# Single-Port Kidney Removal Improves Living Donor Response

In the largest study of its kind, living donors who had a kidney removed through a single port in the navel report higher satisfaction in several key categories, compared to donors who underwent traditional multiple-port laparoscopic removal.

The new technique has been described as virtually scarless because nearly the entire incision, once healed, is hidden within the belly button. Researchers at the University of Maryland School of Medicine in Baltimore found the belly button group had significantly improved satisfaction with the cosmetic outcome and the overall donation process. Additionally, the new technique was associated with fewer limitations in bending, kneeling or stooping following surgery, and slightly less pain after surgery, compared to the multi-port approach. At the same time, the study found the two procedures equally safe. The results are published online today in the *Annals of Surgery*.

“Everything we do in organ transplantation is based on the generosity of organ donors,” says lead author Rolf Barth, M.D., associate professor of surgery at the University of Maryland School of Medicine and transplant surgeon at University of Maryland Medical Center. “If we as surgeons can safely improve the donation process for our living donors by perfecting less-invasive surgical options, we should embrace these new approaches.”

Single-port donor nephrectomy, also known as laparoendoscopic single-site surgery, has been the standard of care for living kidney donors at the University of Maryland Medical Center (UMMC) for the past three years. However, no objective data previously existed to compare the single-port with the multiple-port laparoscopic techniques. UMMC is only the third hospital in the country to consistently use this surgical approach on living donors and, to date, has employed the single-port technique in 215 donors.

“Once this surgical procedure came to our attention, we wasted no time in adopting this as our standard technique in 2009,” says senior author Benjamin Philosophe, M.D., Ph.D., associate professor of surgery at the University of Maryland School of Medicine and Head, Section of Liver Transplantation and Hepatobiliary Surgery at the University of Maryland Medical Center. “It seemed like the logical next step in the surgical evolution of living donation.”

The researchers took a two-pronged approach. They analyzed the surgical results of 135 single-port and 100 multi-port donors from the UMMC patient database and measured transplant outcomes. They also sent two questionnaires to 100 single-port patients and a group of 100 multi-port donors – all of whom had their procedures performed by the same surgeons with similar laparoscopic equipment at

the University of Maryland Medical Center.

The analysis determined that LESS surgery is a safe option for kidney donation without increasing risks or complications to the donor. Single-port nephrectomy leaves only one small scar in the center of the navel, which typically fades over time. The multi-port approach leaves several scars. Beyond the cosmetic benefit, the data suggested single-port donors were more satisfied with their donation decision. “For a living kidney donor who leaves the operating room with no health benefit from the surgical procedure and only a small band-aid over the umbilicus, LESS may be more,” says Barth.

The UMMC transplant team is conducting workshops to train other transplant surgeons in the LESS technique, and has been selected to author a chapter on this technique in the surgical textbook *Kidney Transplantation*.

According to the Organ Procurement and Transplantation Network (OPTN), as of June 1, 2012, more than 92,000 people are on the kidney transplant waiting list in the U.S. Living donation can help many patients receive a transplant sooner and avoid dialysis or deteriorating health that often occurs while waiting for a transplant from a deceased donor. The University of Maryland Division of Transplantation, which focuses on kidney, pancreas and liver transplantation, is one of the nation’s largest transplant programs, set to exceed 400 transplants in 2012. The Division offers living donation as an option for liver and kidney patients to decrease patient wait times and improve patient outcomes.

**Source URL (retrieved on *05/03/2015 - 7:53am*):**
http://www.surgicalproductsmag.com/news/2012/09/single-port-kidney-removal-improves-living-donor-response?qt-recent_blogs_articles=0