# Considering Endometriosis Surgery?

Learn about minimally invasive da Vinci\* Surgery





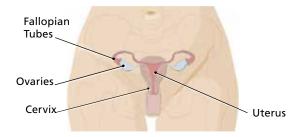
### The Condition:

#### **Endometriosis**

Endometriosis is a condition in which the tissue that lines your uterus (the endometrium) also grows outside of the uterus. This tissue is called implants or lesions, and is often found in your pelvic area. In rare cases, it can grow in other parts of your body. Normally, the endometrium lining sheds each month during your period, but implants stay in place.

Endometriosis is often diagnosed between ages 25 to 35 but can occur anytime during a woman's reproductive years, from menstruation through menopause.<sup>1</sup> Endometriosis is common and family history plays a key role. A woman who has a mother or sister with endometriosis is six times more likely to have it.<sup>1</sup>

Many women have no symptoms, but endometrial implants can cause irregular bleeding, infertility and pain. Mild to severe pain is the most common symptom, which may include pain during periods, sex, and bowel movements, and pain in the lower back or abdomen.



## **Treatment & Surgical Options:**

Depending on how severe your symptoms are, treatment may include lifestyle changes and medicine to control pain and endometriosis growth. If your symptoms get worse, your doctor may suggest surgery.<sup>1</sup>

There are two common surgical options: endometriosis resection and hysterectomy. Endometriosis resection involves removing all visible implants while leaving the uterus and other organs in place. Endometriosis resection is usually recommended for women who want to get pregnant in the future. Hysterectomy involves removing the uterus and possibly other affected organs. It is recommended for women who are not planning a future pregnancy.

Endometriosis resection can be done using traditional open surgery or minimally invasive surgery (laparoscopy).

**Open Surgery:** With open surgery, a large incision is made in your abdomen – large enough for your surgeon to fit his/her hands inside your body. Open surgery allows doctors to reach and touch your organs as they operate.



**Minimally Invasive Surgery:** Laparoscopic surgery is minimally invasive – meaning surgeons operate through a few small incisions. Your surgeon uses a tiny camera and long, thin instruments to operate. The camera sends images to a video screen in the operating room to guide doctors during surgery.

There is another minimally invasive surgical option for women diagnosed with endometriosis - da Vinci Surgery.



Open Surgery Incision

Laparoscopy Incisions

da Vinci Surgery Incisions



## da Vinci Surgery:

#### A Minimally Invasive Surgical Option

If your doctor suggests surgery for endometriosis, you may be a candidate for minimally invasive *da Vinci* Endometriosis Resection.

With the *da Vinci* Surgical System, your doctor operates through a few small incisions - similar to traditional laparoscopy. The *da Vinci* System has a magnified 3D high-definition vision system and tiny wristed instruments that bend and rotate far greater than the human hand. These features enable your surgeon to operate with enhanced vision, precision, and control.

**Early clinical data suggest:** As a result of *da Vinci* technology, *da Vinci* Endometriosis Resection may offer the following potential benefits:

- Surgeons are able to complete difficult dissections (separating of tissue)<sup>2,3,4</sup>
- Low rate of complications<sup>2,4,5,6</sup>
- Low rate of blood loss<sup>4,6,8,9</sup> and blood transfusions<sup>4,6</sup>
- Low rate of switching to open surgery (through a large incision)<sup>2,4,7,8</sup>

Risks & Considerations Related to Endometriosis Resection (endometriosis surgery to remove implants): injury to the bowel, bladder (organ that holds urine) or ureters (the ureters drain urine from the kidney into the bladder).

#### **Important Information for Patients:**

Serious complications may occur in any surgery, including da Vinci® Surgery, up to and including death. Examples of serious or life-threatening complications, which may require prolonged and/or unexpected hospitalization and/or reoperation, include but are not limited to one or more of the following: injury to tissues/organs, bleeding, infection and internal scarring that can cause long-lasting dysfunction/pain. Risks of surgery also include the potential for equipment failure and/or human error. Individual surgical results may vary.

Risks specific to minimally invasive surgery, including da Vinci Surgery, include but are not limited to, one or more of the following: temporary pain/nerve injury associated with positioning; temporary pain/discomfort from the use of air or gas in the procedure; a longer operation and time under anesthesia and conversion to another surgical technique. If your doctor needs to convert the surgery to another surgical technique, this could result in a longer operative time, additional time under anesthesia, additional or larger incisions and/or increased complications.

Patients who are not candidates for non-robotic minimally invasive surgery are also not candidates for da Vinci® Surgery. Patients should talk to their doctor to decide if da Vinci Surgery is right for them. Patients and doctors should review all available information on non-surgical and surgical options in order to make an informed decision. For Important Safety Information, including surgical risks, indications, and considerations and contraindications for use, please also refer to www.davincisurgery.com/safety and www.intuitivesurgical.com/safety.

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# The Enabling Technology: da Vinci Surgical System

The da Vinci Surgical System is designed to provide surgeons with enhanced capabilities, including high-definition 3D vision and a magnified view. Your doctor controls the da Vinci System, which translates his or her hand movements into smaller, precise movements of tiny instruments inside your body.



Though it is often called a "robot," da Vinci cannot act on its own. Surgery is performed entirely by your doctor. da Vinci technology allows your doctor to operate through just a few small openings, similar to traditional laparoscopy.

The da Vinci System has been used successfully worldwide in approximately 3 million various surgical procedures to date. da Vinci - changing the experience of surgery for people around the world.

# Your doctor is one of a growing number of surgeons worldwide offering *da Vinci*° Surgery.

For more information and to find a da Vinci surgeon near you, visit: www.daVinciSurgery.com

<sup>&</sup>lt;sup>1</sup> National Institutes of Health. Available from: www.nlm.nih.gov/ medlineplus/ency/article/000915.htm. <sup>2</sup> Collinet P, et al. Robotassisted laparoscopy for deep infiltrating endometriosis: international multicentric retrospective study. Surgical Endoscopy 28.8 (2014):2474-2479. Epub. <sup>3</sup> Nezhat, C, et al. The Role of the Robot in Treating Urinary Tract Endometriosis. Current Opinion in Obstetrics and Gynecology 25.4 (2013): 308-11. <sup>4</sup> Siesto, G., et al. Robotic Surgery for Deep Endometriosis: A Paradigm Shift. The International Journal of Medical Robotics and Computer Assisted Surgery 10 (2013): 140-46. <sup>5.</sup> Bedaiwy, MA, et al. Robotic-Assisted Hysterectomy for the Management of Severe Endometriosis: A Retrospective Review of Short-Term Surgical Outcomes. JSLS, Journal of the Society of Laparoendoscopic Surgeons 17.1 (2013): 95-99. <sup>6</sup> Ercoli, AM, et al. Robotic Treatment of Colorectal Endometriosis: Technique, Feasibility and Short-term Results. Human Reproduction 27.3 (2012): 722-26. 7 Dulemba, JF, et al. Retrospective Analysis of Robot-assisted versus Standard Laparoscopy in the Treatment of Pelvic Pain Indicative of Endometriosis. Journal of Robotic Surgery 7.2 (2013): 163-69. 8. Nezhat, CLM, et al. Robotic versus standard laparoscopy for the treatment of endometriosis. Fertility and Sterility, 2010. 9. Nezhat, CR, et al. Robotic-Assisted Laparoscopy vs Conventional Laparoscopy for the Treatment of Advanced Stage Endometriosis. JMIG 22.1 (2014): 40-44.