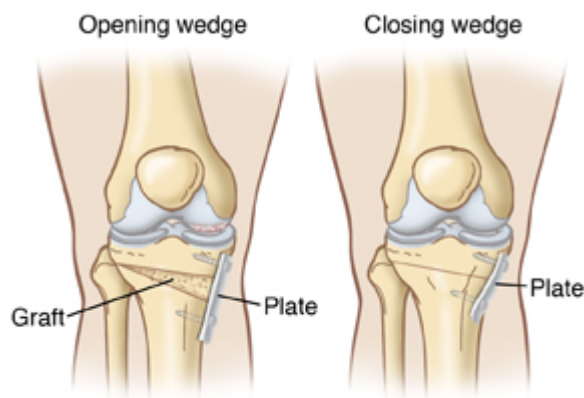


## Knee Osteotomy



Knee osteotomy is surgery to shift the positioning of the knee. This changes which part of the knee bears the most weight. This surgery is often done to treat arthritis that affects one side of the knee. It may also be done to treat bowlegs (knees turn outward) or knock-knees (knees turn inward).



### Preparing for surgery

Prepare as you have been told. Tell your healthcare provider about all medicines you take. This includes over-the-counter medicines. It also includes herbs and other supplements. You may need to stop taking some or all of them before surgery. Also, follow any directions you're given for not eating or drinking before surgery. If you smoke, stop smoking in the weeks before and after the surgery. This is because smoking can affect bone healing.

### The day of surgery

The surgery takes about 1 to 2 hours. You may stay in the hospital 1 or more nights afterward.

Before the surgery begins:

- An IV line is put into a vein in your arm or hand. This line supplies fluids and medicines.
- To keep you free of pain during the surgery, general anesthesia may be used. This medicine puts you in a state like deep sleep through the surgery. Or spinal anesthesia may be used. This medicine numbs your body from the waist down. In some cases, a nerve block may be used. This medicine numbs the area to be worked on. With either spinal anesthesia or a nerve block, you may also be given medicine (sedation) that makes you relaxed and drowsy through the surgery.

### During the surgery

The healthcare provider will assess your knee problem and determine if the lower end of the thighbone (femur), the top end of the shinbone (tibia), or both need to be treated during the surgery. These bones make up the top and bottom parts of the knee joint. Surgery is then done using a closing or opening wedge method. X-rays are used to guide either method of surgery.

- With the closing wedge method, an incision is made in the skin to expose the bone. The bone is then cut and a piece of the bone (wedge) is removed. This creates a gap in the bone. The gap is brought closer together and then closed with devices, such as metal plates or screws.
- With the opening wedge method, an incision is made in the skin over the knee to expose the bone. The bone is then cut. At the location of the cut, the two sides of the bone are pulled slightly apart. This

creates a gap in the shape of a wedge. Extra bone (bone graft) is then used to fill in the gap. Bone for this graft may come from your own body, a donor, or manmade sources (bone substitutes). If bone from your own body is to be used, it is usually taken from your hipbone (pelvis). This needs a separate incision to be made in the hip during the surgery. (You and your healthcare provider will discuss the exact type of bone graft to be used before the surgery.) The bone graft is secured to the bone around it with devices, such as metal plates or screws.

With either method, all of the incisions are closed with stitches (sutures) or staples. A small tube (drain) may be placed near the incision to help remove excess fluids. This drain will usually be removed before you leave the hospital. Or you may need to return to have it removed in 1 to 3 days.

## After the surgery

You will wake up in a recovery room. You may then be moved to your regular room. You will be given medicines to manage pain and to prevent infection. Your knee will be raised (elevated) above the level of your heart, and cold may be applied to your knee to reduce pain and swelling. Also, your knee may be placed in a brace. And you may be given special stockings or boots to wear to help prevent blood clots. You will be helped out of bed to stand and walk with crutches or a walker for brief periods. While you are in the hospital, you may begin work with a physical therapist. You may be taught stretches and exercises for your knee to do at home. You may also be taught how to use a walking aid and ways to move around safely without bearing full weight on your knee. You will be told when you can go home. Have an adult family member or friend drive you.

## Recovering at home

Once home, follow any instructions you are given. During your recovery:

- Take pain medicine and any other medicine as directed.
- Care for your incisions as instructed. This includes keeping the incisions dry when bathing or showering.
- Elevate your leg to reduce pain and swelling. This means keeping your knee at a level higher than your heart.
- Apply an ice pack wrapped in a thin towel to your knee a few times a day. Do this for 20 minutes at a time. This helps reduce swelling.
- Keep weight off your leg.
- Perform certain exercises as instructed.
- Use any aids, such as a brace, splint, or crutches, as instructed.
- You may also be told to limit certain sports or activities.
- Be patient with your progress. It takes about 6 months for the knee to fully heal.
- Do not drive until your healthcare provider says it's OK.

## When to call your healthcare provider

Call the healthcare provider if you have any of the following:

- Fever of 100.4° F ( 38° C) or higher, or as directed by your healthcare provider
- Chills
- Pain that isn't helped by medicine or rest
- Increased swelling not helped by elevation or icing the knee

- Signs of infection at any incision site. These include increased redness or swelling, warmth, pain that gets worse, or foul-smelling drainage.
- Bleeding through the bandages
- Numbness in the leg or top of the foot that gets worse
- Severe nausea
- Pain in the leg that gets worse
- Inability to move the foot
- Any other symptoms indicated by your healthcare provider

## Call 911

Call 911 right away if any of these occur:

- Chest pain
- Trouble breathing

## Follow-up care

Keep all follow-up appointments with your healthcare provider. Sutures (stitches) will likely need to be removed about 7 to 14 days after surgery. After this surgery, recovery can take several months or longer. You may need to wear a brace for a time. The brace helps keep the knee stable and protects it from further injury. You may also need to use a walking aid, such as crutches or a walker, to help you move around. Also, as part of your recovery, you may need to do physical therapy (PT). This is a program of exercise and treatments to strengthen and improve the function of your knee. You may work with a physical therapist. You may be instructed to use a continuous passive motion machine at home. This helps gently exercise the knee. Follow all instructions you are given.

## Risks and possible complications

Risks and complications may include:

- Infection
- Bleeding
- Blood clots
- Ongoing pain, stiffness, or instability in the knee
- Poor alignment of the bone, needing more surgery
- Poor healing of the bone
- Excessive scar tissue formation
- Failure or breakage of a device
- Damage to nearby nerves, blood vessels, or soft tissues
- Damage to nearby cartilage and bone
- Problems with the bone graft
- Risks of anesthesia. The anesthesiologist will discuss these with you.

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