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Colorectal Cancer



Colorectal (bowel) cancer is one of the most common cancers. Worldwide, it is the third most common cancer in men and the second most common in women.

A large proportion of colorectal tumours develop from **colonic polyps**, which may cause no symptoms and go unnoticed. If they are not found and removed, they can change over the years and develop into cancer.

Diagnosis and staging

Once the tumour has been diagnosed, the stage of the disease is assessed with the tests that suit each case. These may include **CT scans of the chest and abdomen, MRI scans and endoscopic ultrasound (EUS)**, among other tests, depending on where the tumour is and its nature.

Every new case of colorectal cancer is discussed by a **multidisciplinary team** of gastrointestinal surgeons, gastroenterologists and oncologists, working with pathologists, radiologists and radiotherapy specialists.

This approach aims to assess the case from every angle and build a complete, personalised treatment plan for each patient, drawing on the expertise of all the specialties involved.

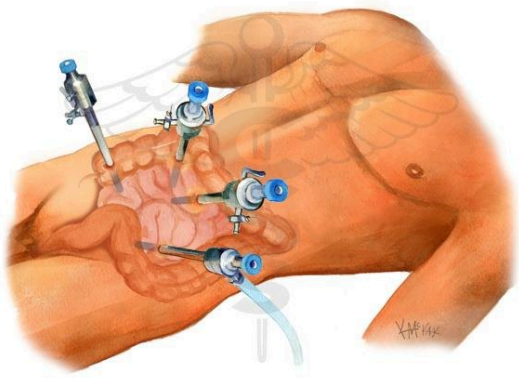
Treatment of colorectal cancer

In general, the treatment of **colon cancer** differs from the treatment of **rectal cancer**.

In most cases of colon cancer that can be removed, surgery is the main treatment: the affected part of the colon is removed together with the nearby (regional) lymph nodes. After surgery, the final pathology result is reviewed to decide whether the patient needs **adjuvant chemotherapy**, according to the stage of the tumour, its features and risk factors.

In rectal cancer, patients often need **chemotherapy and radiotherapy, or systemic treatment, before surgery** to shrink the tumour and improve the chances of controlling it. The patient is then referred to the surgeon for the appropriate operation. The type of operation depends on the location and extent of the tumour and its relationship to the surrounding tissues and organs.

Minimally invasive surgery



Most colorectal cancer operations are performed with **minimally invasive surgery**, either laparoscopically or robotically.

Laparoscopic surgery means performing the operation inside the abdomen through several small incisions, using a camera and long, fine surgical instruments designed for this type of operation.

Robotic surgery is performed with the **da Vinci Xi** system. The robotic platform is connected to the patient by articulated arms that hold the camera and surgical instruments, and the surgeon controls them from a console next to the patient. The system gives a clear, magnified view of the operating field and very precise control of the instruments.

In some selected cases, particularly depending on where the tumour is in the rectum, it may be necessary to combine the abdominal approach with a **transanal approach** (through the anus). Techniques used in these cases include **TEM, TAMIS and TaTME**, minimally invasive techniques that reach the rectum through the anal canal.

Traditional open surgery, which needs a large abdominal incision, is used only in limited cases, depending on the nature of the disease and the surgical situation.

Potential benefits of minimally invasive surgery include **less pain after the operation, faster recovery, a quicker return to daily activities, and lower rates of some complications after surgery**.

Indocyanine green (ICG)

In recent years we have started to use **indocyanine green (ICG)**, a dye given during surgery that makes tissues and blood vessels visible with a special camera and imaging technology.

This technique can help the surgeon make some important decisions during the operation, particularly in **assessing the blood supply to the bowel and the site of the join (anastomosis)**. This may help to reduce some surgical complications linked to poor blood supply or failure of the join.

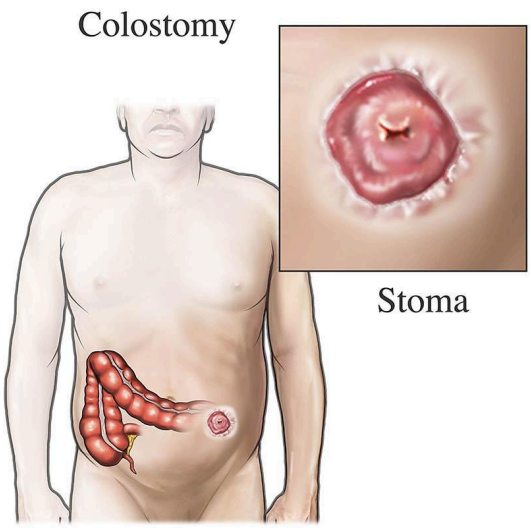
Anastomosis and stoma

After the part of the colon or rectum containing the tumour has been removed, in many cases **the two ends of the bowel are joined together**. This is known as an **intestinal anastomosis**.

In some cases, especially when the join is at higher risk of leaking, a **temporary stoma** may be needed to protect it. This temporarily diverts stool out of the body through an opening in the abdominal wall.

This is done only in selected cases, and patients are told beforehand if it may be needed.

In most cases where a stoma is used for protection, it is **temporary**: the bowel can be reconnected and the stoma closed with a second operation a few months later, when the patient's condition allows.



In rare cases, particularly when the tumour is very low in the rectum, the whole rectum may need to be removed, which may mean a **permanent stoma**.