
Knee replacement

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Joint replacement involves surgery to replace the ends of bones in a damaged joint. This surgery creates new joint surfaces.

In knee replacement surgery, the ends of the damaged thigh and lower leg (shin) bones and usually the kneecap are capped with artificial surfaces lined with metal and plastic.

Usually, doctors replace the entire surface at the ends of the thigh and lower leg bones. However, it is increasingly popular to replace just the inner knee surfaces or the outer knee surfaces, depending on the location of damage. This is called unicompartmental replacement. People who are good candidates for unicompartmental surgery have better results with this procedure than with total joint replacement.

Doctors usually secure knee joint components to the bones with cement. In knee replacement surgery, doctors remove the damaged cartilage and replace it with new joint surfaces in a step-by-step process. Joint changes caused by osteoarthritis may also stretch and damage the ligaments that connect the thighbone to the lower leg bone. After surgery, the artificial joint itself and the remaining ligaments around the joint usually provide enough stability so that the damaged ligaments are not a problem.

Doctors most often use regional anesthesia for joint replacement surgery. That means you can't feel the area of the surgery and you are sleepy, but you are awake. The choice of anesthesia depends on your doctor, on your overall health, and, to some degree, on what you prefer.

Your doctor may recommend that you take antibiotics before and after the surgery to reduce the risk of infection. If you need any major dental work, your doctor may recommend that you have it done before the surgery. Infections can spread from other parts of the body, such as the mouth, to the artificial joint and cause a serious problem.

Doctors recommend joint replacement surgery when knee pain and loss of function become severe, and medications and other treatments no longer relieve pain. Your doctor will use X-rays to look at the bones and cartilage in your knee to see whether they are damaged and to make sure that the pain isn't coming from somewhere else.

Doctors may not recommend knee replacement for people who: Have poor general health and may not tolerate anesthesia and surgery well and:

Have an active infection or are at risk for infection.

Have osteoporosis (significant thinning of the bones).

Have severe weakness of the quadriceps muscles at the front of the thigh.

Have a knee that appears to bend backward when the knee is fully extended (genu recurvatum), if this condition is due to muscle weakness or paralysis.

Are severely overweight (replacement joints may be more likely to fail in people who are very overweight).

Some doctors will recommend other types of surgery if possible for younger people and especially for those who do strenuous work. A younger or more active person is more likely than an older or less active person to have an artificial knee joint wear out. People who are very overweight are also more likely to have an artificial knee joint wear out from the extra stress on the joint.