

# CUSTOMIZED KNEE IMPLANTS



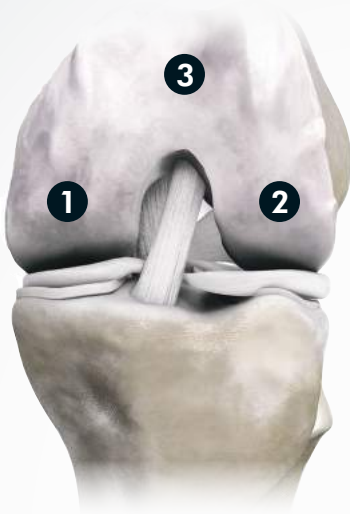
  
**CONFORMIS**  
One Patient. One Implant.™

# UNDERSTANDING

# YOUR KNEE

To understand the benefits of the ConforMIS personalized approach, it's important to understand the anatomy of your knee.

Your knee joint is formed by the intersection of the **femur** (thigh bone), the **tibia** (shin bone) and **patella** (knee cap). These bones form three "compartments" or sections.



- ❶ **Medial compartment**  
(inner half of your knee)
- ❷ **Lateral compartment**  
(outer half of your knee)
- ❸ **Patellofemoral compartment**  
(behind the knee cap)

Osteoarthritis (OA) is a degenerative joint disease characterized by the breakdown and wearing away of cartilage causing the bones to rub together and result in pain. It can affect all of the knee or just parts, depending on the severity.

A **partial knee replacement** (PKR) is an option for people who have OA in one or two compartments. A **total knee replacement** (TKR) is an option for people with OA in all three compartments.



Unicompartmental OA



Bicompartamental OA



Tricompartamental OA

# There has to be a better way

“*Within four months I had two total knee replacements done, the ConforMIS way. It was made to fit my knee, not somebody else’s knee, not a guy’s knee, not another woman’s knee, and to me, that made more sense.*”

–Sue, bilateral iTotal® recipient



Sue’s Knees



Knee replacement is a very common procedure. Despite its proven history, studies show that as many as **1 in 5 patients report they are not satisfied with the results of their total knee replacement.**<sup>1</sup>

Knees vary in size and shape. Even your own two knees are different. In a traditional knee replacement, however, the surgeon selects an **“off-the-shelf”** implant from 6-10 *standard* sizes and makes the necessary adjustments to fit the implant during the procedure.

Because off-the-shelf implants aren’t designed to your specific anatomy, surgeons often have to compromise on implant fit, rotation, and alignment. These compromises can cause pain or discomfort after surgery and help explain why 1 in 5 patients aren’t satisfied.



1. Bourne, et al; Patient Satisfaction after Total Knee Arthroplasty. Who is Satisfied and Who is Not? Clinical Orthopaedics and Related Research; 2010, 468: 57-63

# THE FIRST KNEE REPLACEMENT THAT FITS ONLY ONE KNEE. **YOURS.**



iUni<sup>®</sup>G2

Unicompartmental  
Knee Replacement



iDuo<sup>®</sup>G2

Bicompartmental  
Knee Replacement



iTotal<sup>®</sup>G2

Tricompartmental  
Knee Replacement

## Making it **personal** instead of off-the-shelf

To provide our patients with better results, ConforMIS has developed the only **customized** total knee replacement that is designed specifically for your knee.

This patient-specific approach offers unique advantages not possible with traditional, off-the-shelf implants:

- **Individualized fit** that virtually eliminates sizing compromises common with off-the shelf implants and often associated with pain after surgery
- Designed to **follow the shape and contour** of each patient's knee, which provides an increased potential for a more natural feeling knee
- Maintains the patient's **natural joint lines** to avoid instability, a common cause of patient dissatisfaction



John Lynch, bilateral  
iTotal<sup>®</sup> recipient

CUSTOMIZED

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Alan's Knee

“ I’m a metal fabricator. That means twisting, turning, and lifting every moment of the day. The ConforMIS partial knee replacement has made a huge difference in my life—at work and at home. I can even get on the ground and play with my grandkids again. ”

—Alan, iUni® recipient



## Better fit leads to *less pain*

ConforMIS implants are specifically designed to fit your knee, avoiding sizing and positioning compromises common with off-the-shelf implants that can lead to long-term painful outcomes. Our implants are also designed for optimal bone preservation.

Patient A



Patient B



Patient C





# CUSTOMIZED SHAPE



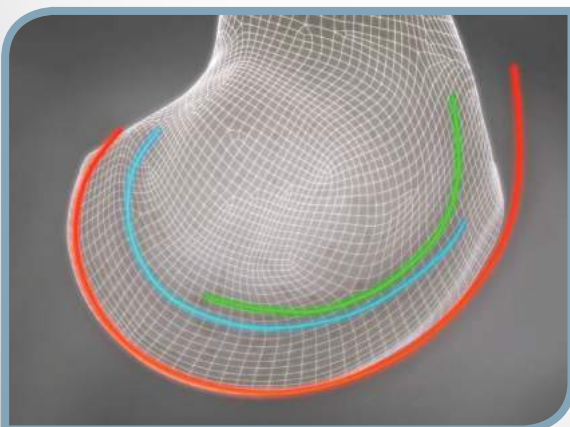
Rita's Knee

“The biggest difference is the lack of pain, and my knee feels more natural. Even physical therapists are just astounded that I gained as much flexion and extension compared to the standard, off-the-shelf knee replacement.”

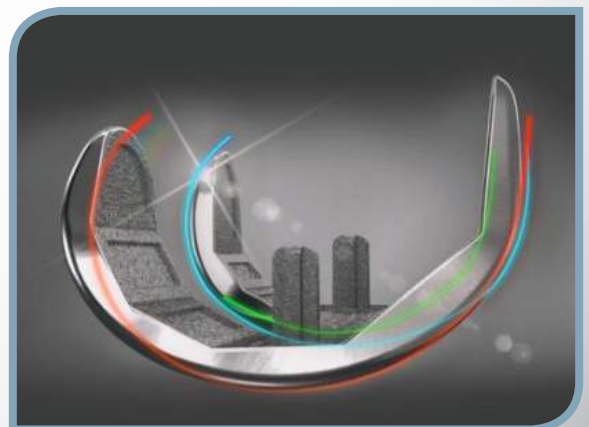
—Rita, iTotal® recipient

## Designed for a *more natural feeling knee*

ConforMIS implants are designed to mimic the natural shape of your knee, which plays an important role in the way your knee bends and extends. By restoring the natural shape of your knee rather than replacing it with the standardized geometry of off-the-shelf implants, your knee may feel more like your natural knee.



Each knee has its own shape and curvature



Each implant is customized based on your set of curves

MAINTAINING

# JOINT LINES



Irene's Knee

“  
*My knees feel completely natural. I would never think that there is a device in my knee because I do not feel any different on my right leg, which is the one that had surgery, than I do my left leg.*”

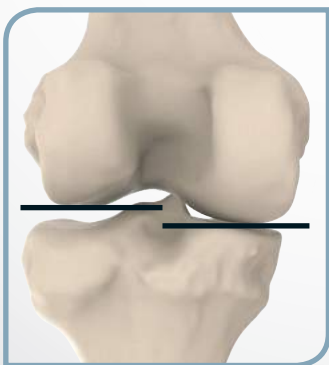
–Irene, iUni® recipient



## Stability *more closely matched* to the normal knee<sup>2</sup>

Many patients complain that their knee feels wobbly after knee replacement surgery. This feeling is formally known as mid-flexion instability. Off-the-shelf knee implants aren't designed to match the natural offset joint line that most patients have. Instead, they flatten the offset to the same height, which can lead to mid-flexion instability.

ConforMIS implants maintain the patient's medial and lateral joint lines, which allows for a more stable knee after surgery.



Patient's natural medial and lateral joint lines

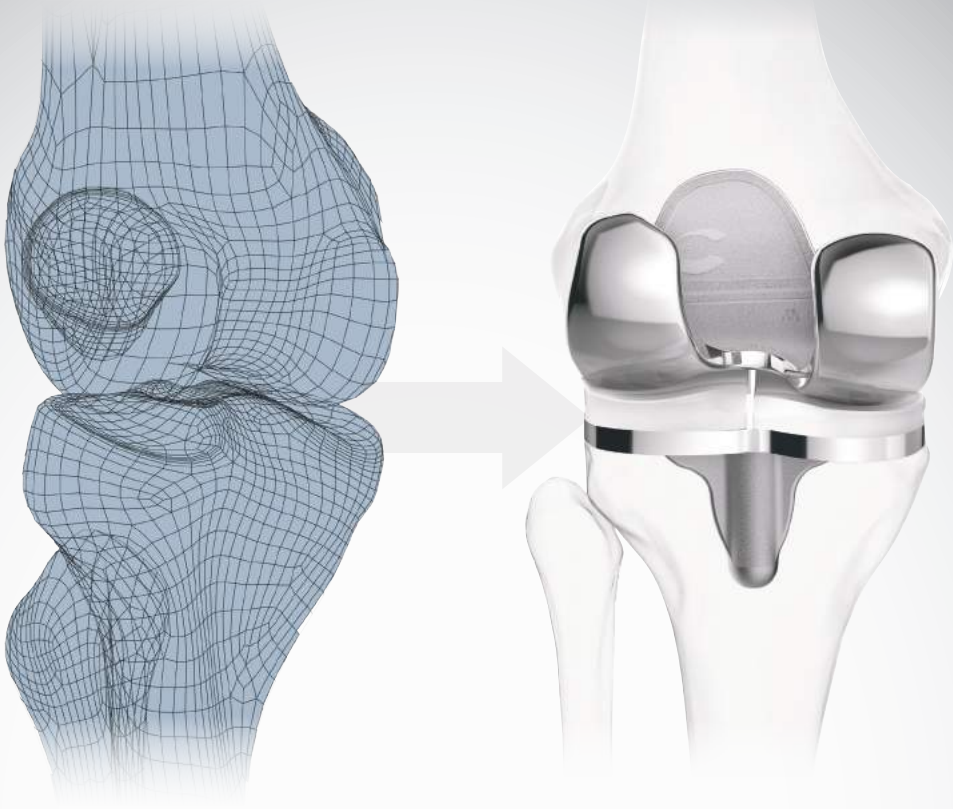


iTotal matches the patient's shape, respecting the joint lines

1. Patil, et al; Patient-Specific Implants and Cutting Guides Better Approximate Natural Kinematics than Standard Total Knee Arthroplasty. ORS Annual Meeting 2013, Vol.38. Abstract # 0965

# CUSTOMIZED

# DESIGN



## Customized for you *in only four weeks*

ConforMIS iFit® image-to-implant® technology converts a CT scan of your knee into a 3D model and then designs an implant that's unique to you. This fully automated process ensures that your implant is made for your knee, and only your knee.

SCHEDULING  
A CT SCAN



Your doctor will give you a prescription for a diagnostic CT scan of your hip, knee, and ankle

GETTING  
YOUR KNEE  
SCANNED



The CT scan will be sent to ConforMIS

RECREATING  
YOUR KNEE



Using your CT scan, a 3-D model of your knee is developed and will be used to individualize your implant

PERSONALIZING  
YOUR IMPLANT



Your implant and surgical instrument are designed and manufactured specifically for you

PREPARING  
FOR SURGERY



Your implant will be delivered to the hospital a few days before surgery





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**Caution:**

The iTotal CR Knee Replacement System (KRS) is intended for use as a total knee replacement in patients with knee joint pain and disability whose conditions cannot be solely addressed by the use of a prosthetic device that treats only one or two of the three compartments. The iDuo G2 Knee Repair System (KRS) is intended for use in patients with severe knee joint pain and disability whose conditions cannot be solely addressed by the use of a prosthetic device that treats only a single knee compartment. The iUni G2 Knee Replacement System (KRS) is intended for use in one compartment of the osteoarthritic knee to replace the damaged area of the articular surface in patients with evidence of adequate healthy bone sufficient for support of the implanted components. These implants are intended for cemented use only. Only a licensed physician can help you determine the appropriate medical treatment. There are potential risks to knee replacement surgery, and individual results may vary. Before making any decisions concerning medical treatment, consult your physician regarding your options and the risks of those options. The longevity, performance and feel of any knee implant will depend on various factors, including your physical condition, your activity level, adherence to your physician's instructions, and other factors.

USA Federal law restricts the use of these devices to sale by or on the order of a physician.

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Patient testimonials represent the experiences of those patients and not the opinions of ConforMIS.



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