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For more information, contact:
Sarah Yonker, Communications Coordinator
410-641-9663
syonker@atlanticgeneral.org

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For Immediate Release...

**NEW JOINT SURGERY PROCEDURE AT ATLANTIC GENERAL HOSPITAL
*Center for Joint Surgery offers first knee replacement shaped to fit a woman's anatomy***

Berlin, Md. – Research shows women and men are different from their brain cells to their bones, joints included, which is why women with painful knees now have a total knee replacement specifically shaped to fit them.

Eric Bontempo, D.O., an orthopedic surgeon at Atlantic General Hospital's Center for Joint Surgery, is among the first surgeons on the Eastern Shore to offer the *Zimmer® Gender Solutions™* Knee, the first and only knee replacement shaped to fit a woman's anatomy. He has used the *Gender Solutions™* Knee in two patients needing total knee replacements this fall.

Nearly two-thirds of the more than 400,000 annual knee replacement patients are women, according to the National Center for Health Statistics, and the numbers continue to increase each year. Yet research shows that while both women and men vastly underuse knee replacement, women are three times less likely than men to undergo the procedure, although they suffer from more knee pain and resulting disability. The National Institutes of Health (NIH) reports knee replacement can substantially improve pain, function and quality of life.

"The new *Zimmer Gender Solutions* Knee, the only knee shaped and sized to optimally fit the female knee, should make women more amenable to having a knee replacement," Dr. Bontempo said. All other implants being used for total knee replacement are based upon an average between women's and men's knees.

The *Zimmer Gender Solutions* Knee is designed based on three distinct and scientifically documented shape differences between women's and men's knees, and a sophisticated and highly detailed map of the joint created using three-dimensional imaging.

The goals of the *Zimmer Gender Solutions* Knee include alleviating knee pain and restoring mobility, while offering fit and function that is optimized for the characteristics more commonly seen in female patients. Further, it:

- can be implanted using less-invasive techniques, which typically offer smaller scars, shorter hospitalization and quicker recovery; and
- safely accommodates high flexion, which is necessary for many activities involving deep bending.

Dr. Bontempo implants the *Zimmer Gender Knee* using the *Zimmer MIS* Mini-Incision Total Knee Procedure which can be performed through an incision as small as 4 inches, compared to 8 to 12 inches for traditional total knee replacement. Patient benefits include less pain, less tissue disruption, and the ability to perform more exercises on day one following surgery.

The knee joint is composed of three bones: the end of the femur (thighbone), the top of the tibia (shinbone) and the patella (kneecap), which are all held together by tendons and ligaments and cushioned by cartilage. Knees can become painful, due to arthritis, injury and infection, which cause deterioration of the cartilage. When the cartilage is gone, the bones of the knee grind against each other, wearing away and typically causing severe pain. Total knee replacement involves removing the portion of bone that is damaged and resurfacing the knee with metal and plastic implants.

The *Zimmer Gender Solutions* Knee is based on a scientific database called a knee bone atlas, which was created for Zimmer. The continually growing knee bone atlas is based on more than 800 knees and kneecaps, and uses three-dimensional computed tomography (CT) imaging data to generate highly detailed virtual blueprints for the knee as it looks after surgeons have removed the bone and are ready to place the implant. The results of that atlas have confirmed that: the shape of women's knees typically fall into different ranges than men's; and, these differences are statistically significant.

Incorporating the new data and existing research about gender differences, the *Zimmer Gender Solutions* Knee was created to address the following three shape-related anatomical differences of a woman's knee:

1. Thinner Profile – The bone in the front of a woman's knee is typically less prominent than in a man's. Traditional implants have a thickness in front that may end up feeling "bulky", which may result in pain and a decrease in range of motion. The *Zimmer Gender Solutions* Knee has a thinner profile to accommodate this anatomical difference between women and men.

2. More Natural Movement – The angle between the hip and the knee affects how the kneecap moves over the thighbone when the knee is in motion. Women have a distinct shape which frequently results in a different angle between the hip and the knee when compared to men. The *Zimmer Gender Solutions* Knee accounts for this difference, allowing for more natural movement.

3. Contoured Shape – The *Zimmer Gender Solutions* Knee has a contoured shape to more closely match the narrower anatomy of a woman's knee. This contouring 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.

For more information about the *Zimmer Gender Solutions* Knee, call Dr. Bontempo at Atlantic Orthopaedics at 410-641-1900. To request a free brochure, visit www.genderknee.com.

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