

“The Game Changer” for Osteoarthritis Robotic Total Knee Replacement



This forum is a regular contribution from BayView Healthcare to help share the knowledge and expertise of the more than 280 healthcare professionals across our continuum

of care. In each issue an area of interest is addressed to help consumers be even more informed about their health and wellness.

We are living longer, and with the changes in healthcare reform, confusion continues to rise regarding what healthcare services are covered and not covered at all. As we age, most of us contend with multiple healthcare issues, many of which are chronic and cannot be cured – only managed. Approximately 478,000 total knee replacements are performed in the United States every year. About 70 percent of these procedures are performed on people older than 65. In this FORUM, Dr. Northrup of Florida Sports Medicine Institute will take us through the advancements in orthopedics, specifically Osteoarthritis and his latest minimally invasive, highly effective Robotic Total Knee Replacement (TKR) Surgical solution and its results.

Dr. Northrup earned his medical degree at Philadelphia College of Osteopathic Medicine. He completed his internship and Orthopedic Surgery at Michigan State University. Dr. Northrup completed a Sports Medicine and Arthroscopy Fellowship at the prestigious Baylor College of Medicine. Dr. Northrup is Board Certified in Orthopedic Surgery. He was voted 2008 Sports Medicine Person of the Year by the Athletic Trainers Association of Florida. Dr. Northrup’s research in knee ligament reconstruction has earned him the DonJoy Award for Scientific Research in Sports Medicine.

Dr. Northrup is on the medical staff of Flagler and Baptist South Hospitals. He has developed the Outpatient Total Joint Arthroplasty Programs at Flagler Hospital and St. Augustine Surgery Center. In 2013, Dr. Northrup became the #1 Robotic Total Knee Replacement surgeon in the State of Florida.

Total Knee Replacement (TKR) - Traditional vs Robotic Surgical Solutions

Osteoarthritis of the knee can lead to tenderness, pain with activity, joint stiffness and difficulty performing normal activities. When non-surgical measures may fail to alleviate these symptoms, the surface of the knee joint can be replaced with metal and plastic-like components. Total Knee Replacement (TKR) surgeries have been performed for decades with variable results. Studies show traditional techniques are able to re-establish appropriate leg alignment and implants fit only 60 – 70 percent of the time. This lack of consistency results in an unacceptable high rate of knee instability, implant loosening and wear. Procedures using so called “custom implants” have similar results to traditional techniques. These also require preoperative CT or MRI and are more expensive.

Many of the shortcomings related to traditional TKR have been corrected using computer-assisted robotic technology, called Omniplasty, developed by Omni Life Science. Much

Understanding Arthritis

Arthritis, the chronic swelling of joints within the body, affects half of all people age 65 and older. The condition can take over 100 different forms ranging in severity, symptoms, and possible treatments. While researchers have pinpointed causes for some types of arthritis, most remain unexplained. The three most common kinds of arthritis in older people are osteoarthritis, rheumatoid arthritis, and gout.

Specifically Osteoarthritis

Osteoarthritis, once called degenerative joint disease, is the most common type of arthritis in older people. Symptoms can range from stiffness and mild pain that comes and goes to severe joint pain and even disability. Osteoarthritis often hurts in joints that bear a lot of weight such as the knee, hip, and spine than in the wrist, elbow, and shoulder joints. It is thought of as a condition in which joint injury in genetically-predisposed individuals leads to its development. Joint injury can be chronic and steady, as in obesity, or more intense and episodic, as in repetitive motion disorders. The stronger the genetic predisposition, the less injury needed to establish osteoarthritis, and vice versa.



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Health & Medicine

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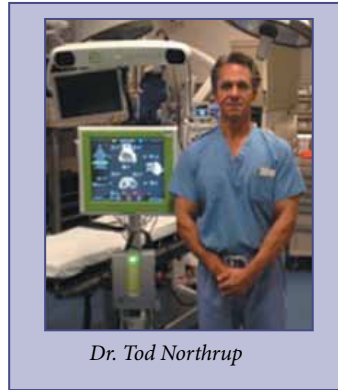
on GPS computers to help get us to our destination, robotic navigation helps your surgeon get to his intended result. Omniplasty utilizes cutting edge APEX Robotic Technology to obtain data points from your leg during surgery to create a 3-D digital model of your knee. This procedure is performed with a high level of accuracy and precision. Along with the knee implant data already in the computer, a virtual surgery is performed prior to any bone cuts being made. The surgeon is then able to modify the position and alignment of the implant on the computer model. The computer relays your information to the robot that provides your surgeon with the most consistently reproducible

method of aligning your implant. This provides you with a custom implant technique with the highest degree of accuracy. The result of this robotic technique is a “game changer”.

Dr. Tod Northrup is the first orthopedic surgeon in North Florida to perform a Robotic TKR. Utilizing this minimally invasive robotic technique, Dr. Northrup is able to avoid cutting the quadriceps tendon in most cases. This minimizes pain and blood loss allowing patients to walk 2 -3 hours after the procedure with assistance. Patients who meet criteria are able to have their Robotic TKR and return home to recover on the same day. This decreases your risk of acquiring hospital- based infections and significantly decreases health care costs. Dr. Northrup exclaims “The result of this procedure is nothing short of amazing. We have 80 year old patients walking without a cane one week after surgery. The results we are having were not even imaginable with traditional techniques”.

Robotic TKR and You

After reviewing your medical history, taking X-rays and performing any exam or test your physician(s) feels necessary, they will decide if you are in fact a good candidate for this surgery. You will



Dr. Tod Northrup

productive life. Serious complications occur in less than 2 percent of patients, according to the American Academy of Orthopaedic Surgeons (AAOS) , and about 90 percent of patients are satisfied with the results.

With the news of this cutting edge procedure, results have quickly spread. Patients have traveled from as far as Alaska and Martha's Vineyard to experience the highly consistent and superior results of the Robotic TKA. Dr. Northrup has become the number one Robotic TKR surgeon in the state of Florida in 2013 and 2014. Surgeons from around the country have visited Dr. Northrup to learn how to utilize this cutting edge technology and provide their patients with rapid recovery. Dr. Northrup currently practices at Baptist South and Flagler Hospitals. *TJ*

be asked if your level of discomfort, stiffness and disability justify undergoing surgery. If non-operative methods can adequately control your discomfort, there is no harm in waiting to have surgery. Discussing with your physician about your general health and your ability to withstand surgery is also important, yet in general, age is not a factor if you are in reasonably good health and you have the desire to continue pursuing an active and

To learn more about
Omniplasty please visit:
www.Omnils.com and
www.NorthrupcenterforRoboticKneeReplacement.com

ADVANTAGES OF OMNIPLASTY INCLUDE:

- **Minimally invasive procedure resulting in rapid recovery**
- **Accurate implant placement for improved function and longevity**
- **No MRI or CT scan required reducing cost and potential risk of radiation**
- **Advanced software for custom implantation for every case**
- **Decreased cost to the health care system**



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