



No two knees are alike.  
That's why we personalize  
your surgery just for you.



# Zimmer® Patient Specific Instruments

For Knee Replacement Surgery

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**Efficient, Personalized Surgery:**  
The right fit for nearly every knee

It's not surprising. Research proves that differences in bone shape influence the way a knee replacement fits. That's why the personalized solution your surgeon can give you with *Zimmer*<sup>®</sup> Patient Specific Instruments makes so much sense.

## Here's how it works.

Well before the day of your surgery, your doctor will send you for a highly precise MRI (magnetic resonance imaging) of your knee. Using this 3-D image and software developed exclusively for this purpose, your surgeon creates a detailed plan for your surgery—including customized instrumentation that shows exactly how your new knee should be positioned.

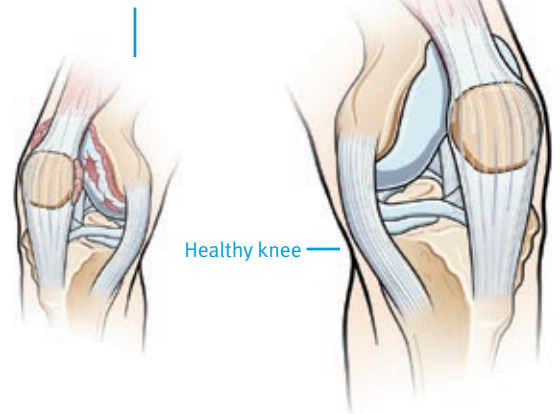


Combining *Zimmer* Patient Specific Instruments with Zimmer's wide range of knee shapes and sizes helps your surgeon give you the best possible fit and the best possible outcome. That's why the knee with one of the lowest rates of "do-overs" in joint replacement registries<sup>1</sup> comes from Zimmer.

## Why does my knee hurt?

It's pretty simple. Three bones meet up at the knee joint: the end of the thighbone (femur), the top of the shinbone (tibia), and the kneecap (patella). Those bones are cushioned by cartilage, but when the cartilage is worn away—which is actually the definition of osteoarthritis—the bones grind against each other. That grinding hurts. You can feel it climbing stairs, working in the garden, or just bending your knees to sit.

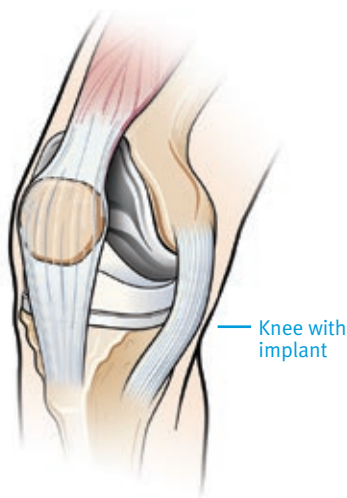
Knee with osteoarthritis



## Is it time for knee replacement?

That's a question you and your orthopaedic surgeon will have to answer together. But when knee pain is so bad it actually interferes with the things you want or need to do, the time may be right. Here are some signs to consider:

- Medication and using a cane just aren't delivering enough relief
- Pain is keeping you up at night
- Your knee aches during and after exercise
- Your knee stiffens up sitting in a car or a movie theater
- You are no longer as mobile as you'd like to be



## What happens during knee replacement surgery?

It's the same idea as having most things fixed—worn parts are taken out, and new parts are installed in their place. In surgery, the damaged portions of the knee bones are removed, and the knee is resurfaced with metal and plastic implants. With Zimmer knees, surgeons can take advantage of the most advanced implant techniques, shorter hospital stays, and quicker recoveries.



## What happens afterward?

Rehab begins quickly! On the day after your surgery, you'll get a visit from your physical therapist and begin learning how to use your new knee. You may be fitted with a "continuous passive motion" machine that will gently straighten and bend your knee. Other exercises that promote blood flow to your legs include ankle pumps and pedaling your feet.

Getting up and around soon is important. If you had considerable pain before surgery, you probably cut back on your activities, so your leg muscles may be weak. You will need to build up enough strength to control your new knee, and early activity encourages healing, too. Your doctor and physical therapist will give you specific instructions on wound care, pain control, diet, and exercise.

## What risks are involved?

Knee replacements have been highly successful for more than 30 years. According to the National Institutes of Health, 9 out of 10 patients who undergo the procedure report improved pain relief, knee function, and overall health-related quality of life. And, because medicine is always developing new materials and procedures, the results continue to get better.

The complication rate following total knee replacement is low. Serious complications, such as knee joint infection, occur in fewer than 2% of patients.<sup>2</sup> Major medical complications, such as heart attack or stroke, occur even less frequently. (Of course, chronic illnesses may increase the potential for complications.)

Blood clots in the leg veins are the most common complication of knee replacement surgery, but your surgeon will outline a prevention program. This may include periodic elevation of your legs, lower leg exercises to increase circulation, support stockings, and medication to thin your blood.

When infection occurs after total knee replacement, it is most commonly caused by bacteria that enter the bloodstream during dental procedures or from urinary tract, skin, or fingernail infections. These bacteria can lodge around your knee replacement and cause an infection. Although uncommon, when these complications occur, they can delay full recovery.

To receive more information on Zimmer's latest joint replacement technology, please fill out the reply card.



Yes! I would like to receive more information on Zimmer's latest joint replacement technology. [Please print clearly.]

First and Last Name \_\_\_\_\_

Street Address \_\_\_\_\_

City State ZIP \_\_\_\_\_

Phone \_\_\_\_\_

E-mail \_\_\_\_\_

In order to send you the most relevant information, please complete the short questionnaire below. Please choose your level of agreement by circling a number in the scale below.

1. My knee causes me difficulty in walking, even short distances.  
Do not agree    1    2    3    4    5    6    7    Completely agree
2. Joint replacement surgeries have a very high success rate.  
Do not agree    1    2    3    4    5    6    7    Completely agree
3. My pain is not severe enough to have the replacement surgery yet.  
Do not agree    1    2    3    4    5    6    7    Completely agree
4. My doctor has told me that I am not old enough to have the surgery yet.  
Do not agree    1    2    3    4    5    6    7    Completely agree
5. I am a caregiver for someone and am concerned about who will take care of them during rehab from the knee replacement surgery.  
Do not agree    1    2    3    4    5    6    7    Completely agree
6. I am still looking for a surgeon whom I can trust and feel comfortable with.  
Do not agree    1    2    3    4    5    6    7    Completely agree

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For the first 2 years after your knee replacement, you must take preventive antibiotics before dental or surgical procedures that could allow bacteria to enter your bloodstream. After 2 years, talk to your orthopaedist and your dentist or urologist to see if you still need preventive antibiotics before any scheduled procedures.

## Find the answers that are right for you.

Ask your surgeon for more information on *Zimmer* Patient Specific Instruments  
**Consumer relations call center 800-447-5633 or visit [zimmer.com](http://zimmer.com) to locate a surgeon near you**

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**Important Note:** This brochure is intended to provide an overview of *Zimmer* Patient Specific Instruments and should be reviewed with your doctor. It does not include all of the information needed to determine eligibility for knee replacement or for the proper use and care of prosthetic knee implants. Please consult your surgeon for more information. Information may also be obtained by calling the toll-free number or visiting the Web site. The toll-free number also can be used to obtain complete product contraindications, warnings, precautions, and possible adverse effects. Individual results may vary. Your results will depend on your personal circumstances. How long a knee replacement will last varies from patient to patient. It depends on many factors, such as the patient's physical condition, activity level, and body weight and the surgical technique. Replacement joints are not as strong or durable as a natural, healthy joint, and there is no guarantee that a prosthetic joint will last the rest of a patient's life. All knee replacements may need to be replaced at some point.

This device is available only on the order of a physician.

[www.zimmer.com](http://www.zimmer.com)

#### References:

1. Graves, et al. Hip and Knee Arthroplasty Annual Report 2008. Australian National Joint Replacement Registry. 2008;131. 2. American Academy of Orthopaedic Surgeons. Total knee replacement. <http://orthoinfo.aaos.org/topic.cfm?topic=A00389>. Updated April 2009. Accessed October 7, 2009.

