

Having an endoscopic mucosal resection of a large bowel polyp

What is a large bowel polyp?

A polyp is a wart-like growth on the lining of the bowel. Most polyps are harmless and cause no symptoms. However, in some cases they can cause bleeding from the back passage or a change in bowel habit.

Most polyps are harmless but larger polyps have a small chance of containing cancer cells and if they are left to grow, they can turn into cancer.

Most polyps can be removed during camera-based endoscopy procedures such as a **colonoscopy** or **flexible sigmoidoscopy**. By removing the polyps, the risk of developing bowel cancer is significantly reduced.

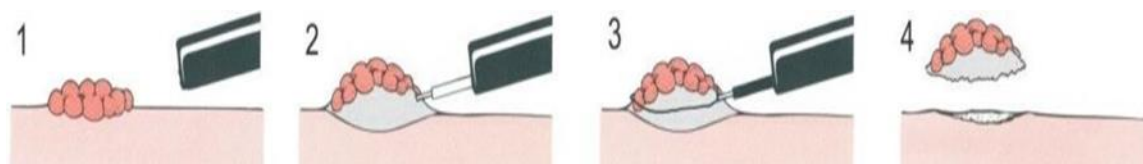
Large polyps (2cm or bigger) can be more difficult to remove, but many can still be safely removed as part of your endoscopy. However, occasionally it is not possible to remove some polyps this way and a surgical operation may be needed.

What is an endoscopic mucosal resection of a polyp?

Endoscopic mucosal resection (EMR) simply defines a specialist technique used to remove larger or flatter polyps from the bowel wall. An EMR is undertaken at either colonoscopy or flexible sigmoidoscopy under sedation, or with the patient awake.

How is an EMR performed?

1. The polyp is located using the colonoscope and assessed for removal by EMR.
2. A needle is passed through the scope and inserted under the base of the polyp. Fluid is injected under the polyp to lift it away from the bowel wall muscle layers, making it easier and safer to remove.
3. A wire snare (lasso) is used to remove the polyp. The lasso is pulled tight and an electric current is usually passed through the snare which cuts the polyp off and cauterises any blood vessels. You will not feel this. If the polyp is very large, it may be removed in several pieces in the same way.
4. Once the polyp has been removed, it is retrieved so that it can be sent to the pathology lab for further analysis.



The procedure is usually painless, although you may feel bloating or mild discomfort from the gas used to inflate the bowel.

Following removal of the polyp, a further procedure is generally carried out in two to six months to ensure the site is healing and confirm complete removal. If the polyp was completely removed and no cancer is detected, then further colonoscopies are undertaken at intervals over the subsequent few years as part of a surveillance program.

What are the potential risks and side effects to an EMR procedure?

These procedures have a greater risk compared to removing smaller polyps or lesions. The level of risk depends on the size of the polyp and where it is.

- **Perforation** – estimated to occur in around 1 in 200 procedures. It is possible to damage the lining of the large bowel and make a hole, this can allow the contents of the bowel to escape causing severe inflammation and infection in the abdomen (peritonitis). Most perforations are recognised during the procedure and be managed with endoscopic clips, but they can also occur up to 14 days later. If a perforation occurs this will require a stay in hospital, treatment can be with a course of antibiotics and close observation. Very rarely treatment will require emergency surgery that can result in a colostomy being formed. A colostomy is a way to bring the large bowel onto the surface of the tummy (abdomen). Body waste will pass out through the colostomy (stoma) into a bag adhered onto the skin over the stoma. A colostomy would be reversible in most cases.
- **Bleeding** – heavy bleeding occurs in around 1 in 50 procedures. Bleeding can occur immediately or up to 14 days later. It often stops on its own but may require endoscopic treatment, transfusion, or rarely surgery.
- **Pain** – occurs in around 1 in 20 procedures. Mild discomfort is common for 1-2 days following an EMR. Severe pain may need hospital admission for observation and stronger pain relief. Avoid ibuprofen or aspirin unless specifically advised, as they may increase the risk of bleeding.
- **Adverse effects of medications**- Although the dose of sedative used is small, some patients can become over-sedated. This can result in slowing of the breathing, and may require reversal with medication. On rare occasions, patients may have an allergic to the medication used, should this occur the endoscopist would give medication to manage this reaction.
- **Success rates** - Most large polyps are successfully removed with EMR. If the polyp appears cancerous, surgery may be recommended. Occasionally, EMR is technically difficult or incomplete, and surgery or referral to a specialist centre may be needed.
- **Recurrence** - Up to 20% of polyps may recur within one year. Even when all the parts of the polyp seem to have been removed, the polyp can grow back, which is called recurrence. Routine endoscopy check-ups will be arranged known as surveillance; most recurrence can be treated endoscopically during surveillance procedures. In 2-5% of cases, surgery may be required for persistent or complex recurrence.

Before the procedure, your endoscopist or nurse will discuss the EMR in detail and answer any questions. Please ensure you understand the procedure, its benefits, and the risks before signing the consent form.

What are the alternatives to EMR?

Firstly, you can leave the polyp and do nothing, however this is not usually advisable as large polyps have a higher risk of becoming cancerous. In some circumstances, the risks of removal may outweigh the benefits, and your doctor will discuss these with you.

Secondly, the polyp could be removed by having an operation on the bowel. This is usually a straightforward procedure, where part of the bowel will usually be removed. Even if the operation is done by key-hole surgery, you will still be in hospital for a few days. Rarely surgery can result in a colostomy, although this may only be temporary.

Surgery carries the risks of general anaesthetic and surgical complications such as infection. These risks may be considerably higher if you have other medical conditions. Where possible, EMR is considered the safest way to remove this type of polyp.

What should I do before I come into hospital?

For the EMR to be successful, your bowel needs to be cleared of waste material. We advise you to avoid eating food with seeds for seven days before your procedure and commence a low fibre diet from five days before your procedure. **If you are taking iron tablets, you should stop taking them seven days before your procedure.**

Your endoscopist will decide the most suitable bowel preparation for you, either an enema or oral bowel preparation. An enema can be self-administered at home.

If you have been given oral bowel preparation to take, please remember that it is a strong laxative, and follow the instructions provided, particularly those relating to your diet and fluid intake. If you have any queries regarding your bowel preparation, please contact the endoscopy unit. You can further help to empty your bowel by increasing your intake of clear fluids (black tea or coffee, clear soup and water, etc.) The bowel preparation will give you loose bowel movements and you will need to go to the toilet frequently, so please plan your day accordingly.

If you are diabetic, or you are taking any blood thinning medication such as warfarin or clopidogrel, we will discuss your medication management with you prior to your procedure. Please contact our pre-assessment team in our endoscopy units for further advice as you may have to stop these drugs prior to your procedure.

- Conquest Hospital endoscopy unit: 0300 131 5297
- Eastbourne DGH endoscopy unit: 0300 131 4595
- Email esht.endoscopypreassessment@nhs.net

Opening hours: Monday to Friday, 8am-6pm (except bank holidays)

On the day of your procedure, you may take your usual medication or bring it with you and take it after the test if required, although we would advise medication for blood pressure is taken as usual.

What do I need to bring with me?

Please wear loose comfortable clothing and bring the following with you:

- A list of all your medications and allergies.
- Reading glasses.
- Dressing gown and slippers for your use, if you choose
- Do not bring any valuables with you, as we cannot take responsibility for any losses.

Will I need conscious sedation?

Removing larger polyps can make your procedure longer than a diagnostic procedure and for most individuals conscious sedation would be advised. Should you choose conscious sedation injection you must be aware it is not like having a general anaesthetic. It will make you feel relaxed and drowsy; you will be able to hear and understand what is being said to you. The sedative is given through a cannula in your arm.

Alternatively, you can have Entonox (gas and air). Entonox is self-administered; you will be asked to breathe normally using a mouthpiece. You will start to feel light-headed as you breathe the gas. When you stop breathing the Entonox you will feel normal again quickly.

What will happen when I arrive for my procedure?

Please remember that your appointment time is not the time you will have your procedure. There will be a waiting time between your admission and having your procedure, as well as a recovery period afterwards. The EMR procedure can take longer than a standard colonoscopy; the extra time will vary depending on the size and position of the polyp, your procedure could take over an hour. Expect to be at the hospital for two and half to three hours.

A nurse will review your medical conditions, medications and any allergies. Your blood pressure, pulse and oxygen saturations will be taken. The nurse will explain the procedure, discuss your preference for conscious sedation and will give you the opportunity to ask questions. The risks of the procedure will be discussed and if you wish to proceed you will then be asked to sign a consent form. This is to confirm that you understand the procedure and want to go ahead with it.

A small plastic tube (cannula) will be inserted into a vein in your arm so that you can be given conscious sedation and any other medication required. You will also be asked to put on dignity shorts and a hospital gown if you require. A nurse will collect you from the pre-procedure waiting room and take you through to the procedure room for your procedure.

What happens during the EMR?

You will be asked to lie on your left side with your knees bent, you may be asked to change your position during the procedure. The nurses will observe you closely, monitoring your pulse, oxygen saturations and blood pressure. Oxygen is given via a mask or nasally.

Before the procedure starts, you will be given your conscious sedative injection and a painkiller through the cannula in your arm. This will make you drowsy and relaxed.

The colonoscope is carefully passed through the rectum into the large bowel. Air will gently pass into your bowel via the colonoscope, to inflate the loops of the bowel to enable the endoscopist to see and move forward. This can make you feel uncomfortable, giving you a bloated feeling.

The specialist endoscopist will first find the polyp which has previously been detected in your colon. They will then assess the best way to remove the polyp and if possible, will proceed with the polyp removal. Removal of polyps is painless, although there can be discomfort from the gas that is used to inflate the bowel and the position of the endoscope, as good views of the polyp are needed for removal.

What happens after the procedure?

Once your procedure is complete you will be transferred to the recovery area where you will be monitored for at least one hour. When you are ready to go home, we will discuss the results of your procedure in a private room. If you wish to have a family member/friend present, please inform the nurse.

A further colonoscopy or sigmoidoscopy will be required between two and six months after the EMR, to check the entire polyp has gone and the scar has healed. Occasionally, more treatment is required.

How will I feel afterwards?

You may feel tired following your procedure and may experience some bloating for a few hours after the procedure.

What can I expect following conscious sedation?

The effects of sedation can last up to 24 hours, a responsible adult (aged 18+) is needed to collect you from the endoscopy unit and stay with you for at least 12 hours.

- Do not drive a car/motorbike, operate machinery (including using your cooker)
- Do not drink alcohol,
- Do not look after young children alone
- Do not take sleeping tablets
- Do not sign a legal document within 24 hours of having a sedative.

We advise you to go home and rest. You can eat a light diet, drink as normal and take your usual medication.

What can I expect following Entonox?

If you have Entonox, you do not need an escort to take you home. You can drive a car/motorbike 30 minutes after your procedure. We advise you to go home and rest. You can eat a light diet and drink as normal and take your usual medication.

What to watch out for following the procedure

The following symptoms require consultation with a doctor immediately:

- Severe abdominal pain
- Persistent or heavy rectal bleeding
- Abdominal distension
- Fever, chills or vomiting

For further queries, please contact your endoscopy unit.

When can I return to work?

You should be able to resume normal activities 24 hours after the EMR or sooner if you did not have the sedation.

When can I travel abroad?

Due to the risk of delayed complications or problems happening for up to 14 days after an EMR, patients are advised to avoid travel abroad, especially air travel, for two weeks.

Consent

Although you consent for this treatment, you may at any time after that withdraw such consent. Please discuss this with your medical team.

Sources of information

British Society of Gastroenterology/Association of Coloproctologists of Great Britain and Ireland guidelines for the management of large non-pedunculated colorectal polyps. Rutter MD, Chattree A, Barbour JA, et al

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team – Tel: 0300 131 4731 or by email at: esh-tr.patientexperience@nhs.net

Hand hygiene

We are committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of our leaflets in alternative formats, such as large print or alternative languages, please contact 0300 131 4500 or esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

Reference

The following have been consulted and agreed this patient information:

Consultant: Mrs A. Morris, Clinical Lead Endoscopy and Dr A. Jeevagan, Clinical Lead Gastroenterology, Dr N. Rahman Consultant Gastroenterologist

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Responsible clinician/author: T Holmes-Ling

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