Strength in Orthopaedics

Fighting back from injuries is tough. That’s why the Orthopaedic Department at Loma Linda University Health offers strength in treatment plans that are tailored to your goals. Here, you’ll find strength in regaining functional ability and motion.

Strength in a full spectrum of care by an Orthopaedic team of specialists in joint replacement, spine surgery, foot & ankle disorders, and trauma & sports medicine.

Strength in getting back to doing what you love.

We’re with you every step of the way and from the comfort of your own home.
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Overview of Total Knee Replacement

The knee joint is the largest joint in the body. It is the “hinge” joint of the leg. It’s the joint that allows the leg to bend and straighten. The knee joint is located at the meeting point of the thigh bone (femur) and the shin bone (tibia). The knee cap (patella) covers the area where the two bones meet.

During total knee replacement surgery, the damaged part of your knee is removed and replaced with an implant. Implants are made of various materials: stainless steel, titanium, chrome, cobalt, or polyethylene. Bone cement may also be used in the repair.

Overview of Total Hip Replacement

The hip joint helps us keep our balance and supports our weight in all of its movements. The upper end of the leg bone (femur) has a rounded head (femoral head) that fits into a socket (acetabulum) in the pelvis to form the hip joint.

During total hip replacement surgery, the damaged part of the hip is removed and replaced with implants, called components. Your surgeon selects the components that are best for you based on your age, activity level, and body type.
Activities of Daily Living
Activities of Daily Living

How to Get In and Out of a Car After a Total Joint Replacement

1. Walk toward the car using the appropriate walking device.
   - When close to the car, turn and begin backing up to the front passenger car seat. Never step into the car!

2. Placing a plastic bag on a fabric seat may make moving easier.
   - Reach with your right hand and hold the door frame or headrest. Place your left hand on the car seat or dashboard.

3. Slowly lower yourself to the car seat.
   - Slide yourself back onto the car seat.

4. Swing your legs into the car.
   - Try to move one leg at a time.
   - Keep your toes pointed upward.
   - Do NOT cross your legs!
   - Reverse these steps to get out of a car.

- When taking extended car rides, make sure to take breaks every 30 to 45 minutes.
- Get out of the car and walk/stand for a few minutes so you don’t become too stiff.
- Generally, driving is not recommended for 4 to 6 weeks after surgery.
- Please contact your doctor to find out when it is safe to resume driving.
How to Get In and Out of Bed After a Total Joint Replacement

It is recommended that you get into bed with your un-operated leg leading; this makes the transfer easier and enables you to comply with your hip precautions.

1. Position yourself with your walking aid so you can feel the bed behind your knees.

2. As you start to lower yourself onto the bed reach back with your hands and slide the operated leg out in front of ensuring you don’t bend forward as you do so.

3. Sit back far enough to give full support to the operated leg and then either swing your legs onto the bed or hold under both thighs to lift them onto the bed at a 90 degree angle, keeping them together and avoiding any twisting motion. If this is too difficult, use your arms to lift yourself back onto the bed, again keeping your legs together and use the un-operated leg to help.

4. When maneuvering yourself on the bed ensure you do not bend forward at your hip or twist your hip as this can compromise your hip precautions.
Reaching Below Your Knees After Hip Replacement

Long Handled Reacher

Reaching down can be done with a long handled reacher. A long handled reacher is used for dressing the lower part of your body, allowing you to slip clothing over your feet without bending over. It’s also quite useful for retrieving items from the floor. You can also utilize barbecue tongs, or long kitchen tongs, a “golfer’s lift” or ask for help.

In your bathroom, kitchen, and bedroom you may want to move items that are stored in low cabinets or drawers to higher places to avoid bending over.
BATHING

Use caution when you are entering or exiting the shower as the floor of the tub/shower will be slippery.

**Entering the Shower**
- Back up to the shower.
- Step in with your good leg first.
- Reach back for chair or grab bars.
- Sit down, if applicable.

**Exiting the Shower**
- Step out with the surgical leg first.
Entering the Bathtub to Shower (you must have a chair)

- Back up to the tub.
- Reach back and sit on the bench.
- Lift first leg over the edge of the tub.
- Lift your second leg over the edge of the tub.
Going Up Steps

- Step forward to the curb/step.
- Place all four legs of walker onto curb/step.
- Step up with good leg followed by surgical leg.

Going Down Steps

- Bring feet close to edge of step.
- Place the walker down first.
- Step down with surgical leg followed by stronger leg.
Total Knee and Total Hip Replacement Exercises
Total Knee and Total Hip Replacement Exercises

These can be performed before and after surgery

GENERAL INFORMATION
It’s important to keep your body strong and flexible both before and after your joint replacement surgery. Following the exercise program presented below will help speed recovery and make doing everyday tasks easier and less painful during your rehabilitation period.

Circulation Exercise: Ankle Pumps
Lie on your back. Gently point and pull ankle of your surgical leg by pumping foot up and down slowly.

- Repeat 10 times (1 set).
- Do two sets a day.

Circulation Exercise: Quadriceps Sets
Lie down on your back with your legs straight. Tighten your thigh muscles by pushing your knee down into the bed. Do NOT hold your breath.

- Repeat 10 times (1 set).
- Do two sets a day.
- Try to lift your heel off the surface.

Circulation Exercise: Gluteal Sets (buttock)
Lie on your back with your legs straight. Squeeze buttock together and tighten buttocks muscles. Do NOT hold your breath.

- Repeat 10 times (1 set).
- Do two sets a day.
Short Arc Quads

Lie on your back with a towel rolled under your knee. Slowly straighten your surgical knee by lifting your foot up while keeping your thigh on the roll.

- Repeat 10 times (1 set).
- Do two sets a day.

Heel Slides

Lie on your back. Bend your surgical knee by sliding your heel toward your buttocks.

- Repeat 10 times (1 set).
- Do two sets a day.

You may be instructed to pull on a bed sheet hooked around your foot to help you slide your heel.

Straight Leg Raise (Total Knee Replacement Only)

Lie on your back with your non-surgical leg bent. Tighten your knee on the surgical leg and slowly lift your leg to the level of the bent knee. Keep your back flat on the surface.

- Repeat 10 times (1 set).
- Do two sets a day.
Hip Extension, Standing

While standing, holding onto a very sturdy surface, move your leg back. Use your arms if needed for balance and safety.

- Repeat 10 times (1 set).
- Do two sets a day.

Single Leg Stance

Holding onto a very sturdy surface, stand on one leg and maintain your balance.

- Repeat 10 times (1 set).

Hip Abduction, Standing

(Unless you were instructed not to perform)

While standing, raise your surgical leg out to the side. Keep your leg straight and keep your toes pointed forward the entire time. Use your arm if needed for balance and safety.

- Repeat 10 times (1 set).
- Do two sets a day.
Sitting Knee Flexion

Sit with a towel under your surgical leg(s). Your feet should be flat on the floor. Slide one foot back, bending your surgical knee. Hold for 5 seconds, then slide your foot forward.

- Repeat 10 times (1 set).
- Do two sets a day.

Seated Knee Extension

Straighten your surgical leg.

- Repeat 10 times (1 set).
- Do two sets a day.
How to Prepare for Surgery
When Your Surgery is Scheduled

4-6 WEEKS Before Surgery

Schedule an appointment with pre-op surgical clearance. This should be scheduled as soon as possible. At that appointment your physician will order routine pre-op tests.

Check on what testing you will need from your surgeon and make sure these are scheduled, EKG, Chest X-Ray, etc. No smoking or drinking alcohol for 6 weeks before surgery.

10-14 DAYS Before Surgery

Prepare meals, store frequently used items in easy to reach cabinets and check the safety of your home to prevent falls or tripping.

Move cords and rugs and ensure you have a non slip mat in your tub. (see next page for home safety preparation).

Schedule pre-operative lab tests within 2 weeks of your surgery date.

3-9 DAYS Before Surgery

Stop taking any aspirin or nonsteroidal anti inflammatory medication. Ask your MD about blood thinners if you are taking them.

Pre-op appointment to serve as final check-up and for any questions you might have. Bring your medication list, name of the medicine, dose and how often you take it.

An appointment will be scheduled with Pre-Anesthesia Consultation and Education Department.
Traffic pattern
Move obstacles - such as throw rugs, extension cords, and footstools - out of your walk way. Create a wide, clear path from your bedroom to your bathroom and kitchen so you can easily move about with a walker or crutches.

Sitting – for posterior hip replacements or revisions
Sit in chairs that keep your knees lower than your hips. Choose a firm, straight-back chair with armrests. A dining room chair may work if you don’t have other chairs. Add a foam cushion or folded blanket if you need to raise yourself up, but avoid sitting on a soft pillow. Also, avoid sitting in rolling chairs or recliners.

Children and Pets
Small children and pets can pose a safety hazard. Small children may need to be taught how to interact with you in ways to keep you safe. If you have pets, make arrangements to keep pets in another area of the house when you arrive home.

Access to Items
To avoid reaching or bending, keep frequently used items within easy reach, especially in the kitchen, bathroom, and bedroom, for example, food, medications, phone. It’s a good idea to carry a cell phone or portable phone with you at all times during your recovery.

Stair climbing
It’s okay to climb up stairs without assistance, if you are able. However, you may need help with climbing stairs when you first get home. Consider installing handrails or make sure existing handrails are secure.

Laundry and cleaning
Get help with cleaning and laundry. Have a few weeks’ of clean clothes available.

Mail
Arrange for somebody to collect mail or place delivery on hold (same with newspaper).

Meals
Arrange for help with your meals and perishable foods (milk, salads, and fruits and vegetables). Freeze pre-made dinners before your surgery. Stock up on non-perishable foods (boxed, canned, and frozen) to make it easier to prepare meals after surgery.

Walker Safety
Check all doorways that you will use, for example your bedroom, bathroom, and kitchen, with the chosen walker to make sure it will go through in a forward direction without any trouble.

Driving
Arrange for someone to drive you to your after surgery appointments. Do not drive until your surgeon tells you it’s okay to do so. Absolutely do not drive while taking narcotic medications. Do not drive until you have regained the range of motion, strength, and reaction time needed to drive safely.
The Day Before Surgery

You should receive a call from the pre-op department by 3 p.m. the day before your surgery to confirm your check-in time. For Monday surgeries, you will receive a call on Friday afternoon, 3 p.m. If you do not receive a call by 3 p.m., please call the hospital where your surgery is scheduled.

Do

- Remove nail polish.
- Wash your hair and shower with Hibiclens Soap as instructed on your pre-surgery checklist. This will help reduce the amount of bacteria on the skin and may lessen the risk of infection after surgery. Hibiclens Soap can be purchased at any pharmacy store.
- Sleep in clean pajamas or clothes.
- Sleep on freshly laundered linens.
- Get a good night’s sleep — it’s important to be well-rested before surgery.

Do Not

- Do NOT eat or drink anything after the time you were instructed; ice chips, gum, or mints are NOT allowed.
- Do NOT use lotions or powders.
- Do NOT shave before surgery.
On the day of surgery, you must remember several important things:

- Take only the medications you have been told to take; take them with a small sip of water.
- Comply with the strict instructions about food / beverage consumption.
- Do not wear make-up or jewelry.
- Do not take insulin unless otherwise instructed.
- Do not take your oral diabetes medication (pills) on the morning of your surgery.

When You Arrive

- You will be asked to empty your bladder.
- Any glasses, contacts, hearing aids, or dentures will be removed before surgery and returned after surgery.
- Advanced directives will be noted.
- You will have your vital signs checked (Vital signs are your heart beat rate (pulse), breathing rate, body temperature, and blood pressure).
- Your operative site will be prepped and the surgeon will review the procedure.
- An intravenous (IV) line will be started to give you fluids and medication.
Recommended Equipment
## Equipment

### Dispensed Before Surgery

**ALL joint replacements**
- Front-wheeled walker

**Posterior hip replacement ONLY**
- Bedside commode
  - can be used as a toilet riser and shower chair can be used.

### Dispensed After Surgery if Needed

**ALL joint replacements**
- Cold therapy unit

**Hip replacements ONLY**
- Hip kit
Pain Management & Precautions
Pain Management in the Hospital

Pain management is a team effort. You, the surgeon, and your nurses will all work together for optimal pain relief.

During your hospital stay you will be asked the following questions:

- Where is the pain?
- What does it feel like? Aching, burning, pressure, throbbing, etc.
- Is it there all the time or does it come and go?
- At what number would you rate your pain?
  - 1 - 3 = mild pain
  - 4 - 6 = moderate pain
  - 7 - 10 = severe pain

Managing your pain is an important part of your recovery and rehabilitation. You will have pain after your procedure. Only take narcotic pain medications when it becomes intolerable, otherwise utilize non-pharmaceutical treatments, such as ambulation, reposition, ice, etc. While managing your pain is a collaborative effort, pain is subjective; only you know how you really feel. If you have a need for pain medication, please notify your nurse and reposition your leg. Our goal is to keep your pain manageable. This will help you to successfully reach your goals.
Precautions

When at Home, If You Are Having...

Nausea
- Take your medications with food, unless otherwise instructed.
- Eat small, frequent meals.
- Call the surgeon’s office if it is not relieved.

Constipation
Constipation is a side effect of narcotic pain medications, anesthesia, surgery, and decrease in activity.
- Take a stool softener (over-the-counter).
- Increase the fiber in your diet (e.g., fiber cereal, fiber bars, plenty of fruits and vegetables).
- Drink plenty of water unless restricted by your primary physician or cardiologist.
- If you have not had a bowel movement for two days, please take an over the counter laxative (MiraLax®, magnesium citrate, suppository, etc.). If you still don’t have a bowel movement after taking these medications, please contact your surgeon’s office.

Swelling
- Swelling after surgery is normal. Because it can be painful and slow the healing process, it is important to frequently elevate your leg above your heart. Applying cold therapy is also helpful.

Bruising
- Bruising after surgery is normal. It will resolve over the first few weeks.

Total Joint Precautions
While recovering from surgery, you will follow specific precautions provided to you by your therapists. These precautions allow you to heal properly and help prevent potential complications. Make sure to ask your surgeon when it is safe to stop following these precautions.

Knee
- Do not pivot or twist your operated leg.
- Do not kneel or squat.

Hip
Note: Precautions may vary, depending on the surgical approach. Your surgeon and therapist will discuss your specific precautions. Posterior hip precautions are as follows:
- Do not bend your operated leg beyond a 90 degree angle.
- Do not pivot or twist your operated leg.
- Do not cross your operated leg or ankle.

Signs and Symptoms of Blood Clots
- Pain and/or redness in your calf and leg unrelated to your incision.
- Increased swelling of your thigh, calf, ankle or foot.
- Increased skin temperature at the site of the incision and shortness of breath and chest pain or pain when breathing.

If any of these occur call the surgeon’s office immediately.

Infection
- Increased redness and pain around your incision.
- Drainage that is cloudy and odorous.
- Temperature of over 101°.

If any of these occur call the surgeon’s office immediately.
Discharge Planning
Discharge Planning

The goal is for you to go directly home after surgery. Your safety is our top priority; therefore you MUST have someone who is physically capable to help you during your first few days at home. If you do not have anyone who can assist you at home, please notify the team. Arrangements will need to be made prior to surgery.

The goal is for you to go directly home after your hospital stay. Your safety is top priority; therefore, you must have someone to help you during your first few days at home.

Home Health Services
There are several home health agencies in the area from which to choose. The agencies generally provide a nurse, physical therapist, occupational therapist and, if needed, a home health aide.

Home health services are provided as needed. This will be determined by your physician if deemed medically necessary.

Rehabilitation Center/Skilled Nursing Facility
If deemed medically necessary, arrangements for placement into one of these facilities will need to be made PRIOR to surgery. You and your family will need to contact your medical insurance to confirm the following information:

1. If they will authorize placement to a Rehabilitation Center/Skilled Nursing Facility, and if there will be an out of pocket cost to you.
2. List of participating facilities
   We strongly recommend you visit at least two facilities to determine your preference prior to surgery. You will also need to confirm with the facility if they will be able to accommodate your admission after surgery.

Outpatient Physical Therapy
Outpatient physical therapy begins either at discharge from the hospital or upon discharge from home health services and generally lasts six to eight weeks, depending upon your needs. The surgeon’s office will provide the facility of your choice with a prescription for this service.
What to know about your post-surgery recovery
What to know about your post-surgery recovery

The First 48 hours at Home

No matter how much you prepared for your homecoming, it will be an adjustment. You will likely experience anxiety and question whether you were discharged too early. This is a normal feeling, so relax and focus on your recovery.

Activity

• Continue your exercise program and increase activity gradually; your goal is to regain strength and function.
• Follow all therapy instructions.
• Resume activity as you gain strength and confidence.
• For total knee replacement, swelling of the knee or leg is common with an abrupt increase in activity. If this occurs, elevate the leg above the level of your heart (place pillows under the calf, not behind the knee joint), and apply ice directly to the knee. You may continue with elevation and icing as needed to help decrease swelling and discomfort.
• Continued exercise at this early stage is important to achieve the best outcome with your new joint replacement. Based on your needs, your therapy may be continued at home or in an outpatient setting of your choice. You will be given an exercise program to continue exercising at home.

Do not sit for longer than 30 to 45 minutes at a time. Use chairs with arms. You may nap if you are tired, but do not stay in bed all day. Frequent, short walks --- either indoors or outdoors--- are the key to a successful recovery.

You may experience discomfort in your operated hip or knee, and you may have difficulty sleeping at night. This is part of the recovery process. Getting up and moving around relieves some of the discomfort.

You should climb stairs with support. Climb one step at a time - “good” leg up - “bad” leg down. Hold on to a railing, if available.

You may be a passenger in a car. See the instructions earlier in this guide for specific information for getting in and out of the car.

You may not drive before your first post-op visit. The decision to resume driving your vehicle is made by your surgeon.

Lifting

Do not lift anything heavy after surgery. Avoid lifting objects in a position where you need to squat or bend. Avoid climbing ladders. Your surgeon will let you know when it is OK to lift heavy objects.
After surgery you can expect gradual improvement over the coming months. You should expect less pain, stiffness and swelling, and a more independent lifestyle. Returning to work depends on how quickly you heal and how demanding your job may be on a new joint.

After you are discharged from the hospital or rehab facility, there will be a week before you return for a follow-up visit at your surgeon’s office. This period of time is critical in your rehabilitation and for positive long-term results from your surgery.

In general, patients do very well after discharge. However, it’s important that you contact the surgeon’s office if any of the following occur:

- You have increasing pain in the operative site.
- There is new or increased redness or warmth since discharge.
- There is new or increased drainage from your incision.
- The operative site is increasingly swollen.
- Your calf becomes swollen, tender, warm, or reddened.
- You have a temperature above 101 for more than 24 hours.
- For total knee replacement, your ability to flex (bend your knee) has decreased or remains the same as when you were discharged from the hospital.
Our health team members are available to assist you 24 hours a day, 7 days a week. You or a family member can call and receive answers to general questions as well as instructions in the event of an emergency. Do not hesitate to call your surgeon’s office regardless of the issue.

During the first six weeks after discharge, you should be making progress week by week. Most patients are eager to report their progress at follow-up visits and are ready to move to the next level in their recovery. Most patients can accomplish the following during the first six weeks after total joint replacement:

- Walk without help on a level surface with the use of walker, crutches, or cane as appropriate.
- Climb stairs as tolerated.
- Get in and out of bed without help.
- Get in and out of a chair or car without help.
- Shower using a tub bench once staples are removed - as long as there are no issues with the incision.
- Resume your activities of daily living including cooking, light chores, walking, and going outside the home. You should certainly be awake and moving around most of the day.
- Some patients return to work before the first follow-up visit. This is approved on an individual basis and should be discussed with your surgeon.

Icing and Elevation
After a joint replacement, swelling is expected. Swelling can cause increased pain and limit your range of motion, so taking steps to reduce the swelling is important. Continue using ice packs or some form of cold therapy to help reduce swelling.

For knee replacement, you may use pillows to elevate; however, it’s important to elevate the entire leg, down to the ankle. Never put a pillow only behind your knee so your knee is in a bent position. Your knee should be straight when elevated.

Sexual Activity After Joint Replacement
Many people worry about resuming sexual activity after a joint replacement.

- **Hip and Knee** - Sexual activity may resume when you are comfortable. Generally it is safe to resume sexual activity after surgery as long as there is not significant pain.
Diet
Resume your diet as tolerated and include vegetables, fruits, and proteins such as meats, meat substitutes (if vegetarian), fish, chicken, nuts, dairy, cheese and eggs. Vegans should check with a nutritionist to assure adequate protein consumption. Also, remember to have adequate fluid intake (at least 8 glasses a day). It is common after surgery to lack an appetite. This may be the result of anesthesia and the medications.

Proper nutrition is needed for healing. During the healing process, the body needs increased amounts of calories, proteins, vitamins A and C, and sometimes, the mineral zinc. Eat a variety of foods to get all the calories, proteins, vitamins, and minerals you need.

If you have been told to follow a specific diet, please follow it. What you eat can help heal your wounds and prevent infection and potential complications.

If you’re not eating well after surgery, contact your healthcare provider about nutritional supplements.
This period after joint replacement is a time of continued improvement. You will probably notice an increase in energy, a desire to do more activities, and a noticeable improvement in your new joint. Please keep in mind that every patient is different and will improve at a different pace. If you are not happy with the pace of your recovery, please contact your surgeon’s office to discuss your concerns.

**Walking**
After your six-week follow-up visit, you will likely start using a cane to walk and move about. Use the cane until you return for your 12-week follow-up visit. Walk with the cane as much as you want as long as you are comfortable.

**Back to Work**
Many patients return to work after the six-week follow-up visit. Tips to remember for returning to work include:

- Avoid heavy lifting after you return to work.
- Avoid standing or sitting for long periods of time.
- Avoid activities such as frequently climbing stairs or climbing ladders.
- Avoid kneeling, stooping, bending forward or any position that puts the new joint under extreme strain.
- Expect a period of adjustment. Most people return to work with few problems. However, you may find the first several days very tiring. Give yourself time to adjust to work again and gradually this should improve.

**Continue Exercise Program**
Continue to exercise. Many patients stop working with physical therapy during this time. However, exercising is the most important activity to increase strength and leads to the best outcome. Work or home activities should not replace your exercise program.

**Comply with all Restrictions**
Although you are feeling back to normal, it is important to understand and follow the restrictions your surgeon discussed with you. Any restrictions are to protect your operative hip or knee as you continue to heal. If you want to achieve a successful outcome, be patient and follow your surgeon’s instructions.

**Three Month Follow-Up**
You will see your surgeon for another follow-up visit about 3 months after surgery. We encourage you to resume normal activities both inside and outside the home. Helpful tips:

- Be realistic and pace yourself and gradually resume activities.
- Increase your walking distance and activities, but not all at once.
- Keep a cane in the trunk of your car to aid with discomfort, or uneven or icy ground.
- Enjoy the benefit of your total joint.
- Continue to call with any questions or concerns. Our staff is always available to assist you.
Six Months and Future Follow-Up Visits

Your next appointment is six months to a year after surgery, then once a year unless told otherwise. These appointments give you a chance to discuss any concerns about your total joint replacement or other joints in which symptoms may develop.

Lifelong Fitness

The goal of your surgery is to give you a new joint that allows you to perform everyday activities without pain. However, this joint is not indestructible. Avoid sports or other activities that may put stress on the joint until discussed with your surgeon. Stay as active as you can after recovering from your surgery. Ask your surgeon or therapist about activities and exercises that are right for you. It may or may not be appropriate to return to the exercise routine that you used before surgery.

An increase in body weight puts stress on the hip, so try to maintain a healthy weight.