

## COLORECTAL SURGERY

### Types of colorectal surgery

Most people know that keyhole surgery is the best option when it comes to removing colon or rectal tumours – but it's not the only treatment option available.



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One of the realities that comes with an increasingly affluent society associated with a rich diet is an increasing incidence of colorectal cancer. Fortunately, medical science and technology have advanced and patients no longer have to endure long and painful incisions for removing a tumour in the colon or rectum.

Minimally invasive surgery such as keyhole surgery is one of the ways to combat colon or rectal tumours. However, despite popular belief, keyhole surgery is not the only minimally invasive procedure available. The options fall into two groups:

#### Laparoscopic colorectal surgery

This is where the surgical approach is into the abdominal cavity via small cuts in the abdomen. Most people understand this as keyhole surgery, and there are variations.

Standard laparoscopic colorectal surgery involves using about three to five 5-12mm incisions that give the surgeon and his instruments access to the site to be operated on.

Single site access surgery (also known as single port surgery) entails using a single area (usually at the umbilicus) with a cut of about 3-4cm which is the sole point of access for the procedure. This approach is more technically challenging than standard laparoscopic surgery.

Another advanced form of laparoscopic surgery is robotic surgery, where the surgery is performed using robotic arms which are controlled and manipulated by the surgeon. Robotic surgery offers better visibility, more flexibility, greater precision and greater stability for the operating surgeon.

Whichever technique is used to perform the surgery, however, the diseased portion of the colon would still have to be removed from the body. The size of the portion would thus determine the size of the final incision. This incision to remove part of the colon is usually sited at the umbilicus and normally heals well without complications.

Surgical techniques have advanced to such an extent that it is now possible to remove the diseased part of the colon without necessarily requiring an incision in the abdomen. In some cases, it can even be removed either through the anus or vagina, and this allows patients to have incisions that are no larger than 5-12mm long. This translates into less pain and faster healing.

#### Endoscopic surgery

This is the lesser-known version of minimally invasive colorectal surgery. In endoscopic surgery, the surgeon approaches the diseased portion via a natural lumen, which, in the case of colorectal surgery, means via the anus.

However, not all colorectal conditions are suitable for endoscopic surgery. Its role is currently limited to removing large polyps and possibly, very early cancers. Endoscopic surgery can either be done using a colonoscope or in the case of polyps in the rectum, via a special operating port that



allows the surgeon to use instruments that are similar to those used in laparoscopic surgery. This is also known as transanal minimally invasive surgery (TAMIS). In endoscopic surgery, the polyps can be removed without any incision at all.

Recent advances in the design of instruments mean that the surgeon can now remove whole segments of diseased colon and rectum through TAMIS, though this is still in the realm of investigative trials.

Another form of endoscopic surgery involves the use of colon stents. These are metal stents that open up after they are inserted in the colon. They are usually used to relieve blockage of the intestines from cancerous growths. This makes it possible for the cancerous portion of the colon to be removed. 