

**Guided Personalized Surgery**

PRECISION  
AND  
ACCURACY  
FOR **YOUR** •  
KNEE  
REPLACEMENT  
SURGERY





## EXACTECHGPS<sup>®</sup> GUIDED PERSONALIZED SURGERY

ExactechGPS<sup>®</sup> Guided Personalized Surgery is the latest advancement in technology that provides surgeons with real-time visual guidance in total knee replacement surgery. This advanced platform combines surgeon expertise with a computer system to perform your knee surgery with a goal of advanced accuracy and precision, allowing for simple adjustments, minimally invasive techniques and implant alignment personalized to your unique anatomy.



# TOTAL KNEE REPLACEMENT

We don't have to tell you how debilitating joint pain can be, not to mention how it can make you feel.

With so many components of your knee synchronized to perform in harmony, disease or injury can cause disruption and create painful joint problems. Thankfully, having a knee replaced after months or even years of suffering can allow you to experience reduced pain and get back to the activities you enjoy.

Total knee replacement, also called total knee arthroplasty (TKA), is a very common surgical procedure. Today, more than half a million knee replacement procedures are performed every year in the United States alone.<sup>1</sup>



BEFORE



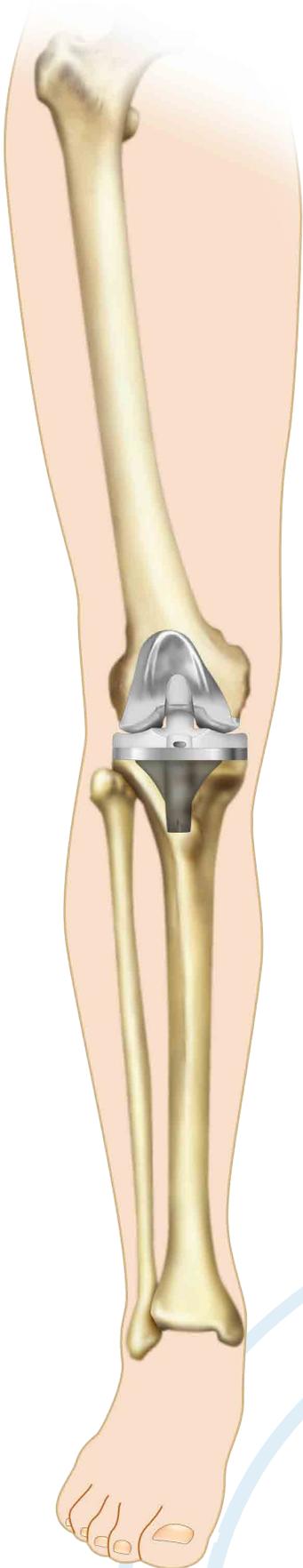
AFTER

- ExactechGPS has been shown to be accurate within less than one degree.

## YOUR KNEE REQUIRES A UNIQUE ROAD MAP

When it comes to knee replacement, accurate placement and alignment of the implant components are critical to the overall longevity and function of the implant. Traditionally, surgeons have used pre-operative X-rays, instrumentation and special techniques to plan the surgery and calculate the fit and positioning of the total knee implant. While this has worked well for many years, studies have shown the **risk of implant failure increases substantially when the implant is outside of three degrees of alignment.**<sup>2</sup>

ExactechGPS was developed to help surgeons meet their goals of precision and accuracy in total joint replacements. It has been shown to be accurate within less than one degree.<sup>3</sup>



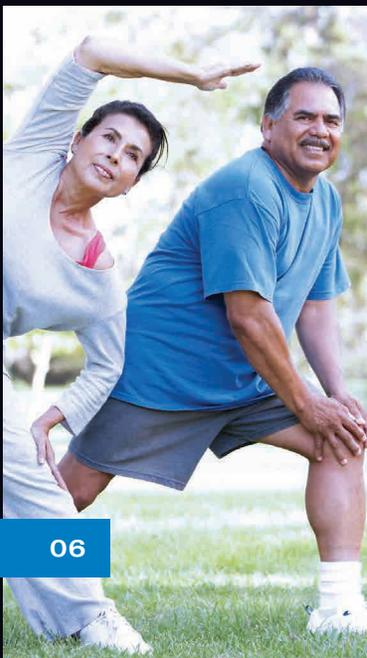
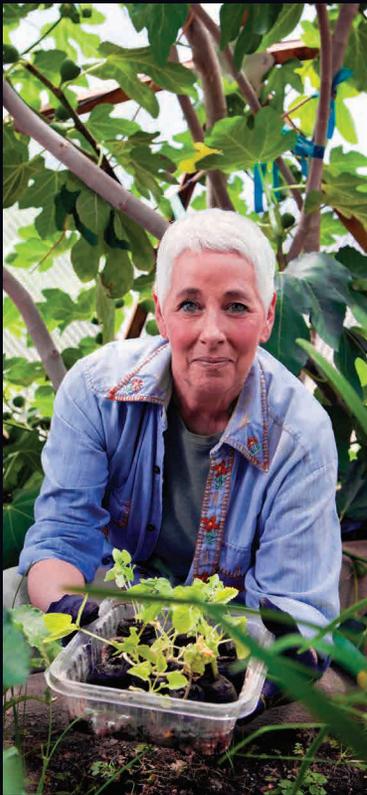
# HOW DOES GUIDED PERSONALIZED SURGERY WORK?

The images on the screen allow the surgeon to verify where to remove bone and appropriately place the implant.

The computer analyzes the information it has gathered and displays it on the screen in a graphical format with calculated key measurements.

With a few simple trackers placed on the patient's bone, the system sends data on the patient's anatomical structure and joint movement to the computer.

ExactechGPS provides surgeons with a comprehensive view of your knee joint and bone structure personalized for your unique anatomy, which allows your surgeon to make adjustments to **ensure accurate and precise placement** of the knee implant.



## WHAT IMPLANT WILL MY SURGEON USE?

Exactech's knee system has a unique story that began more than 40 years ago at the Hospital for Special Surgery in New York, one of the world's leading orthopaedic research and treatment institutions. Founded on a rich design history and proven by scientific and clinical data, Exactech's lineage of knee systems builds on excellent long-term results, helping hundreds of thousands of patients around the world regain their mobility.<sup>3-6</sup>



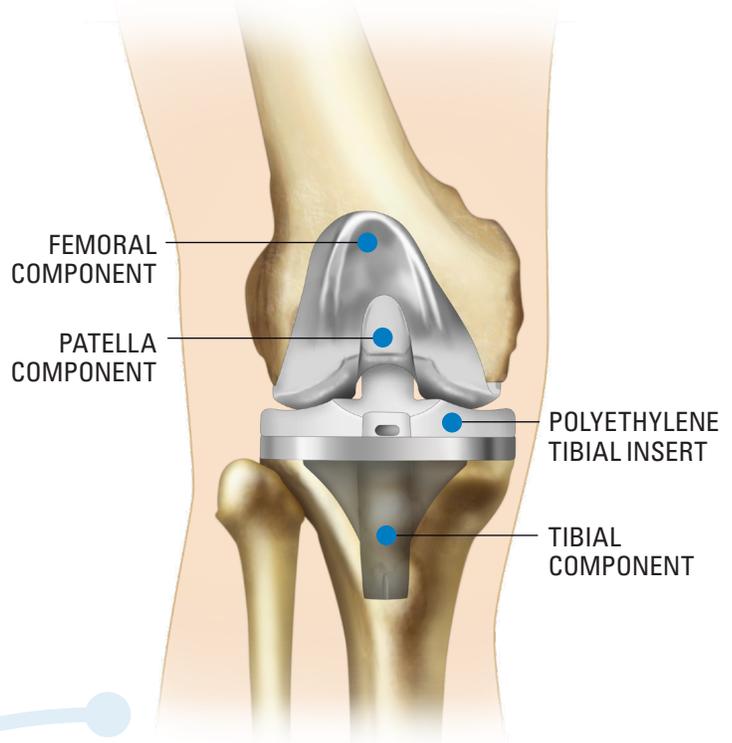
We take pride in providing you with a total knee replacement that has been built on a history of clinically-proven and well-performing implants over time.<sup>5</sup> As Exactech continues to expand its portfolio, the fundamental design goals and quality of materials used in our products remains consistent.<sup>3</sup>

# PROVEN DESIGN, PROVEN MATERIALS

It is widely recognized that quality design and materials contribute to longevity and function in total joint replacement implants. The patented design features and proprietary materials contribute to the Exactech knee system's overall longevity and excellent clinical performance.<sup>4-5</sup>

## Some of the unique features of Exactech's system include:

- Wide range of implant types and sizes
- Net Compression Molded polyethylene (plastic) inserts used to replicate your cartilage
- Curve-shaped design of components help distribute weight and pressure evenly to minimize the potential for long-term wear<sup>6</sup>
- Anatomically-designed implant intended to reduce strain on surrounding ligaments, while providing natural patella tracking during range of motion
- Implant design helps preserve natural bone<sup>3\*</sup>
- Streamlined instrumentation provides options for your surgeon to use alternative surgical approaches that best meet your individual needs.



# WHY **THE EXACTECH KNEE** MAY BE RIGHT FOR YOU

Your surgeon will consider a number of variables when selecting the knee implant that's right for you. Your age, height, weight, lifestyle and your general health are among the most important factors.

This information is for educational purposes only and is not intended to replace the expert guidance of your orthopaedic surgeon. Please direct any questions or concerns you may have to your doctor.

ExactechGPS® is manufactured by Blue Ortho® and distributed by Exactech.

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## References

1. American Academy of Orthopedic Surgeons. OrthoInfo website. Total Knee Replacement. <https://orthoinfo.aaos.org/en/treatment/total-knee-replacement/>
2. **Ritter MA, Faris PM, Keating EM, Meding JB.** Postoperative alignment of total knee replacement: its effect on survival. Clin Orthop Relat Res. 1994; 299:153-156.
3. Data on file at Exactech.\*
4. **Edwards J, Gradisar I Jr, Nadaud M, Kovacik M, Askey M.** Eight and one-half year clinical experience with the Optetrak total knee prosthesis. Presented at the American Academy of Orthopaedic Surgeons. February 2004.
5. **Robinson RP, Green TM.** Eleven-year implant survival rates of the all-polyethylene and metal-backed modular Optetrak posterior stabilized knee in bilateral simultaneous cases. J Arthroplasty. 2011 Dec;26(8):1165-9.
6. US patent 6730128, Albert H Burstein, "Prosthetic Knee Joint," issued 2004-05-04.
7. **Furman, B.D., Bhattacharyya, S., Li, S.** A Comparison of Degradation of UHMWPE for Shelf Aged and Implanted UHMWPE Components. Trans. 27th Ann. Meeting Soc. Biomaterials, 459, 2001.

*\*In vitro (bench) test results may not necessarily be indicative of clinical performance.*

For more information  
[www.ExactechGPS.com](http://www.ExactechGPS.com)