

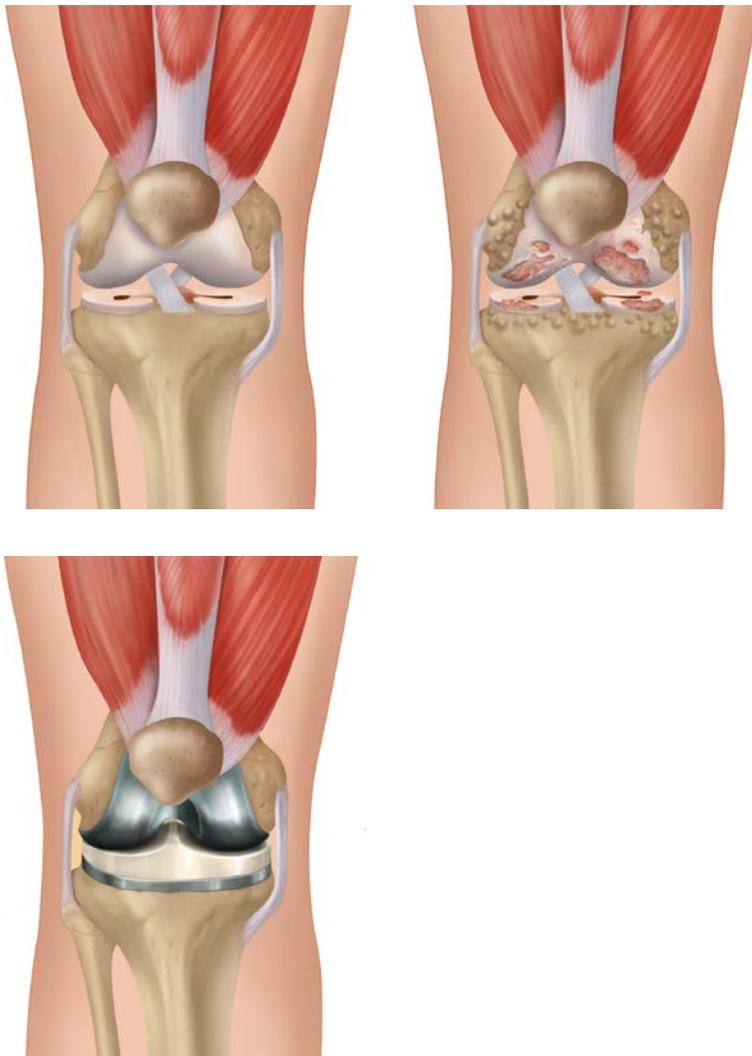
## CUSTOM FIT TOTAL KNEE REPLACEMENT

### OVERVIEW

When painful knee symptoms can no longer be controlled with non-operative treatments, a total knee replacement may be performed. 3-D images of the knee are taken prior to surgery at Holland Hospital in order to virtually correct deformities and create a customized knee implant.

### GOAL OF PROCEDURE

Your original knee has been resurfaced and the new knee implant fits in place properly.



### PRE-SURGERY

Prior to surgery, an MRI takes precise measurements of the damaged knee. Using software, Dr. Johnson creates a 3-D image of the knee and matches the image to a customized implant.

### PROCEDURE

Dr. Johnson and your anesthesiologist will determine whether general or spinal anesthesia is best for you. Custom Fit Total Knee Replacements require less time under anesthesia than traditional knee replacements.

#### 1. Incision

Dr. Johnson makes an incision across the front of your knee to gain access to the patella or kneecap.

#### 2. Resurfacing the Femur

Dr. Johnson will first resurface your femur, and the damaged bone and cartilage from the end of the femur is cut away and resurfaced to fit the first part of the artificial knee.

#### 3. Attaching the Femoral Component

The femoral component is secured to the femur and cemented into place.

#### 4. Resurfacing the Tibia

The tibia is resurfaced and shaped to fit the tibial components.

#### 5. Attaching the Tibial Component

A tibial tray is fitted to the tibia and an insert is snapped in to act as a buffer between the tibial tray and femoral component. This also provides support for bending and flexing the knee.

#### 6. Checking the Fit

Alignment, sizing, and positioning are all checked at the end to make sure the fit is correct.

### AFTER CARE

Most patients can expect to stay one to two nights in the hospital after surgery. A cane or crutches are often required for the weeks following the procedure. Dr. Johnson will prescribe a specific rehabilitation plan and exercise program in order to return you to your daily activities.