



Krishna Tripuraneni, MD

Board-Certified Orthopaedic Surgery

Fellowship-Trained in Adult Joint Reconstruction

Surgical Intervention

Specialty: [Hip & Knee Total Joint Replacement](#)

Office 724-3260 Fax 338-4118

TOTAL HIP REPLACEMENT

Since you have progressed to the point of serious consideration of total hip replacement, there is a great deal of information that is important for you to understand. Prior to making your final decision and ultimately having your total hip replacement, it is important that you understand everything about the procedure and have realistic expectations about the results. You should understand why you are having problems with your hip and when you should make the decision to have hip replacement surgery. It is important to know exactly what is done at the surgery and what to expect from the surgical procedure. These expectations along with the possible complications of the procedure will allow you to decide when to proceed ahead with the operation. I also want you to understand clearly what is expected of you prior to your admission to the hospital, during your admission, and in the rehabilitation period after your discharge. I will try to summarize all this information for you. Certainly, if you have any questions, please feel free to contact me.

RATIONALE AND INDICATION

Total hip replacement for disorders of the hip joint has been performed for over forty years. There has been a rapid evolution of changes in prosthesis design and the surgical technique itself. The great majority of the operations are done for arthritic conditions of the hip. There are many different causes of arthritis all of which cause a deterioration of the hip joint. The hip joint is a ball and socket joint that moves on a very smooth surface called the articular cartilage. The articular cartilage is worn away by the arthritic process to the point that the hip joint becomes painful. The process is usually gradual and may require months or even years for it to progress from a mild to a severe state. As it becomes more severe, there will

be more pain and more limitation of function. There are many types of arthritis that can cause this deterioration of the hip joint. The forms of arthritis include osteoarthritis, rheumatoid arthritis, ankylosing spondylitis, traumatic arthritis (related to injury), avascular necrosis or loss of blood supply, and arthritis secondary to congenital or developmental problems such as congenital dislocation of the hip, developmental dysplasia of the hip, Perthes disease or slipped epiphysis.

A second category of causes requiring total hip replacement are those of failed previous hip surgeries. The most common is a previous hip replacement that now has failed either through loosening of the components from bone or wear of the plastic or polyethylene liner. The third common cause for total hip replacement is in cases of fracture of the hip. Many fractures of the hip are managed by pin or screw fixation; but in some circumstances where the damage is quite severe, a hip replacement is required because the bone itself will not heal.

In the early stages of hip disease, the pain and loss of function may be improved by conservative means of treatment to include medication such as nonsteroidal anti-inflammatory agents, the use of a cane or crutches, and restriction of activity. Weight loss, if possible, can also significantly reduce the level of pain. For many medical reasons, it is best to reach your optimal weight. This weight loss is difficult and sometimes impossible as you cannot exercise or walk very far.

At some point, however, if the arthritic process increases in severity patients will have increasing pain and decreasing function that is no longer managed by conservative measures. At this point it is time to seriously consider a total hip replacement. The decision to perform the total hip replacement is usually based entirely on the patient's complaints. It is rare when the surgery is done on an emergent basis except in the case of fracture. There are, however, some cases where the arthritic process is so severe that it actually wears away or erodes the bone. Once this erosion occurs, the operation must be done in a reasonable period of time as progressive loss of bone will compromise the potential result.

SURGERY

The hip joint is a ball and socket joint that remains connected or reduced by a thin capsule and muscle tension. The ball is the femoral head of the upper end of the femur, or thigh bone. The socket is the

acetabulum, which is part of the pelvic bone. A hip replacement replaces these abnormal or worn surfaces. The femoral head is removed and replaced by a metallic head. The acetabulum is removed and replaced by a metal and plastic socket, which is made out of a high density polyethylene. The metal is a strong alloy of either titanium or a combination of chromium and cobalt. A new capsule or lining forms around the joint to maintain the ball inside the socket.

There are two methods of fixation of the prosthesis to the patient. One is the use of a commercially pure acrylic cement called methyl-methacrylate. This has been used for over 25 years. Early use was quite crude and the cement fixation was actually quite weak. It has been improved dramatically to the point that it now provides very strong fixation. It is best used in patients who are older or have very weak or osteoporotic bone. Patients who are relatively young have very strong, healthy bone and a newer type of fixation is used that involves the patient's bone growing into a roughened or porous surface of the implant. The cementless fixation has matured and is now popular in the United States.

The type of fixation you will have for your hip replacement should be discussed prior to the surgical procedure. There is often an option in this choice but for most people one type of fixation is strongly recommended over the other.

EXPECTATIONS

The operation is very successful in terms of its main goal, which is pain relief. Approximately 90 percent of people have complete pain relief. The additional 10 percent of patients may have mild and intermittent discomfort if they overuse the hip or become too active. The same high percentage of people no longer have a limp after the surgical procedure. The limp may occur even though pain relief occurs. This occurs in situations where the muscles around the hip are very weak or in cases where the postoperative exercises are not performed. Most patients do not require any assistive devices to walk, although in some cases, patients choose to use a single cane for safety or balance reasons. You are usually able to increase your activity level dramatically after surgery. If you have used a device to walk before the surgery for a long period of time, then it may be difficult to eliminate this after surgery. Patients are encouraged to walk, hike, ride a bicycle or stationary bicycle, swim and even play golf. Sports that cause significant impact or twisting such as running, singles tennis or downhill skiing are not ideal. I do not recommend these or other impact-loading activities.

A frequent complaint of patients in addition to pain and limp is that of shortening of the leg. This occurs as the arthritic process wears away the articular cartilage and in some cases even the bone itself. At the time of surgery the leg can usually be lengthened to a point that the legs seem to be equal. But you must understand this is a secondary gain and the most important goal is placing the hip in a very strong, and stable position. Occasionally, it is necessary to wear a lift in one shoe or the other after the surgical procedure to be sure the length of your legs is well balanced. *We encourage you not to use a lift until assessed in the office with x-rays and examination. Most times lifts are unnecessary.*

Many people feel stiff prior to surgery. Pain and scar tissue may cause this feeling of stiffness. The hip replacement is not intended to improve range of motion; it is not one of the main goals of surgery.

The final critical issue is how long the hip replacement will last. At this point we have very good information that suggests a cemented or cementless hip replacement will last approximately ten to fifteen years. After many years of use and walking, the hip prosthesis can loosen from the bone or the plastic can wear out. If this occurs and pain is present, it may be necessary to revise or re-do the hip replacement. This technically can be accomplished successfully but obviously it is best to have the initial hip replacement last as long as possible.

The bone ingrowth hip replacement may actually last longer than cemented hip replacements. But, the results of bone ingrowth total hip replacements are not good in patients with weak bone. Ask me questions about this, and we should discuss what type of implant I would recommend in you.

COMPLICATIONS

The results of total hip replacement are excellent. Therefore, there must be some reason that prevents us from performing hip replacements except in patients with significant complaints. That is because there are many potential complications. These complications include infection, blood clot formation or thrombophlebitis, dislocation of the prosthesis ball from the socket, nerve injury, fracture and other general complications. The issues especially important to address include infection, blood clot formation and dislocation.

The chance of infection in a total hip replacement is 1 out of 200, or .5%. This is a very low number but, nevertheless, can occur. If this occurs, it can be a very difficult problem as it is often necessary to have other surgeries to remove the infection and, in some cases, actually remove the implant for a temporary period of time. Obviously, the best way to treat the infection is to prevent it. The operations are done sometimes in special operating rooms with air filter systems called laminar flow rooms. These laminar flow rooms exchange or filter the air over 300 times an hour while a normal operating room filters the air approximately 20 times per hour. The surgical team also uses air exhaust systems that are operating room apparel often called spacesuits. This prevents the operating room staff from breathing on the area of your hip operation. In addition, all patients receive preventive or prophylactic antibiotics for 24 hours. This combination of techniques should lower the chance of infection even below this acceptable rate of .5%

Blood clot formation or thrombophlebitis or deep venous thrombosis is the formation of a blood clot in one of the deep veins of the lower leg. This is a common complication that occurs despite all methods of prevention in a small percentage of cases. There are multiple ways to try to prevent this. I prefer and put most patients on chewable aspirin. Xarelto (rivaroxaban) is another blood thinner that can be used starting the morning after surgical procedure and continue this for a total of 14 days. Other patients may receive Coumadin (or warfarin) – this medication will need to be started the night before surgery. The advantage of Xarelto is that you do not need to get your blood levels checked twice a week, as you do need to with Coumadin. More commonly, patients are placed on *chewable aspirin for 6 weeks*.

All patients also wear TED hose, and if in the hospital - sequential compression devices (SCDs) or plexipulses on both feet as well. TED hose are stockings that can be used for 10-14 days and are intended to decrease leg swelling and blood pooling. TED hose may be removed whenever you choose (they are helping merely with swelling); these do not need to be used but most like the compression they provide. SCDs are devices placed on both legs that massage the leg from the ankle to the thigh. Plexipulses massage the feet. TED hose, SCDs, and plexipulses are used to increase blood flow to minimize the chance of clot formation.

During your hospitalization and in your preoperative training by the New Mexico Center for Joint Replacement Surgery, you will be shown the exercise program and the positions that you cannot place your hip. If you bend your hip too far, bring your knees all the way to your chest, or turn your leg in too far, there is a chance the ball can dislocate out of the socket. This should not occur if you use a reasonable amount of caution and follow the instructions. These restrictions should be maintained from the day of surgery until 6 weeks after. If this does occur, it usually requires an anesthetic to place the ball back in the socket. Fortunately, this does not require another operation where you have to open the hip replacement, in most cases. This is a potential complication that should be preventable.

Other complications that might occur are rare. They are potentially associated with any major surgery and anesthesia. The potential complications include death, heart attack, heart failure, stroke, pneumonia, lung congestion, gastrointestinal problems such as nausea, vomiting, diarrhea, constipation, urinary tract infections, decubitus, bedsores, etc.

The long-term complication involves failure of the implant, as discussed in the previous section. This may occur by loosening of the implant from bone or wear of the plastic or polyethylene liner. These types of complications usually require a revision of the implant. Some hip replacements have lasted more than twenty years.

It is advisable to stay in good physical health, avoid excessive weight gain, avoid excessive impact activities as previously noted, and exercise frequently. Although revision surgery is usually very successful, hopefully it will never be required for most patients.

PREPARATION FOR SURGERY

Once you have made your decision to have the total hip replacement, you should contact my assistant **Lidia Talavera at 724-3260** and she will schedule the surgery. The time you must wait is variable depending on the schedule. We will make every attempt to schedule the surgery at your convenience. **Lidia** can answer any questions about preparation for surgery, the preoperative sequence

of events or insurance matters. If desired, he will also assist you in filling out an application for a handicapped license tag, which you may want for at least three to six months.

It is important to have a complete physical examination by your internist or family physician prior to the total hip replacement. Since this is a serious operation, you should be in your best medical health with all medical problems under good control. Your doctor may also perform all routine tests that are required prior to surgery. If you have had a recent complete physical examination, it may not be necessary to have a new examination. You should discuss this with your internist or family doctor. Your internist or family doctor can then mail or fax the results of your examination and tests to our office prior to your admission to the hospital.

Total hip replacement can require blood transfusions, but increasingly rare now. I do not recommend donating your own blood before surgery. We have numerous interventions that help conserve your blood during and after surgery. The requirement for blood transfusion may vary from zero to two units of blood in primary cases or zero to three units of blood in revision or re-do cases. Donor blood is tested thoroughly by the blood bank; despite this, there is a small risk of transmission of viral infections, such as hepatitis, HIV, among others. The estimated incidence of hepatitis transmission is roughly 1 in 4000 blood transfusions and HIV being 1 in 750,000 transfusions. If for medical reasons you are unable to do this, I will be very cautious in using any other blood transfusions and will always discuss this with you first. But if it is necessary, the blood is very carefully screened and tested for these two problems. I use an intravenous medication immediately before the surgery and while in the recovery room, tranexamic acid, to help prevent bleeding. The use of a drain is not necessary, and I do not use it in most situations.

Once you have scheduled your surgical procedure, you will be contacted by the New Mexico Center For Joint Replacement Surgery to make an appointment for your preoperative patient education class. This is a very important part of the process and will discuss in great detail what to expect during your hospitalization or day surgery (if outpatient same day discharge), during the therapy and after the time you are discharged from the hospital. This is a very helpful time to bring members of your family so that everyone can understand what is required to get the best possible result from your surgery. At this time,

you will also discuss the nursing plan and philosophy for your care at the New Mexico Center For Joint Replacement Surgery.

HOSPITALIZATION

You will be seen in the office prior to your admission to the hospital for preoperative history and physical examination. You will have a scheduled time for this appointment. Most insurance plans do not approve a day prior to the surgery; therefore, you will be admitted to the hospital the same day of surgery in most cases. At preadmission, if not already performed, there will be a number of routine blood and x-ray tests to be performed. These are all routine prior to a surgery of this type.

Approximately two hours prior to your surgical time, a preoperative sedative will be given to you as ordered by your anesthesiologist. You will be taken to the preoperative holding area in the operating room. This will allow for consultation with the anesthesiologist and starting of the intravenous line. In almost all cases a spinal anesthesia is used from which you will be made numb from the waist down. Although you may be wide awake, we can sedate you as heavily as you would like so that you are completely relaxed and will not remember anything about the operation. This is safer than a general anesthetic and your recovery is more rapid. A general anesthetic is used in some cases.

In cases of expected same-day discharge, you will also check in the morning of surgery to the respective facility and spinal anesthetic is preferred, if you are a candidate, to general anesthesia.

Primary total hip replacement requires between one and two hours of surgery time while a revision total hip replacement requires between two and five hours of surgery time. While you are in the operating room, your family may wait either in your room, in the surgical waiting area or at home. As soon as the surgery is completed, I will contact them and describe to them the results of the surgery.

You will be in the recovery room for one to three hours until the effect of the spinal anesthesia is worn off. Once that occurs and your vital signs are stable, you will be returned to your room on the Orthopaedic floor. There are some circumstances especially in patients with severe cardiac problems that you may spend one night in the Intensive Care Unit.

With same-day discharges, you will walk with the nurse in the recovery room and try to void your bladder. Also, discharges will occur, in this situation, directly from the recovery room.

After surgery you will not need to remain rigidly immobilized in one position in the bed. With the bed controls you may elevate the head of the bed or remain perfectly flat. At the time of your surgical procedure while the anesthetic is still in effect, a catheter is inserted into your bladder. Therefore, the difficult task of climbing onto a bedpan during the first day is not required. The catheter will be removed the morning following your surgery, and you will be able to urinate on your own.

You will begin your bed exercises and begin standing and walking on the first postoperative day. You will gradually increase your walking distance and frequency as tolerated. You are usually in the hospital for 1 one night until you reach a level of independence following the surgery. When you are independent, you should be able to get in and out of bed by yourself and walk between 150 and 300 feet (total for the day). If you meet these guidelines, you will be able to return home. You should strive to go home. This will encourage independence. The discharge planner, prior to discharge from the hospital, will arrange home health care and physical therapy. For same-day discharges, this should be arranged prior to your surgery.

Physical therapy following total hip replacement has not been proven to be of benefit; I don't recommend it. I recommend walking 100 feet twice daily for the first 1 week, 100 feet 3 to 4 times daily for the second and then successive increase. Pain and swelling can increase with lengthier walking. If pain or limp present in future visits, we always reassess the need for formal physical therapy.

Depending on the quality of bone and the technique for the hip replacement, weight bearing on the leg will be determined and discussed with you. Most patients undergoing a primary total hip replacement can bear weight. For patients who have revision hip replacements and especially those who have large bone grafts, it may also be necessary to put less weight on the involved leg for six to twelve weeks. In some instances there may be limitation of abduction, or bringing your leg/limb, out to the side. I will inform you of any restrictions after surgery, or before surgery if I anticipate them. While you are walking in the hospital,

you will be using a walker. I don't recommend use of crutches. Prior to your discharge from the hospital, the physical therapy and occupational therapy departments will be certain that you understand very clearly your hip precautions, your discharge exercise program, and have all the assistive devices that will help you to cope in the immediate postoperative period.

You should plan on a hospital stay of 1 night, in most cases. Your dressing will not be changed prior to discharge. There should be minimal to no drainage. The dressing you will have, in most cases, is a waterproof dressing called Aquacel or Silverlon. ***This dressing should be removed exactly 1 week after the day of your surgery.*** No dressing changes need to be done. You will, in most cases, have an appointment set up 10 to 14 days after surgery for staple removal or incision check only if skin tape and skin glue are used, in my office. When you go home you may still have some clear, yellow drainage (serous drainage). This is not an indication of any type of infection but just of the healing process in the fat below the skin level. This may continue from one to five days. You should not, however, take a bath or soak your hip, such as in a hot tub. Let water run down your hip while in the shower and pat the dressing and hip dry. After removal of the dressing 1 week after surgery, you may shower directly over the incision. There should be no drainage at this point; if there is, please notify me immediately. If the staples are catching on clothing, a light dressing from a local pharmacy can be placed on top of the staples for comfort.

Pain Control Post-Surgery

When you are discharged you will have a prescription for a mild narcotic pain medication but you should be requiring less of the medication each day. You should moderate your activities to reduce the amount of stress that is put on the incision and muscles about the hip. This is the appropriate way to manage your pain after your discharge. It is common to have swelling in the leg, especially, if you are becoming more active in your activities at home. The one type of swelling that can be worrisome is swelling in the entire limb. This can occur if you sit for prolonged periods of time. If this occurs you need to spend less time sitting and more time lying down on the bed or couch with the leg elevated. If the swelling does not resolve significantly with this elevation, you should contact me so that we might further evaluate this.

Pain medications come in many different forms, and I encourage the use of various ones, to limit the amount of narcotics needed. Medications such as gabapentin, tramadol, Celebrex or meloxicam, and Tylenol are highly encouraged to help with pain control as well as rapid recovery.

The blood thinner Xarelto does cause more swelling and sometimes even drainage from the incision site. Please contact me if drainage is occurring or you are concerned about the swelling.

My goal is for you to get to your blood thinner and Tylenol as quickly as possible, even within a few days. Not everyone will follow this pattern, but that is the immediate goal. All medications (except dexamethasone, which is scheduled for 4 days, every 12 hours) for pain are not scheduled – they are, as written on the bottle, *as needed*.

You should stay on your cane or walker for the entire first 4 weeks after the surgical procedure.

FOLLOW-UP

Since you have had a total hip replacement, it is important to monitor closely the healing process in the first three to six months following the surgical procedure. It is also important to monitor the long-term fixation of the implant over a period of many years to be certain there is no adverse effect on the bone or any sign of loosening of the prosthesis. Therefore, the usual follow-up schedule involves your return to the office for examination and x-rays at the following times after the surgical procedure: two weeks, six weeks, three months, one year. After the first year, you are seen every other year. In some situations because of difficulty of travel, I can make arrangements for you to be seen by your local family physician who can obtain x-rays and send those to me for evaluation. Unfortunately, this is not the ideal situation. I will try to be as flexible as possible because I know travel is often quite difficult and expensive.

PROPHYLACTIC ANTIBIOTICS

Prior to dental or other medical procedures, the practice has changed whether to recommend antibiotics. As it stands as of 2016, unless you are at increased risk of infection (uncontrolled diabetes, on medications that increase your risk of infection), I do not recommend routine antibiotics prior to dental cleanings and dental procedures. I can further discuss this if you have questions. This is a recommendation from the American Dental Association and the American Association of Orthopaedic Surgeons.

PROBLEMS OR QUESTIONS

If you have any concerns or questions about the scheduling or preoperative sequence of events, you should contact **Lidia Talavera in my office at 724-3260**. She can answer questions about the surgical scheduling, logistics surrounding surgery, scheduling time, any insurance concerns or preparation for surgery. **Lidia** can also help you after your discharge from the hospital with questions about your recovery. If I am not in the office at the time of your call, she will make certain that I receive the message as soon as I return to the office. **Micah Benson** is a certified physician's assistant and will be helping with your care along the way as well. You may receive prescriptions from him, have appointments set up with him or may ask him any questions as well.

My goal is for you to stay as informed as possible throughout the entire process, understanding that we are here to help you through this educational and recovery process.

If you have any additional questions, please ask me when I see you prior to your admission to the hospital at the time of your preoperative history and physical examination.

Krishna R. Tripuraneni, MD

New Mexico Orthopaedics

2100 Louisiana Blvd. NE, Suite 410

Albuquerque, NM 87110

505-724-3260 / 1-800-339-5161

FAX: 505-338-4118 or 724-4384 / Appt. Line: 505-768-7507