

# Endoscopic Submucosal Dissection (ESD) for Colorectal Growths

## Information for patients

This leaflet can be made available in other formats including **large print**, CD and Braille and in languages other than English, upon request.



This leaflet will explain what Endoscopic Submucosal Dissection (ESD) is and when it is required. ESD involves removing dangerous growths (polyps) from the wall of your bowel, using an endoscope and an electrically heated knife.

Such growths in the bowel may be cancerous, potentially cancerous or harmless (benign).

Treatment usually involves removal of the growth, together with a small area of tissue around the growth.

This procedure is used for large growths that are difficult or impossible to remove using other techniques.

The procedure follows advice from the National Institute for Health and Care Excellence (NICE), making the procedure as safe and efficient as possible.

## **What does the procedure involve?**

- You will be under general anaesthetic or conscious but sedated.
- An endoscope (long camera) will be used to view your bowel wall
- Fluid will be injected under the growth, separating it from the main body of your bowel.
- A special electrically heated knife will be inserted to remove the growth, ideally in one piece.

The aim of this procedure is to avoid you having to have surgery. Removal of the growth in one piece allows us to examine it in detail under a microscope.

## **What care will I need after the procedure?**

ESD is planned as a one-day procedure. This means that if all goes well and depending on the time of your appointment, you may go home after the anaesthetic or sedation has worn off.

You will be asked to look for symptoms such as blood in your stools (poo) and any fever or pain for 2-3 weeks after the procedure. If you do get these symptoms, you should return to hospital for examination.

## **How will I feel after the procedure?**

Due to the sedatives or anaesthetic drugs you have been given, you may feel sleepy for a few hours following the procedure.

For a few days after the procedure, you may experience:

- mild discomfort (soreness)
- mucus discharge from your bottom
- minor bleeding
- changes to your bowel habits (constipation / diarrhoea)

This is a normal part of your healing process and may vary depending on the area the growth was in.

## **What if something goes wrong?**

If you experience any of the symptoms described (blood, fever, severe pain), we may need to keep you in hospital as an inpatient.

This usually involves close observation of your vital signs, sometimes a repeat camera examination (e.g. to stop bleeding) and occasionally open surgery to repair your bowel in case of a puncture (“perforation”).

## How well does the procedure work?

Clinical specialists have commented on the **success factors** of removing the growth in one piece with clear margin. This avoids the need to remove sections of the bowel itself.

Research shows that ESD achieves single piece resection in 8-9 out of 10 of cases, with clear margins (“cure”) achieved in approximately 7 out of 10 cases<sup>1</sup>.

## What are the risks and potential complications involved?

The ESD procedure may cause:

- bleeding
- a puncture in the bowel (which may need open surgery to fix)
- a cancerous lesion to spread (potentially becoming incurable)

There is a chance that due to complications, the growth may not be able to be removed in one piece.

There is also a chance that regrowth (recurrence) may occur months after the procedure.

Research suggests both perforation and serious bleeding rates are not common following the ESD procedure.

ESD cases requiring emergency surgery are uncommon. Extra surgery may be needed after ESD, if analysis under the microscope suggests deep cancerous invasion of the bowel wall<sup>1, 2</sup>.

Regrowth (“recurrence”) of polyps removed using ESD in the following 12 months is also rare<sup>1, 3</sup>.

## **Are there alternative procedures to ESD?**

Yes; the main alternative procedures include:

### **Endoscopic Mucosal Resection or EMR**

This procedure often removes growths in more than one piece, making it difficult to analyse under a microscope. Follow up checks are often needed to ensure regrowth doesn't occur. Procedure-related complications are low.

### **Transanal Endoscopic Surgery**

This procedure requires general anaesthesia and is performed through the anus. It can only be used for growths in the rectum. Research shows it is similar to ESD in terms of safety and efficiency, but leads to a longer hospital stay<sup>5,6</sup>.

Other options include open surgery (cutting of the skin and tissues) and keyhole surgery (Laparoscopic) which is minimally invasive and uses small incisions.

## **What does this information mean for me?**

Your doctor will explain the procedure in full detail as well as the risks and benefits involved. You will be given the opportunity to ask any further questions.

## References

1. Thorlacius H, Ronnow CF, Toth E. European experience of colorectal endoscopic submucosal dissection: a systematic review of clinical efficacy and safety. *Acta Oncol* 2019;58:S10-s14.
2. NICE. Removing abnormal tissue from the lower bowel wall using an endoscope and an electrically heated knife. National Institute for Clinical Excellence 2010.
3. Patel N, Patel K, Ashrafian H, et al. Colorectal endoscopic submucosal dissection: Systematic review of mid-term clinical outcomes. *Dig Endosc* 2016;28:405-416.
4. De Ceglie A, Hassan C, Mangiavillano B, et al. Endoscopic mucosal resection and endoscopic submucosal dissection for colorectal lesions: A systematic review. *Crit Rev Oncol Hematol* 2016;104:138-55.
5. Sagae VMT, Ribeiro IB. Endoscopic submucosal dissection versus transanal endoscopic surgery for the treatment of early rectal tumor: a systematic review and meta-analysis. 2019.
6. McCarty TR, Bazarbashi AN, Hathorn KE, et al. Endoscopic submucosal dissection (ESD) versus transanal endoscopic microsurgery (TEM) for treatment of rectal tumors: a comparative systematic review and meta-analysis. 2019

Further information is also available from the National Institute of Health and Care Excellence website:

**<https://www.nice.org.uk/guidance/IPG335>**

This leaflet has been produced in partnership with patients and carers. All patient leaflets are regularly reviewed, and any suggestions you have as to how it may be improved are extremely valuable. Please write to the Clinical Governance Team, North Tees and Hartlepool NHS Foundation Trust, University Hospital of North Tees or Email: [nth-tr.leaflets@nhs.net](mailto:nth-tr.leaflets@nhs.net)

## **Comments, Concerns, Compliments or Complaints**

We are continually trying to improve the services we provide.

We want to know what we're doing well or if there's anything which we can improve, that's why the Patient Experience Team is here to help.

Our Patient Experience Team is here to try to resolve your concerns as quickly as possible. If you would like to contact or request a copy of our PET leaflet, please contact:

Telephone: 01642 624719

Monday – Friday, 9.30am – 4.00pm

Messages can be left on the answering machine and will be picked up throughout the day.

Freephone: 0800 092 0084

Email: [nth-tr.PatientExperience@nhs.net](mailto:nth-tr.PatientExperience@nhs.net)

Out of hours if you wish to speak to a senior member of Trust staff, please contact the hospital switchboard who will bleep the appropriate person.

Telephone: 01642 617617

24 hours a day, 7 days a week

The Patient Experience Team is available to discuss your concerns in person Monday – Friday, 9.30am – 4.00pm. The office is based on the ground floor at the University Hospital of North Tees.

## **Data Protection and use of patient information**

The Trust has developed a Data Protection, Caldicott and Disclosure Policy (IG5) in accordance with the Data Protection Legislation (General Data Protection Regulations and Data Protection Act 2018) and the Freedom of Information Act 2000. All of our staff respect this policy and confidentiality is adhered to at all times. If you require further information please contact the Information Governance Team.

Telephone: 01642 383551 or Email: [nth-tr.infogov@nhs.net](mailto:nth-tr.infogov@nhs.net)

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