

GENDER SPECIFIC KNEE REPLACEMENT

By Joshua Port, M.D., Blair Orthopedic Associates & Sports Medicine

More than 400,000 people get their knees replaced each year in the U.S. and nearly two-thirds are women. Perhaps that is because women suffer from more knee pain and disability than men.

Your knee joint is composed of three bones: the end of your thighbone (femur), the top of your shinbone (tibia) and your kneecap (patella). These three bones are held together by tendons and ligaments and are cushioned by cartilage. Eventually, your knee bones can grind together, which is painful, and your doctor might recommend total knee replacement.

Traditionally, total knee joint replacements have been performed utilizing components that were sized based upon studies of male knees. We know, however, that women have different sized and shaped femur (thigh) bones where the patella (kneecap) rides. In fact, the idea that women's bones are differently shaped was recognized well over 15 years ago by the father of modern total knee replacement, John Insall, M.D., who noted women's femur bones tend to have a more trapezoidal shape and to be larger in the front to back dimension, but smaller in the side to side dimension than a man's knee.

Caring and curious surgeons need to look beyond their limited individual results to understand the significant impact of what implants they are putting into patients. Some of the most compelling data come from a study of over 42,000 patients from 421 surgeons in 26 countries that show that women have a statistically higher incidence of problems with traditional total knee implants including limited ability to bend the knee (flexion) and diminished walking tolerance due to kneecap pain.

To address these problems, the Zimmer Corporation designed the Gender Solutions High-Flex Knee which is the first and only knee replacement shaped to fit a woman's anatomy. While other companies tout "gender specific knees", only Zimmer has actually changed all of the necessary implant dimensions and contours to meet the anatomical needs of women. This specific shaping provides for a more precise fit and may prevent the implant from overhanging the bone and potentially pressing on or damaging surrounding ligaments and tendons.



The Zimmer Gender Solutions High Flex Knee

Total Knee Replacement - Implants in Place



Total knee replacement involves removing the portions of your bone that are damaged and

resurfacing your knee with metal and plastic implants. This procedure does not take any longer and is no more complicated with the Gender Solutions Knee; it is just specifically tailored for each individual patient by offering your surgeon a larger choice of sizes and fits. With the Gender Solutions Knee, each patient essentially gets a customized total knee replacement.

The Gender Solutions Knee is technology that improves outcomes. It answers questions and addresses problems in 2/3 of the joint replacement population accounted for by women, and should produce satisfying outcomes more equal to our capacity to please men with similar problems.

If you are considering having your knee replaced, consult an experienced orthopedic surgeon. Ask your surgeon why he or she chooses the knee implant that they use and how they address the difference in anatomy between men and women. My personal experience using the Gender Solutions Knee since its inception has been entirely positive, both from a surgeon's and patient's standpoint. Gender specific knee design, especially the Gender Solutions Knee developed by the Zimmer Corporation, is a significant and serious advance in our ability to care for the entire total knee replacement population.

Blair Orthopedic Associates & Sports Medicine has the region's greatest experience with gender specific knees and with knee replacement surgery in general, and would be happy to discuss questions or concerns involving arthritis care of your knee with you. For more information, visit our web site at www.blairortho.com.

Dr. Joshua Port is a Board Certified Orthopedic Surgeon and is Fellowship trained in knee and shoulder surgery and sports medicine. He is a Fellow of the American Academy of Orthopedic Surgery and is Past President of the Pennsylvania Orthopedic Society. In addition, Dr. Port is a Clinical Assistant Professor in Orthopedics at the University of Pittsburgh School of Medicine. Dr. Port currently serves as Head Team Physician for the Altoona Curve as well as several area colleges, and as orthopedic consultant for many area high schools.