

LONG ISLAND

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## South Nassau Communities Hospital

Provides Joint Replacement  
Excellence on Long Island

# South Nassau Communities Hospital Provides Joint Replacement Excellence on Long Island

PATIENTS ON LONG ISLAND NO LONGER HAVE TO TRAVEL INTO THE CITY TO RECEIVE STATE-OF-THE-ART SPECIALIZED ORTHOPEDIC CARE. PHYSICIANS AT THE LONG ISLAND JOINT REPLACEMENT INSTITUTE — A DEDICATED WING OF SOUTH NASSAU COMMUNITIES HOSPITAL — TREAT PATIENTS AT ANY POINT ALONG THE CONTINUUM OF ORTHOPEDIC CARE.

**A**CCORDING TO THE Agency for Healthcare Research and Quality (AHRQ), approximately 1 million knee and hip replacements are performed each year in the United States. Although this statistic is due in part to an aging population, AHRQ data also indicates the number of total joint replacement procedures more than doubled for Americans between ages 45 and 65 from 1997 to 2009. Committed to addressing the growing numbers and various needs of the expanding patient population seeking joint replacement, South Nassau Communities Hospital dedicated an entire wing of its facility to these patients.

When performing hip-replacement surgery, Bradley D. Gerber, M.D., Chief of Joint Replacement at South Nassau Communities Hospital, and his surgical team stick to a meticulous plan to ensure the precise alignment of the implant with the femur.

## A Wing Unto Itself

When Bradley D. Gerber, M.D., Chief of Joint Replacement, arrived at South Nassau Communities Hospital's orthopedics department seven years ago, the practice treated a fraction of the patients it sees today. As the practice grew, Dr. Gerber realized the influx of patients seeking joint relief needed more attention, and so the idea of a dedicated joint replacement section was born.

"I needed the support of the hospital to grow this idea," Dr. Gerber recalls. "South Nassau's administration was incredible in setting up an orthopedic steering committee and, really, bending over backward to develop the Long Island Joint Replacement

Institute we envisioned. It's amazing to see how the institute has grown from an idea to what it is today."

During the course of nearly five years, South Nassau Communities Hospital progressed from having a traditional orthopedics department to dedicating an entire wing of the hospital to joint replacement patients. James A. Germano, M.D., Chief of the Hip Service at South Nassau Communities Hospital, explains that hip and knee replacement patients require special attention and care, which necessitate dedicated personnel.

"This is a very different patient population than those who come to the hospital for diseases like pneumonia," Dr. Germano says. "Joint replacement patients aren't sick; they're here following a procedure. Being part of this center allows patients to be here for a short stay and then return to the general population. It allows our nurses to attend to our patients' specialized medical needs. Our team is so organized and knowledgeable about each patient's care that it enables us to speed along their discharge and therapy, and also allows for better pain control."

Providers in the wing are trained and dedicated to taking care of joint replacement patients. The collective experience housed within the Long Island Joint Replacement Institute is credited with shortened average hospital stays of 2.6 days — less than the statewide average. Dr. Gerber notes that providers' collaborative approach fosters the highest standard of care.

"The point of the Long Island Joint Replacement Institute is to operate as a





**“Not all joint replacements are the same. Long-term results are important. Better results come from surgeons doing quality work, using better techniques and handling more volume.”**

— Bradley D. Gerber, M.D., Chief of Joint Replacement at South Nassau Communities Hospital



Dr. Gerber's focus and attention to detail are emblematic of the institute's surgeons.

well-oiled machine,” Dr. Gerber says. “That doesn’t happen without all of our team working together in an integrated way.”

### **An Education**

As an introduction to the Long Island Joint Replacement Institute's high standard of care, patients scheduled to undergo a joint replacement procedure are required to attend a class led by the institute's chief physician assistant, who educates them about what to expect before and after the procedure, as well as what the surgery entails. Patients are introduced to the multidisciplinary team, which includes anesthesiologists, physical therapists, social workers and representatives from the rehabilitation center, in charge of their pre- and postoperative care.

Patients leave these classes understanding their conditions, procedures and options after surgery, which include physical therapy in the days following joint replacement and then discharge either to an inpatient rehabilitation facility, where they remain for seven days, or home, where nurses and physical therapists meet with patients.

### **Many Patients, Many Options**

Because the Long Island Joint Replacement Institute was created to

meet a wide array of patient needs, physicians have access to all the necessary technology to address the gamut of joint replacement issues.

“We have all types of implants and anything else we may need to make decisions and adjustments, which a lot of hospitals would have to send out for, at the time of a procedure,” says Dr. Germano. “Because we see such a high volume of patients, we have access to tools that allows us to make split-second decisions so patients have the most appropriate implants, resulting in the best possible outcomes.”

For example, Dr. Gerber may recommend a unicompartmental procedure for active patients younger than 65. Because this operation requires surgeons to remove only parts of the knee damaged by arthritis through minimal incisions, patients generally have shorter hospital stays and recover more quickly.

### **Expert Surgeons, Advanced Techniques**

Physicians at the Long Island Joint Replacement Institute modify their techniques to accommodate patient-specific criteria such as age, weight, activity level and postoperative expectations.

For example, physicians at South Nassau Communities Hospital may use

the gap-balancing technique, which studies show provides better outcomes than measured resection techniques, for knee replacement patients.

“The gap-balancing technique is a way of balancing ligaments and soft tissues so there is no instability,” explains Dr. Gerber. “It’s somewhat more time consuming, but the literature shows knees perform better and last longer.”

Authors of a 2010 study published in *Clinical Orthopaedics and Related Research*, concluded that the gap-balancing technique increases coronal stability, resulting in increased weight-bearing flexion. This means less stress is placed on the reconstructed joint, reducing the implant’s wear and increasing its durability.



Dr. Gerber evaluates a potential knee-replacement patient.

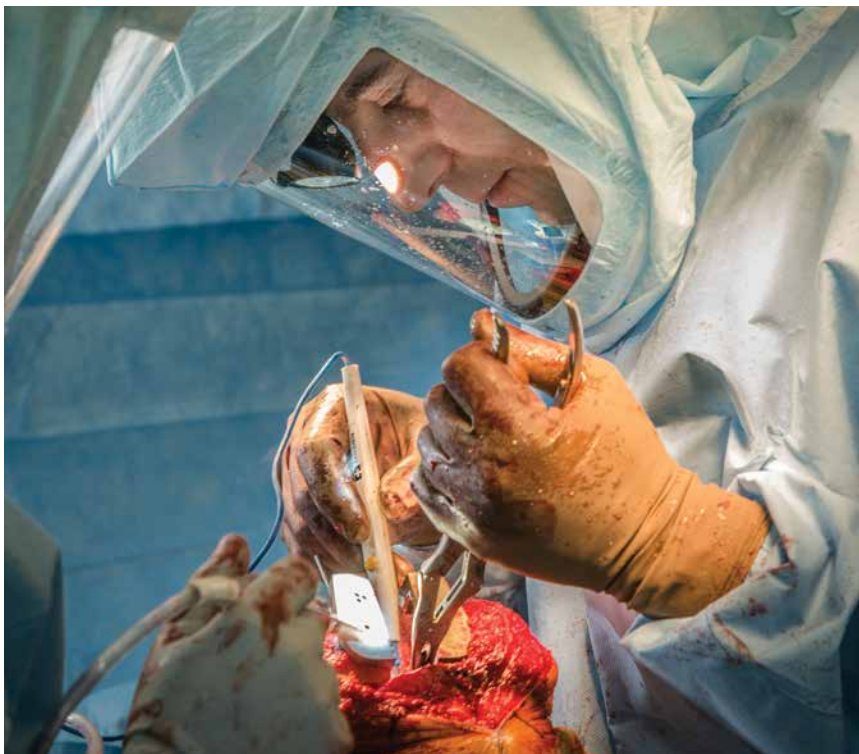


James A. Germano, M.D., Chief of the Hip Service at South Nassau Communities Hospital, uses the newest GPS computer-navigation technique to align a knee replacement within millimeters of its anatomic location.

### A Home Run for Knee Replacement

For some patients, knee replacement isn't necessary. Physicians at the Long Island Joint Replacement Institute engage in research trials that may provide patients with alternatives to traditional replacement

surgeries. Dr. Gerber performs subchondroplasty, a procedure indicated for some knee replacement candidates with arthritis pain resulting from subchondral edema — found by magnetic resonance imaging scans — due to malalignment and overloading of the bone.



Dr. Germano prepares the femur for placement of a metal component in a total knee replacement.

**“There’s no reason to send patients outside of Long Island anymore. The Long Island Joint Replacement Institute provides Long Islanders with specialized care, close to home.”**

— James A. Germano, M.D., Chief of the Hip Service at South Nassau Communities Hospital

The procedure involves making a pinhole-sized incision in the knee and then injecting calcium phosphate, which the body eventually absorbs, into the fracture. Dr. Gerber says this outpatient procedure, which lasts less than one hour, provides similar pain relief to knee replacement without major surgery. Compared with knee replacement, recovery and return to work for patients who undergo subchondroplasty is a matter of weeks instead of months.

### What Minimally Invasive Means

Dr. Gerber explains that using smaller incisions causes less damage and trauma to ligaments, muscles and soft tissues and equates to less pain, quicker recovery and better functionality for patients. Both Dr. Gerber and Dr. Germano note that joint replacement surgeries are not minimally invasive like arthroscopy because implants may not be introduced through small cuts in the skin. Dr. Germano says careful incising is of utmost importance, and in fact, an incision may be too small to achieve the procedure's purpose.

“We try to decrease the amount of soft tissue trauma, so we minimize the incision, but we also allow for good visualization so we don’t make errors,” Dr. Germano says. “A mistake in minimally invasive surgery



is to make too small an incision so you can't see what you're doing, and you put the implants in wrong. I'm not a believer in that. I'm a believer in decreasing soft tissue trauma — so there's not a lot of pulling and pushing — so patients have a quicker recovery.”

“The important thing we do at South Nassau is set up postoperative protocols for patients,” Dr. Germano explains. “We’ve taken away the smaller incisions that don’t benefit patients but may cause increased risk of complications, and added postoperative protocols that include physical therapy soon after the procedure; effective pain control, which may be multimodal — pain medications, anti-inflammatories, acetaminophen, injections and numbing medications — and increased therapy. These elements speed up the overall patient recovery time, which is why we have one of the shortest lengths of hospital stay in the state.”

### National Recognition for Excellent Care

The Long Island Joint Replacement Institute has produced patient outcomes and satisfaction scores recognized by national institutions for quality control. Recently, the institute’s knee and hip joint replacement programs earned The Joint Commission’s Gold Seal of Approval, as well as Aetna’s Institutes of Quality for Orthopedic Care Facility for total joint replacement, and Empire Blue Cross Blue Shield’s Blue Distinction Center for knee and hip replacement designations.

Besides demonstrating excellent surgical outcomes, the Long Island Joint Replacement Institute had to meet comprehensive patient satisfaction and outcome criteria. The institute’s data shows their efforts to enhance patient comfort with attention to the smallest details, such as keeping the hallways quiet and dimming the lights in patient rooms so they may sleep easier, have proven to effectively improve patients’ hospital experiences.

Achieving The Joint Commission, Aetna Institute of Quality and Blue Distinction Center designations validates the efforts of the Long Island Joint Replacement Institute, as well as instills pride in its providers and trust from its patients, as



Dr. Germano reviews postoperative protocols with his patient the day after surgery.

Peter Lementowski, M.D., orthopedic surgeon, explains.

“There’s a sense of pride in the fact we’ve been nationally recognized for our patients’ outcomes and positive evaluations,” Dr. Lementowski says. “For patients, it’s important to know we provide a specialized facility that employs specialized physicians

to offer care throughout the continuum. We give our patients peace of mind that they’ll be taken care of appropriately and in a timely manner.”

Dr. Germano explains that recognition by The Joint Commission cuts through routine marketing strategies and exemplifies empirical evidence of the Long Island



Peter Lementowski, M.D., reviews the total hip-replacement procedure with his patient.



Drs. Gerber and Germano review complicated cases of revision total hip arthroplasty in a team approach to ensure the best treatments for the patient.

## IT'S ALL ABOUT ACCURACY

**FOR THE BEST** possible knee replacement outcomes, surgeons at the Long Island Joint Replacement Institute use image-guided technology to navigate cuts on the tibia and femur, says Bradley D. Gerber, M.D., Chief of Joint Replacement.

"By using computers during knee replacement procedures, we're able to be more accurate and — importantly — reproducibly accurate," Dr. Gerber says. "Therefore, we'll have more longevity and lower incidence of failure."

Physicians identify markers on the tibia and the femur to establish a mechanical axis, James A. Germano, M.D., Chief of the Hip Service at South Nassau Communities Hospital explains. The computer, which uses global-positioning technology, guides surgeons to precisely place the implant within a 1-2 mm margin. Currently, physicians at the Long Island Joint Replacement Institute are working to develop similar technology for hip replacements.

### PATIENT-SPECIFIC INSTRUMENTATION

Peter Lementowski, M.D., orthopedic surgeon, offers magnetic resonance image (MRI)-based technology that equips surgeons with tailored instrumentation for any patient who requires total knee replacement as long as there is no major deformity.

Using advanced medical technology, Dr. Lementowski sends patients' MRI scans to a manufacturer of surgical instruments, which then manufactures customized cutting tools for the knee replacement. These tools enable Dr. Lementowski to perform faster, less invasive surgeries, resulting in less blood loss. Patients needing bilateral replacement — both knees replaced at once — may benefit from the procedure's reduced blood loss.

Younger patients may particularly benefit from this technology, as the implants Dr. Lementowski may choose contain specific metals, such as oxinium, which has a longer theoretical wear. With improved design and potentially longer-term mechanical and chemical stability of implants, candidates for procedures may range from teenagers to the elderly.

Joint Replacement Institute's high standard of care.

"Formal groups not based in our hospital — that don't work with us in any way — have acknowledged we've spent time, energy and money to do everything we could to allow patients to have the best possible outcomes and experience while at the Long Island Joint Replacement Institute," Dr. Germano says. "It's an acknowledgement that we go above and beyond what the standard of care is, and make an effort to provide patients with a great experience."

### Follow-up and Prevention

The Long Island Joint Replacement Institute offers Long Island residents treatment for the gamut of knee and hip replacement and allows patients to receive treatment and follow-up care in a convenient, community setting.

"There's no reason to send patients outside of Long Island anymore," Dr. Germano says. "The Long Island Joint Replacement Institute provides Long Islanders with specialized care close to home, where patients can

come if complications arise or if they have any questions. Our surgeons are as skilled as any found in major medical centers, and our facility has all of the technology to provide excellent outcomes."

To ensure proper recovery and to prevent possible complications, patients should ideally follow up with their orthopedist every two to three years, Dr. Germano explains. The facility's proximity to its patients enables physicians to establish a familiarity that fosters proper recovery and prevents possible complications.

"Sometimes surgeons are able to pick up subtleties before they become problems," Dr. Germano says. "That's an important aspect in joint replacement, because we know our patients. They're from our communities. They can follow up with us for the rest of their lives."

*For more information about South Nassau Communities Hospital's orthopedic services and the Long Island Joint Replacement Institute, please visit <http://www.southnassau.org/services/orthopedics.cfm>.* ■