

Endoscopic Mucosal Resection (EMR): Patient Information

What is endoscopic mucosal resection (EMR)?

Endoscopic mucosal resection (EMR) is a minimally invasive procedure that removes a lesion primarily larger polyps from the gastrointestinal tract. In the past such larger lesions used to be removed with surgery but now most lesions can be removed with endoscopy which allows minimal anesthesia, no need for hospital admission and most importantly no scar.

Why is EMR performed?

EMR is now considered as the gold standard for larger non malignant polyps/lesions (>20mm). EMR is increasingly used primarily for colonic polyps but also in gastric as well esophageal lesions which would otherwise require surgery. EMR is considered a cure for early colonic, small esophageal and gastric cancer or precancerous lesions, as long as the cancer has not spread through the lymph nodes to other parts of the body. Larger lesions may require other more advanced procedures like endoscopic submucosal dissection. Patients who have successful EMR have a low recurrence (return) rate (the cancer rarely comes back).

How do I prepare for EMR?

It will depend on the location of EMR. If EMR is being performed for a large polyp in the colon then bowel preparation will be required. Your provider may ask for "extended" bowel preparation to ensure excellent views of colonic mucosa. (See Colonoscopy Bowel preparation instructions)

If EMR is being performed in the stomach or oesophagus then you will be asked not to eat or drink anything for six to eight hours before the test. It is important for the stomach to be empty to allow the endoscopist to visualize the entire area, and to decrease the chance of vomiting during the procedure.

You may be instructed to adjust the dose of your medications or stop taking specific medications prior to the examination. All medications and dietary supplements should be discussed with your gastroenterologist, since some are more important than others. If you are taking a blood-thinning medication, your gastroenterologist will determine how and when you should stop taking this prior to the procedure. If you are diabetic, adjustments will be made to your medication (tablets or insulin).

How is endoscopic mucosal resection (EMR) performed?

The EMR procedure is performed with an endoscope—a long, thin, flexible instrument just about a centimeter in diameter. The endoscope is passed either through the patient's mouth or anus (depending on the site of EMR). Through the endoscope, instruments are used to lift the lesion in the lumen (the hollow space) of the gastrointestinal tract, with techniques like injecting fluid underneath the lesion (into submucosal layer). This technique ensures a safe removal of lesion with minimal chance of making a hole in the bowel. Afterwards, the lesion is cut out using a snare. Most large polyps will be removed using hot

snare (a low velocity electrocautery) and in most occasions small metal clips will be applied to close the defect after resection. Your gastroenterologist will remove the tumor through the endoscope and send it to the laboratory to be looked under the microscope.

NB: In cases where the tumor has reached deeper layers, our gastroenterologists may instead recommend surgery.

What happens after EMR?

Following the procedure you will remain in the recovery area for an hour or two until the sedation medication wears off. You will usually be given something light to eat and drink once you are awake. When you wake up you may feel a little bloated. This is due to the air that was inserted during the procedure, and will pass over the next hour or so.

Your doctor will briefly inform you of your test results on the day of the procedure. A follow-up appointment may be made to discuss the test results more fully. The results of any biopsies or samples taken will take a few days. Most patients return home the same day. Because there is no incision, you may recover faster, and with less pain, than from open or laparoscopic surgery. Rarely admission may be required to observe you for pain and bleeding for 24 hours.

Because of the sedation given during the procedure, it is very important that you do not drive a car, travel on public transport alone, operate machinery, sign legal documents or drink alcohol on the same day after the test. It is compulsory that a friend or relative take you home and stay with you.

Are there any risks or side-effects?

EMR is generally performed by the gastroenterologists who are expert in it which reduces the chances of complications. Where risk of complication is slightly higher than standard diagnostic endoscopy and colonoscopy it is still considered a safe procedure. The chance of complications depends on the exact type of procedure that is being performed and other factors including your general health. Most dreadful complications are bleeding and perforation of bowel which may require repeat procedure or even surgery.

Risks are also variable based on type of procedure so please refer to [Gastroscopy: Patient Information](#) or [Colonoscopy: Patient information](#)

If you have any further concerns please contact the hospital or your doctor's rooms using the contact details as above.