Only a Few Surgeons Offer Breakthrough for Kidney Removal: L.E.S.S., Least Invasive Laparo-Endoscopic Single-Site Surgery

- Dr. Gregg Zimmerman is one of the first in New Jersey to perform the L.E.S.S. procedure for kidney removal.

DENVILLE, N.J. (August 2, 2010) – Cutting-edge laparo-endoscopic single-site (L.E.S.S.) surgery is the newest and least invasive laparoscopic surgery alternative for kidney removal available today. Only a few surgeons offer it for kidney removal for benign disease processes, malignancies and organ donor nephrectomies. L.E.S.S. also is used for removal of other diseased organs, including gall bladders and colons. Its indications continue to expand to other organs and disease processes as well.

According to the American Cancer Society, there were more than 1.3 million new cancers diagnosed in the United States in 2009, and of those cases, 50,000 were individuals with kidney cancer (also known as renal-cell carcinoma). The ACS estimates that there are 200,000 kidney cancer survivors living in the U.S., which in part can be attributed to early detection, recent Food and Drug Administration (FDA)-approved drugs, and new advanced surgical procedures.1

Only the most experienced laparoscopic surgeons are offering L.E.S.S. Patient benefits include less blood loss, minimal pain, quicker convalescence, shorter hospital stays and one small incision rather than several.

Although L.E.S.S. is the latest option for kidney removal, it is not for everyone.

“Today, doctors should educate patients about all treatment options available for their individual case and situation, including a patient’s medical history, age and personal preferences,” explains Gregg E. Zimmerman, M.D., of Morris Urology, a division of Garden State Urology and medical director of robotic surgery at Saint Clare’s Hospital. “Then patients can be prepared to make the decision that is right and comfortable for them, rather than have the decision be solely doctor-directed.”

The kidneys are a necessary part of the urinary system. They filter blood, removing wastes and extra water. When a kidney is diseased, it stops doing this job. Wastes build up, damaging the body. If not treated, kidney disease can lead to kidney failure, which can cause death. People without functioning kidneys must go on dialysis in order to survive.

Although healthy, normal individuals are born with two kidneys, people can function with just a portion of one kidney. According to Zimmerman, a quarter of one normal...
kidney is sufficient to sustain adequate renal function. Surgery is used to treat kidney cancer or tumors by removing part, or all, of the kidney. Currently there are a number of surgical procedures available and choosing the best option has to be a joint decision between the patient and the surgeon.

Evolution of Kidney Surgery

According to Arvind P. Ganpule, M.D., chief of laparoscopy at Muljibhai Patel Urological Hospital in Nadiad, India, single-port surgery is the future, and L.E.S.S. is advantageous in that it can be applied in a variety of urologic presentations as a safe alternative to conventional laparoscopic surgery. Kidney-removal surgery options have evolved:

- **Open Radical Nephrectomy** – This traditional form of surgery requires a large open incision. It sometimes necessitates the removal of a rib. It is a major surgical procedure with a hospital stay of up to a week, significant pain and a long recovery. As technology and early detection improves, the need for invasive, large open incisions has become less common.

- **Laparoscopic Radical Nephrectomy** – This procedure replaced the need for most open radical nephrectomies. Several small incisions create “keyhole ports” that provide access to the cancer. The kidney is removed through a small incision just large enough for successful kidney removal. This is a technically more advanced procedure that requires additional training and skill. Benefits for the patient include a shorter hospital stay (one to two nights), less blood loss, less pain and a quicker recovery.

- **Laparo-Endoscopic Single Site (L.E.S.S.)** – According to UroToday.com, L.E.S.S. is the next evolutionary step of laparoscopy. It is a feasible, minimally invasive procedure requiring the use of specially designed instruments. A small incision is made above or below the umbilicus (belly button). A GelPOINT™ is inserted and small laparoscopic instruments are used to remove the diseased organ or the tumor. This cutting-edge procedure was approved by the FDA on Feb. 18, 2009, and requires extensive training. It currently is the least invasive option for kidney removal.

“A urologist trained in open surgery, as well as the latest robotic and laparoscopic techniques, can present the full range of options — including state-of-the-art techniques — to patients, without any restrictions based on a doctor’s limits of expertise,” adds Zimmerman.

Patients requiring kidney removal should know L.E.S.S. is available, understand its benefits and ask their doctors if it is an option for them.

About Gregg Zimmerman
Gregg E. Zimmerman, M.D., of Morris Urology, a division of Garden State Urology, is also the director of robotic surgery at Saint Clare’s Hospital. He is a leading member of the multidisciplinary oncology team when it comes to urologic care. He is one of the few fellowship-trained urologic oncologists in North Jersey with expertise in robotic surgery. He is also on the faculty of Morristown Memorial Hospital.

Zimmerman practices all aspects of urology, including treatment for prostate, kidney, bladder and testicular cancers; BPH; kidney stones; infertility; incontinence and overactive bladder; and pediatrics. He specializes in robotic and laparoscopic techniques.

Zimmerman earned his medical degree from the State University of New York at Stony Brook and completed his residency training in urology at the University of Florida. He completed his urologic oncology fellowship at Roswell Park Cancer Institute in Buffalo, N.Y., with specialty training in robotic surgery and advanced laparoscopy.

About Roswell Park Cancer Institute

Roswell Park Cancer Institute (RPCI) is a Center of Excellence for robot-assisted surgery. RPCI, founded in 1898 by Dr. Roswell Park, is America’s first cancer center. RPCI is the only upstate New York facility to hold the National Cancer Center designation of “comprehensive cancer center” and to serve as a member of the prestigious National Comprehensive Cancer Network. Over its long history, Roswell Park Cancer Institute has made fundamental contributions to reducing the cancer burden, and has successfully maintained an exemplary leadership role in setting the national standards for cancer care, research and education.

About Morris Urology

Gregg Zimmerman, M.D., Marc Colton, M.D., and Michael Ingber, M.D. offer state-of-the-art urologic care at Morris Urology, a division of Garden State Urology, based in Denville, N.J. The practice treats all aspects of urologic disease, including bladder, kidney and prostate cancers; kidney stones; and urinary incontinence. The practice is located at 16 Pocono Road, Suite 205, Denville, NJ 07834. Tel.: 973-627-0060, fax: 973-627-6821, www.morrisurology.com.

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1 American Cancer Society, http://kidneycancer.org/about-us/research

The GelPort® laparoscopic system facilitates nephrectomy procedures by minimizing the incision size and accelerating patient recovery. The GelPOINT® advanced access platform facilitates triangulation of multiple instruments through a single incision, enhancing cosmetic results for a wide range of procedures and specialties.

Images Courtesy of Applied Medical

Video available at http://www.gelpoint.net/Procedures.aspx

GelPOINT Advanced Access Platform

Single-site using the GelPOINT Advanced Access Platform

Patient Example

Phyllis Turner

Phyllis Turner, 75, is an avid bowler who is a member of two leagues that meet at least twice a week. In the recent past, she was successfully treated for breast cancer. During an examination, an incidental mass was discovered on her kidney.

“I was concerned when I was told that I needed another surgery,” said Turner. “I was introduced to Dr. Zimmerman, who put my mind at ease when he explained the laparo-endoscopic single-site surgery (L.E.S.S.) procedure, and the brief healing time that would follow. After the procedure, I was so surprised and pleased at how quickly I was able to
“move around freely with no pain, no medications and only a small bandage on the incision area.”

“The mass was approximately 3 centimeters and after looking at her X-rays I was confident that L.E.S.S. removal was the appropriate solution,” said Zimmerman. “The laparoscopic approach was successful, required a very short hospital stay, and within one week she was back to her regular routine.”

Turner bowls in fall and winter leagues. During the off-season, she has been spending her time exercising with and without her bowling ball to get into shape for the upcoming season.