



MEDCO FORUM®

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LAPAROSCOPIC AND ROBOTIC SOLUTIONS FOR WOMEN Providing Less Invasive Procedures

Patients are always looking for surgical procedures which allow them to return to normal life with little or no complication, minimal or no pain, and with less cosmetic consequences. In short — less invasive.

Lisa Laser USA (<http://www.lisalaserusa.com>, Pleasanton, CA) has teamed up with two companies to provide a solution to the needs of women who must undergo surgery.

Intuitive Surgical (<http://www.intuitivesurgical.com>, Sunnyvale, CA), the company who introduced the *da Vinci*® Surgical System in 1999, is the world leader in robotic surgery. With Lisa Laser and Intuitive teaming up, a combination laser and robot is now on the market. The marriage of these two high-impact technologies allow surgeons to perform less invasive procedures with faster recovery times and less pain. The dexterity and accuracy of the robot combined with the precise cutting the laser provides is second to none.

Regarding the laser-robotic combination, Brian E. Drake, MD (Medical Director of Robotic Surgery, Adventist Medical Center, Portland, OR) states “When a

better tool is placed in the hands of a good surgeon, everything improves, but the patient, especially will benefit.”

Over the last 30 years, many lasers have been used for surgical procedures, however, most of these lasers had been optimized for other applications such as industrial, military, and scientific. Since tissue is so sensitive to heat, using the right wavelength, beam control and light intensity is critical for proper medical use. Add to this regulatory oversight and the need for high precision and accuracy, one understands

why it has taken time to bring high functioning laser capability to the surgeon's operating room. With Lisa Laser's RevoLix laser, it is the first laser specifically designed for soft tissue applications. The RevoLix's ability to cut precisely with minimal blood loss makes it ideal for robotic and laparoscopic procedures. Its continuous wave operation and target chromophore of water provides the perfect compromise between hemostasis and depth of

thermal injury. This means surrounding tissue is minimally affected, reducing complications and improving recovery times for the patient.



RevoLix Jr.® Laser

The laser energy is delivered from the laser through a small glass fiber that is then connected to the robot. The laser fiber is not much larger than a human hair and is reusable minimizing the cost to hospitals. When the laser energy is absorbed by water in the tissue a small precise incision can be created. The advantage that the laser provides is the ability to cut tissue with almost no thermal damage. This allows for faster healing, less pain medication and shorter hospital stays.

Dr. Drake adds, “Lisa Laser’s product is important for several reasons. Its ability to work well with the robot, the lateral damage of surrounding tissue — and this is especially important for delicate tissue — is minimal due to the wavelength of the light, and its scalpel-like cutting is impressive”.

Intuitive Surgical (da Vinci robot) is accepted as the worldwide leader in robotic surgery. The da Vinci uses a special wrist that the laser fiber is threaded through. Combine the precision of the laser wrist with the 3D vision and articulation of the robot and now the surgeon can treat areas of the body that would be almost impossible to treat without resulting to open surgery.



da Vinci Si HD Surgical System

What conditions can be treated?

All of the conditions below can be extremely painful for the patient but now they can be treated with minimal down time and almost no scarring.

- Adhesion
- Endometriosis
- Fibroids
- Hysterectomies

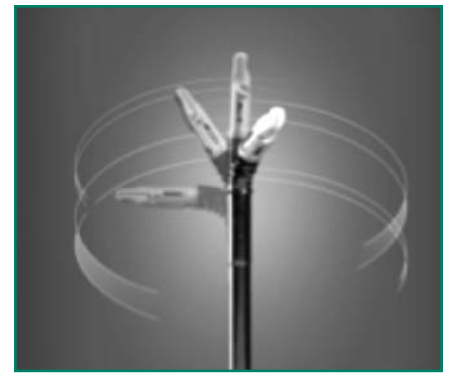
But what does this mean for the patient?

- Less bleeding, less need for a transfusion
- Less pain postoperatively
- Less pain medications required
- Quicker recovery, less time in hospital
- Smaller incisions
- Less complications and better outcomes.

These are all important factors that indicate the combination of laser and robot is the right choice.

Lisa Laser USA is also working with Cambridge Endo (<http://www.cambridgeendo.com>, Framingham, MA) a manufacturer of single use steerable laparoscopic devices.

Cambridge Endo has now developed a steerable laser applicator (pending FDA approval) that combines their product with the Lisa Laser system. Cambridge Endo wanted a safe way to deliver energy that could synergize well with their product’s excellent articulation.



Full Articulation with Cambridge Endo

William Peine, PhD (Director of R&D, Cambridge Endo) states, “Because of the laser’s red diode aiming beam, it’s easy to aim the laser at the precise spot of interest. With our product’s articulation and Lisa Laser’s aiming we can cut and ablate tissue with precision.”

Those responsible for patient care are always looking for the best way, both economically and medically, to improve patient care when it comes to treating conditions such as endometriosis. Surgeons using Lisa Laser’s products integrated with a robotic or hand-held device have the best of both worlds. A laser that can cut and ablate with scalpel-like accuracy, with visualization and articulation tools that can deliver the laser’s energy with good patient outcome. ♦

For more information about the *RevoLix Jr®* family of lasers, call 1-888-573-5006 or visit www.lisalaserusa.com