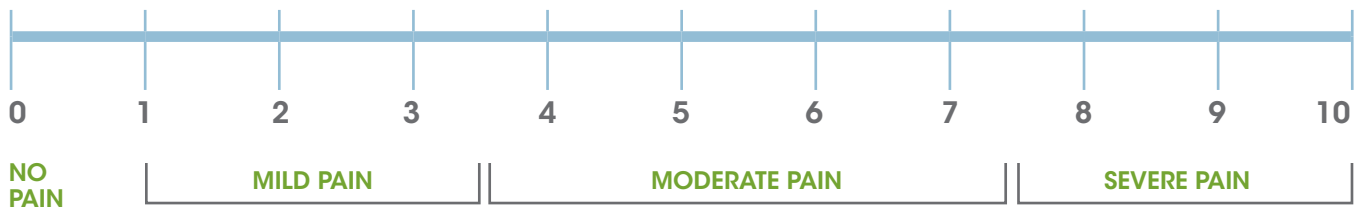
Pain Management Plan

Your Pain Management Plan

- Your postoperative pain control is very important to us. We want to provide you with the safest, most effective pain management possible to enable you to actively participate in your recovery process.
- To ensure optimal benefit from your pain treatment plan, good communication with your health care team is essential. As part of your pain care treatment plan, you will be asked to provide your doctors and nurses with the following information:

PAIN SCORE: After your surgery, you will be asked to rate your pain on a 0 to 10 scale, with “0” being no pain and “10” the worst pain you can possibly imagine. This pain score will let your doctors and nurses know how well your pain treatment plan is working and whether it needs to be changed.

PAIN SCALE



COMFORT GOAL: A “comfort goal” is your acceptable level of pain that will allow you to perform the daily activities required for your recovery, such as coughing, deep breathing and walking. This process helps to set realistic goals since a “0” pain score is not always possible.

Your Hospital Stay

Most patients go home the same day as their surgery. Please be prepared and have someone responsible to transport you as you cannot drive.

When appropriate, you will walk to the bathroom and perform stairs if necessary in the recovery area with a nurse or physical therapist.

A few patients need to remain in the hospital overnight. If so, you can expect to be seen either the same day or the next morning by a Physical Therapist and Occupational Therapist. The Physical Therapist will have you get out of bed and a chair, walk, and do stairs if you have them at home. The Occupational Therapist will make sure you can dress/toilet yourself and give tips for adaptations as needed.

Please plan to be discharged home the day after your surgery and have transportation set up.

After Surgery

Section Topics:

- Medications
- Staples
- Post-Op Treatment Plan
- Complication Prevention

Post-Surgical Information

Total Knee Arthroplasty

Anticoagulation:

- After orthopedic surgery many patients are given a blood thinner (anticoagulant) to prevent blood clots.

Medications:

- You will be given a list of medications to take when you are discharged. Do not resume taking medications you were on prior to surgery without checking with your physician and/or pharmacist. Your specific home medication may have been substituted with a similar medication while in the hospital, so you would not want to take both drugs. Use the same pharmacy for all your prescriptions. This way the pharmacist will be better able to identify potential drug interactions and duplications.
- If you normally use a mail order drug plan, be prepared to fill a new prescription at your local pharmacy. Your primary care physician will assess the ongoing need for those medications and then write the necessary prescriptions to comply with your specific plan. Drugs such as pain medications and Coumadin are generally expected to be for short-term use.
- Bring your local pharmacy's phone number and address with you.
- Do not stop taking any medications without checking with your doctor. Also check with your doctor about using any over-the-counter medications, including vitamins and herbal remedies which may interact with the prescription you will be taking.
- Check with your doctor or pharmacist before consuming alcohol, which may affect the action of many drugs. Also inform physician and other caregivers of any allergies to medicine or food.
- You will need to follow your surgeon's instructions regarding non-emergent dental work or other surgeries.
- Make sure you inform your dentist that you have had a joint replacement before having dental work done. You will need prophylactic antibiotics prior to procedure.
- Please DO NOT share prescription medications with others.

Post Surgical Information

Total Knee Arthroplasty

Staple Removal:

- Staples can usually be removed 7 – 14 days from the date of surgery. This is done in your surgeon's office unless you are still hospitalized or in short-stay rehab.
- The incision is covered with a dry sterile waterproof dressing until the staples are removed.
- Call your physician if you develop incisional redness, swelling, pain or drainage or if you develop a temperature over 101°. Call 9-1-1 if you are short of breath or have chest pain.

Post Surgical Information

Total Knee Arthroplasty

Complication Prevention and Helpful Hospital Hints

Complication Prevention:

- 1.** Fluid can collect in the lungs after surgery. To avoid pneumonia, you should breathe deeply and cough 10 times each hour while you are awake. Along with this you will use a plastic device called an Incentive Spirometer. To use, inhale on the mouthpiece to raise and maintain the ball at the top of the tube, for at least 3 seconds. At the end of your third inhalation, forcefully cough to raise any secretions.
- 2.** Surgery and bed rest are among the factors that contribute to the risk of developing deep vein thrombosis (DVT) or blood clots. You will be wearing either sequential compression sleeves (SCD's) or foot pumps. They can be removed for ambulation or bathing. To prevent this you should avoid any one position for more than one hour and perform the exercises in the following section. (Report any calf tenderness or pain to your nurse).
- 3. When to contact your surgeon's office:** Call your physician if you develop incisional redness, swelling, pain or drainage or if you develop a temperature over 101°. Call 9-1-1 if you are short of breath or have chest pain.
- 4. Incision care:** The post operative dressing should remain on your incision until your in-office follow up with your surgeon.

Physical and Occupational Therapy

Section Topics:

- Exercise Program
- Stairs
- Returning to Work
- Activity Restrictions
- Home Preparation
- Fall Prevention
- Reaching Devices
- Next Steps After Ellis...

Exercises for the Upper Body

Exercising before surgery and after surgery will help your recovery process and restore your range of motion. Please follow these guidelines for exercising.

Frequency: Individual repetitions will vary. Start with 5 repetitions of each exercise and gradually increase to 20 repetitions, twice daily.

Tricep Extensions

Standing or sitting, bring arm with weight up so elbow is near ear. Support the arm with other hand. Now slowly straighten arm, then bend it. Repeat using opposite arm.



Arm Curls

In a chair with no arms, place feet far apart. Rest arm holding weight on inner thigh, then raise forearm and slowly "curl" weight to shoulder. Relax arm to starting position. Repeat with opposite arm.



Exercises for the Upper Body

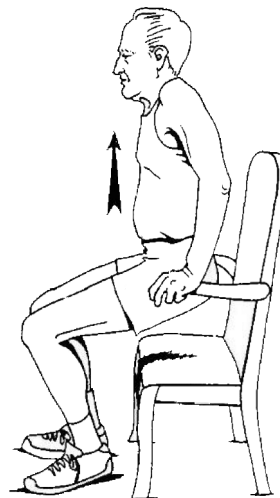
Side Arm Raises

Lift arms up over head.



Arm Chair Push

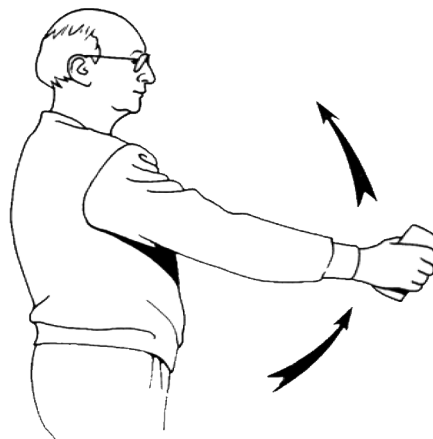
Put hands on arms of chair and push body up out of chair.



Exercises for the Upper Body

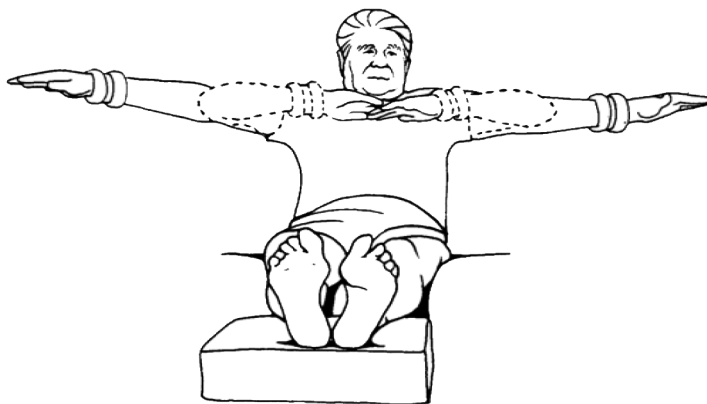
Weighted Arm Raises

Sitting or standing, hold weight in one hand. Keeping elbow straight, raise arm above head. Very slowly, return arm to side. Repeat with opposite arm.



Horizontal Arm Exercise

Straighten and bend elbows.



Exercises for the Total Knee

Ankle Pumps

Bend ankles up and down, alternating feet.



Heel Slides

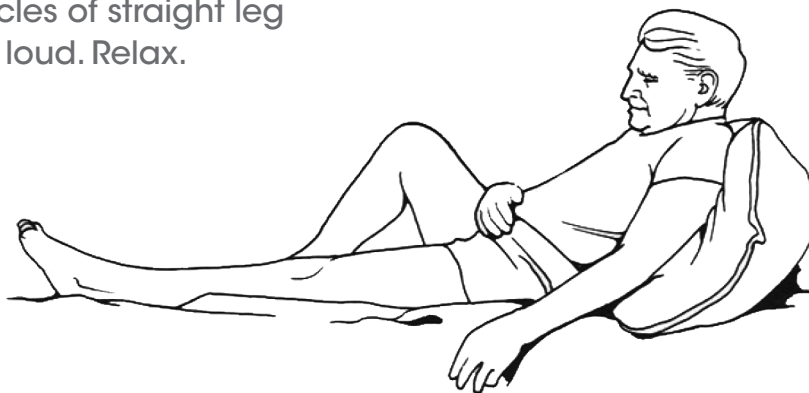
Bend knee and pull heel toward buttocks. Place a rolled towel under the ankle. Don't put anything under the knee. Push the knee straight out.



Exercises for the Total Knee

Quad Sets

Slowly tighten thigh muscles of straight leg while counting to 10 out loud. Relax.



Straight Leg Raises

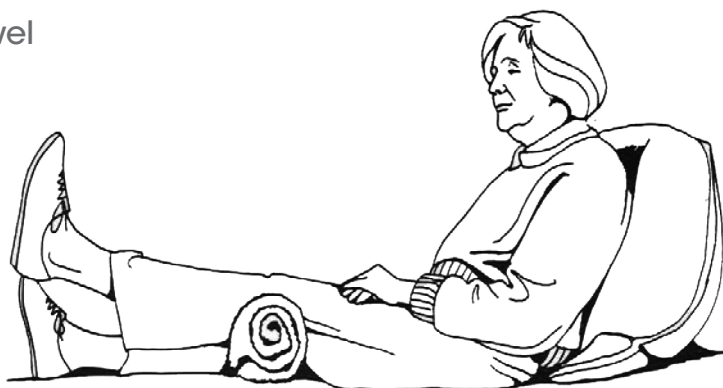
Bend one leg. Keep other leg as straight as possible and tighten muscles on top of thigh. Slowly lift leg 10 inches from bed and hold 2 seconds. Lower it, keep tight for 2 more seconds and relax.



Exercises for the Total Knee

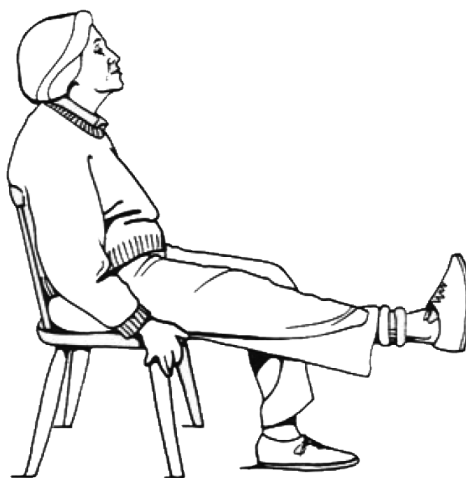
Short Arc Quads

Place a large can or rolled towel under leg. Straighten leg.



Long Arc Quads

Straighten operated leg and try to hold it 10 seconds.



Exercises for the Total Knee

Chair Knee Flexion

Keeping feet on floor, slide foot of operated leg back, bending knee.



Knee Stretches

Cross legs at ankles. Push back leg with front leg until stretch is felt. Relax. Recross legs at ankles. Lift front leg with back leg, straightening it out. Repeat entire exercise with legs switched.



Negotiating Steps for Total Knee

Going Down Steps

- Get as close to the stairs as possible.
- Hold on to the hand rail of the stairs and use a cane or crutch to support your other side.
- Take the first step down using the weaker leg, or the side where the surgery was done, then follow with the other, stronger leg onto the same step. When using a cane place the cane down on the step first, followed by the weaker leg.
- Repeat this pattern until you reach the bottom of the stairs.

Going Up Steps

- Get as close to the stairs as possible.
- Hold on to the hand rail of the stairs and use a cane or crutch to support your other side.
- Take the first step up using the stronger leg, then follow with the other, weaker leg onto the same step.
- Repeat this pattern until you reach the top of the stairs.

Remember the phrase—

“Up with the Good and Down with the Bad”

to help you walk up and down stairs

Special Considerations

Driving/Return to Work

Discuss with your physician when you can resume driving and/or return to work. Every patient recovers at a different rate and each physician has their own personal guidelines. Consider that your response time in various driving situations could be affected by post-op weakness and the pain medications you may be taking.

THINGS TO ALSO KEEP IN MIND:

- Arrange ahead of time for rides to appointments, blood tests and physical therapy.
- Avoid low car seats, or use a firm cushion to help raise the height. Your endurance will also be affected by the surgery, so your doctor will let you know when you can return to work.

Post-Surgery Activities

- 1. Activity Restrictions:** These vary depending on the type of surgery you've had. In general, you can expect to need assistance with heavy housework and should avoid high impact activities. Endurance with flexibility for daily routine tasks will be lessened initially. Have foot and toenail care performed prior to surgery as reaching may be limited for a while.
- 2. Sexual Activities:** Can be resumed as soon as you feel well enough. If you have any questions, please speak with your physician and/or physical or occupational therapists and they can provide you with specific guidelines.

Preparing your home prior to surgery

Seat Heights: Look at heights of commonly used furniture (kitchen/desk chairs, sofas, bed) and your toilet. Low surfaces may be more difficult to get up from initially and an elevated toilet seat is sometimes helpful. Firm cushions, folded blankets or furniture leg extenders may be used to raise seat heights. Chairs with arms are easier to stand from. Following surgery your therapists will help assess your particular seating needs.

Special Considerations

Reaching Devices “demonstration”. Use of devices such as a reacher, long-handled shoe horn, and sock aid may be advised, especially if you have difficulty reaching your feet. If you have these items, please mark with your name to bring to rehabilitation center for use. Practice with these devices at home before surgery can be very helpful. Some people may benefit from use of elastic shoelaces, a long handled sponge or bath brush, and a bag or basket for the walker. Insurance does not typically cover the cost of these devices.

CAUTION If you have issues with skin integrity, wounds, non-healing wounds/ulcers, circulatory issues or thin skin in your legs which may be compromised by the use of the above mentioned assistive devices, please seek guidance from an appropriate medical resource (such as Primary Care Physician, orthopedic surgeon, therapist) prior to purchase and use.

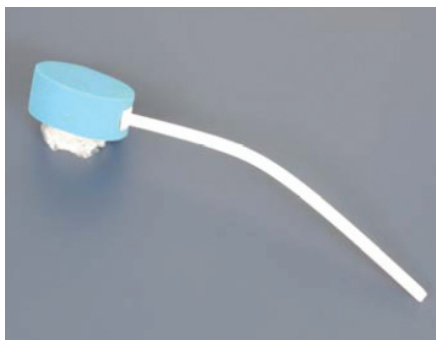
Falls Prevention

Safety tips to prevent falls and injuries:

- Remove throw rugs and tape edges of area rugs.
- Remove obstacles from the pathway commonly traveled through the house (about 26 inches) and make sure that doors open fully.
- Remove telephone, television, and light cords from main pathways.
- Keep cordless phone with emergency numbers within reach at all times.
- Bending to retrieve items may be limited at first. Rearrange frequently used items to be within easy reach (not on low or high shelves or behind obstacles). A reacher may be helpful.
- Installing grab bars and applying non-skid strips or a rubber mat in the tub/shower floor may be helpful. Some patients may need to use a shower seat as recommended by your therapists following the procedure.
- Pace yourself and take short rest periods to help you maintain your energy to get things done.
- Use nightlights (or flashlights) or turn on the light when getting up to go to the bathroom at night. Replace unlit bulbs for well-lighted rooms.
- Have a secure rail by steps or stairs.
- If alone, plan to have someone check in with you daily. Be sure someone has a key to get into your home in case of an emergency.

OT Equipment used for Joint Replacement

These items may be helpful to allow you to be more independent in your recovery. They are not covered by insurance. They can be purchased at a local pharmacy, surgical/medical supply store, Walmart and Amazon as well as other retailers.



Long-handled Sponge



Long Shoehorn



Reacher



Sock-aid

Next Steps After Ellis Hospital....

Going Home

1. Most people will go home and will not need to be transferred to a rehabilitation facility.
2. Most people will not need a nurse or physical therapist to visit at home. Most patients can use outpatient physical therapy post-operation. Physical therapy post-operation is based on your doctor's recommendation.

Ambulatory Devices

When you leave the hospital (either Ellis or rehab), you will be instructed in use of a walking device (walker, cane or crutches) that is optimal for you. Progression to ambulation without a device is often done under a physical therapist's guidance during the post-hospital phase of your recovery or directly by your physician.

Case Management Department

Ellis Hospital

Types of rehabilitation and post hospital discharge planning will be briefly described as follows:

Home with outpatient rehabilitation services and blood work: You will be given a prescription for physical therapy and/or blood work and assistive devices as prescribed by your physician. Most patients will go home. Outpatient Physical Therapy should be scheduled prior to surgery.

Acute Rehabilitation: Rehabilitation is more intense – 3 hours of therapy per day and patients generally stay 5 – 7 days.

Sub-Acute Rehabilitation: Rarely approved, but therapy is 1– 3 hours per day and could be a longer stay. The sub-acute rehabilitation policy will be further discussed with you by your case manager.

Ask your doctor which plan is best for you.

Case Management and Social Work services look forward to working with you. For any questions regarding rehabilitation, please contact **518.243.4293** and ask for Case Management.

Notes

Notes

Notes

GUIDEBOOK

**Questions about
this program?**

CONTACT:

A3 Nurse Manager
518.243.4237