

# Your Guide to Knee Replacement Surgery

featuring

**Persona<sup>®</sup> The Personalized Knee**



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You will also learn what to expect from total knee replacement surgery and the potential benefits and risks.



# A new era in personalization

Fit matters. When something fits well, you feel good wearing it. The Persona Knee System offers extensive implant sizes and shapes so your surgeon can tailor your implants to fit your unique anatomy. Learn how the advanced technologies of the Persona System allow your surgeon to conserve more of your natural bone and get you back on the move.



## Why does my knee hurt?

Cartilage is the main connective tissue in the human body. When the cartilage around your knee thins and wears away over time, you can develop osteoarthritis.

Osteoarthritis causes your bones to grind against each other oftentimes resulting in serious pain. You may feel pain climbing stairs, working in the garden, or just bending your knees to sit.

**Healthy Knee**



**Arthritic Knee**



## Is it time for a 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

Be sure to let your surgeon know about any pre-existing medical conditions before surgery. Follow all of your doctor's instructions both before and after surgery to allow for the best possible surgical result.



## What can help my knee replacement feel “normal”?

The shape and fit of your knee implants matter in your satisfaction after surgery. Because, after all, your knee is unique to you... so the implants should mirror your own anatomy as close as possible.

This is the foundation behind the Persona Knee design. It features anatomically accurate implants with more sizing options to help your surgeon better restore the unique identity of your knee.

- The femoral implant comes in standard and narrow options to help your surgeon accommodate various bone sizes and widths.
- The anatomic tibia implant is designed to help your surgeon achieve the right bone placement and the right amount of bone coverage.
- The bearing implant sits between the femur and tibia. It comes in several thicknesses and constraints to help your surgeon achieve a proper balance and fit of the overall joint.
- All the Persona Knee implants are side-specific... meaning that they are designed specifically for either your right or left knee.

**The right size. The right shape.**



## Advanced Technologies

### Vivacit-E® Highly Crosslinked Polyethylene

In a knee replacement implant system, the medical-grade plastic bearing sits between the tibia and femur implants, acting as a cushion. Zimmer Biomet developed a unique material that has vitamin-E directly incorporated into it. Vitamin-E is a powerful antioxidant that guards against wear and helps prevent breakdown of the plastic surface. This material is called Vivacit-E Highly Crosslinked Polyethylene, and laboratory tests have shown it to be very resistant to wear and exceptionally strong.<sup>1-7</sup>

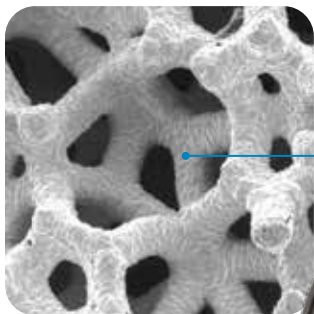




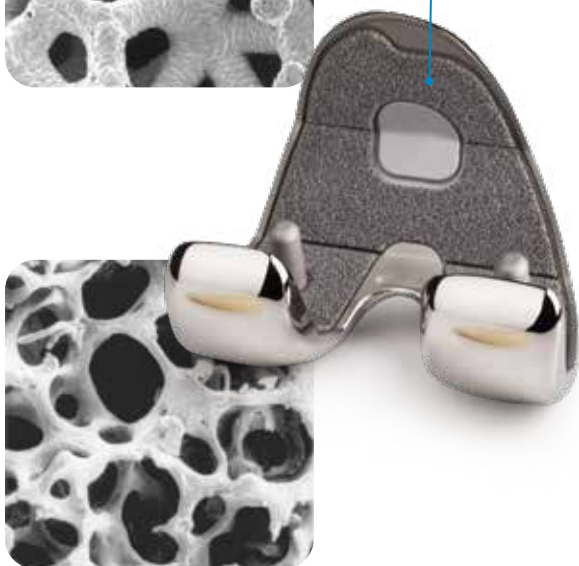
## Trabecular Metal Technology

An important component of the Persona System is Trabecular Metal Technology, available exclusively from Zimmer Biomet. Trabecular Metal material is not a coating, like the surface of many knee replacement components. Rather, it's a three-dimensional porous material that closely resembles your body's natural bone.

### Trabecular Metal Material



Trabecular Metal provides a structure that allows for your natural tissue to grow right into it.<sup>8</sup>



Human Bone Cell

## What happens during knee replacement surgery?

In surgery, the damaged portions of the knee bones are removed, and the knee is resurfaced with metal and medical-grade plastic implants.



## What happens after surgery?

Getting up and around is important to your recovery. Your surgeon will want you stay active without doing too much too soon. You'll likely increase your activities gradually. Be sure to follow the instructions of your surgeon and physical therapist. During your recovery, you should notice a gradual improvement over time. Recovery varies based on individual factors. If you need guidance about your activities, talk to your surgeon. You may have permanent activity restrictions and only your doctor can decide which activities are acceptable for your condition.

## What are the risks?

While there are no guarantees, the complication rate following total knee replacement is relatively low. Each of the following reactions or complications can occur during and after surgery and may require medical attention (such as further surgery and/or implant removal):

- Blood clots
- Bleeding
- Slow wound healing
- Infection
- Allergic reaction to the implants
- Blood vessel damage
- Nerve damage
- Stiffness
- Poor range of motion
- Swelling and joint pain
- Knee instability and/or dislocation
- Loosening or fracture of the knee implant components
- Bone fracture or break during surgery
- Leg length discrepancy

### References:

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5. Zimmer ZRR\_WA\_2403\_11.
6. Zimmer ZRR\_WA\_2551\_12.
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8. Karageorgiou, V. and Kaplan, D. Porosity of Biomaterial Scaffolds and Osteogenesis. *Biomaterials*. 26: 5474-91, 2005.

For more general information, such as understanding your pain and surgical options, preparing for surgery, recovering, what to expect, common exercises and more, visit our patient education center [www.thereadypatient.com](http://www.thereadypatient.com).

# ReadyPatient

To learn more about Zimmer Biomet joint replacements, the Persona Knee System, obtain helpful information for patients and caregivers, or for assistance in finding a surgeon in your area, go to [zimmerbiomet.com](http://zimmerbiomet.com) and search using Find a Doctor.

**call toll-free: 800-447-5633 or visit**

**[zimmerbiomet.com](http://zimmerbiomet.com)**



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Results are not necessarily typical, indicative, or representative of all recipient patients. Results will vary due to health, weight, activity and other variables. 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 postoperative 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. For additional information or to find a surgeon near you, visit [www.zimmerbiomet.com](http://www.zimmerbiomet.com) or call 1-800-HIP-KNEE. 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.

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