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**CAUTION:** USA federal law restricts this device to sale by or on the order of a physician. The ConforMIS  
Cruciate Retaining Total Knee Replacement System (iTotal CR) is intended for use only by fully trained physicians.  
Prior to use of a ConforMIS device, please review the instructions for use and surgical technique for  
a complete listing of indications, contraindications, warnings, precautions, and directions for use.

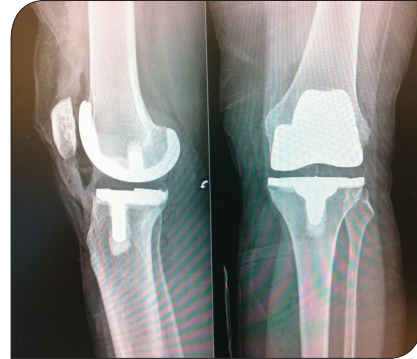
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# iTotal<sup>®</sup> G2

Patient-specific CRUCIATE-RETAINING knee replacement system

iTotal G2 is the only  
individualized total knee system on the market today.

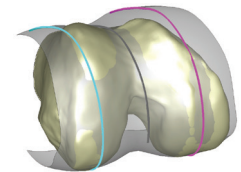


iTotal G2 is designed to achieve unique advantages not possible with off-the-shelf knee implants.

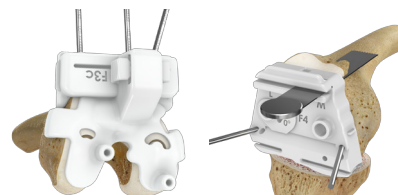
Our proprietary iFit® technology, coupled with the belief that implants and instruments should be unique to the patient, help us create an “individualized solution” in four key areas:



**1. INDIVIDUALIZED  
FIT**



**2. INDIVIDUALIZED  
SHAPE**



**3. SIMPLIFIED SURGICAL  
TECHNIQUE**

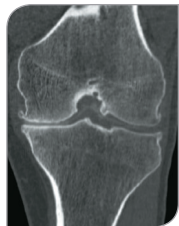


**4. IMPROVED OR  
EFFICIENCIES**

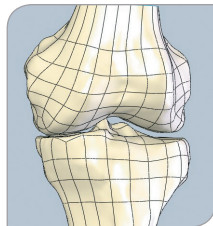
# FROM IMAGE TO IMPLANT™

People vary in more ways than gender, race, and size. At ConforMIS, we believe that optimal implant fit and performance requires an individualized approach.

Our **iFit® Image-to-Implant™** technology transforms traditional imaging data into patient-specific implants **and** instruments.



Patient CT image



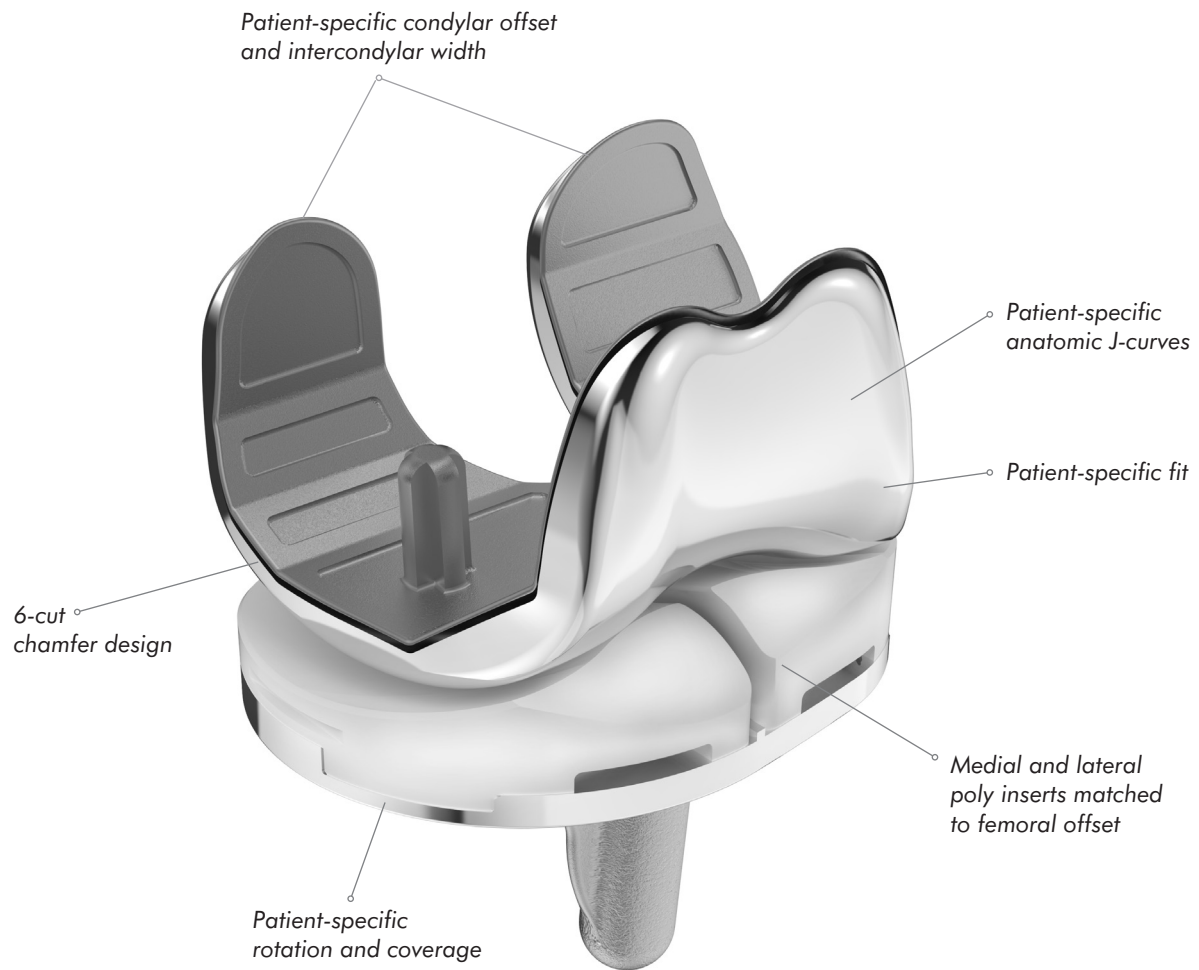
3D image processing



Patient-specific implant & iJig®  
design & manufacture



One package  
delivered for surgery



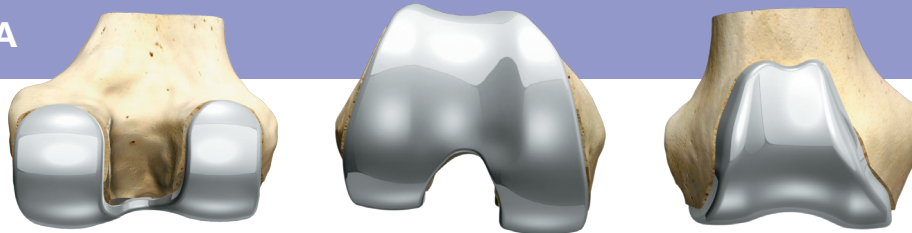
# INDIVIDUALIZED FIT

**No more compromises on femoral fit.** Femoral overhang of  $\geq 3\text{mm}$  has been shown to be a significant cause of residual pain in total knee replacement, affecting 40% of men and 68% of women in one study.<sup>1</sup>

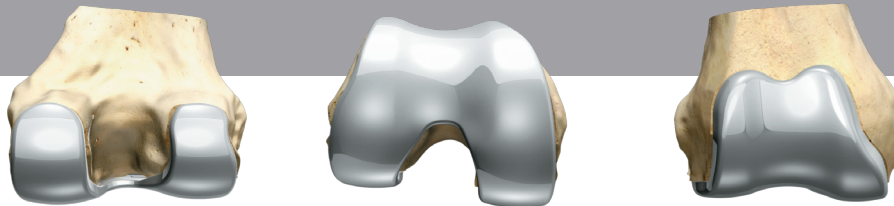
iTotal G2 is designed to address the wide variations in patient anatomy that lead to overhang and undercoverage with off-the-shelf total knee systems.

## Patient-specific femoral for proper fit without sizing compromises

Patient A



Patient B



**No more compromises on tibial coverage and rotation.** Tibial rotational errors were found in 44% of painful knees using off-the-shelf designs.<sup>2</sup>

iTotal G2 is specifically designed to address known sources of pain due to rotational errors common with traditional total knee systems.

### Patient-specific tibial tray set to proper rotation



*Anatomic tibial axis alignment*

**The result is a knee replacement so precise that it virtually eliminates sizing compromises common to off-the-shelf knee replacements.**

<sup>1</sup> Mahoney, O.M., et. al.; Overhang of the femoral component in total knee arthroplasty: risk factors and clinical consequences; J Bone Joint Surg [Am]; May 2010; Vol. 92-A; V5, pp. 1115-1121.

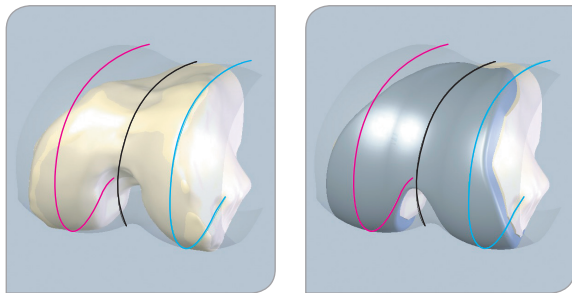
<sup>2</sup> Nicoll, et al; Internal Rotational Error of the Tibial Component is a Major Cause of Pain after Total Knee Replacement. The Journal of Bone and Joint Surgery; 2010, 92: 1238-1244.



## INDIVIDUALIZED

# SHAPE

**Shape drives kinematics.** Studies show total knee replacements, including single radius designs, alter patient kinematics.<sup>3</sup> Many patients report that their knee does not feel “natural.”<sup>4</sup> iTotal G2 starts with each patient’s medial, lateral and patellofemoral J-curves, corrected for deformity, as the basis for implant design.



### iShape™ technology:

- Respects patient’s condylar geometry
- Retains naturally occurring condylar offset

### Separate dual-balancing™ medial and lateral poly inserts:

- Matched to femoral offset
- Respect patient’s medial and lateral joint lines
- Allows for intraoperative flexibility



<sup>3</sup>Bull, et al. Changes in kinematics reflect the articular geometry after arthroplasty. Clin Orthop Relat Res. 2008;466(10):2491–9

<sup>4</sup>Noble, et al. The John Insall Award: Patient Expectations Affect Satisfaction with Total Knee Arthroplasty. Clin Orthop Relat Res (2006) 452: 35–43

Creating an implant to fit the patient, rather than shaping the patient to fit the implant, opens **new possibilities in design**.

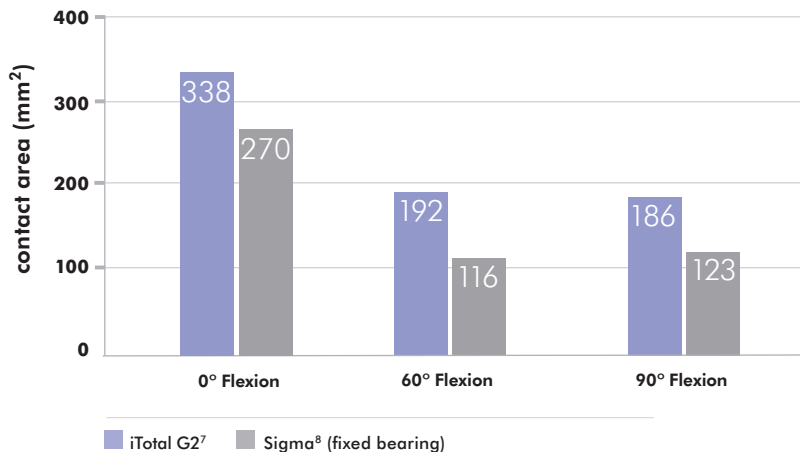


- Help **avoid soft tissue impingement** (e.g., popliteus tendon “popping”), which traditionally would require releases to correct



- 6-cut design for a thinner implant without sacrificing strength<sup>5</sup>
- **28% volumetric bone preservation** advantage for iTotal G2 compared to standard off-the-shelf implants<sup>6</sup>

Contact area (mm<sup>2</sup>) at 0°, 60° and 90° of flexion



Due to its **broad coronal radius and coverage**, iTotal G2 offers contact area throughout the range of motion.

<sup>5</sup> Ref: Slamin JE, et. al; Optimizing Knee Femoral Component Strength and Bone Preservation with Finite Element Analysis. ORS Annual Meeting 2012, Poster #1042

<sup>6</sup> Data on file.

<sup>7</sup> Data on file.

<sup>8</sup> DePuy Orthopedics, Inc. marketing literature. Data for Sigma fixed bearing is at 15° flexion as 0° flexion was not reported.

iTotal G2

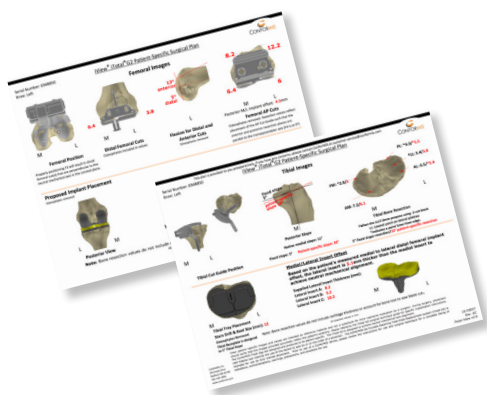
CRUCIATE-RETAINING

# SIMPLIFIED SURGICAL TECHNIQUE

Patient data enables a **reproducible surgical technique** using pre-navigated iJigs.<sup>®</sup>

Disposable, patient-specific iJig instruments for every step:

- iView surgical planning images provide detailed resection values that can be used to verify accuracy throughout the surgery





*iTotal G2 includes implants and instruments in a single box.*



*Single instrument tray*

When it comes to efficiency in the operating room, **less is more**. iTotal G2 is delivered in a single, pre-sterilized kit a few days before surgery.

- No implant inventory
- Pre-sterilized, disposable instruments
- A single reusable instrument tray
- Easy set up and tear down



IMPROVED **OR**  
EFFICIENCIES

iTotal G2  
CRUCIATE-RETAINING