



Department of Orthopaedics

Total Knee Replacement

The first step when making the decision about knee replacement is to meet with your surgeon to see if you are a candidate for total knee arthroplasty (TKA). Your surgeon will take your medical history, perform a physical examination, and X-ray your knee. Even if the pain is significant, and the X-rays show advanced arthritis of the joint, **the first line of treatment is nearly always non-operative.**

This includes weight loss if appropriate, an exercise regimen, medication, injections, or bracing. If the symptoms persist despite these measures, then you could consider TKA

The decision to move forward with surgery is not always straight forward and usually involves a thoughtful conversation with yourself, your loved ones, and ultimately your surgeon. **The final decision rests on you** based on the pain and disability from the arthritis influencing your quality of life and daily activities. Those who decide to proceed with surgery commonly report that their symptoms keep them from participating in activities that are important to them like walking, taking stairs, working, sleeping, etc.), and that non-operative treatments have failed.

These are some of the frequently asked questions regarding total knee replacement (TKR):

How long does a TKR last?

A common reply to this question is that total joint replacement lasts 15-20 years. A more accurate way to think about longevity is via the annual failure rates. Most current data suggests that both hip and knee replacements have an annual failure rate between 0.5-1.0%. This means that if you have your total joint replaced today, **you have a 90-95% chance that your joint will last 10 years, and a 80-85% that it will last 20 years.** With improvements in technology, these numbers may improve.

What types of implants are there?

The orthopaedic implant industry has developed a number of innovative technologies in an effort to improve the outcomes of TJA. In recent years, these technologies have been marketed directly to

patients, which has increased the awareness as well as confusion on what these different designs mean. The most important message is that while a certain manufacturer may claim that their design is better, almost all of the available registry data (large collections of data from countries that track TJA) show that **there is no clear advantage to any of these designs when it comes to improving outcomes**. Here are specific implant design terms:

Will my surgeon use a computer, robot, or custom cutting guide in my surgery?

There are many studies attempting to evaluate these emerging technologies and their influence of the success of surgeries. Each of these technologies has a specific goal that has fueled its development (i.e. more accuracy in implant placement, more efficient or faster surgery, etc.). To date, there appears to be both pros and cons to each of these technologies, but more research is required to determine what advantage, if any, these may offer. **The best approach is to discuss this topic with your surgeon**. You may want to know if they use one of these technologies, why they have chosen to do so, and what their experience has been in using it.

Will I need general anesthesia?

While general anesthesia is a safe option, both hip and knee replacements can be performed under regional anesthesia. Choices for regional anesthesia include spinal anesthesia, epidural anesthesia, or one of a variety of peripheral nerve blocks. Many surgeons and anesthesiologists prefer regional anesthesia because data shows it can reduce complications and improve your recovery experience with less pain, less nausea, less narcotic medicine required, etc.

What is minimally invasive surgery?

Minimally invasive surgery is a term that describes a combination of reducing the incision length and lessening tissue disruption beneath the incision. This includes cutting less muscle and detaching less tendon from bone. There have also been advancements in anesthesia and pain management during and after TKA. All of these practices allow you to feel better, have less pain, and regain function faster than in the recent past.

How big will my scar be?

The size of the incision can vary and depends on several factors that include the size of the patient, the complexity of the surgery, and surgeon preference. Most studies have shown that **smaller incisions offer no improvement in pain or recovery** and may actually worsen the surgeon's ability to adequately perform the procedure.

How long will I stay in the hospital?

You will likely stay in the hospital for **1-3 days** depending on your rehabilitation protocol and how fast you progress with physical therapy. This is highly dependent upon your condition before surgery, your age, and medical problems which can hinder your rehabilitation.

When can I walk after surgery?

Most surgeons and hospitals today emphasize getting you out of bed quickly. Most people are walking with the assistance of a walker on the day after surgery, and using a cane or nothing at all by 2-3 weeks.

When can I shower?

Many surgeons use waterproof dressings that allow for showering as early as the day after surgery. If your surgeon uses a standard dressing, you won't be allowed to shower for 5-7 days, and usually no soaking for 3-4 weeks to allow the incision to fully heal.

Is TKR very painful?

Pain following total knee replacement has come a long way over the last 10-15 years with increased use of regional nerve blocks, spinal blocks, and various other modalities used for pain control. Total hip replacement is generally considered to be less painful than total knee replacement. Early range of motion and rapid rehabilitation protocols are also designed to reduce early stiffness and pain, making the procedure in general much less painful than in years past. You may have relatively mild pain following the procedure, or you may have a more difficult time than others. Everyone is unique and handles and perceives pain differently.

How long does it take to recover?

It can take up to 3 months for you to return to most activities, and likely 6 months to one year to fully recover to maximal strength and endurance following a TKR. This depends on your condition before surgery, additional medical problems, and your expectations.

Will I need physical therapy, and if so, for how long?

Most people who have undergone TKR require outpatient physical therapy following surgery. A skilled therapist can accelerate the rehabilitation as well as make the process more efficient with the use of dedicated machines and therapeutic modalities. Depending on your condition before surgery, physical therapy is beneficial for up to 3 months and rarely longer. The amount of therapy needed depends upon your condition before surgery, motivation, and general health.

When can I drive?

Most surgeons allow patients to drive at **4 to 6 weeks after surgery**, and sometimes sooner if the operative leg is the left leg. There is some literature that states that your reaction time will not be back to normal prior to 6 weeks. **You should not drive while on narcotics.**

When can I return to work?

Returning to work is highly dependent on your general health, activity level and demands of your job. If you have a sedentary job, such as computer work, you can expect to return to work by 6-8 weeks. If you have a more demanding job that requires lifting, walking, or travel, you may need up to 3 months for full recovery

What restrictions will I have after surgery?

Restrictions following TKR are generally few and should be discussed with your surgeon.

Following TKR, you will have some difficulty **kneeling** on the operative knee, which you will become less aware of with time, but will always have a general perception that the knee is artificial and doesn't really feel like a normal knee. Most patients are able to return to **usual activities and work** but may have some difficulty performing **heavy labor such as construction or farming**. Most sporting activities are fine with the exception of **running or jumping**. Traveling should not be affected by a joint replacement after the first 4-6 weeks when most surgeons advise against prolonged seated travel or flying due to increased risk of blood clot.

Are there complications to TKR?

- TKR is primarily a pain relieving procedure; however, it may not relieve all pain, and there is a possibility of residual stiffness and swelling.
- Although complications are relatively rare (1-2% of patients), patients may experience a complication in the postoperative period. These include very serious and possibly life threatening complications such as heart attack, stroke, pulmonary embolism and kidney failure.
- Stiffness or loss of motion can also occur.
- Infection (1%) is one of the most debilitating complications and often requires prolonged antibiotics with several additional surgeries to rid the infection.
- A blood clot in the leg is also a relatively common complication requiring some type of blood thinner following surgery to reduce the incidence.
- The implants can also fail over time due to wear or loosening of the components, but this generally occurs many years after surgery.

Should I continue to see my surgeon after I'm healed?

It is important to follow up with your surgeon after your joint replacement. In most cases, joint replacements last for many years. You need to meet with your treating doctor after surgery to ensure that your replacement is continuing to function well. In some cases, the replaced parts can start to wear out or loosen. The frequency of required follow up visits is dependent on many factors including the age of the patient, the demand levels placed on the joint, and the type of replacement. Your physician will consider all these factors and tailor a follow-up schedule to meet your needs. In general seeing your surgeon every 3-5 years is recommended.

Will I need to take antibiotics prior to seeing a dentist or having other invasive procedures?

The American Academy of Orthopedic Surgery (AAOS) and American Dental Association (ADA) have generally recommended short-term antibiotics prior to dental procedures (1 dose 1 hour prior to

dental procedure) for patients who have had joint replacements. This recommendation continues for **up to 2 years after your joint replacement**.

Two or more years after the replacement, continued use of antibiotics prior to dental procedures is based on the discretion of the treating surgeon and the patient. Your surgeon will consider many factors including whether or not you are at increased risk of infection due to immune suppression (i.e. diabetic, transplant patients, and rheumatoid arthritis).

The use of prophylactic antibiotics prior to dental cleanings and other invasive procedures remains controversial. Most orthopaedic surgeons now recommend **lifetime suppression**. Patients should discuss whether or not they need antibiotics prior to dental or other invasive procedures with their treating orthopedic surgeon.

Will my implant set off metal detectors at airports and courthouses?

Usually patients with joint replacements **will set off metal detectors**. It is reasonable for you to inform the TSA screening agent at the airport that you have had a joint replacement; however, you will still require screening and will need to follow the directions of the screening agent.

There are millions of individuals with joint replacements, and screening protocols recognize that people who have had joint replacements may set off detectors. **You do not need to carry specific documentation** to prove that you have a joint replacement. Metal detector screenings follow universal protocols that allow for people with joint replacements to proceed after confirmation that no threat exists.

High quality websites for more information:

OrthoInfo.org

AAHKS.org

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