TESTS AND INVESTIGATIONS

We know that getting a diagnosis or managing your Crohn's or Colitis can sometimes feel overwhelming. Whether you need tests to find out why you're unwell, check your health or find the best treatment for you, we're here to help.

Our information is for anyone who wants to find out more about the tests and investigations they might be offered. It looks at:

- What each test is for
- How your test is carried out
- When and how to prepare for a test

This information might use words you have not heard before. Our page on **medical words** can help you understand what these words mean.

In this information, where we refer to 'Colitis', we usually mean Ulcerative Colitis. If we use the term 'Microscopic Colitis', we are referring to that specific condition.

Contents

KEY FACTS ABOUT TESTS AND INVESTIGATIONS

- To find out if you have Crohn's or Colitis, you may have different tests and investigations. These tests help your doctors check your health, understand your symptoms and find the best treatment for you.
- Not everyone is diagnosed with Crohn's or Colitis in the same way. The tests you have can vary from person to person.
- Blood tests may check for inflammation, signs of infection, or low iron levels. They can also show if you are getting enough nutrients and vitamins.
- Some blood tests are used to monitor the levels of some medicines. This helps to make sure you're getting the correct dose.
- Tests on your poo can check for infections, signs of blood and the level of inflammation in your gut.
- When you get your blood test results, you might find they are compared to a reference range. This is a range of numbers to help you and your healthcare professional understand what a healthy result should be. Different hospitals may use different reference ranges.
- Your doctor may look inside your body using an endoscope. This is a long, thin tube with a small camera at the tip. It helps the doctor look at the lining of your gut and take photos. It can also take tiny pieces of your gut to check for inflammation.

- Ultrasound, CT scans and MRI scans help doctors see how much inflammation you have and where it is in your body.
- How often you need to have tests may be affected by how severe your Crohn's or Colitis is and the medicines you take.

WHICH TESTS WILL I NEED?

There are many tests listed in this information. You may only need some of them. You are unlikely to have all your tests at once.

For many people with Crohn's and Colitis, their symptoms may come and go. It is likely that you will need to have some of the tests repeated from time to time.

Some blood tests are used to monitor the levels of medicines. This helps to make sure you're getting the correct dose.

> "The results from the tests I've had, have helped to keep me informed about how I am physically, which has really given me a feeling of being in control of my condition."
>
> **BEV**
> **LIVING WITH ULCERATIVE COLITIS**

You may also have other tests that are not listed in our information. Symptoms of Crohn's or Colitis can be similar to other bowel conditions. Other tests may be done to rule out other conditions. You can find out more about getting a diagnosis for gut problems at **WhatsUpWithMyGut**.

Talk to your doctor or IBD team for more detailed information about the tests. They will be happy to help with any queries or concerns. You may also find that your hospital or clinic has its own information on specific tests and investigations.

Getting to your appointments

Sometimes it can be difficult to get to your appointments, especially if you're feeling unwell. Having to travel or use public transport when trying to manage diarrhoea, stomach pain or fatigue can be stressful. But your tests are important, and they may help you get the treatment you need.

If you're feeling unwell, contact the team who are carrying out your test to let them know. Allow plenty of time to get to an appointment, especially if your symptoms are unpredictable. This can help you plan for plenty of rest and toilet stops. You can find out more information in our **appointments guide**.

GETTING A DIAGNOSIS

If you think you might have Crohn's or Colitis, the first thing to do is talk to your GP and read our information on **how to get a diagnosis**. Do not be afraid to ask your GP if they think it could be Crohn's or Colitis. It could help to mention the **WhatsUpWithMyGut** website. This website has guidance for GPs about the tests they should think about.

There is no one test to diagnose Crohn's or Colitis. Your GP will consider all of your symptoms, together with your blood and poo test results. To confirm a diagnosis, your GP may send you to have endoscopies, scans or X-rays.

Your GP will need to rule out other conditions, such as irritable bowel syndrome (IBS), cancer, coeliac disease, or bowel infections. You may need to see different specialists, including gastroenterologists and radiologists. It can take time to confirm a diagnosis of Crohn's or Colitis.

Getting a diagnosis may sometimes feel overwhelming. You may feel a mixture of emotions. You might feel frustrated at having to go to lots of different appointments. If you are diagnosed with Crohn's or Colitis, you may feel relief that you have finally put a name to your symptoms and can start to manage them. Read our information on **support for newly diagnosed people**.

Our appointment guide can help you get the most out of your appointments. It can help you think about what matters most to you about your treatment and care. It can help you think about:

- What you should ask
- What your doctor or nurse will want to know
- How you can make sure you're being listened to
- What you can do if you're unhappy with the care you have received

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BLOOD TESTS

Why are these tests done?

Several blood tests are used to help diagnose Crohn's or Colitis. The doctor will check samples of your blood for different 'markers'. These are possible signs of Crohn's or Colitis, or other health problems. They can also use these tests to check the level of certain cells, proteins, iron, vitamins and minerals in your body. These tests can also help your doctor:

- Monitor your health
- Check whether you're getting the right amount of medicine
- Check for signs of any side effects of medicines

During a blood test

You can visit the NHS website to read more about **what happens during a blood test.**

If you're worried about needles or seeing blood, let the doctor or nurse know. They can make sure you are as comfortable as possible and answer any questions you have. You can read some hints and tips on managing a fear of needles on the NHS's **Keeping Well website**.

For some specialised tests, you may be asked not to eat overnight or for a few hours before the sample is taken. You may hear this called 'fasting'. Your doctor or nurse will let you know if you need to do this. Your doctor may ask for these tests to be repeated over time.

Getting your blood test results

After your blood sample has been checked or tested at a laboratory, your blood test results are usually sent back to your GP or hospital. Blood test results can take different times to come back. Some results will be ready the same day or the day after your blood test. And other results may take a couple of days or a few weeks to come back. When you have your test, you will be told roughly how long your results will take to come back and how you will be given them.

Your results could be:

- Sent to you in a letter.
- Discussed with you in person.
- Given over the phone or in a video call.
- Available to view on the NHS app or on your GP's online system. For this, you will need to be signed up and linked to your GP.

What is a reference range?

When you are given your blood test results, you might find they are compared to a reference range. Reference ranges are based on the typical 'healthy' test results of a large group of people.

We do not include the reference ranges for blood tests in our information. Reference ranges can depend on several factors, including the laboratory where the test was done, and sometimes your age and sex.

Understanding your results

Blood test results can be difficult to understand, especially if there are many different results on one report, such as with a full blood count (FBC).

Lab Tests Online have some information on **reading your test results,** including examples and the meanings of some of the words you might find in your results report.

Ask your GP or healthcare professional if you are unsure what your results mean.

TYPES OF BLOOD TESTS

The blood tests used most often are:

Full blood count (FBC)

Full blood counts (FBCs) are used to check your general health and look for problems, such as infections, anaemia and inflammation. Doctors talk about a 'range' of results as some people naturally have higher or lower levels than others.

An FBC looks for:

- White blood cells. The number of white blood cells can be higher when there is inflammation or infection in the body. Or they may be lowered by some medicines, such as azathioprine.
- Platelets. High levels of platelets can be a sign of inflammation.
- Red blood cells. Your doctor will see if the number of red blood cells you have is within a healthy range. The results can be used to diagnose conditions such as anaemia.

If you're anaemic, you have fewer red blood cells than other people. The test to measure this is called a haemoglobin level. Haemoglobin is a protein found in red blood cells that carries oxygen around the body. You may need to have an FBC test to check for anaemia every three to 12 months. This depends on whether your

Crohn's or Colitis is active or in remission. You can find out more about anaemia in our information about **fatigue**.

Some medicines used to treat Crohn's and Colitis can affect your bone marrow. Your bone marrow makes blood cells. If you take these medicines, your doctor may ask you to have a regular FBC to check your levels of blood cells.

C-reactive protein (CRP) test, or inflammatory marker tests

A CRP test is a blood test that measures the levels of C-Reactive Protein (CRP). CRP is a protein made by the liver and can be found in the blood. CRP is known as an inflammatory marker.

The level of CRP in your blood increases when there's inflammation in your body. If you have a higher level of CRP in your blood than usual, it could be a sign that you're in a flare-up. It may also mean your treatment has not worked as well as hoped. If the CRP level in your blood drops, it could be a sign that inflammation is getting better, and your treatment is working.

You may show a higher level of CRP if you have inflammation somewhere else in your body. Also, you may have inflammation in your body but show a healthy level of CRP in your blood.

Liver function tests (LFT)

An LFT is a blood test that shows how well your liver is working. It can also help diagnose rare liver complications of Crohn's or Colitis, such as primary sclerosing cholangitis (PSC). PSC is a condition that causes inflammation in the tubes that carry bile from the liver to the gut.

An LFT measures the levels of enzymes. These are proteins that speed up chemical reactions in the body. The enzymes measured by LFTs are made in your liver. These enzymes can leak into your blood when the liver is damaged.

An LFT also measures levels of albumin. Albumin is a protein made by the liver that helps keep blood flowing through your bloodstream. A low albumin level can be a sign of a problem with your liver. It can also be a sign of inflammation in other parts of the body, such as the gut.

Some medicines used to treat Crohn's and Colitis can cause liver problems. Your doctor may ask you to have regular LFTs to check that your liver is working properly.

Urea and electrolytes ('U & E')

Your doctor may do a blood test to check the levels of:

- Electrolytes. These are salts, such as sodium, potassium, chloride and bicarbonate, which have dissolved in your blood.
- Urea. This is a waste product that comes from the breakdown of protein from the foods you eat.
- Creatinine. This is a waste product that comes from your muscles.

This test may be called 'U and E' or written as 'U & E', short for urea and electrolytes.

The amounts of electrolytes, urea and creatinine in the blood show how well your kidneys work. The tests can also check for dehydration. This is a common side effect of having frequent diarrhoea. Regular 'U & E' tests are often recommended if you take some medicines to treat your Crohn's or Colitis, especially mesalazine.

Ferritin and transferrin tests

Levels of ferritin, and sometimes transferrin, in your blood are measured to diagnose iron deficiency anaemia. This blood test is usually done with a Full Blood Count.

Ferritin is the protein that stores iron in your body.

Transferrin is the protein that moves iron around the body. It carries iron away from the gut for storage and to the bone marrow to make red blood cells.

Levels of ferritin and transferrin can show the total amount of iron stored in your body. Your doctor can use the ferritin and transferrin tests to tell if anaemia is caused by iron deficiency or another cause, such as a long-term condition.

People with Crohn's or Colitis may have an iron deficiency due to:

- Leakage of blood from an inflamed gut
- The upper gut not absorbing iron from digested food, due to inflammation
- Eating less food that contains iron

Vitamin B12 and folic acid

Vitamin B12 is also known as cobalamin. Vitamin B9 is commonly called folic acid. Both of these are important for your health. They are vitamins that cannot be made in your body, so you need to get them from the food you eat.

Vitamin B12 and folic acid are used to make red blood cells. Both vitamin B12 and folic acid are absorbed into the body in the small bowel, also known as the small intestine. Some people may have trouble absorbing vitamin B12 from their food. This includes:

- People who have had the last part of the small bowel removed, known as the ileum
- People who have inflammation in the small bowel

This means that many people with Crohn's, and some with Colitis, may have a vitamin B12 or folic acid deficiency.

When having a vitamin B12 and folic acid test, your doctor will ask about any medicines you are taking.

Vitamin D

Vitamin D helps your body absorb calcium and phosphate. These keep your bones, teeth and muscles healthy.

When you have direct sunlight on your skin, your body makes vitamin D. This usually happens in the warmer months, between April and September.

Vitamin D deficiency is common during the autumn and winter months. In general, the government recommend that everyone take vitamin D supplements during this time.

Foods that are high in vitamin D include:

- Oily fish
- Red meat
- Egg yolks
- Fortified foods, such as fat spreads or cereals
- Liver

People with Crohn's or Colitis may have low levels of vitamin D due to:

- Not getting enough from sunlight and food. You may avoid eating certain foods that contain vitamin D to help manage symptoms. For some medicines, you may need to avoid sunlight. This is because these medicines increase the skin's sensitivity to sunlight and the risk of developing some forms of skin cancer. Find out more in our information on **immunosuppressant precautions**.
- Absorbing less vitamin D due to inflammation or surgery. Vitamin D is absorbed in the small bowel. If you have extensive Crohn's Disease that affects the small bowel or have had parts of your small bowel removed, your body may not be able to absorb vitamin D properly.

People who do not have enough vitamin D can develop soft bones. This is known as osteomalacia. In children, osteomalacia is known as rickets.

Blood tests are used to check for low levels of vitamin D. If you take vitamin D supplements, your doctor may do regular tests to check that you're taking the right dose. There are no guidelines for when to measure vitamin D. Some experts believe it should be checked once every year in everyone with Crohn's or Colitis.

Screening tests

Before you start taking an immunosuppressant medicine, your doctor will run tests to check for any current infections. These may include:

- Tuberculosis (TB)
- Hepatitis B virus
- Hepatitis C virus
- Human immunodeficiency virus (HIV)

If you have not had chickenpox or shingles, or had the varicella vaccine before, you should also be screened for varicella zoster virus. If you are found to have no immunity to chickenpox, you may be offered the **chickenpox** or **shingles** vaccine before you start treatment.

If you have one of these infections, it might need to be treated before starting immunosuppressants. Screening tests are important because immunosuppressants affect how well your immune system works. This means you may become more unwell from infections once you start the medicine.

Thiopurine methyltransferase (TPMT)

Before starting treatment with azathioprine or mercaptopurine, you will have a blood test to check the level of TPMT in your blood. TPMT is an enzyme that stops azathioprine from staying in your body for too long. Low levels of TMPT may mean azathioprine builds up in your body. This can cause serious side effects, such as your bone marrow not working properly. If you have low TPMT levels, your dose of azathioprine or mercaptopurine can be lowered. If your test cannot find any TPMT, these medicines are not right for you, and you'll be offered other treatments.

Therapeutic drug monitoring (TDM)

When you are prescribed certain medicines to treat Crohn's or Colitis, your IBD team may check your age and weight. This is to work out how much medicine you should be given. Therapeutic drug monitoring tests help your IBD team measure the levels of medicine in your blood. They confirm if the dose you are take is correct or needs to be changed.

Some people who take anti-TNF medicines, such as **adalimumab**, **golimumab** or **infliximab**, will have a blood test to see if they have developed antibodies against these medicines. An antibody is a protein made by your immune system as part of your natural defences. These antibodies stop the medicine from working as well.

Thiopurine metabolite testing

When you take **azathioprine or mercaptopurine**, your body breaks down these medicines and makes products called thiopurine metabolites. Your IBD team may ask for a blood test to measure the levels of these products in your body.

This test helps your IBD team to check that the medicine is working for you and that you are taking the right dose. The results can also help your IBD team to see if you are at increased risk of side effects, such as liver problems.

PredictSURE IBD: A test to predict the severity of your condition

Some blood tests look at how active certain genes are. The results are analysed to look for patterns that might help doctors work out if you are at high risk or low risk of getting severe inflammation. This could help your IBD team work out the most appropriate treatment for you.

At the moment, there is not much evidence to show how well these tests work, or whether they lead to better outcomes for people with Crohn's or Colitis. Scientists are doing more research on this.

Depending on the policy where you live, these tests may be available on the NHS for people with Colitis. They are not currently available on the NHS for people with Crohn's.

Other blood tests

Other blood tests that may be helpful include:

- Calcium and phosphate. These minerals are important for bone health. You may get less calcium and phosphate from your diet if you have lactose intolerance or cannot absorb nutrients properly.
- Magnesium. This helps turn the food that we eat into energy. If you experience ongoing diarrhoea, you may have low levels of magnesium.
- Trace elements. These include zinc, selenium, and chromium, and are chemicals that the body needs in tiny amounts to function as usual. Guidelines recommend that levels should be checked regularly for people on parenteral nutrition or on long-term nutritional treatments. Parenteral nutrition is a liquid food mixture that is given into the bloodstream through a needle in the vein.
- Coeliac disease. This is a gluten allergy. Symptoms of coeliac disease are similar to Crohn's and Colitis symptoms. The blood test for coeliac disease looks for certain antibodies. You can read more about coeliac disease testing on the **Coeliac UK website.**

STOOL TESTS OR TESTS ON YOUR POO

Stool tests, also known as faecal tests, are tests on your poo. For these, you will need to collect a sample of your poo in a clean, dry screw-top container. Your doctor will provide you with the container. The NHS website has more information on **how to collect and store a sample of your poo.**

Why are these tests done?

Your poo can be tested for signs of bleeding, inflammation and whether an infection is causing diarrhoea.

If you have recently travelled abroad or had a severe flare-up, you may need extra tests to check for bacteria and infections.

Faecal calprotectin tests

Your poo may be tested for faecal calprotectin. This is a protein found in white blood cells. Checking the level of calprotectin in a poo sample can show whether you have inflammation in your gut.

The National Institute for Health and Care Excellence (NICE) recommends that faecal calprotectin tests are used in adults to help tell the difference between inflammatory bowel diseases (IBD), such as Crohn's and Colitis, and non-inflammatory conditions, such as irritable bowel syndrome (IBS). Your doctor should consider your results, symptoms and other test results to work out the best course of action for you.

Faecal calprotectin tests may be used to monitor your Crohn's or Colitis or check how well you're responding to treatment. Some people may be offered a test to do at home.

A faecal calprotectin test may not be helpful for diagnosing **Microscopic Colitis**. For this condition, faecal calprotectin levels are often quite low.

Faecal calprotectin levels

Faecal calprotectin levels are measured in µg/g. This means micrograms of calprotectin per gram of poo.

If your levels are above 100µg/g, your healthcare professional may carry out more tests. How high your level is will help them to decide if and when you may need more tests. Not all hospitals and clinics use the same levels to decide what action to take.

If you have a level above 100μg/g it does not necessarily mean you have Crohn's or Colitis or are having a flare-up.

Faecal calprotectin for getting a diagnosis

If you are getting a diagnosis for gut problems, higher levels of faecal calprotectin may suggest that you may need other tests for Crohn's or Colitis. A high faecal calprotectin result can also sometimes be caused by other issues. These may be diarrhoea from an infection, gastroenteritis or certain types of cancerous and non-cancerous tumours.

Lower levels of faecal calprotectin may suggest that you have irritable bowel syndrome or another non-inflammatory condition. However, lower levels cannot completely rule out Crohn's or Colitis. You may have a repeat test after six weeks if your symptoms carry on.

Faecal calprotectin tests and flare-ups

If you have been diagnosed with Crohn's or Colitis, a normal faecal calprotectin level is usually a good indication that your condition is under control. But it is possible to have a normal faecal calprotectin test and still be in a flare-up, especially if your condition mainly affects your small bowel.

Raised faecal calprotectin levels are usually a useful indication that your Crohn's or Colitis is active, even if you do not have symptoms. But some people have raised faecal calprotectin levels even when their condition is under control.

For some people, how your faecal calprotectin levels change over time may be a better sign of whether you are in a flare-up, than how high your levels are.

Faecal calprotectin tests in children

Just like for adults, faecal calprotectin tests are sometimes used to help diagnose Crohn's or Colitis in children and young people aged under 18.

Children's levels of calprotectin are more difficult to interpret. This means that their levels may be assessed by a specialist in a hospital or clinic, rather than a GP.

There are no agreed cut-off levels that reliably show inflammation in children. Sometimes, the same faecal calprotectin cut-off levels as an adult might be used in children over four. But these will be used cautiously.

Children's levels of calprotectin may be naturally higher than an adult's and can vary. This can make it difficult to interpret, particularly in children younger than six.

To help with diagnosis, these tests may be used alongside a list of the child's symptoms. Using both can help give a full picture of what's going on.

Bowel cancer screening

The NHS has a bowel cancer screening programme.

- For people in England, Wales and Scotland, you will be offered this if you are aged 50 to 74 years old.
- For people in Northern Ireland, you will be offered this if you are 60 to 74 years old.
- If you are over the age of 74, you may still be able to request a test kit.

To use a home test kit, called a faecal immunochemical test (FIT), you collect a small sample of poo and send it to a lab. The lab then checks for hidden blood in your poo. If blood shows up in your poo in the FIT, it could be due to **Crohn's** or **Colitis**, rather than another condition, such as bowel cancer.

Depending on the type of Crohn's or Colitis you have, you may have surveillance colonoscopies to check for changes in your colon. These can check for early signs of bowel cancer. See the section on colonoscopy for more information.

Some people will have a FIT to look for blood in their poo, instead of having a faecal calprotectin test. These two tests work in different ways and have different roles. A faecal calprotectin is an excellent test to help decide between a diagnosis of inflammatory bowel diseases, like Crohn's or Colitis, and irritable bowel syndrome (IBS). A FIT test is an excellent test for bowel cancer.

You can find out more about the FIT tests and bowel cancer screening in our information on **risk of bowel cancer and other gut-related cancers**.

ENDOSCOPY

An endoscopy is a test that allows a specialist doctor or nurse, called an endoscopist, to look closely at the lining of your gut. To do this, they use a long, thin, flexible tube called an endoscope. This has a small video camera on the tip. The video camera sends images to a screen outside the body. This allows the doctor or nurse to see different parts of the gut.

> "I would strongly recommend a family member or friend to accompany a patient; it is reassuring for them to see a familiar face after an investigation."
>
> **MARY, CARER FOR HER SON WHO HAS CROHN'S DISEASE**

Endoscopy results

You should receive a report of your endoscopy results within three weeks of your procedure. Your biopsy results can take longer, and you may need to wait up to two months for these. Contact your GP if you have not heard back within these times.

In some cases, you may receive your endoscopy report right away, and an endoscopy nurse may explain your results to you. You may be referred for an appointment with a gastroenterologist to discuss your results in more detail. A gastroenterologist is a doctor who specialises in the gut.

Our information on **how to get a diagnosis** explains more about the different forms of Crohn's and Colitis, and why your endoscopy might not have found Crohn's or Colitis.

Why are these tests done?

The endoscopist will look for inflammation in certain areas of your gut. Areas of inflammation will look red, swollen or may have open sores, known as ulcers.

Along with looking for inflammation, the endoscopist may also:

- Take biopsies. Biopsies are very small pieces of tissue from the gut. There is usually no pain when biopsies are taken. These are sent to a laboratory and looked at under a microscope to check for inflammation and other signs of Crohn's or Colitis. Biopsies are an important part of a Microscopic Colitis diagnosis. This is because inflammation for this condition can usually only be seen when a biopsy is taken from your colon and looked at under a microscope.
- Look for polyps. Polyps are small fleshy growths on the inner lining of the bowel. Rarely, over time, these can become cancerous. The endoscope can be fitted with a wire that has an electric current that can be used to remove the polyps. See our information on **bowel cancer risk and other gut-related cancers.**
- Look for strictures. Long-term inflammation can create a narrow section of the bowel known as a stricture. A stricture can make it difficult for poo to pass through. If it's very narrow, it can cause a blockage. Endoscopists use balloons that are passed through the endoscope and inflated inside the gut. These can expand the stricture.

There are several different types of endoscopies. The type you have will depend on which part of your body is being examined. Read more about types of **endoscopy**.

Risks and complications

The hospital or clinic staff will explain any risks or complications. They will ask you to sign a consent form to make sure you understand the risks and agree to having the test done.

In rare cases, risks and complications can include:

- Allergic reaction. Some people may be allergic to the sedative medicines given, but this is rare. It is important to tell staff before the procedure if you have any allergies.
- Damage to the throat or bowel. The endoscope can sometimes tear a hole in your oesophagus, stomach or bowel. This is called a perforation. It's very rare, but you may need surgery to repair the damage if it happens.
- Bleeding. This can happen during an endoscopy, especially if you have a biopsy taken or polyps removed. A little bleeding from the bottom is common. Let your doctor know if you lose large amounts of blood.

You will be told who to contact if you have any problems. Let your IBD team know if you have any questions or worries before the test.

GASTROSCOPY OR UPPER GASTROINTESTINAL (GI) ENDOSCOPY

If the tube goes into your mouth, it's called a gastroscopy or upper gastrointestinal endoscopy. The doctor will look at your throat, stomach, and small bowel. A gastroscopy is sometimes used to rule out Crohn's if you have symptoms in the upper parts of your gut. It is not usually used if your healthcare professional thinks you have Colitis.

Preparing for a gastroscopy

Your stomach must be empty for the endoscopist to get a clear view. You will be asked not to eat anything for at least six hours before the test. Your appointment letter should have more information. Ask the hospital or clinic staff if you are unsure of what you should do or if you have any questions.

During the gastroscopy

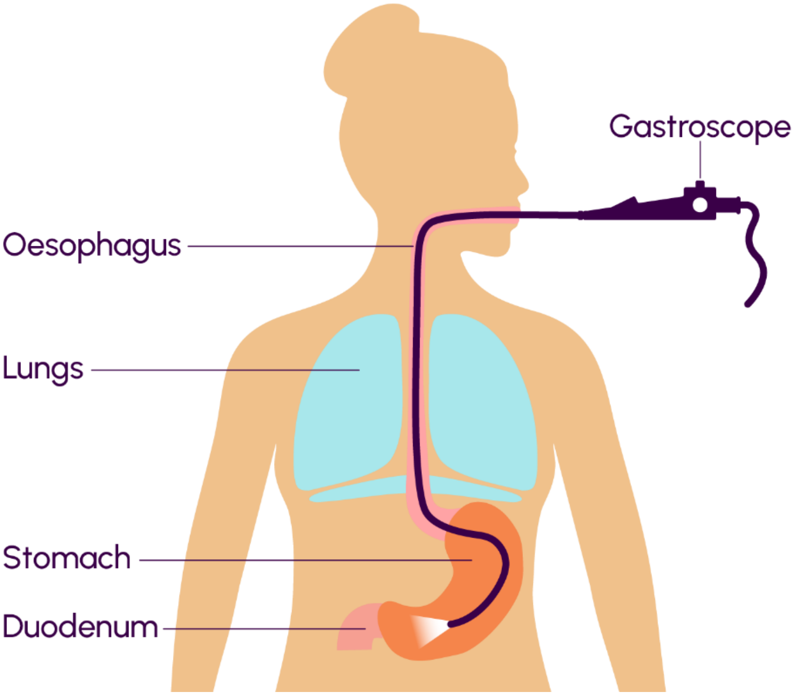
You might be offered:

- Medicine to help you relax, called sedation. This medicine is given through a needle into your vein, usually in your arm.
- A local anaesthetic spray to numb your mouth and throat.

Children and young people will usually be offered general anaesthesia. General anaesthesia is a medicine that puts you to sleep. You can read more about general anaesthesia **on the NHS website**.

A long, thin, flexible tube called an endoscope with a small camera on the end will be gently pushed into your mouth. It will move down your throat, known as your oesophagus, into your stomach and into the first part of the small bowel, known as the duodenum. The specialist will check for:

- Areas of inflammation, such as red and swollen tissue
- Small sores, called lesions



After the gastroscopy

Sedation makes you feel sleepy and relaxed, but not unconscious. You will be able to follow simple instructions during the gastroscopy. You might not remember much afterwards about the test. If you have sedation or a general anaesthetic, you will need to arrange for someone to take you home and stay with you for the next 24 hours. Sedation affects your reflexes and judgment. For the first 24 hours after sedation, you must not:

- Drive
- Drink alcohol
- Operate heavy machinery
- Sign important documents

If you have been given throat spray, do not have anything to eat or drink for at least one hour after the gastroscopy.

COLONOSCOPY

A colonoscopy is a type of examination that allows a specialist doctor or nurse to look directly at the lining of your bowels using a colonoscope. This is a thin, long and flexible tube with a bright light and camera at the end.

How you might feel

If you have not had a colonoscopy before, you may have a mixture of feelings. Some people may feel nervous, worried or embarrassed about it. Finding out more information may help you understand how to prepare for a colonoscopy and what will happen on the day.

If you have any questions, your GP may be able to talk through any concerns. Or you may find it useful to look at **our Facebook forum** where people share their stories and experiences.

> "For anyone who's worrying about having a colonoscopy, please remember that it's over quickly and not as uncomfortable as you think. The prep is grim, but worth it for the peace of mind when you get answers about how things are looking."
>
> **GERALDINE**
> **LIVING WITH ULCERATIVE COLITIS**

What if you begin to feel better?

Symptoms of Crohn's and Colitis can come and go. Your symptoms might get better while you wait for your colonoscopy appointment. It is still worth having your colonoscopy. Your doctor might find signs of inflammation on a colonoscopy or biopsies, even when you do not have symptoms.

Preparing for a colonoscopy

You will receive a letter by post or email that should:

- Let you know when your colonoscopy is.
- Provide you with laxatives or tell you where to get them. These laxatives may be called 'bowl prep'. They help you empty your colon of poo so that healthcare professionals can see inside your gut better. Different hospitals may use different types of bowel prep.
- Tell you how and when to take the laxatives. You usually take these around 24 hours before your colonoscopy.
- Tell you what to eat and drink in the days leading up to your colonoscopy.
- Tell you when you should stop eating and drinking.

If you are pregnant, diabetic, have kidney disease, heart failure, allergies or are taking any blood pressure medicines, let the hospital know as soon as you get your letter.

You may need to stop taking oral anticoagulants, such as warfarin, and iron tablets up to a week before the test. Speak to a healthcare professional before stopping any medicine.

If you are having a routine colonoscopy, and are in a flare-up, let your IBD team know

Taking your bowel prep

When it's time to take your bowel prep, carefully follow any instructions given to you. Otherwise, the colonoscopy may not be able to happen.

Once you have started taking laxatives, stay near a toilet. The laxatives will usually give you diarrhoea a few hours after taking the first sachet. You may also get some stomach cramps.

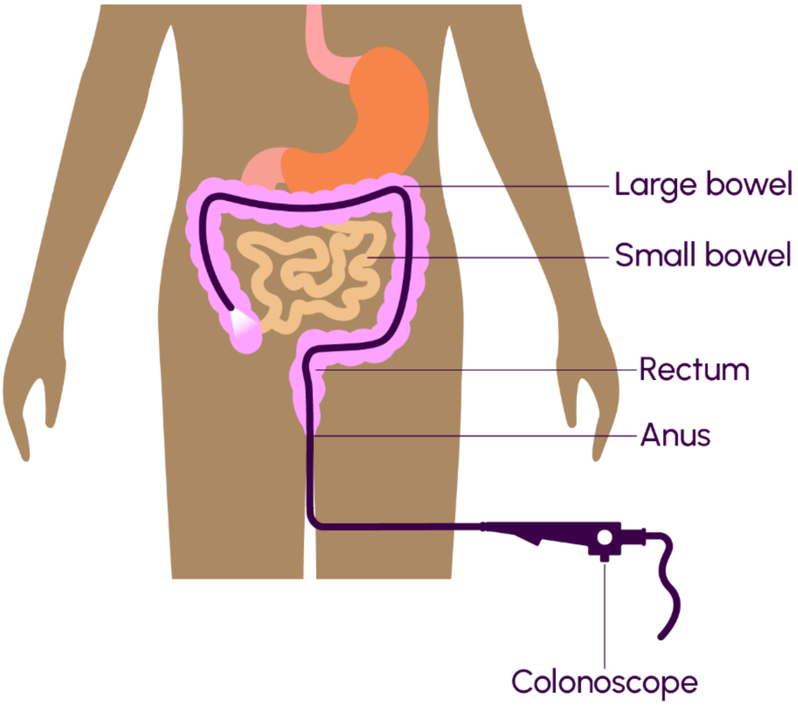
Some useful tips to help you prepare for a colonoscopy are:

- You might find the taste of the bowel prep unpleasant. Try drinking through a straw placed far back on your tongue, chilling the preparation in the fridge, or mixing it with cordial or squash. If using cordial or squash, make sure it's light coloured, such as lemon or orange, rather than blackcurrant.
- After taking the bowel prep, keep drinking clear fluids so that you do not become dehydrated. You should receive information on how much fluid to drink and when to stop. Fluids help keep you hydrated and play an important part in the bowel cleaning process. If you can see something through the liquid, such as words in a newspaper, it is considered 'clear.' Some examples of clear liquids are tea and coffee without milk, water and apple juice. Drinks such as orange juice and milk are not 'clear' and should be avoided.

You can find out what it's like to go through bowel prep by listening to episode eight of the **Crohn's & Colitis UK podcast**. Here we present an audio diary of someone going through this process.

During the colonoscopy

The tube is inserted into your bottom and travels through all of your large bowel. It's long enough to examine the whole colon and the end of the small bowel. The specialist can check for any inflammation and whether you have any narrowed areas, such as strictures.



As well as looking at the lining of the bowel, the specialist may also take small pieces of bowel lining to examine under a microscope later. These are known as biopsies. The specialist may also remove any polyps to look at in more detail. The colonoscopy will usually last around 30 to 45 minutes.

To help you feel more comfortable, you may be offered:

- Sedation. This is a medicine to help you feel sleepy and relaxed.
- Nitrous oxide. This is a medicine to help you relax that you breathe in. It is also known as 'gas and air'. Nitrous oxide is commonly used to relieve pain in childbirth.

Children are usually given a general anaesthetic.

During the colonoscopy, air is usually pumped into the bowel to help the specialist get a good view of the bowel wall. You may fart during the colonoscopy. This is common, so you do not need to feel embarrassed.

After the colonoscopy

> "I feel it is important, as my son's carer, that I am there to support him during diagnostic tests, especially after endoscopies or MRI's, as he can feel quite fatigued after the procedure."
>
> **MARY, CARER FOR HER SON WHO HAS CROHN'S DISEASE**

If any air remains in your bowel after the colonoscopy has finished, you may feel bloated and have some cramping. To ease this discomfort, walking around, eating or drinking may help. Do not take non-steroidal anti-inflammatory medicines (NSAIDs), such as ibuprofen, unless prescribed by your doctor. Some evidence suggests NSAIDs can make Crohn's or Colitis symptoms worse. This could be more likely if your condition is active, or you take NSAIDs for a long time. But it's difficult to know for sure.

You can usually go home the same day. If you have sedation or a general anaesthetic, you will need to arrange for someone to take you home and stay with you for the next 24 hours. Sedation affects your reflexes and judgment. For the first 24 hours after sedation, you must not:

- Drive
- Drink alcohol
- Operate heavy machinery
- Sign important documents

If you have questions, talk to your doctor or IBD team.

Call 111 or the hospital if you have:

- Heavy bleeding from your bottom or bleeding that's getting worse
- Severe pain in your stomach, or pain that gets worse
- A high temperature, or you feel hot or shivery

Hysterectomy and colonoscopy

A hysterectomy is a type of surgery to remove the womb, also known as the uterus. If you have had a hysterectomy, you may find having a colonoscopy more uncomfortable.

Your IBD team may recommend that you have a sedative during your colonoscopy to help you feel more comfortable. Or they may be able to offer a type of colonoscopy that uses water. This causes less discomfort. Talk to your IBD team if you have any worries.

Monitoring or surveillance colonoscopies

You may be asked to have a colonoscopy around eight years after the start of your Crohn's or Colitis symptoms. This is to check if there have been any changes in your bowel. The specialist can also check for any unexpected changes to your cells. This is known as dysplasia and can be an early sign of bowel cancer.

You may then have follow-on colonoscopies every one, three, five or 10 years. This will depend on the symptoms you have and how severe they are.

You may have a colonoscopy every year if you have been diagnosed with:

- Crohn's or Colitis, and primary sclerosing cholangitis (PSC), or
- Crohn's or Colitis, and a stricture in your colon.

This is because of a possible increased risk of cancer.

People with proctitis, Microscopic Colitis, or Crohn's that does not affect their colon do not have an increased risk of bowel cancer.

See our information on **bowel cancer risk and other gut-related cancers**.

SIGMOIDOSCOPY OR PROCTOSIGMOIDOSCOPY

A sigmoidoscopy is like a colonoscopy, but the specialist will look at part of your large bowel. This includes your rectum and the beginning of your colon. Usually, a flexible endoscope is used, which is bendy and helps the specialist see further up the bowel.

Preparing for a sigmoidoscopy

Your colon needs to be completely empty of poo for the sigmoidoscopy so the specialist can get a clear view.

You will be given instructions on how to prepare for your sigmoidoscopy. You may be given laxatives or an enema.

An enema is a liquid preparation that you squirt into your bottom to soften your poo. This helps you easily go to the toilet. An enema can be given by yourself at home, or by a nurse or doctor when you arrive at the hospital.

You will be given instructions on what you can eat and drink before and after the enema. If you have any questions, speak to the specialist or your IBD team.

During the sigmoidoscopy

The sigmoidoscopy will usually take around 10-20 minutes. It is usually done without sedation, although you may be offered gas and air, also known as nitrous oxide. Nitrous oxide is a medicine that you breathe in to help you relax.

During a sigmoidoscopy, the specialist may take some small tissue samples called biopsies and remove small polyps.

If you have had pouch surgery, also called J-pouch surgery or ileal pouch anal anastomosis (IPAA), you may need to have the pouch examined with a sigmoidoscope. This is to look for inflammation in the pouch, known as pouchitis. You may also be checked for any unexpected changes to your cells. This is known as dysplasia and can be an early sign of bowel cancer.

After the sigmoidoscopy

You can usually go home the same day. You may feel bloated and have some cramping in your tummy. To help ease this discomfort, try walking around, eating or drinking. You may be offered a pain killer. Do not take non-steroidal anti-inflammatory medicines (NSAIDs), such as ibuprofen, unless prescribed by your doctor. Some evidence suggests NSAIDs can make Crohn's or Colitis symptoms worse. This could be more likely if your condition is active, or you take NSAIDs for a long time. But it's difficult to know for sure.

OTHER TYPES OF ENDOSCOPY

Chromoendoscopy

Chromoendoscopy is a technique that involves spraying special dyes onto the lining of the bowel. This is sometimes used instead of biopsies to help find unexpected changed cells.

Single or double balloon enteroscopy

A balloon enteroscopy is an examination that uses a special endoscope with one or two small balloons at its tip. By inflating and deflating the balloons, the endoscope can move further into the small bowel than other types of endoscopes. The endoscope usually enters your mouth or sometimes your bottom.

A balloon enteroscopy can be used to take biopsies, remove polyps and widen strictures. Since the procedure takes longer than other endoscopies, you will usually be given a general anaesthetic to send you to sleep.

Capsule endoscopy

During a capsule endoscopy, you will be asked to swallow a small capsule the size of a large pill. The capsule will travel through your gut, just like food would. The small capsule has a camera inside, which is powered by tiny batteries. The camera will take photos as it passes through the gut. These photos are sent to a small data recorder, which is usually attached to a belt that you wear around your waist.

The specialist will check that the capsule is sending photos properly. You will be allowed to go home wearing the data recorder. You should avoid strenuous exercise and bending over while wearing the data recorder.

The capsule is disposable and can be flushed down the toilet. It should pass out of the body with your poo in the next day or so. Biopsies cannot be taken with the capsule. The capsule is not suitable for people with strictures or bowel obstructions as it can become stuck. Capsule endoscopy is usually used to monitor small bowel Crohn's if other scans do not show it well. It can also be used if you are suspected of having Crohn's or Colitis and have already had a colonoscopy that returned normal results.

Before you have a capsule endoscopy, you might be asked to take a patency capsule. This is a 'test' capsule to check if you have any strictures or blockages that would stop the capsule from moving. The patency capsule is about the same size as the video capsule. The day after you have taken a patency capsule you may have a scan to see where it is. If the patency capsule becomes stuck, it will dissolve into tiny pieces and pass through your gut with your poo.

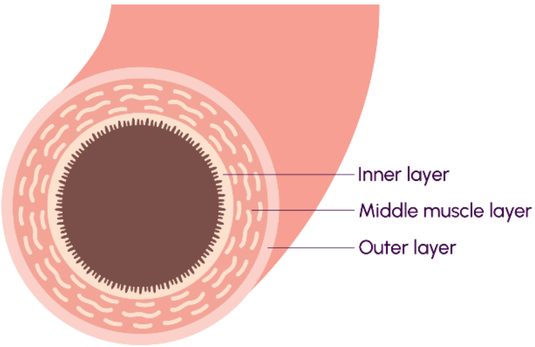
X-RAYS AND OTHER IMAGING SCANS

X-rays and other imaging scans are used to create images of the inside of your body. The NHS website has more information on **what X-rays are and how they work**. Imaging scans are usually carried out by a radiographer.

Why are these tests done?

X-rays and scans allow healthcare professionals to see images of the inside of your body. They can use these images to see if any areas of your gut are inflamed or swollen. This can help diagnose Crohn's or Colitis, or another condition.

Computerised tomography (CT) and magnetic resonance imaging (MRI) scans can show which part of the bowel wall has inflammation and ulcers. Crohn's can affect all layers of the bowel wall, while Colitis only affects the inner layer.



Risks and complications

The hospital or clinic staff will explain any risks or complications of each test. They may ask you to sign a consent form to make sure you understand the risks and agree to have the procedure done.

In rare cases, risks and complications can include:

- Allergic reaction. Some people are allergic to the contrast dye given. It is important to tell staff if you have any allergies before a test.
- Having contrast in your veins can affect your kidney function. You may need to have a kidney function blood test before your scan.
- Exposure to radiation. During X-rays, CT scans, and SeHCAT scans, you will be exposed to a small dose of radiatiation. The amount of radiation depends on

how much of your body is being scanned. Your doctor will make sure that any benefits of having an X-ray or scan outweigh the risks.

Being exposed to radiation from X-rays does carry a risk of causing cancer many years or decades after the scan. But this risk is thought to be very small.

Everyone is exposed to natural background radiation throughout daily life. This background radiation comes from natural radioactive material in the ground and atmosphere.

The **UK government website has information** on how much radiation you will be exposed to from each X-ray or scan. It also explains how many days, months or years' worth of background radiation this is equal to.

If you have any questions or are concerned about the risks, then let your doctor know.

Types of X-rays and imaging scans:

Abdominal X-rays or tummy X-rays

An X-ray is taken of your tummy to look for areas of swollen bowel above blockages and obstructions. X-rays can also be used to diagnose toxic megacolon. Toxic megacolon is a widening or swelling of the colon that may cause a rupture, known as a perforation. These X-rays are often used in emergency cases. They do not show as much detail of the gut as some of the other imaging scans below.

X-rays are very quick to perform.

Barium studies

Barium is a white, chalky fluid that is not absorbed into the body. Instead it forms a temporary coating on the inside of the gut. Since X-rays cannot pass through the barium coating, it is used to provide a clearer outline of the gut on X-ray pictures.

You will be asked to take barium in different ways, depending on the part of the gut that is being looked at.

Barium studies have become less common because CT and MRI imaging scans are more widely available.

The different types of barium tests are:

- Barium swallow and meal. The radiologist will ask you to drink a barium liquid. You will do this while they take X-ray images of the upper part of the gut, such as your oesophagus and stomach.
- Barium follow-through. You will swallow a barium liquid. The radiologist will take X-ray images every 30 minutes as the barium passes through your small intestine.
- Barium enema. An enema is used to pass barium directly into your bowel through a short tube placed in your bottom. Your bowel must be empty of poo before the test. This can help to make sure the images are clear. If you need to take laxatives before the test, you should be given instructions on what to eat and drink.

After taking barium, your poo will turn pale and chalky looking for a few days.

Chest X-rays

Biologics and other targeted medicines can affect your immune system. They may increase your risk of infections, such as tuberculosis (TB).

Before starting these medicines, you will need to have a chest X-ray to check you do not have a latent TB infection. A latent infection is when the TB bacteria is in your body but is not active, and you do not have any symptoms. People with latent TB are not infectious. This type of X-ray is very quick to perform.

DEXA (dual energy X-ray absorptiometry) scans

DEXA scanners use low-dose X-rays to measure how dense or strong your bones are. It usually checks the bones in your hip or lower spine. This is a simple, painless test that takes around 10 to 20 minutes.

DEXA scans can show if your bones have become thinner and weaker. This can be caused by conditions, such as osteoporosis. People with Crohn's or Colitis have an increased risk of developing osteoporosis. Having steroid treatment or low calcium levels can also increase the risk of weak bones. If you take **steroids** long-term, you may have regular DEXA scans. You can read our information on bones for more information.

Computerised tomography (CT) or computerised axial tomography (CAT) scans

A CT scanner is a special machine that uses a series of X-ray beams to build up a detailed picture of the inside of your body. During a CT scan, you usually lie on a movable bed. This slowly passes through the centre of the scanner. The scanner is a ring that rotates around your body while it takes each scan. The scan is quick and painless.

You may be given a contrast dye before the scan. This helps show more detail of the gut on the scans taken. The contrast may be given in the form of:

- A drink to swallow
- An enema in your bottom
- An injection into a vein in your arm

You should get a letter telling you everything you need to know about the scan. This will include if you need to have a contrast dye.

Another type of CT scan is CT enterography. This scan is used to look at your small bowel in more detail. Usually, you will have to drink a contrast dye before the scan. During the scan, another type of contrast dye will be injected into a vein in your arm.

Magnetic resonance imaging (MRI)

MRI scans use strong magnets and radio waves to create images of the inside of the bod. MRI scans do not use X-ray radiation. The MRI scanner is a large machine with a short tunnel. You will be asked to lie very still on a movable table, which slides slowly inside this tunnel. An MRI will usually last between 15 minutes and one hour.

You may be given a contrast dye before the scan. This helps to show more detail of the gut on the scans taken.

MR enterography (MRE) is a special type of MRI. This scan is used to look at your small bowel in more detail. Usually, you will have to drink a contrast dye before the scan. During the scan, another type of contrast dye will be injected into a vein in your arm. MR enterography scans help find inflammation, blockages and bleeding in the small bowel.

The MRI scan can be noisy and make tapping sounds. You may be given earplugs or headphones to wear. The radiographer controls the MRI scanner from another room but can still see and hear you to make sure everything is going okay. If you are scared of enclosed spaces, let a healthcare professional know that you are worried before the test. They can offer support and help you feel more comfortable.

If you feel very anxious about having an MRI scan, you may want to ask your GP or consultant for a mild sedative. This is a medicine to help you feel sleepy and relaxed. You should arrange this before your MRI appointment.

Because MRI scanners use magnets, they are not suitable for most people who have implanted metal or an electronic device, such as an artificial joint or pacemaker. Please let your team know, and they can check if your implant or device is compatible and suitable for an MRI scan.

You should get a letter telling you everything you need to know about the scan, including if you need to have contrast dye.

Another type of MRI is a magnetic resonance cholangiopancreatography (MRCP). This scan shows detailed images of:

- The liver
- Gall bladder
- Bile ducts
- Pancreas and pancreatic ducts

An MRCP can be used to diagnose primary sclerosing cholangitis (PSC). This is a condition that affects your liver and gallbladder.

Ultrasound

Ultrasound scans use sound waves to create detailed images of parts of the body. It can be used to find thickening of the bowel wall, abscesses and strictures. It does not use X-ray radiation. To create the image, a radiographer moves a scanning probe or wand over the part of the body they want to examine.

Before the scan, you will need to drink large amounts of liquid. You may be asked to avoid eating for a few hours. You may be given a contrast dye before the scan, which helps show more detail of the gut on the scans taken.

You should get a letter telling you everything you need to know about the scan, including if you need to drink any contrast dye.

Endoscopic ultrasound scans (EUS) use a special endoscope with a tiny ultrasound transmitter in the tip. Like a standard endoscope, EUS may be either:

- Inserted through the mouth to examine the upper part of the gut
- Inserted through the bottom to examine the colon, part of the large bowel, and ileum, the last part of the small bowel

Your doctor will be able to take small samples if they need to. These are known as biopsies. You will usually be given a sedative or a local anaesthetic spray to numb your throat. Find out more in the section above on endoscopy.

SeHCAT Scan

A SeHCAT scan is used to find out whether diarrhoea is caused by bile acid malabsorption (BAM).

Your body makes bile salts in the liver and stores them in the gallbladder. When you eat, bile salts are released into the small bowel to help break down food. Usually, when bile salts reach the end of the small bowel, they are absorbed into your blood.

Bile salts may not be absorbed if the last part of the small bowel, known as the ileum, is inflamed or has been removed during surgery. Instead, bile salts enter the colon, which is part of the large bowel, along with high levels of water, leading to watery diarrhoea.

The SeHCAT scan involves two separate appointments.

- At your first appointment, you will be asked to swallow a small capsule that contains a small amount of radioactive bile salts. Less than three hours later a scan will be taken using a machine that can measure radioactivity.
- After seven days, a second scan will measure the amount of radioactive bile salt still left in your body. This can show whether you have problems absorbing bile salts.

There is no need to be concerned about the level of radiation you are exposed to. This is because the radiation dose is low. It is equivalent to the amount of radiation you receive from natural sources of radiation in about two months. You will not need to stay away from anyone after the scan.

You should get an information sheet with your appointment letter from your hospital. This will tell you everything you need to know about the scan.

EXAMINATION UNDER ANAESTHETIC (EUA)

Crohn's in the area around your bottom is known as **perianal Crohn's**. **If you have perianal Crohn's**, you may be given general anaesthesia so you can be examined while you sleep. Anaesthesia is given because the examination may be too uncomfortable or painful to do while you are awake. Being asleep helps to relax the muscles in your bottom. These muscles are known as the anal sphincters and pelvic floor muscles. EUA is often used to investigate **fistulas**. Sometimes a special probe is used to map out the route of the fistula.

If you have any abscesses, these may be drained during EUA.

EUA is usually done as a day case. This means that you can go home the same day. If you have a general anaesthetic, you will need to arrange for someone to take you home and stay with you for the next 24 hours. Sedation affects your reflexes and judgment. For 24 hours after sedation, you should avoid:

- Driving
- Drinking alcohol
- Operating heavy machinery
- Signing important documents

HELP AND SUPPORT FROM CROHN'S & COLITIS UK

We're here for you. Our information covers a wide range of topics. From treatment options to symptoms, relationship concerns to employment issues, our information can help you manage your condition. We'll help you find answers, access support and take control.

All information is available on our **website.**

Helpline service

Our helpline team provides up-to-date, evidence-based information. You can find out more on our **helpline web page.** Our team can support you to live well with Crohn's or Colitis.

Our Helpline team can help by:

- Providing information about Crohn's and Colitis
- Listening and talking through your situation
- Helping you to find support from others in the Crohn's and Colitis community
- Providing details of other specialist organisations

You can call the Helpline on 0300 222 5700. Or visit our **LiveChat service**. You can read our information on when the Helpline is open for more details.

You can email **helpline@crohnsandcolitis.org.uk** at any time. The Helpline will aim to respond to your email within three working days.

Our helpline also offers a language interpretation service, which allows us to speak to callers in their preferred language.

Virtual Social events

You can find support from others in the Crohn's and Colitis community through our virtual social events. Visit our Virtual Social Events page to find out what is available.

Crohn's & Colitis UK Forum

This closed-group Facebook community is for anyone affected by Crohn's or Colitis. You can share your experiences and receive support from others. Find out more about the **Crohn's & Colitis UK Forum.**

Help with toilet access when out

There are many benefits to becoming a member of Crohn's & Colitis UK. One of these is a free RADAR key to unlock accessible toilets. Another is a Can't Wait Card. This card shows that you have a medical condition. It will help when you are out and need urgent access to the toilet. See **our membership webpage** for more information. Or you can call the Membership Team on **01727 734465**.

ABOUT CROHN'S & COLITIS UK

We're changing what it means to live with these lifelong, incurable gut conditions. Around one in 120 people in the UK have Crohn's Disease or Ulcerative Colitis, navigating life with an unpredictable condition that could flare up at any time. The impact can be devastating: plans turned upside down; work and education on hold; relationships and wellbeing under strain; dreams for the future paused.

No one should face that alone. That's where we come in.

What we do

We provide trusted information, support cutting-edge research and lead bold campaigns designed to get people talking about Crohn's and Colitis like never before. We're transforming understanding, building the recognition these conditions deserve and uniting our community to drive real change.

We're fighting for a tomorrow where everyone living with Crohn's or Colitis has everything they need to live well, and for a future where we don't have to live with it at all.

Crohn's? Colitis? We'll face it together.

This year, 25,000 people will be told they have Crohn's or Colitis. Once diagnosed, the obstacles continue. Today, there is no cure. People simply don't understand these conditions. So, we have listened. It's time for change & we're leading the way.

Our information is available thanks to the generosity of our supporters and members. Find out how you can join the fight against Crohn's and Colitis by calling **01727 734465.** Or you can visit **our website**.

About our information

We follow strict processes to make sure our information is based on up-to-date evidence and is easy to understand. We produce it with patients, medical advisers and other professionals. It is not intended to replace advice from your own healthcare professional.

You can find out more on **our website**.

We hope that you've found this information helpful. Please email us at **evidence@crohnsandcolitis.org.uk** if:

- You have any comments or suggestions for improvements
- You would like more information about the evidence we use
- You would like details of any conflicts of interest

CROHN'S & COLITIS UK

You can also write to us at **Crohn's & Colitis UK, 1 Bishops Square, Hatfield, Herts, AL10 9NE.** Or you can contact us through the **Helpline** on **0300 222 5700**.

Tests and investigations, edition 8

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