

Da Vinci robotic-assisted surgery

Frequently asked questions



Da Vinci patient cart in the OR



Surgeon at da Vinci system console



Care team viewing surgery in real time on da Vinci vision cart

1. What is the difference between open surgery, laparoscopic surgery, and da Vinci® robotic-assisted surgery?

Surgeons perform **open surgery** using handheld instruments to operate through a large cut (incision) that allows them to see the entire surgery area. While this may be the first method that comes to mind, you may be a candidate for minimally invasive surgery, such as laparoscopic or robotic-assisted surgery.

Surgeons perform **conventional laparoscopic surgery** through a small incisions. They use long handheld instruments while viewing magnified images of the surgery field that are displayed on a video screen by a tiny camera called a laparoscope. The disconnected, or analog, OR environment can pose additional challenges in reducing variability to care teams.

Surgeons can perform minimally invasive **robotic-assisted surgery** using the specialized instruments and advanced technology of da Vinci surgical systems. Multiple features help extend the surgeon's capabilities, and the connected, or digital, OR captures and shares data, lessening the need for additional equipment, instruments, or third-party capital assets.

2. Does the surgeon perform the procedure or the robot?

The term "robotic" often misleads people. Robots do not perform surgery. Your surgeon performs surgery. The da Vinci system translates your surgeon's hand movements at the console in real time, bending and rotating an advanced set of instruments while performing the planned procedure.

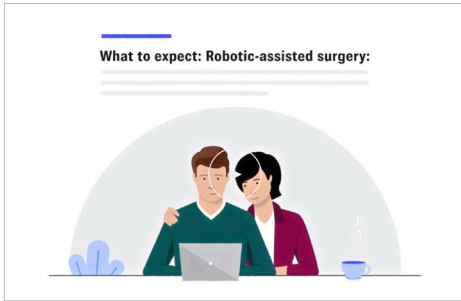
3. How does da Vinci robotic-assisted surgery enhance the surgeon's capabilities?

Da Vinci robotic-assisted surgery extends the capabilities of the surgeon's eyes and hands beyond what the human body allows. For example, the tiny wristed instruments of the da Vinci system move like a human hand but with an even greater range of motion. The instrument size makes it possible for a surgeon to operate through incisions that range in size from 8 to 13 millimeters, which is about the size of your fingertip.

4. What is the da Vinci surgical system?

The da Vinci surgical system has three main components:

- The **patient cart** holds the camera and surgical instruments that your surgeon controls from the console.
- The **surgeon console** is the control center where your surgeon sits to perform the operation.
- The **vision cart** manages the communication between all the system components and provides a screen for the care team to view the operation in real time.



To view an informative video, please go to:
<https://www.intuitive.com/en-us/patients/da-vinci-robotic-surgery/what-to-expect>.

5. What can I expect on surgery day if I am having da Vinci robotic-assisted surgery?

At check-in, your surgeon and other members of your care team will review your procedure with you and answer any questions you might have.

When it's time for surgery, you will be brought into the operating room (OR) to join your surgeon and the care team. The da Vinci surgical system will be in the OR before your surgery begins. You will receive medicine to help ensure that you do not feel pain.

During the procedure, your surgeon will remain in the OR and control the system, while viewing the surgical field with the da Vinci system's camera. Your surgeon will be able to see the surgical field in 3DHD and magnify it to 10 times its normal size to see details more clearly than with the naked eye. Your surgeon will be using long, thin instruments that move like a human hand but with a greater range of motion. The system's built-in tremor filtration technology helps the surgeon move each instrument with smooth precision.

When surgery is complete, your surgeon will close the small incisions with a few tiny stitches, and the care team will move you from the OR to a recovery room where you will stay until you wake up.

6. How can I best prepare for robotic-assisted surgery using the da Vinci surgical system?

It's most important to talk to your surgeon, ask questions, and follow all instructions from your care team. Here are some additional suggestions to help you prepare for surgery day:

- **Check your insurance coverage.** To avoid unexpected medical bills, talk to your health insurance provider about your upcoming surgery. Find out what your insurance covers and if you need any preauthorization.
- **Prepare for limitations after surgery.** Knowing what you may or may not be able to do after surgery—for example, lifting, walking, driving, and so on—can help you make the appropriate arrangements for at-home care, transportation, food, childcare, pet care, and other tasks of daily living.
- **Pack an overnight bag.** If you may be staying at the hospital overnight, bring your toothbrush, toothpaste, deodorant, and other personal items you will need. Leave your valuables, such as your watch and jewelry, at home.
- **Dress for comfort.** Wear comfortable clothing and shoes.
- **Get ready for check-in.** Bring your identification, insurance cards, a copy of your Advance Directive, if needed, and a form of payment to cover any copayments that may be required by your insurance.

7. What procedures are performed using the da Vinci surgical system?

The da Vinci system can be used for the following procedures:

- **Cardiovascular:** coronary artery bypass graft (CABG) with adjunctive mediastinotomy only; mitral valve repair
- **Colorectal:** colon resection; rectal resection
- **General surgery:** bariatric (weight-loss) surgery; gall bladder surgery; hernia repair
- **Gynecology:** endometriosis resection; benign hysterectomy; hysterectomy for cancer; fibroid removal (myomectomy); pelvic organ prolapse
- **Head and neck:** benign base of tongue resection
- **Thoracic:** lung surgery
- **Urology:** kidney blockage surgery; kidney surgery; prostate surgery.

8. What are the outcomes of da Vinci surgery?

Every surgeon's experience is different, so it is important to talk to your surgeon about the outcomes he or she delivers when using the da Vinci surgical system for your particular procedure. For example, ask about:

- Average length of surgery
- Average length of hospital stay
- Chance of switching to an open procedure
- Complication rate

Important safety information

Serious complications may occur in any surgery, including surgery with a da Vinci system, up to and including death. Examples of serious or lifethreatening 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 specific to minimally invasive surgery, including surgery with a da Vinci system, include but are not limited to, one or more of the following: temporary pain/nerve injury associated with positioning; a longer operative time, the need to convert to an open approach, or the need for additional or larger incision sites. Converting the procedure could result in a longer operative time, a longer time under anesthesia, and could lead to increased complications. Contraindications applicable to the use of conventional endoscopic instruments also apply to the use of all da Vinci instruments.

For important safety information, including surgical risks and considerations, please also refer

to [intuitive.com/safety](https://www.intuitive.com/safety). For a product's intended use and/or indications for use, risks, full cautions, and warnings, please refer to the associated user manual(s).

Individual outcomes may depend on a number of factors—including but not limited to—patient characteristics, disease characteristics, and/or surgeon experience.

Da Vinci Xi/X system precaution statement

The demonstration of safety and effectiveness for the representative specific procedures did not include evaluation of outcomes related to the treatment of cancer (overall survival, disease-free survival, local recurrence) or treatment of the patient's underlying disease/condition. Device usage in all surgical procedures should be guided by the clinical judgment of an adequately trained surgeon.

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