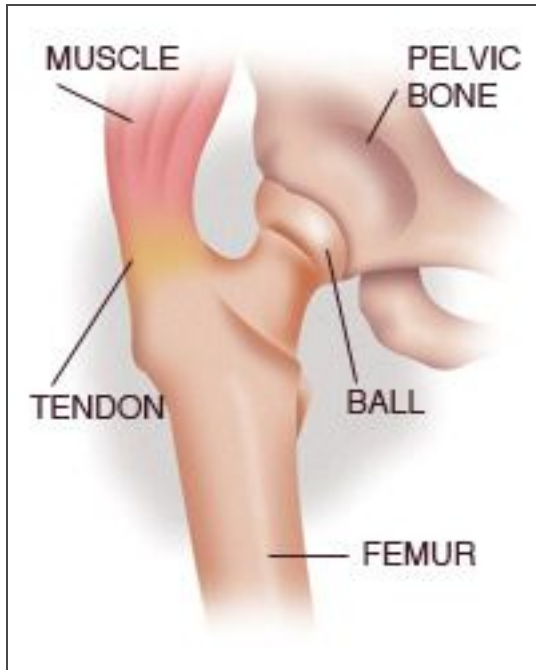


# Total Hip Replacement

*Information to prepare you and your family for surgery*

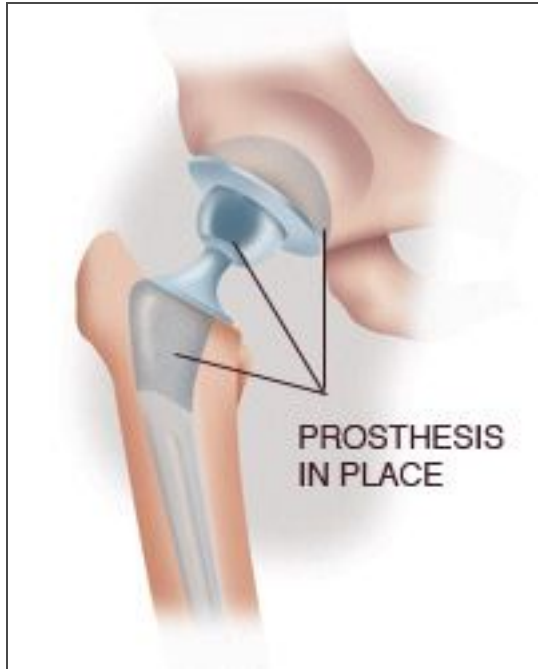


These pages provide information for you and your family regarding total hip replacement surgery. The surgical procedure, preoperative and postoperative care, the risks and benefits of surgery, as well as rehabilitation are explained. Please read carefully and discuss the information with your family before your total hip replacement surgery.

Dr. Larson and his staff have two main goals for you: to restore your hip to a painless, functional status and to make your hospital stay not only comfortable, but as beneficial as possible as you prepare to return home. You and your family members should feel free to ask questions or share concerns with the staff.

## Total Hip Replacement: Description

Total hip replacement is a surgical procedure for replacing the hip joint with an artificial joint called a prosthesis. This joint is composed of two parts: the hip socket (acetabulum, a cup shaped bone in the pelvis) and the "ball" or head of the thigh bone (femur). When one or more parts of the hip become diseased or damaged, the cartilage (the protective coating on the ends of the bones) cracks or wears away. The bones within the joint then rub together resulting in pain and stiffness.

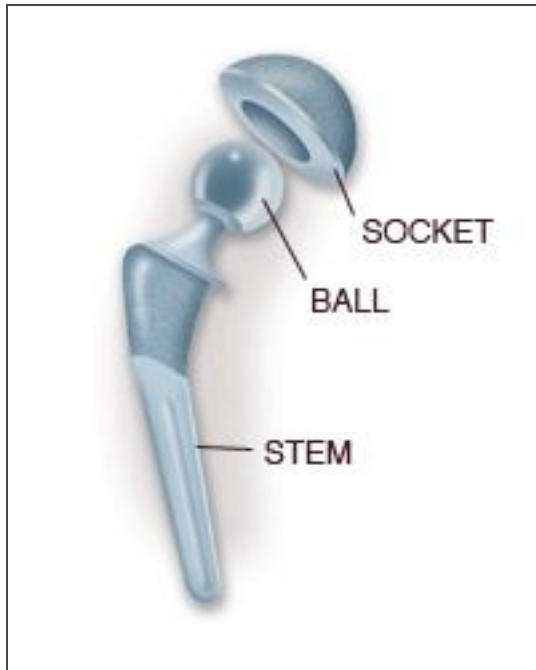


During the hip replacement procedure, the hip socket and head of the thigh bone are removed and replaced with smooth artificial surfaces. The artificial socket is made of a metal shell lined with a high-density plastic while the stem is made of a strong metal and the ball is either metal or ceramic. (Dr. Larson has never used metal-on-metal implants.)

These artificial joint surfaces are implanted onto healthy portions of the pelvis and thigh bones. The pieces are held in place by allowing bone to grow into them. Using bone cement to hold the implants in place is rare because of the new designs.

# Total Hip Replacement: Ideal Candidates

## Who Is a Candidate for Total Hip Replacement?



Total hip replacement is usually performed for severe arthritic conditions. The operation is sometimes performed for other problems such as hip fractures or aseptic necrosis (a condition in which the bone of the hip ball dies). Circumstances vary, but patients are generally considered for total hip replacement if:

- Pain is severe enough to restrict not only work and recreation, but also the ordinary activities of daily living
- Pain is not relieved by arthritis (anti-inflammatory) medicine, the use of a cane, and is restricting activities
- Significant stiffness of the hip is present
- X-rays show advanced arthritis or other problems

## Total Hip Replacement: Expectations and Risks

### What Are the Expectations of a Total Hip Replacement?

A total hip replacement will provide pain relief in 90% to 95% of patients for hopefully 20 years or more. It will allow patients to carry out many normal activities of daily living. The artificial hip may allow you to return to some active sport and heavy labor activities under your physician's instructions.

Most patients with stiff hips before surgery will regain near-normal motion and nearly all have improved motion. Please refer to the list on the [Deciding on Hip Replacement](#) page for current recommendations regarding activity after total hip replacement.

## What Risks Are Associated With Total Hip Replacement?

Total hip replacement is a major operation. Some risks are similar to most major operations, such as bleeding, injury to nerves and blood vessels, and risks related to anesthesia. The effect of most complications is simply that the patient stays in the hospital longer. The most common complications are not directly related to the hip and do not usually affect the result of the operation. These include:

- Blood clots in the leg
- Urinary tract infections or difficulty with urinating
- Blood clots in the lung

Complications that directly affect the hip are less common, but are more likely to limit the success of the operation:

- Difference in leg length
- Stiffness
- Dislocation of hip (ball pops out of socket)
- Infection in the hip
- Loosening of the implant components

A few of the complications, such as infection, dislocation, or loosening, may require reoperation - called revision surgery. Infected artificial hips usually have to be removed and antibiotics must be administered. After completing the course of antibiotics, the surgery can often be repeated. Although rare, death can occur from complications of any major operation.

The major long-term problem is loosening of the prosthesis. This occurs if the bone resorbs from the prosthesis.

Loosening is, in part, related to how heavy and how active you are. Loose, painful artificial hips can usually, but not always, be replaced. The results of a second operation are not as good as the first and the risk of complications is higher.

## Total Hip Replacement: Preparing for Surgery

Preparing for a total hip replacement begins several weeks ahead of the actual surgery date. Maintaining good physical health before your operation is important. Activities that increase your upper body strength will improve your ability to use a walker or crutches after the operation.

### Considering Blood Transfusion

In less than 1% of patients, a blood transfusion is necessary after hip surgery. If appropriate, Dr. Larson will administer a new medication to you through your IV during surgery to help reduce your blood loss (Tranexamic acid).

As an alternative to blood transfusion, a new medication has been developed that can help your body build up its blood supply. This medication is given by injection once a week, beginning three weeks prior to surgery. Dr. Larson and his staff can test your blood count to see if you qualify for these injections.

## Ensuring Overall Good Health

Dr. Larson will order blood tests and a urinalysis two weeks before surgery to make sure that a urinary tract infection is not present. Urinary tract infections are common, especially in older women, and often go undetected. Your teeth need to be in good condition, too. An infected tooth or gum can be a possible source of infection for the new hip. Dr. Larson will work closely with your medical doctor and may ask you to see him or her, especially if medical problems have been present in the past. The medical doctor can help assess your risk for surgery and will help provide continuity of care afterwards.

## Arranging Help at Home

When making preparations for surgery, you should begin thinking about the postoperative recovery period. Discharge from the hospital is typically anticipated 1 to 2 days after surgery, but it may take several weeks for a patient's energy level to return to normal. Also, movement restrictions following hip replacement can make everyday activities like bathing, dressing, and getting meals very challenging. A patient with a new hip replacement may need help at home for the first few weeks. We encourage patients to use home health services - especially home physical therapy. Dr. Larson's office can help arrange this.

If assistance from someone at home is not possible, it may be necessary to arrange to stay in an extended care facility for a few weeks. If necessary, a hospital social worker is available to help plan an extended period of recovery. If you feel you may require assistance in this regard, we encourage you to contact Dr. Larson's nurse or the hospital before your surgery.

## Total Hip Replacement: Preoperative Visit

It is necessary for patients to make a visit to Dr. Larson's office one or two weeks before their actual surgery date. This is a time for you to have all your questions answered and for your surgeon to ensure you are in the best possible health before surgery.

At your pre-op visit, Dr. Larson or his assistant will review your medical history and the medications that you take. Be sure to report all medications you are taking including prescription and nonprescription and herbal or nutritional supplements. You may be instructed to stop taking any anti-inflammatory medication (Ibuprofen, Naprosyn, Relafen, Daypro, etc) and any blood-thinning medication (aspirin) one week before surgery.

Dr. Larson or his assistant will speak with you regarding the use of the MAKO robotic arm assisted device. You will be required to have a CT scan of your pelvic area before surgery for pre-op planning.

The pre-op visit will also include listening to your heart and lungs, a general physical exam, and checking for any type of infection. Any blisters, cuts, or boils should be reported. Blood will be drawn and lab tests will be done to ensure that you are in good general health. X-rays are taken if necessary. An EKG is obtained if you have not had one in the past two months or if otherwise indicated necessary. If an infection is found, surgery is generally delayed until the infection is cleared. If you get a cold or flu or become ill at any time before surgery, you need to call Dr. Larson. Remember, we want you to be in your best possible health!

You will also be scheduled to attend a teaching session that will provide more detail about how to prepare for surgery and other information related to your surgery. There will be time for discussion and questions. Bring a written list of past surgeries and the medications and dosages that you normally take at home.

## General Information to Remember

### Diet

You should follow your regular diet on the day before your surgery. **Do not eat or drink after midnight the night before surgery.** On the morning of surgery, you may brush your teeth and rinse your mouth without swallowing any water.

### Bathing

A shower, bath, or sponge bath should be taken the evening before surgery. If possible, you should shampoo your hair. Nail polish and makeup should be removed.

### Deep Breathing Exercises

You will be instructed in deep breathing exercises to minimize the risk of lung complications after surgery. These exercises are necessary to remove any excess secretions that may settle in your lungs while you are asleep during surgery. These exercises are to be done every one to two hours after surgery. An incentive spirometer may be demonstrated. This bedside device assists you in deep breathing exercises.

### Blood Clot Prevention

At the hospital on the morning of your surgery, you will be fitted with elastic support stockings (TEDS). These stockings aid circulation within your legs and feet to reduce the risk of blood clots. Compression stockings or booties will be placed on your legs immediately after surgery. These gently squeeze your feet and legs to keep the blood moving, helping to prevent blood clots. You will also be given daily medications to help reduce the occurrence of a blood clot.

### Pain Control

You will receive oral pain medications before the surgery. If possible a spinal anesthesia will be used with IV sedation (you won't be awake). Dr. Larson will inject your hip tissues at surgery to help with pain and blood loss. It is important to continue taking your pain medication because preventing pain is easier than "chasing" it. If you continue to have pain after taking the medication, we encourage you to notify your doctor or nurse so that alternate methods of pain control can be started.

## Surgical Checklist

### Night Before Surgery

- Shower
- Nothing to eat or drink after midnight
- Review booklet; exercises

### Day of Surgery – at Home

- Brush teeth without swallowing water
- Approved routine medications with a sip of water (as instructed by your doctor)
- Scrub surgical hip as instructed
- Leave on time for the hospital

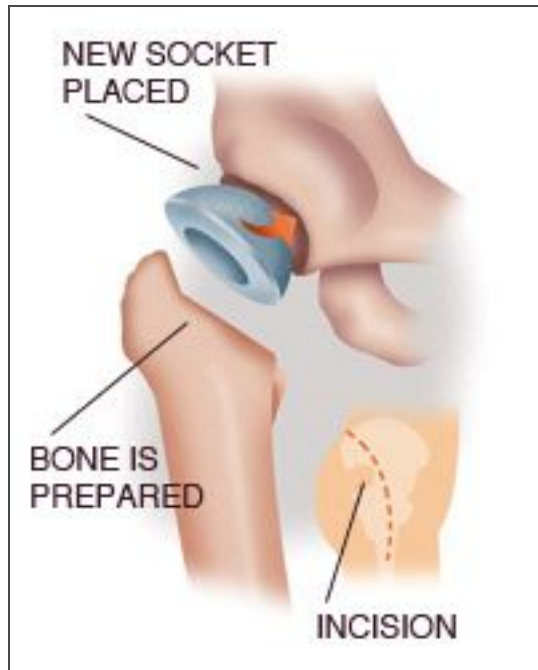
## Total Hip Replacement: Day of Surgery

You will be admitted to the hospital on the day of your surgery. You should arrive at the hospital at the appointed time with your hip scrubbed. A nurse will spend a few minutes making sure you are still in good health and ready for surgery. Please make note that, while the nurses try to accurately estimate when you need to be at the hospital, it is hard to predict how long every surgery is going to take. You may go in promptly or you may have to wait for some time. Bring something to do to help pass the time.

### Just Before Surgery

You will be asked to change into a hospital gown. Your blood pressure, temperature, heart rate, and breathing will be checked. An IV (intravenous) line will be started to provide fluids and antibiotics. The anesthesiologist will talk with you about your health status and the appropriate anesthesia for your operation. The options are either a general anesthetic (going to sleep) or a spinal anesthetic (numbing you from the waist down). They will discuss the associated risks and benefits with you.

## In the Operating Room



You will be transported to the operating room. Your anesthesia will be administered and your leg will be sterilely prepared. A small incision will be made in the side of your hip.

The damaged arthritic bone will be removed and the new joint will be put into place. The incision is closed using staples or sutures.

## A Place for Family

Your family is welcome to accompany you to the hospital and will be instructed to wait in your patient room. The actual surgical procedure may take 1 to 2 hours. However, preoperative preparation and wake-up time may lengthen your operating room and recovery room stay. Dr. Larson will talk to your family after the surgery to report your progress.

## Total Hip Replacement: After Surgery

### What to Expect

After surgery, you will be taken to the recovery room for a period of close observation, usually 30-45 minutes. Your blood pressure, pulse, respiration, and temperature will be checked frequently. Close



attention will be paid to the circulation and sensation. When you awaken and your condition is stabilized, you will be transferred to your room.

Although circumstances vary from patient to patient, you will likely have some or all of the following after surgery:

1. **A large surgical dressing** will have been applied to the surgical area to maintain cleanliness and absorb any fluid. This dressing is usually changed two days after the surgery by the surgeon.
2. **An IV**, started prior to surgery, will continue until you are taking adequate amounts of fluid by mouth. When you are taking fluids well, the IV may be changed to a heparin lock - a small sterile tube that allows for easier movement while keeping the vein accessible for antibiotics. Antibiotics are usually administered intravenously for 24 hours to reduce the risk of infection.
3. **Difficulty urinating**. One common side effect of anesthesia is a difficulty in urination after surgery. For this reason, a sterile tube called a catheter is inserted into your bladder to ensure a passageway for urine. This may remain in place for one day.
4. **Compression stockings** (in addition to the elastic hose [TEDS]) are "socks" that wrap around your feet and are connected to a machine that circulates air in and out. This is another method of promoting blood flow and decreasing the risk of blood clots. You will also be given medications and exercises (such as moving your ankles up and down) to help prevent clots.
5. **Temporary nausea and vomiting** due to anesthesia or medications (i.e. PCA). Anti-nausea medications may be given to minimize any nausea and vomiting.
6. **Dietary restrictions**. You will start with a diet of ice chips and clear liquids as tolerated and be allowed to progress as your condition permits.
7. **Coughing and deep breathing exercises** are important to help prevent complications, such as congestion or pneumonia. Inhale deeply through your nose, then slowly exhale through your mouth. Repeat this three times and then cough two times. You will be encouraged to use your incentive spirometer.
8. **A triangular pillow** will be placed between your legs to protect your new hip.

## Activity precautions

The head of your hospital bed should not be elevated more than 70 degrees during the first few days after surgery.

You will need to take some precautions, mostly to prevent dislocation which is a risk during the first six to eight weeks after surgery. These precautions include:

- Using two or three pillows or a triangular pillow between your legs and not crossing your legs.
- Not bending forward 90 degrees.
- Using a high-rise toilet seat.

# Total Hip Replacement: Physical Therapy

## Initial Rehabilitation

The first day after surgery, you will be assisted to a reclining chair and physical therapy will begin. You will gradually begin to take steps, walk, and learn to climb stairs with the aid of a walker or crutches.

This initial rehabilitation generally takes five to seven days. Most patients find they are relieved of their painful presurgical hip condition. However, postsurgical discomfort may be experienced while walking and exercising. Pain medication will be prescribed, as needed, by the doctor and a rehabilitation program (described below) will be provided by your physical therapist.

## Home Exercises

Below is a list of home exercises that may be prescribed for you by your physical therapist. Other exercises may be added depending on your specific needs. Do these exercises two times a day ...indefinitely. Note that walking is not a substitute for your home exercises.

If an exercise is causing pain that is lasting, reduce your intensity. If it continues to cause pain, contact your physical therapist or physician.

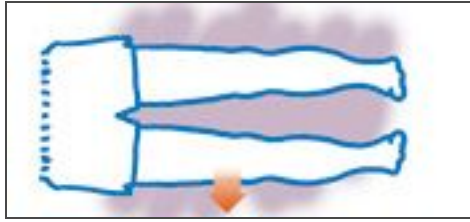
### Range of motion exercises

#### Active hip and knee flexion



Lying on your back with your legs straight, toes pointed toward the ceiling, arms by your side, and keeping the heel in contact with the bed, bend your hip and knee. Return to the starting position. Progress to 20 repetitions, two times a day. Do not bend the hip more than 90 degrees.

#### Active abduction



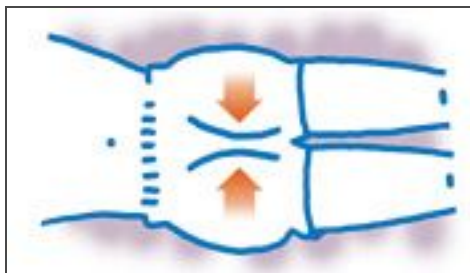
Place a smooth surface (card table, fabric cutting board, nylon tarp) under your legs, then move the operated leg out to the side as far as you can. Keep your toes pointed toward the ceiling. Return to the starting position. Progress to 20 repetitions, two times a day.

### Quadriceps setting



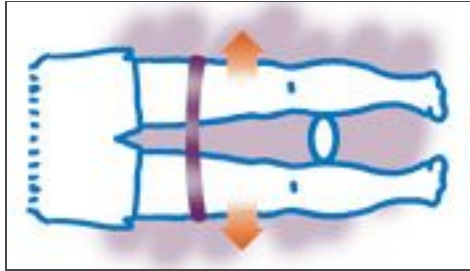
Tighten the muscles on the top of your thigh, pushing the back of your knee downward into the bed. The result should be the straightening of your leg. Hold for five seconds, relax for five seconds. Progress to 20 repetitions, two times a day.

### Gluteal setting



Lie on your back with your legs straight and in contact with the bed. Tighten your buttocks in a pinching manner and hold for five seconds, then relax for five seconds. Progress to 20 repetitions, two times a day.

### Isometric hip abduction

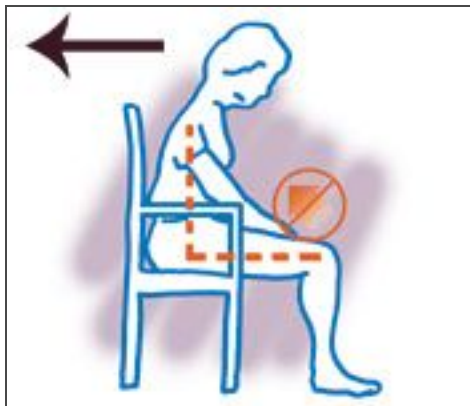


Keep your legs straight, together, and in contact with the bed. Place a loop or belt around your thighs just above the knees. Slowly spread your legs outward against the belt. Hold for five seconds, relax for five seconds. Progress to 20 repetitions, two times a day.

## Activities of Daily Living

### Do's and Don'ts

Your new hip is designed to eliminate pain and increase function. There are certain movements that place undue stress on your new hip. For your safety, these should be avoided. This is especially true during the first few months after your surgery.



**DO NOT** move your operated hip toward your chest (flexion) any more than a right angle (90 degrees). In other words, your knee should never go above your hip. Place extra pillows or cushions on your chair so that you do not bend your hip more than 90 degrees.

**DO** use a chair with arms. Place your operated leg in front and keep your uninvolved leg back when getting up.

**DO** grasp chair arms to help you rise safely to a standing position.



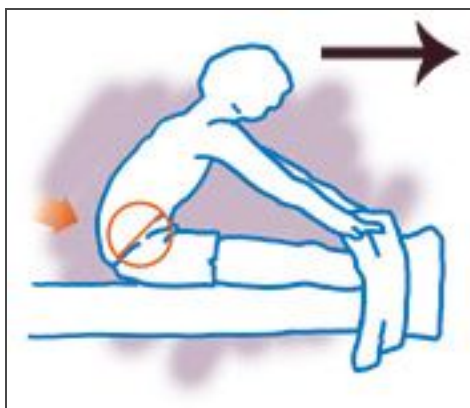
**Do not** get up like this... always keep your operated leg in front when getting up and use a chair with arms.

**DO NOT** reach forward to pick up something on the floor while you are sitting.



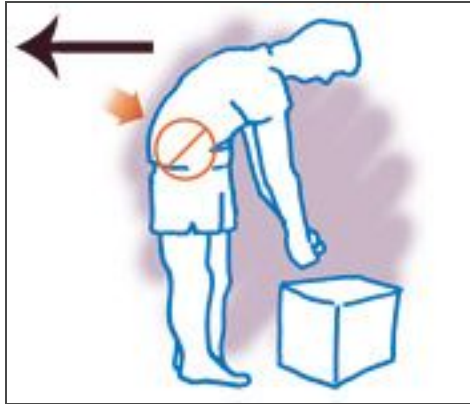
**DO NOT** sit low on a toilet or chair. If you do not have an elevated toilet seat, ask your therapist about getting one.

**DO** get up from the toilet as your physical therapist has instructed you.

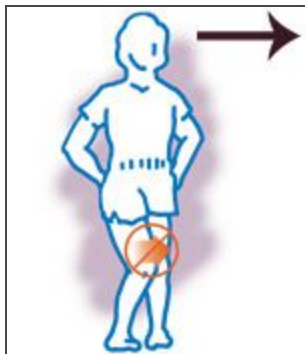


**DO NOT** pull up blankets like this.

**DO** use a long-handled reacher to pull up sheets or blankets and other items, as directed by your therapist.



**DO NOT** bend way over. Remember, you must not move your operated hip toward your chest any more than 90 degrees.



**DO NOT** turn your kneecap inward when sitting, standing, or lying down.

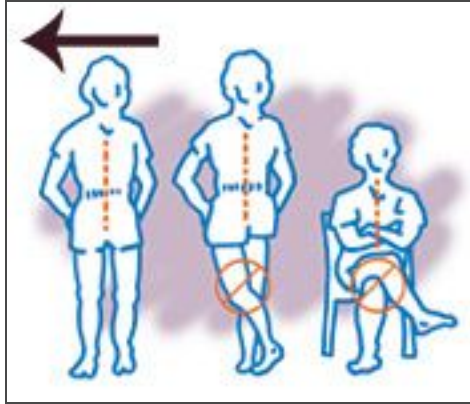
**DO** keep the operated leg in front as you stand or sit.

**DO NOT** try to put on your shoes or socks in the usual way. By doing this improperly, you could bend or cross your operated leg too far.

**DO** your dressing and undressing as directed by your therapist.

**DO not** use pain as a guide for what you may or may not do.

**DO** cut back on your exercises if your muscles begin to ache, but **DO NOT** stop doing them.



**DO NOT** cross your operated leg across the midline of your body (in toward your other leg) or cross your legs for at least eight weeks.

**DO** lie with a pillow between your legs.

**DO** keep a pillow between your legs when you roll onto your "good" side. This is to keep your operated leg from crossing the midline.

## Total Hip Replacement: At-Home Guidelines

### Making your homecoming more comfortable

Your hospital stay may last from 1 to 2 days, depending on how well you progress after surgery. Upon discharge from the hospital, you will have achieved some degree of independence in walking with crutches or a walker, climbing a few stairs, and getting into and out of bed and chairs. At home, you will need help for several weeks. (If you do not have sufficient help at home, you may be temporarily transferred to a rehabilitation center.)

The following tips can make your homecoming more comfortable:

- **Relocate items** in the kitchen (and other rooms as well) that you use regularly so that they are at arm level and you don't have to reach up or bend down.
- **Rearrange furniture** so you can maneuver with a walker or crutches. You may temporarily change rooms (make the living room your bedroom, for example) to avoid the stairs.
- **Get a good chair** - one that is firm and has a higher-than-average seat. This type of chair is safer and more comfortable than a low, soft-cushioned chair.
- **Remove any throw or area rugs** that could cause you to slip. Securely fasten electrical cords around the perimeter of the room.
- **Install a shower chair**, gripping bar, and raised toilet seat in the bathroom.
- **Use assistive devices** such as a long-handled shoehorn, a long-handled sponge, and a grabbing tool or reacher to avoid bending over too far. A footstool is useful for keeping your operated

leg straight out in front of you when you sit. Wear a big-pocket shirt or soft shoulder bag to carry things around.

- **Set up a "recovery center"** in your home with the phone, television, remote control, radio, facial tissues, wastebasket, pitcher and glass, reading materials, and medicines within reach.

## Medication

- You will continue to take medications as prescribed by your doctor.
- You will be sent home on prescribed medications to prevent blood clots.
- You will be sent home on prescribed medications to control pain. Plan to take your pain medication 30 minutes before exercising. Preventing pain is easier than chasing pain. If pain control proves to be a problem, call Dr. Larson's office.

## Activity

- Continue to walk with crutches or a walker as directed by the doctor or physical therapist.
- Dr. Larson will determine how much weight you can place on your operated leg.
- Walking is one of the better forms of physical therapy for muscle strengthening, but...
- Walking does not replace the exercise program that you are taught in the hospital. The success of the operation depends to a great extent on how well you do the exercises and strengthen weakened muscles.
- If excess muscle aching occurs, you should cut back on (but do not stop) your exercises.

## Sitting

- Avoid sitting for more than 60 minutes at a time.
- **DO NOT** cross your legs. In fact, keep your knees 12 to 18 inches apart.
- Always sit in a chair with arms. The arms provide leverage to push yourself up to the standing position.
- Avoid low chairs and overstuffed furniture because they require too much bending (flexion) in your hip in order to get up.
- Do not bend forward while sitting in a chair, causing more than a 90 degree bend in your hip.
- A high kitchen or bar-type stool works well for kitchen activities.
- Use the toilet seat riser for the next eight weeks to avoid excessive bending of the hips.

## Bending

- For the first eight weeks, you should not bend over to pick up things from the floor.
- Use the long-handled reacher provided by your physical therapist.
- You may want to acquire a pair of slip-on shoes and a long-handled shoehorn to avoid excessive bending when dressing.



## Your Incision

- Keep the incision clean and dry.
- Be alert for warning signs of infection: if any swelling, increased pain, drainage from the incision site, redness around the incision, or fever is noticed, report this immediately to the doctor.
- Generally, the sutures or staples are removed in two weeks.

## Other Considerations

- **Driving:** It is recommended that you do not drive until six weeks following surgery. When getting into a car, back up to the seat of the car, sit and slide across the seat toward the middle of the car with your knees about 12 inches apart. A plastic bag on the seat will help you safely slide in and out of the car.
- **Showers:** Do not shower until two days after sutures or staples are removed. Do not sit in a bathtub until your physician approves the activity.
- **TEDS:** Continue to wear these elastic stockings until your return appointment.
- **Work:** You can usually return to work within three months or as instructed by your doctor.
- **Home alone:** If you have to stay alone during the first six weeks at home, there are some helpful devices that are available from the occupational therapist.

## Total Hip Replacement: Preventing Infection

If at any time after the surgery (even years later) an infection develops, such as strep throat or pneumonia, notify your physician. Antibiotics should be administered promptly to reduce the risk of a distant infection localizing in the hip area. Antibiotics may also be needed if any teeth are pulled or other dental work is performed. Inform the general physician or dentist ahead of time that you have had a joint replacement. Call Dr. Larson's office (435.774.8512) if you have any questions or need antibiotics prescribed for you.

## Follow-Up Appointments

Your first return appointment with Dr. Larson will be scheduled for two weeks after discharge from the hospital. At your six-week return you will be examined and have x-rays. Subsequent appointments are at three months, six months, one year, and every year thereafter.

During your rehabilitation period, if you have any questions or concerns regarding your total knee replacement, please do not hesitate to call:

8:00 am to 5:00 pm, Monday through Friday, please phone Alpine Orthopaedic Specialists at 435.774.8512.

After 5:00 pm and on weekends and holidays, please phone 435.787.2000 and the answering service will connect you with Dr. Larson or a covering orthopaedic surgeon.

# Total Hip Replacement: Deciding on Hip Replacement

## Is Total Hip Replacement Right for You?

Now that you understand the many facets of having total hip replacement, you can make a more informed decision about whether the surgery is right for you.

Keep in mind that total hip replacement is an *elective* operation: it is a matter of quality of life - not a matter of life or death. There are always nonoperative alternatives to help relieve your pain and accommodate your condition, such as medication, lifestyle modifications, and physical therapy.

There are many other things to consider before deciding to have surgery. Although Dr. Larson may recommend hip replacement, you must weigh the potential benefits against the risks and complications. You must also feel comfortable that all of your questions and concerns have been answered, so please ask us any questions you have. Even so, the decision to have the operation cannot be made by a doctor; you must consider all the information and what is best for you.

Also consider: the real success of your hip replacement depends largely on you - especially how well you perform your rehabilitation exercises and how diligently you apply the principles of home care and self-limitation. Dr. Larson, the physical therapist, and the nurses are striving to make a painless, functional hip possible for you. Working together with you, we can help you achieve your goal: pain relief, restoration of function, and a return to your favorite activities.

# Recommendations for Activity After Total Hip Replacement

According to Hip and Knee Society Surveys

Recommended	Allowed with Experience	Not Recommended
Stationary bicycling	Doubles tennis	High-impact aerobics
Croquet	Low-impact aerobics	Baseball
Ballroom dancing	Road bicycling	Basketball
Golf	Bowling	Football
Horseshoes	Canoeing	Gymnastics
Shooting	Hiking	Handball
Shuffleboard	Horseback riding	Hockey
Swimming	Cross-country skiing	Jogging
Doubles tennis*	Ice skating†	Lacrosse
Walking	Rowing†	Racquetball
Low-impact aerobics	Speed walking	Squash
Bowling		Rock climbing
Horseback Riding†		Soccer
		Singles tennis
		Volleyball

Dr. Larson uses many different types of prosthesis depending on the particular patient's need. The most common prosthesis he uses is the Stryker Acolade system.

# Stryker Accolade II Hip System



Accolade II is a tapered wedge stem that has been designed to fit more patients while accommodating a variety of surgical approaches.<sup>1,2\*</sup> It is the first Morphometric Wedge design. This is characterized by a size specific medial curvature that fits a broad range of bone sizes and shapes found in today's patient population.<sup>1,2\*</sup> The demand for tapered wedge hip systems has increased substantially year after year<sup>3</sup> and the average age of the total hip replacement recipient has been declining.<sup>4,10</sup> Accolade II was designed to address this changing patient population through a proprietary technology called SOMA.<sup>1,2</sup>

## SOMA

Stryker Orthopaedics Modeling and Analytics system, or SOMA, is a proprietary population-based design environment that is changing the way implants are designed. SOMA features a large database of bone morphology - size, shape, density, and inner and outer cortical boundaries - drawn from diverse populations. It has powerful functionality with which to design, model, and analyze novel orthopedic devices. SOMA was fundamental in the development of the Accolade II Femoral Hip System.

## Fit



Morphometric Wedge - the stem is uniquely designed with a size specific medial curvature to fit a broad range of bones sizes and shapes found in today's patient population.<sup>1,2\*</sup> Mechanical testing has shown this design facilitates initial press-fit stability<sup>5</sup> and load transmission in the proximal region of the femur.

Accolade II features optimized stem length<sup>5,6</sup> and a distal lateral relief. These features are designed to reduce the insertion path of the stem when using the direct anterior approach for implanting.

## Design

SOMA Designed - Stryker's new proprietary technology, SOMA, was fundamental in the design and development of the Accolade II Femoral Hip System. Using 556 patient CT scans, Accolade II was designed to fit a broad range of patients.<sup>1,2</sup>

Accolade II is an evolution of the successful Accolade Hip System. Over the last 10 years, the Accolade Hip System has been implanted in over 500,000 patients worldwide<sup>7</sup> and has demonstrated clinical history.<sup>8</sup>

PureFix HA Coating - Accolade II features Stryker's PureFix HA coating applied proximally which has more than 15 years of clinical results<sup>9</sup> in a different stem.

Accolade II has 12 available body sizes, each with two offset options (132° and 127°) to accommodate a broad range of patients.

## Efficiency

Accolade II features a streamlined, 2 tray, broach-only instrument system. The instrument system is designed to promote O.R. efficiency for both surgeon and staff and to reduce the number of instruments that must go through sterilization after every surgery.

The simple broach only instrument system accommodates all surgical approaches.