

Endo360<sup>®</sup>

# Surgeons Surpass 500 Cases Using Market's First Automated Curved Needle Suturing Device

**As demonstrated in this case study, initial surgeon experience in more than 500 bariatric and general laparoscopic procedures employing the new Endo360<sup>®</sup> automated suturing device with standard curved needles has been shown to eliminate challenges associated with straight needle suturing devices.**

Lack of articulation, difficulty penetrating mesh and thick tissue, tearing tissue, puncturing other organs, breaking needles off inside the patient's body — these and many other issues make suturing during bariatric and general laparoscopic procedures especially difficult. But bariatric surgeon Scott Stowers, DO, sutures during such complex MIS procedures as gastric bypass and gastric sleeve with absolute precision and control.

Dr. Stowers, Medical Director of My Bariatric Solutions in the Dallas-Fort Worth metroplex, and his partner, Randall Wright, MD, use a new automated suturing device called Endo360<sup>®</sup>, which Dr. Stowers credits with his ability to suture with such precision. The tool was developed by EndoEvolution, LLC, whose founders believed that the optimal suturing device for MIS procedures needed to mimic how surgeons traditionally suture when they do it manually — with curved needles. To meet this need, Endo360<sup>®</sup> was introduced to the market this past year, for the first time putting an automated suturing device that employs standard curved needles into the hands of MIS surgeons.

## Naturally intuitive, low learning curve

According to Dr. Stowers, he initially saw the Endo360<sup>®</sup> device at the 2012 Minimally Invasive Surgery Symposium held in Salt Lake City, Utah, where he had the opportunity to use Endo360<sup>®</sup> in a hands-on laparoscopic suturing workshop. As he recalls, he immediately identified the device as: "A vast improvement over what we had before. We all learned to do open procedures using curved needles. This was the first time I'd seen an automated suturing tool that approximates what we do naturally."

Both Drs. Stowers and Wright were anxious to get their hands on the new suturing tool and were excited to learn that this past March, Endo360<sup>®</sup> was available for commercial use. "I saw an ad for the device in a trade publication and called EndoEvolution. They jumped on a plane and came down to Texas," recalls Dr. Stowers.

*"Because it is intuitive to use, there's a low learning curve. Anyone doing any type of laparoscopic procedure can get up to speed quickly." - Dr. Wright*

After doing just a few cases, both doctors felt comfortable using the device. Says Dr. Wright: "Because it is intuitive to use, there's a low learning curve. Anyone doing any type of laparoscopic procedure can get up to speed quickly." Today, Drs. Stowers and Wright use the Endo360<sup>®</sup> device exclusively in all of their bariatric and general laparoscopic procedures, with the number of cases performed now exceeding 500.

## Accuracy and precision with maximum depth control for uniform stitches

For both doctors, the device's biggest advantages include its needle's sharp tapered tip, as well as the ability to place the needle with precision and to control depth, which enables them to produce uniform stitches. "When you use straight needles, there's no control over how deep into the tissue you drive the needle; it's more of a guess," notes Dr. Stowers. "Squeezing the handle of the Endo360<sup>®</sup> device slightly advances the needle enough to see the tip as it passes through the tissue. And we can achieve a nice bite because of the device's wide jaw, which allows us to control depth. With its articulation and rotilation control, the device also allows us to access difficult-to-reach places."

Furthermore, Dr. Stowers recalls that when he did use straight needle devices, he would typically need to twist his wrist to arrange the needle in the right direction: "As you're driving the needle through the tissue, the needle should always follow the arc of its own curve.

So naturally, you're trying to make your wrist turn like a curved needle. It's hard to get that perfect circle and impossible to repeat it. With Endo360<sup>®</sup>, the driver of the device mimics the scooping motion initially taught when suturing manually. So you don't have to push the needle through; it drives like it is supposed to. You can't hardly mess it up; it's a perfect stitch every time," Dr. Stowers emphasizes.

Dr. Wright, who uses Endo360<sup>®</sup> for many types of MIS procedures, from fundoplication with mesh repairs to ventral hernias, says that the device makes it easier — and quicker — for him to sew through mesh products and thicker tissue. "With straight needle devices, I often wasn't able to take a big bite of the tissue without getting the needle and suture caught up in the tissue. But because of the 360<sup>°</sup>'s wide jaw, I can get a



*For more than 20 years, Dr. Stowers has performed the full range of bariatric procedures to help morbidly obese patients achieve their weight loss goals. Most importantly, says Dr. Stowers, he and his team are committed to helping patients, the majority of whom present with numerous clinical challenges, gain control over such weight-related complications as diabetes, high blood pressure, high cholesterol, hypertension and sleep apnea. Thanks in part to advances in laparoscopic techniques, including the new Endo360<sup>®</sup> suturing device, his practice has had tremendous success. Patients typically lose 61.6% of excess weight in their first year following surgery, along with accompanying complications resolved in approximately half of its patients.*

really good bite of the fundus. The curved needle also facilitates proper angulation. Because I'm able to articulate the distal tip, I feel that I am able to gain a mechanical advantage when placing sutures through the crura during hiatal hernia repair." And an added advantage, he notes, is the ability to tie intracorporeally, rather than extracorporeally using a knot pusher.

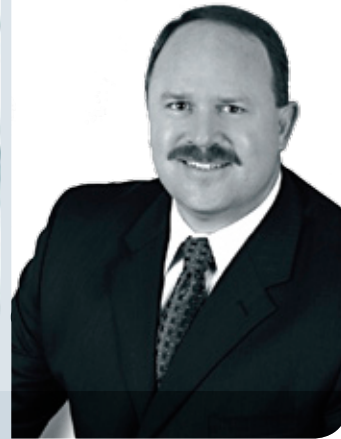
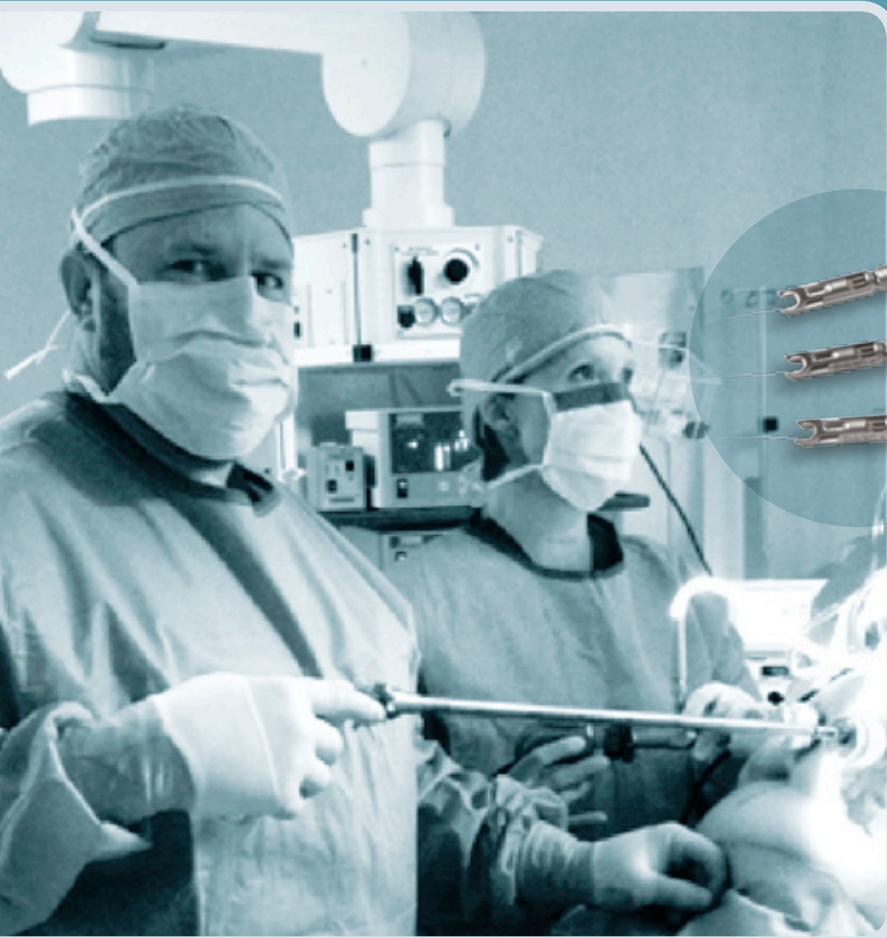


*Board certified in general surgery and an experienced bariatric surgeon, Dr. Scott Stowers, DO, earned his Doctor of Osteopathy at the Texas College of Osteopathic Medicine. This was followed by a medical internship at the Dallas / Fort Worth Medical Center, where he also completed his residency in general surgery and ultimately served as Chief Resident from 1991 to 1992. Currently, he is the medical director of My Bariatric Solutions, located in Decatur and Fort Worth. He is also an adjunct professor of surgery at the Texas College of Osteopathic Medicine, UNT Health Science Center, Fort Worth, Texas, and member of ASMBS and an ASMBS Site Surveyor.*

EndoEVOLUTION<sup>®</sup>



*"With other suturing devices, you have to dispose of them as medical waste after one procedure. But with the 360°, you just purchase disposable cartridges. Wise Regional Health System recouped its original investment in less than two weeks." - Dr. Stowers*



*Randall A. Wright, MD, graduated from the University of Texas Medical School at San Antonio in 1993. He practices medicine in Bridgeport, TX and specializes in general surgery. He is also an adjunct professor of surgery at the Texas College of Osteopathic Medicine, UNT Health Science Center, Fort Worth, Texas.*

In addition, the Endo360°'s needle is always enclosed in the distal tip of the device, limiting needlesticks. Says Dr. Stowers: "The design of the device makes it much safer to use inside the body. The needle stays in place, so there's much less chance of puncturing adjacent tissue or organs and causing bleeding."

Patient safety is always top of mind for Dr. Wright as well. For cases in which he is required to work close to the esophagus, Dr. Wright had considered going back to manually suturing. "The curve of the needle, its sharpness and linear suture arrangement, along with the precision of needle placement, give me the confidence to suture through delicate tissues such as the anterior wall of the esophagus." Dr. Wright adds that the covered needle also protects the surgeon (and the OR staff) using the device, making Endo360° the ideal teaching tool for resident surgeons.

### Reusable for a fast ROI

On average, Dr. Stowers and Dr. Wright each perform 50 to 60 procedures a month using the Endo360° device. So the fact that it is a reusable device was another key reason to make the switch. As Dr. Stowers explains, "With other suturing devices, you need to dispose of them as medical waste after one procedure. But with the 360°, you just purchase disposable cartridges. Wise Regional Health System recouped its original investment in less than two weeks, after about 30 cases, and that helps us keep costs down for our patients. Plus all that medical waste is kept out of our landfills."

To date, the practice has invested in multiple Endo360° bariatric length devices, giving the doctors a great deal of working length to accommodate patients with higher BMIs. Since purchasing their first device in March 2014, both doctors have provided invaluable input that has resulted in, as Dr. Wright says, "Small tweaks to the device to reflect our preferences." In conclusion, he says: "Over the past several months, the team at EndoEvolution has been extremely responsive to our needs, including sitting in on several cases. That has been very helpful."

**For more information about Endo360°, the first reusable, automated suturing device using standard curved needles, contact Erin Trigilio, Director of Clinical Training, [erin@endoevolution.com](mailto:erin@endoevolution.com) or visit: [endoevolution.com](http://endoevolution.com)**



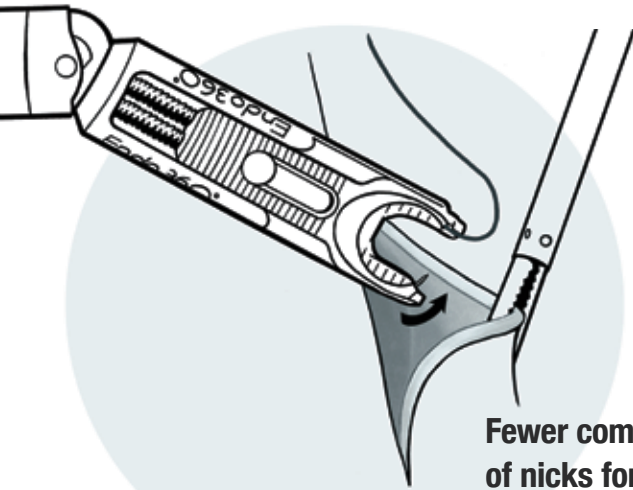
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*Dr. Randall Wright uses the new automated Endo360° suturing device exclusively for all of his general laparoscopic procedures, from fundoplication with mesh repairs to ventral hernias. According to Dr. Wright, the Endo360° device makes it easier — and quicker — for him to sew through mesh products and thicker tissue. Protecting patients from unintentional nicks is another big advantage of the device. As he says: "The curve of the needle, its sharpness and linear suture arrangement, along with the precision of needle placement, give me the confidence to suture through delicate tissues such as the anterior wall of the esophagus."*



*"This was the first time I'd seen an automated suturing tool that approximates what we do naturally." - Dr. Stowers*

### Fewer complications, less tissue trauma, less chance of nicks for greater patient safety

While the laparoscopic approach has been proven to have fewer risks of complications than traditional surgical techniques, those complications — such as digestive juices and partially digested food leaking through the anastomosis after bypass surgery — are an ongoing concern for bariatric surgeons like Dr. Stowers. To help alleviate this critical issue, Endo360° offers a close needle-to-suture ratio, ensuring that the suture fills the hole created by the needle. Says Dr. Stowers, "The suture is not dragged through the hole alongside the needle, as with other devices, so there are far fewer incidents of leaks than when using larger needles." In fact, Dr. Stowers says that since using Endo360°, he knows of no instance in which a patient has experienced leakage.

In addition, the device is atraumatic to the tissue. "When you squeeze the handle of the 360°, it goes through in a natural path; there's not as much resistance, so it doesn't traumatize the tissue," notes Dr. Stowers.

**Rx Only** Federal (USA) Law restricts this device to sale, distribution and use by or on the order of a physician.

Endo360° minimally invasive suturing devices are provided **NON-STERILE** and must be sterilized by compatible sterilization methods outlined in the Instructions for Use (IFU) document.

Endo360° minimally invasive suturing devices are **REUSABLE** instruments and must be performance-tested according to the test protocol in the Instructions for Use document prior to each use.

NOTE: Use of Endo360° minimally invasive suturing devices requires a compatible EndoEvolution Endo360° suture.

*For more information, always refer to the IFU provided with the Endo360° device, or contact Customer Support at 1-855-ENDO360.*