



FAQ: The *da Vinci* Surgical System

Question: Why is the product called the *da Vinci*[®] Surgical System?

Answer: The product is called "*da Vinci*" in part because Leonardo da Vinci is credited with inventing the first robot. da Vinci used unparalleled anatomical accuracy and three-dimensional details to bring his masterpieces to life. The *da Vinci* Surgical System similarly provides surgeons with such enhanced detail and precision that the system can simulate open surgery while allowing doctors to perform complex procedures through a few tiny incisions.

Q: Is a surgeon using the *da Vinci* Surgical System operating in "virtual reality"?

A: No. The surgeon views an actual image inside the patient's body while operating in real-time using electromechanically enhanced instruments. At no time does the surgeon program the system to perform any independent maneuvers outside of the surgeon's direct, real-time control.

Q: Is this telesurgery? Can you operate over long distances?

A: Telesurgery capability is not available with the current *da Vinci* Surgical System.

Q: Where is the *da Vinci* Surgical System being used now?

A: The *da Vinci* Surgical System is currently being used in major centers in North America, South America, Europe, Asia and Australia.

Q: Has the *da Vinci* Surgical System been cleared by the FDA?

A: The U.S. Food and Drug Administration (FDA) has cleared the *da Vinci* Surgical System for use in a wide range of procedures.

Q: What is minimally invasive surgery (MIS)?

A: MIS is surgery typically performed through small incisions – also known as operating ports or keyhole incisions – rather than large incisions required for direct, manual access to the target anatomy. For the patient, MIS means there is greater potential for less pain, less blood loss, a shorter recovery, fewer complications, reduced hospitalization costs and faster return to normal daily activities.

Q: Will the *da Vinci* Surgical System make the surgeon unnecessary?

A: On the contrary, the *da Vinci* System is designed to allow surgeons to operate with greater precision, visualization, dexterity and control. It advances their techniques and enhances their ability to perform complex minimally invasive surgery.

Q: How does the *da Vinci* Surgical System advance a surgeon's technique?

A: The system translates the surgeon's hand movements in real time to its miniaturized instruments, while using motion scaling and tremor reduction to improve precision. (The system can never be programmed to make its own decisions or perform any surgical maneuvers without the surgeon's direct input via the console hand controls.)

Q: What are the benefits of using the da Vinci Surgical System compared to traditional methods of surgery?

A: Benefits include greater surgical precision, increased range of motion, improved dexterity, enhanced 3DHD vision and improved access. Potential benefits for the patients can include shorter hospital stays, less pain, less risk of infection, less blood loss, fewer transfusions, less scarring, faster recovery and a quicker return to normal daily activities. None of these benefits can be guaranteed, since surgery is specific to each patient and procedure.

Q: Is this "robotic surgery"?

A: Robotic surgery devices are designed to perform entirely independent movements after being programmed by a surgeon. The da Vinci Surgical System is a computer-enhanced system mimics the surgeon's hand movements in real time. It cannot be programmed, nor can it make decisions on its own to move or perform any type of surgical maneuver. So while the general term "robotic surgery" is often used to refer to our technology, it is not robotic surgery in the strictest sense of the term.

Q: While using the da Vinci Surgical System, can the surgeon feel anything inside the patient's chest or abdomen?

A: The system relays some force feedback sensations from the operative field back to the surgeon throughout the procedure. This force feedback provides a substitute for the actual sense of touch and is augmented by the enhanced vision provided by the high definition 3D view.

Q: What procedures have been performed using the da Vinci Surgical System? What additional procedures are possible?

A: The da Vinci enables complex procedures of all types to be performed. To date, tens of thousands of da Vinci procedures have been performed including general, urologic, gynecologic, transoral, cardiac, thoracoscopic, and thoracoscopically-assisted cardiac procedures.

While clinical studies support the effectiveness of the da Vinci Surgical System when used in minimally invasive surgery, individual results may vary. There are no guarantees of outcome. All surgeries involve the risk of major complications. Before you decide on surgery, discuss treatment options with your doctor. Understanding the risks of each treatment can help you make the best decision for your individual situation. Surgery with the da Vinci Surgical System may not be appropriate for every individual; it may not be applicable to your condition. Always ask your doctor about all treatment options, as well as their risks and benefits. Only your doctor can determine whether da Vinci Surgery is appropriate for your situation. The clinical information and opinions, including any inaccuracies expressed in this material by patients or doctor about da Vinci Surgery are not necessarily those of Intuitive Surgical, Inc. and should not be considered as substitute for medical advice provided by your doctor. All persons depicted are models unless otherwise noted. © 2011 Intuitive Surgical. All rights reserved. Intuitive, Intuitive Surgical, da Vinci, da Vinci S, da Vinci Si, Single-Site, InSite, TilePro and EndoWrist are trademarks or registered trademarks of Intuitive Surgical. All other product names are trademarks or registered trademarks of their respective holders.

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