

Less Pain,<sup>1</sup> Faster Recovery,<sup>2-5</sup> More Natural Motion.<sup>6,7\*</sup>



# **Partial Knee Replacement**

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There are many treatment options to consider when suffering with arthritis, including non-surgical treatments such as medication, low-impact exercise and physiotherapy. However, knee replacement surgery may be recommended if there is significant arthritis of the knee or other indications as recommended by your doctor.

With total knee replacement, the entire surface of the knee is removed. A partial knee replacement, also known as a unicompartmental knee replacement, will resurface only the damaged side of the knee.

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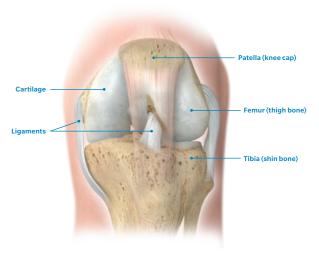
The information herein is of a general nature and does not represent or constitute medical advice or recommendations and is for general education purposes only. This information is not meant to replace the specific verbal and written recommendations and instructions provided by your surgeon for your specific situation. Patient treatment plans and outcomes will vary.



#### **Osteoarthritis**

Healthy joints are covered by a layer of cartilage which is a tough, lubricating tissue that provides smooth, pain-free motion to your joints. Arthritis, or joint inflammation, can be an extremely painful and difficult condition to manage.

When arthritis develops, the cartilage becomes thinner and eventually wears away down to the bone. This is called osteoarthritis. This type of arthritis results in bone against bone friction. Without cartilage, walking is painful.



**Figure 1**Normal Knee



**Figure 2**Osteoarthritis on one side
Partial Knee Candidate



**Figure 3**Osteoarthritis on both sides
Total Knee Candidate

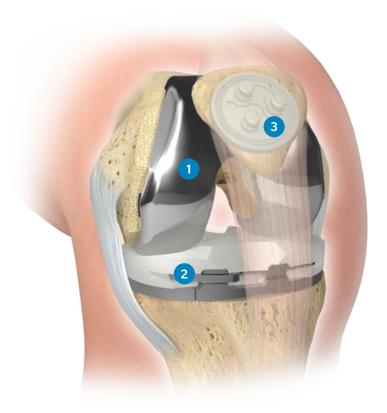
## Symptoms of osteoarthritis can include:

- Painful joints, especially after activity or periods of inactivity
- Joint stiffness
- Joint swelling
- Loss of movement in the joint

# What is **Total Knee Replacement?**

The knee joint is one of the largest and most complex joints in the body. It consists of three parts that move and work together to ensure smooth motion and function. The knee is made up of the lower end of the thigh bone (femur), which rotates on the upper end of the shin bone (tibia), and the kneecap (patella) (Figure 4), which slides in a groove on the end of the femur. Four large ligaments attached to the femur and the tibia provide stability. Total knee replacement removes the entire surface of the knee joint and replaces that surface with artificial parts. A total knee replacement consists of the following components (Figure 4):

- 1 The femoral component:
  a metal component on the end of the thigh bone
- 2 The tibial component:
  a metal component and plastic liner on the upper end of the shin bone
- 3 The patellar component: a plastic button on the kneecap



**Figure 4.** Example of a Total Knee Replacement

# What is **Partial Knee Replacement?**

Often, only one side of the knee is damaged. This is usually the inner side of the knee, but although less common, arthritis can also affect the outer side of the knee.

A partial knee replacement, also known as a unicompartmental knee replacement, will replace only the damaged side of the knee (Figure 5), preserving the normal, undamaged cartilage. This may result in a smaller incision, keeping the four natural ligaments and an artificial joint which functions more like the natural knee movement.<sup>8</sup>

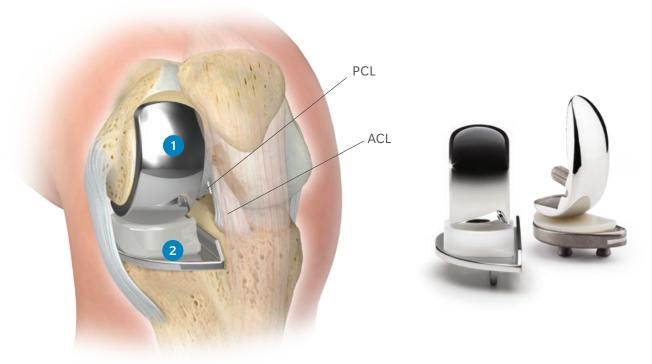


Figure 5. Example of a Partial Knee Replacement

What risks are involved? It is important to understand the risks involved. There are potential complications both during and after surgery. Generally, these include infection, blood clots, pneumonia, implant loosening, nerve damage, bone fracture and implant breakage; any of which can require additional surgery. While joint replacement is generally successful in lowering pain levels and increasing mobility, some patients will continue to experience pain and your doctor may permanently restrict certain activities that could damage and wear out your new knee parts. Ask your doctor to explain other surgery risks.

#### **Ligament Preservation**

By undergoing a partial knee replacement, the soft tissues, ACL (Anterior Cruciate Ligament) and PCL (Posterior Cruciate Ligament), are kept intact and are not removed. These ligaments help provide stability, balance, and maintain your natural movement after surgery. <sup>14</sup> One study found that approximately 50% of knee replacement patients are potential candidates for partial knee replacement. <sup>8</sup> With total knee replacement, the natural ligaments, the ACL and PCL, are often removed (Figure 4). The implant must then provide the stability to the knee instead of the natural ligaments. With modern materials, improvements in techniques and antibiotic therapy, total knee replacement can be a successful operation.

# **Benefits of Partial Knee Replacement**

vs. Total Knee Replacement

Partial knee patients may be more satisfied with their knee replacement compared to total knee replacement patients<sup>9</sup> for the following reasons:

**Partial Knee Replacement has:** 

A more natural fit<sup>10\*</sup>





A higher percentage of patients are more likely to **return to sports**<sup>12</sup> and are able to **walk longer**<sup>2</sup>

Rapid recovery protocol allows patients a faster return to a more functional level<sup>2</sup> and **shorter** hospital stay<sup>15, 16</sup>

A less invasive procedure<sup>13</sup> which retains the ligaments

Partial knee patients have also been found to be more likely to forget their artificial joint in daily life and consequently may be more satisfied.<sup>9</sup>



There are many things to consider when choosing the right treatment for knee arthritis, such as non-surgical treatments including medication, low-impact exercise and physiotherapy. Your orthopaedic surgeon should take your goals following a knee replacement into account. The orthopaedic surgeon will consider many factors, such as age and bone density to determine the most appropriate type of knee replacement for you. Perhaps together, you and your doctor can determine the best treatment options for you.

For additional information visit zimmerbiomet.com.



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\*Compared to total knee replacement.

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Results may vary. Not all patients are candidates for this product and/or procedure. Only a medical professional can determine the treatment appropriate for your specific condition. Appropriate post-operative activities and restrictions will differ from patient to patient. Talk to your surgeon about whether joint replacement is right for you and the risks of the procedure, including the risk of implant wear, infection, loosening, breakage, or failure, any of which could require additional surgery.

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