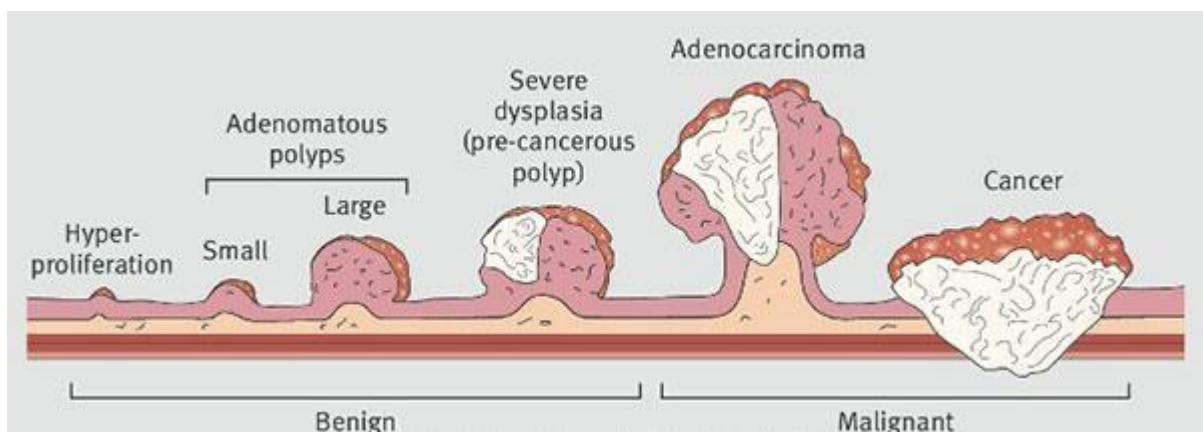


Patient Information

Having a Colonic Endoscopic Resection

Why do polyps need to be removed?

Stomach and bowel cancers develop relatively slowly, starting as pre-malignant lesions (polyps). If detected in time they can be completely removed through the endoscope with little or no chance of recurrence.



Most polyps are small and can be removed simply at the time of the original endoscopy, but resection of complex polyps may require specialised techniques. A polyp might be deemed complex because of its large size, awkward or high-risk shape or position, scarring from previous attempts at polypectomy or tattooing, or its advanced nature (e.g. early cancer).

Will I be uncomfortable?

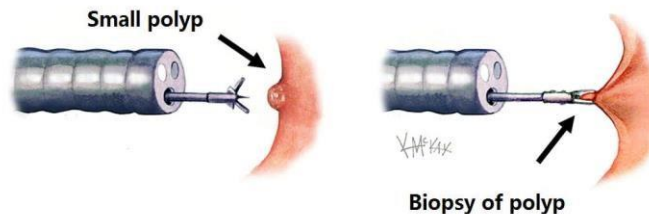
You will not be able to feel the polyp being removed. If it takes a long time to remove a polyp, then the stretch of the bowel wall and gas used to open the bowel can lead to a trapped wind type of discomfort and sickness. Most people elect to have some painkiller and mild sedation. These medications work quickly but don't last long, we often use top ups intermittently to keep you comfortable. Just let us know if you feel you would like some more.

How is it done?

Different techniques suit different patients and different polyps. Often Mr Tonsi can't be sure which method will be your best option before starting the resection and seeing how your polyp behaves. You may well be asked to consent for more than one technique so that she can adapt his plan during the procedure.

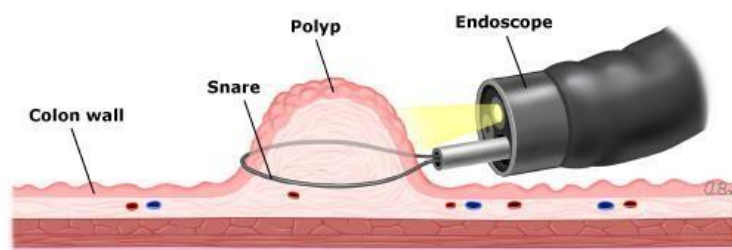
Biopsy

Tiny polyps can be nipped off quickly and simply using a biopsy forcep.



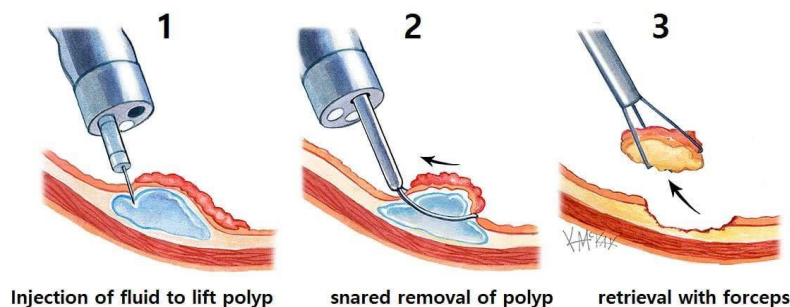
Snare polypectomy

Larger polyps require a snare to be placed over the polyp to cheese wire it through, sometimes using electricity to cut the tissues and cauterise the blood vessels.



EMR (Endoscopic Mucosal Resection)

It is often sensible to inject fluid beneath the polyp to separate it from the deeper layers of the bowel wall. In some situations, this will improve the safety of the resection. In every other aspect an EMR is similar to a snare polypectomy.



uEMR (underwater EMR)

Instead of injecting beneath the polyp to separate it from the outside layers of the bowel wall it can be 'floated' away using water flushed through the endoscope into the lumen of the bowel.

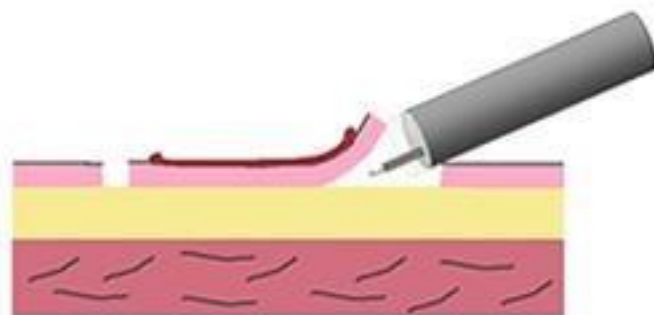
pEMR (piecemeal EMR)

Some polyps are too large to be removed in one piece with a snare but can be removed in several separate pieces.

ESD (Endoscopic Submucosal Dissection)

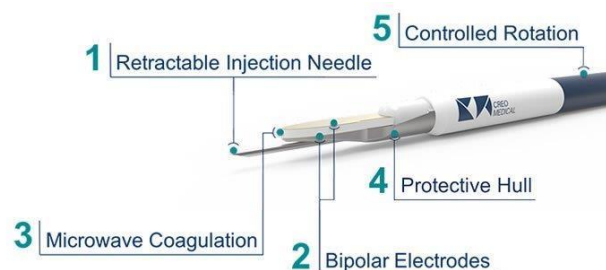
Sometimes it is important to send an optimal specimen to the laboratory, particularly if there is concern there may be advanced areas within the polyp. If this type of polyp is too large to be removed in one piece with a snare it may be better to use a tiny knife through the endoscope to cut around and then dissect beneath the lesion. Sometimes a combination of the snare and the knife is used (hybrid ESD).

This technique is technically challenging. The tissue layer that is dissected is very thin so needs to be cut absolutely precisely, just a fraction of a millimetre at a time. Consequently, resections can take hours.



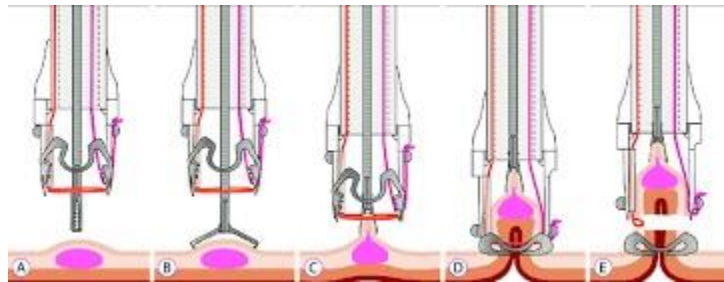
Speedboat

Speedboat is a new adaptation of ESD using microwave energy rather than electricity. It may offer advantages in certain situations.



eFTR (Endoscopic Full Thickness resection)

Usually when we resect polyps, we are careful to leave the outside layers of the bowel wall intact. This technique, however, uses a large strong clip to close the bowel wall together behind the lesion, allowing us to safely remove the whole thickness of the bowel wall for smaller (<2cm) lesions. It can be useful in lesions where disease has spread further than the superficial layers of the bowel wall or where there is so much scar tissue that the layers can't be safely separated. Because the clip goes all the way through the bowel wall it is uncomfortable when it fires. This is usually a pain sensation that lasts less than a second.



Preparing for the procedure

You will receive instructions from the hospital about some mild dietary restrictions and timings of when you should take the bowel prep medication.

Iron tablets

Iron must be stopped at least a week before the procedure, they can make it impossible to see.

Anti-coagulant / blood thinning tablets

You may be given different instructions as part of the standard colonoscopy instructions you will receive but please follow these instead. Some blood thinning drugs need to be stopped for longer before an endoscopic resection than for a diagnostic procedure. Sometimes people require a short acting anti-coagulant to keep them safe while their standard medication is withheld. Please ensure you have discussed this ahead of time with Mr Tonsi or a member of the endoscopy team.

- | | |
|---------------|---|
| • Warfarin | - stop at least 5 days before |
| • Dabigatran | - stop at least 72 hours before |
| • Rivaroxaban | - stop at least 48hours before |
| • Apixaban | - stop at least 48hours before |
| • Edoxaban | - stop at least 48hours before |
| • Clopidogrel | - stop at least 7 days before |
| • Prasugrel | - stop at least 7 days before |
| • Ticagrelor | - stop at least 7 days before |
| • Aspirin | - Just skip the night before and morning of the procedure |

If you are taking any of the above medications, please ensure that you have discussed the optimal time for restarting these after the procedure with Mr Tonsi as the advice will be different in each individual case.

Chaperone

You will need to ensure you have someone who can pick you up from the hospital, take you home and stay with you overnight.

Risks

The risks of all these techniques are fairly similar. After a significant resection it takes about two weeks for the bowel wall to completely heal. During that time, you are at risk of complications. We would suggest you stay in the UK, ideally within reach of the Royal Sussex County Hospital which has a 24-hour emergency endoscopy service and where Mr Tonsi is usually available to offer any treatment or support you might need.

Perforation

This is the most serious consequence of endoscopic resection but fortunately very rare. It means a hole has unintentionally been made all the way through your bowel wall. If this happens during the resection, then clips can usually be applied to the area to seal the hole with no long-term consequences. Sometimes that is not possible though. Bowel contents can then leak out into your abdomen (peritoneal cavity) giving you peritonitis. This can require emergency surgery, sometimes leaving you with a stoma bag.

Delayed perforation

In the two weeks that it takes for the bowel to heal, the thinner part of the bowel wall that has been left in place today can burst. You would usually experience this as a severe, sudden, sharp abdominal pain or fever.

Bleeding

After a resection the blood vessels in the deeper layers of the bowel wall are left more exposed than they would usually be. During the two weeks it takes for the area to heal there is a chance that they can bleed. Often when this happens it is around 7-10 days after the procedure. This is unusual but not rare, particularly with larger lesions. Usually, the best way to stop bleeding is to reinsert the camera and treat the blood vessel with cauterisation or a clip.

Bleeding is usually seen as visible blood mixed into or separate from the stool; anything more than two tablespoons needs medical attention. If the lesion was removed from higher in your colon, then bleeding can show as purple stool, often with an unusual smell. If there is a slow ooze of blood then you may not see it but may develop symptoms of anaemia (a lack of blood in your body) such as headache, dizziness on standing or extreme tiredness.

Any questions?

If you experience symptoms, you are concerned about after the procedure please go to your nearest A&E (ideally the Royal Sussex County Hospital). It would be helpful to take a copy of this leaflet and your endoscopy report.

If you are less acutely concerned but would like to talk through your symptoms or if you have questions before the procedure, please contact Mr Tonsi's PA, on the phone number or email address above. Mr Tonsi will call you back as soon as possible.