



York and Scarborough  
Teaching Hospitals  
NHS Foundation Trust

# Minimally Invasive Robotic Assisted Surgery

Information for patients, relatives and carers

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## **Having surgery at York hospital with the da Vinci Xi surgical system**

York Hospital has installed a da Vinci surgical system, allowing patients access to minimally invasive robotic-assisted surgery. This leaflet explains what robotic-assisted surgery entails and provides information about what this means for you, if your surgeon recommends this surgical approach.

# Are there different kinds of surgery?

....  Yes. Traditional open surgery, where your surgeon operates through a long incision (cut), may be the first method that comes to mind. However, you may be a candidate for minimally invasive surgery, which requires just one or a few small cuts.

## Minimally invasive surgery includes:



Robotic-assisted surgery

Surgeons can perform robotic-assisted surgery with one of the different surgical systems available on the market. While the word “robotic” is in the description, a robot doesn’t perform surgery. Your surgeon is the one performing surgery controlling the instruments remotely and enabling features the surgical system offers.



Traditional laparoscopic surgery

Surgeons perform laparoscopic surgery using special long-handled tools while viewing magnified images from the laparoscope (camera) on a video screen.

## Why your surgeon may recommend robotic-assisted surgery

Just as technology, such as MRI and CT scanners, enhances doctors' skills beyond what the human body allows, robotic-assisted surgery may extend the capabilities of a surgeon's eyes and hands.

With the da Vinci surgical system, your surgeon:

- Stays with you in the operating room and uses his or her hands to control a camera and surgical instruments to perform the procedure.
- Views the entire operation in 3D HD, giving your surgeon a crystal clear view of the surgical area that is magnified 10 times to what the human eye sees.
- Uses wristed instruments that move like a human hand but with an even greater range of motion. The system's built-in tremor-filtration technology helps your surgeon move smoothly each instrument with precision.

# What is the surgical system?

Different surgical systems are available on the market around the world and may present different architecture resulting in various features. The da Vinci surgical system consists of three components:



**Surgeon console**  
Is the control center where your surgeon sits to perform the operation



**Patient cart**  
Holds the camera and surgical instruments your surgeon controls from the console



**Vision cart**  
Manages communication between all the system components and provides a screen for the care team to view the operation.

## Care team







There are several people in the operating room during a robotic-assisted procedure. Each person is part of your care team and plays an important role in your surgery.

## Potential benefits of robotic surgery

- Shorter hospital stay
- Less pain
- Reduced blood loss and need for blood transfusion
- Lower risk of complications
- Lower risk of converting to an open procedure
- Faster recover and return to normal activities

# Procedures

When recommended by your surgeon, the surgical system can be used for these procedures:

	<p>Colorectal</p> <ul style="list-style-type: none"><li>• Colon resection</li><li>• Rectal resection</li></ul>
	<p>General surgery</p> <ul style="list-style-type: none"><li>• Bariatric (weight-loss) surgery</li><li>• Gallbladder surgery</li><li>• Hernia repair</li></ul>
	<p>Gynecology</p> <ul style="list-style-type: none"><li>• Endometriosis resection</li><li>• Benign hysterectomy</li><li>• Hysterectomy for cancer</li><li>• Fibroid removal (myomectomy)</li><li>• Pelvic organ prolapse</li></ul>
	<p>Head and neck</p> <ul style="list-style-type: none"><li>• Benign base of tongue resection</li></ul>
	<p>Thoracic</p> <ul style="list-style-type: none"><li>• Lung surgery</li></ul>
	<p>Urology</p> <ul style="list-style-type: none"><li>• Kidney blockage surgery</li><li>• Kidney surgery</li><li>• Prostate surgery</li></ul>

## Frequently asked questions

### **Does the surgical system perform surgery?**

No. Your surgeon performs surgery. The da Vinci surgical system translates every hand movement your surgeon makes in real time to bend and rotate the instruments with precision.

### **Why should I choose robotic-assisted surgery?**

People choose robotic-assisted surgery for a variety of reasons. Your doctor may have recommended this surgical approach for you to enable more complex procedures to be performed using key-hole surgery, to perform the surgery more accurately or more safely.

### **How do surgeons train on robotic-assisted surgery?**

A comprehensive training and accreditation process is used to ensure surgeons operating using the da Vinci surgical system are fully trained.

### **How can I get robotic-assisted surgery?**

If your doctor recommends robotic-assisted surgery for your condition, he or she can let you know your next steps.

To find out more about surgery with da Vinci systems visit <https://www.davincisurgery.com/>



# How can you prepare for surgery?

1. One way to learn more about your surgery is to ask your doctor and care team questions.
2. What medical and surgical options are available for me?
3. Which is best for my situation?
4. What are the differences between open, laparoscopic, and robotic-assisted surgery?
5. If you suggest I have surgery, how should I prepare for it?
6. What am I likely to experience after surgery?
7. What is the risk of complication from this surgery?



## **Tell us what you think of this leaflet**

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Mr B Blake-James, Consultant, The York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 725985.

## **Teaching, training and research**

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

## **Patient Advice and Liaison Service (PALS)**

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email [pals@york.nhs.uk](mailto:pals@york.nhs.uk).

An answer phone is available out of hours.

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Please telephone or email if you require this information in a different language or format, for example Braille, large print or audio.

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