Your Reconstructive Joint Center

St. Elizabeth Medical Center is devoted to treating the entire musculoskeletal system, including the bones, joints, ligaments, muscles, nerves, and spine. A coordinated and comprehensive orthopaedic care facility, we offer the latest in diagnostic services, surgical and nonsurgical treatments, and physical therapy and rehabilitation across a broad spectrum of orthopaedic subspecialties, including:

- General orthopaedics and trauma.
- Total joint replacement.
- Sports medicine.
- General podiatry and foot and ankle surgery.

Where Orthopaedic Advances Are Put into Practice

Long-recognized for incorporating technological advances into improved patient care, St. Elizabeth Medical Center is proud to be among the first in the country to adopt the Stryker Knee Navigation System. This break-through in surgical monitoring brings computer-assisted precision to total knee replacement. It was Dr. Andrew Wickline who recognized the potential benefits – to both surgeons and patients – of the Knee Navigation System.

Our patients appreciate our commitment to cutting-edge and compassionate care.

Andrew B. Wickline, M.D.

Board-certified orthopaedic surgeon specializing in total joint replacement.

Medical Degree
Albany Medical College

Orthopaedic Surgery Residency
Albany Medical Center

Fellowship in Joint Replacement
Cleveland Clinic

Affiliations

- Genesee Orthopaedic and Hand Surgery Associates
- Reconstructive Joint Center at St. Elizabeth Medical Center

For more information about joint pain options, or to schedule an appointment, contact Dr. Wickline's office at: 315-735-4496.

Are You Considering Total Knee Replacement?

Each patient is unique, but generally candidates for knee replacement surgery have:

- Pain severe enough to restrict not only work and recreation, but also the ordinary activities of daily living.
- Pain that is not relieved by more conservative methods of treatment, such as reduced activity, medication or physical therapy.
- Significant joint stiffness.
- X-rays that show advanced arthritis or other degenerative problems.

Dr. Andrew Wickline is a Cleveland Clinic-trained total joint specialist who will help you determine whether total knee replacement is right for you.

Andrew Wickline, M.D.
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Utica, NY 13501
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Dr. Wickline's Office
315-735-4496

COMPUTER-NAVIGATED Total Knee Replacement

Andrew B. Wickline, M.D.
Board-Certified Orthopaedic Surgeon
Specializing in Total Joint Replacement

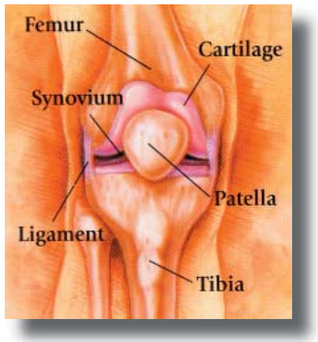
St. Elizabeth Medical Center

Guided by Faith, Committed to Excellence

HELPING TO MAKE TOTAL KNEE REPLACEMENT EVEN BETTER...

A Closer Look at the Knee

The knee is the largest joint in the body and is central to nearly every routine activity. The knee joint is formed by the ends of three bones: the lower end of the thighbone (femor), the upper end of the shinbone (tibia), and the kneecap (patella). Thick tough tissue bands called ligaments connect the bones and stabilize the joint. A smooth, plastic-like lining called cartilage covers the ends of the bones and prevents them from rubbing against each other, allowing for flexible and nearly frictionless movement. Cartilage also serves as a shock absorber, cushioning the bones from the forces between them. Finally, a soft tissue called synovium lines the joint and produces a lubricating fluid that reduces friction and wear.



Arthritis – the Leading Cause of Knee Pain

One of the most common causes of knee pain and loss of mobility is the wearing away of the cartilage lining. When this happens, the bones rub together causing significant pain and swelling – a condition known as osteoarthritis. Trauma and direct injury to the knee can also cause osteoarthritis. Conservative treatments such as steroidal and nonsteroidal anti-inflammatory drugs, physical therapy, and cortisone injections may effectively relieve pain and restore mobility. However, more severe pain and disability frequently require knee "resurfacing" surgery.

Total Knee Replacment – A New Lease on Joint Life

Total knee replacement (TKR) is a surgical procedure in which the arthritic or damaged surfaces of the joint are removed and replaced with an artifical joint called a prosthesis. The artifical joint is designed to move just like a healthy human joint.

In total knee replacement, the prothesis is composed of strong metal alloy, to replace diseased bone, and high-density polyethylene, to replace diseased cartilage. One part is attached to the end of the thighbone where diseased bone has been removed, and another is anchored to the shinbone. The replacement may also include a circular piece of plastic that attaches to the kneecap to replace cartilage or diseased bone. Cement may or may not be used to anchor the prosthesis into place.

Total knee replacement has been performed for some 40 years and has enabled millions of Americans suffering from severe knee pain and stiffness to return to active and rewarding lives. Recent advances in minimally invasive surgical techniques and joint implant materials are making TKR safer and more effective than ever. They also have the potential to significantly increase the longevity of the implants – an important benefit, especially for younger, more active patients.

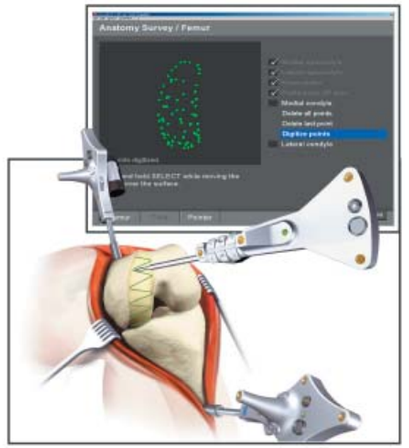
Stryker Knee Navigation System

Now, advanced computer-assisted surgical monitoring with the Stryker Knee Navigation System also promises to help enhance the longevity of knee replacements. To better appreciate this technological advance in orthopaedic surgery, let us first consider the critical role of proper mechanical alignment in total knee replacement.

Precise Alignment Critical

As with any moving part, alignment is key to smooth movement and long-term wear, just as wheel alignment affects the life of automobile tires. This is also the case with knee replacement. For years, surgeons have used x-rays, specialized instrumentation, operative technique, and experience to ensure a tight fit and proper alignment of the knee implant to the hip joint. And these have served them, and their patients, well.

It is now understood that to obtain the best possible outcomes in total knee replacement, accuracy to within 1 to 2 degrees and 1 to 2 millimeters is extremely important. The Stryker Knee Navigation System was designed to assist the surgeon in achieving this degree of precision – routinely and consistently.



Science Made Simple

While the medical and computer science behind the Knee Navigation System is extremely complex, the system's instrumentation and functions are relatively easy for the surgeon to use. Minimally invasive wireless "pointers" and "trackers" send data pertaining to knee movement (kinematics) to the computer. These data are translated into real-time images that provide the surgeon with a comprehensive understanding of the knee mechanics – before any bone is cut. Armed with this information, the surgeon can make pre- and inter-operative adjustments to within a fraction of a degree, helping to ensure the best possible fit and placement of the knee prosthesis. Once the implant is in place, the system can also provide post-operative outcomes assessment data.