

Knee Replacement Surgery

PRIMARY TOTAL KNEE REPLACEMENT

A primary total knee replacement is a first time knee replacement surgery.

Why have a knee replaced?

The goals of a knee replacement are to get rid of knee pain caused by arthritis, rheumatoid arthritis, and other knee-related issues and help you be more active. A knee that is stiff and painful can be replaced with an artificial joint. This is called knee *prosthesis*.

If only part of your knee joint is affected by arthritis, you may be able to have a partial-knee replacement. This is also called a unicondylar knee arthroplasty.

How the knee works

The knee is a joint that includes your thigh bone (upper leg), shin bone (lower leg) and knee cap.

In a *healthy knee*, the surfaces of these bones are smooth. They're covered with joint fluid. The wetness helps them roll, rotate and glide over each other. Cartilage covers the bones, helping them move smoothly. The knee joint bends freely. It is protected by the kneecap and held in place by muscles and ligaments.

In a *damaged knee*, the surfaces of these bones become rough. This causes pain when they rub together. The cartilage may wear away, leaving nothing to help the bones move smoothly. Arthritis can cause the joint to swell. This causes pain and stiffness in the knee. (*continued*)

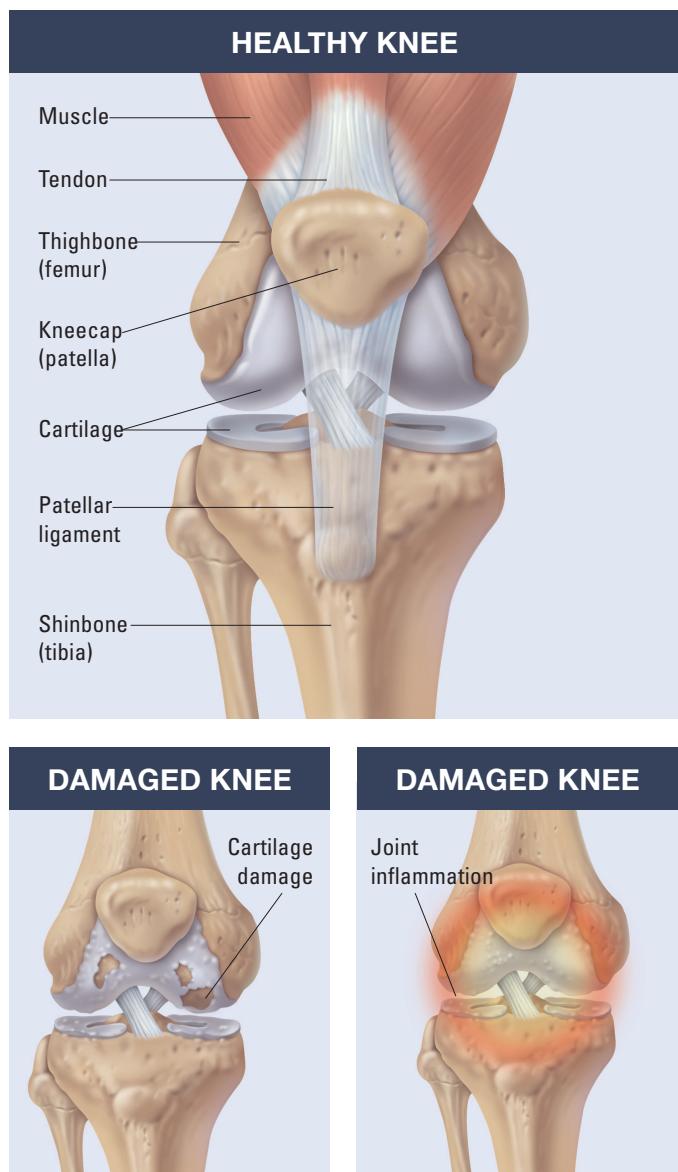


Image courtesy of Krames StayWell

Images courtesy of Krames StayWell

PRIMARY TOTAL KNEE REPLACEMENT (continued)

How surgery can help

Your damaged knee joint can be replaced with new, smooth-surfaced parts called components or implants. They are made of metal and plastic.

There are 3 types of components/implants:

- The rough surface of the thigh bone is replaced by an upper knee component (femoral).
- The rough surface of the shin bone is replaced by a lower knee component (tibial).
- The underside of the kneecap (patella) may or may not be replaced, depending on need. Your surgeon will let you know if your kneecap will have this component.

How long is the surgery?

The surgery takes about two hours – much less time than many other surgeries. The time you'll spend in the hospital is also fairly short, about 2 days.

REVISION KNEE REPLACEMENT

A revision knee replacement is any knee replacement surgery after the first one.

Why have a second knee surgery?

A revision knee replacement surgery fixes problems in the knee that happen after the first surgery. The most common reasons for revision surgery are a painful, loose component (a piece of the new joint) or infection.

What if my knee feels fine?

Some patients have no symptoms, but need revision surgery because of a worn polyethylene liner, bone loss, or a component that's loose. Revision surgery will prevent more damage.

How long is the surgery?

The surgery takes about 2-4 hours. It's a more complex surgery than primary total knee replacement. It takes longer because failed components and scar tissue must be removed. Bone grafts may also be used to rebuild bone loss in some patients.

How long is the recovery?

Full recovery takes about 6 months. In the hardest cases, after 6 to 12 months a patient will be mostly pain-free, be able to move the knee, and walk with a small limp or no limp at all.

TOTAL KNEE REPLACEMENT

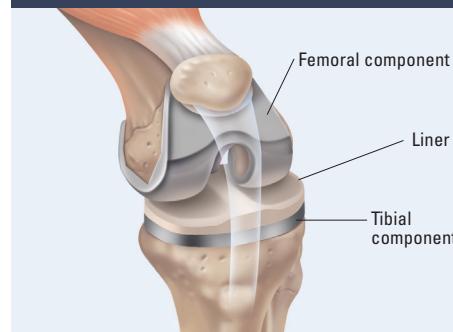


Image courtesy of Krames StayWell

Will a knee replacement work as well as a normal knee?

Although a total knee replacement works very well, it's not a normal knee. For example, your knee may not hold up during vigorous activities as well as a typical healthy knee. Even so, a knee replacement will help get rid of knee pain and help you to become more active.

PROBLEMS FROM SURGERY

Although knee replacement can help with pain, there's also the chance that surgery will cause problems. These problems are called complications.

Most common complications from knee replacement include:

- A blood-clot in the leg
- Pain or stiffness
- Infection
- Nerve injuries
- Bone fractures

There is only a small chance that these problems will happen and they can almost always be treated or fixed. There are other complications that can happen, too, but they are rare.

Blood clot in the leg

The most common complication of any knee replacement surgery is a blood clot in the leg, or deep vein thrombosis (DVT).

- In patients who use blood thinners, a blood clot happens to 1 to 5 patients out of 100 (1% to 5%).*

You will be given a blood thinning medicine such as Aspirin, Coumadin, or Lovenox to prevent blood clots. You may be asked to wear a compression device on your lower leg to help with blood flow.

If you have a blood clot, you will need to take a blood thinner for at least 3 months. If it happens once you're back at home, you may need to stay in the hospital again before starting a new blood thinner.

Pain or stiffness

There is a chance the knee will hurt or be hard to move, even after surgery.

- 5 to 10 patients out of 100 (5% to 10%) have more pain or stiffness than they would like.*



Infection

- Less than 1 patient out of 100 who has a primary knee replacement will get an infection.*
- 1 to 5 patients out of 100 who have a revision knee replacement will get an infection.*

If an infection happens, the implants must be removed for 6 weeks to 6 months. During this time you will take antibiotics to cure the infection. Once it is gone, you will have knee surgery again.

Nerve injuries

A nerve injury can cause numbness and tingling in the knee, lower leg, and foot.

- Less than 1 patient out of 100 will have nerve damage.*

In revision knee surgery, nerve injuries are often caused by scar tissue that forms around the nerve from previous surgeries.

Bone fractures

A bone fracture is a broken bone, such as the thigh bone or shin bone.

- Less than 1 patient out of 100 will have a bone fracture.*

Fractures are more common in patients with bone loss or when a well-fixed implant (implant surface tightly fitted to your bone) must be removed.

If a fracture happens, you may need to stay off your leg, wear a special device that keeps your knee from moving, or have surgery to fix the fracture.

Knee Replacement Surgery

Common Questions & Answers

Q. About how many total knee replacements are performed each year at Barnes-Jewish Hospital?

A. More than 700.

Q. How does the doctor decide if I need a total knee replacement?

- A. That decision is based on:
1. How much pain you have on most days.
 2. How hard it is for you to walk.
 3. How much this problem keeps you from activities and enjoying your life.

Q. How long does the surgery last?

- A. About 1½ to 3 hours, depending on the condition of your knee at the time of surgery.

Q. How long until bone ingrowth (bone grows on and into the implant surface) happens?

- A. Between 6 weeks and 1 year.

Q. Why do I have to take a blood thinner after surgery, and for how long?

- A. You need to take a blood thinner after surgery to prevent blood clots. You will need to take it for 4-6 weeks.

Q. When is the adhesive dressing or skin staples removed?

- A. The adhesive dressing or skin staples are usually removed 2-3 weeks after surgery.

Q. When can I shower?

- A. You can shower with assistance when approved by your surgeon. Protection of your incision during showers will be discussed with you. You will not be able to sit down in a bathtub for at least three months after surgery.

Q. When can I...?

1. **Have sex:** Sexual activity is not recommended immediately after surgery because of pain and swelling. You can resume sexual activity when you feel ready. However, kneeling may be painful for some time. Your physical/occupational therapist will talk about safe ways to have sex without hurting your knee.
2. **Swim or ride an exercise bike:** It depends on the stability of your knee and what type of exercise bike you will be using. Your doctor will talk with you about this before you leave the hospital.
3. **Play tennis, golf, or other active sports:** About 3 to 6 months after surgery.
4. **Go to work:** If you have a light duty or desk job, you may return to work as soon after surgery as you are comfortable. Physically demanding jobs may require 6 weeks to 3 months of recovery before returning to work.
5. **Drive a car:** Your doctor will talk with you about this before you leave the hospital.

Q. How long should I keep doing my physical therapy exercises?

- A. Keep doing your exercises until your first follow-up visit. You may be given different exercises at that visit.
- Keep exercising until your muscles are pain-free and you can walk without a limp. The exercises will keep your muscles strong.

Q. Do I need an x-ray 12 months after surgery, even if my knee feels fine?

- A. The x-ray shows your doctor that no problems are starting. Even if you don't have any symptoms, an x-ray shows:
- The amount of bone ingrowth.
 - The position of the prosthesis.
 - The condition of the bone around the prosthesis.

To speak with an orthopedic clinical specialist, call 314-514-3500.

For more information, visit ortho.wustl.edu/joints

Barnes-Jewish Hospital

One Barnes-Jewish Hospital Plaza
St. Louis, MO 63110

Orthopedics



NATIONAL LEADERS IN MEDICINE