# Diagnosing an AAA

Because AAAs usually cause no symptoms, they tend to be diagnosed either as a result of screening or during a routine examination – for example, if a GP notices a pulsating sensation in your abdomen.

The screening test is an ultrasound scan, which allows the size of your abdominal aorta to be measured on a monitor. This is also how an aneurysm will be diagnosed if your doctor suspects you have one.

# Treating an AAA

If a large AAA is detected before it ruptures, most people will be advised to have treatment, to prevent it rupturing.

This is usually done with surgery to replace the weakened section of the blood vessel with a piece of synthetic tubing.

If surgery is not advisable – or if you decide not to have it – there are a number of non-surgical treatments that can reduce the risk of an aneurysm rupturing.

They include medications to lower your cholesterol and blood pressure, and quitting smoking.

You will also have the size of your aneurysm checked regularly with ultrasound scanning.

## Diagnosing cholecystitis

To diagnose acute cholecystitis, your GP will examine your abdomen.

They will probably carry out a simple test called Murphy's sign. You will be asked to breathe in deeply with your GP's hand pressed on your tummy, just below your rib cage.

Your gallbladder will move downwards as your breathe in and, if you have cholecystitis, you will experience sudden pain as your gallbladder reaches your doctor's hand.

If your symptoms suggest you have acute cholecystitis, your GP will refer you to hospital immediately for further tests and treatment.

Tests you may have in hospital include:

- blood tests to check for signs of inflammation in your body
- an ultrasound scan of your abdomen to check for gallstones or other signs of a problem with your gallbladder

Other scans – such as an X-ray, a computerised tomography (CT) scan or a magnetic resonance imaging (MRI) scan – may also be carried out to examine your gallbladder in more detail if there is any uncertainty about your diagnosis.

# Treating acute cholecystitis

If you are diagnosed with acute cholecystitis, you will probably need to be admitted to hospital for treatment.

## Initial treatment

Initial treatment will usually involve:

- fasting (not eating or drinking) to take the strain off your gallbladder
- receiving fluids through a drip directly into a vein (intravenously) to prevent dehydration
- taking medication to relieve your pain

If you have a suspected infection, you will also be given antibiotics. These often need to be continued for up to a week, during which time you may need to stay in hospital or you may be able to go home.

With this initial treatment, any gallstones that may have caused the condition usually fall back into the gallbladder and the inflammation often settles down.

## Surgery

In order to prevent acute cholecystitis recurring, and reduce your risk of developing potentially serious complications, the removal of your gallbladder will often be recommended at some point after the initial treatment. This type of surgery is known as a cholecystectomy.

Although uncommon, an alternative procedure called a percutaneous cholecystostomy may be carried out if you are too unwell to have surgery. This is where a needle is inserted through your abdomen to drain away the fluid that has built up in the gallbladder.

If you are fit enough to have surgery, your doctors will need to decide when the best time to remove your gallbladder may be. In some cases, you may need to have surgery immediately or in the next day or 2, while in other cases you may be advised to wait for the inflammation to fully resolve over the next few weeks.

Surgery can be carried out in two main ways:

- laparoscopic cholecystectomy – a type of keyhole surgery where the gallbladder is removed using special surgical instruments inserted through a number of small cuts (incisions) in your abdomen
- open cholecystectomy – where the gallbladder is removed through a single, larger incision in your abdomen

Although some people who have had their gallbladder removed have reported symptoms of bloating and diarrhoea after eating certain foods, you can lead a perfectly normal life without a gallbladder.

The organ can be useful but it's not essential, as your liver will still produce bile to digest food.

# What happens in acute leukaemia

All of the blood cells in the body are produced by bone marrow – a spongy material found inside bones.

Bone marrow produces specialised cells called stem cells which have the ability to develop into three important types of blood cells:

- red blood cells, which carry oxygen around the body
- white blood cells, which help fight infection
- platelets, which help stop bleeding

The bone marrow usually produces stem cells which are allowed to fully develop before being released into the blood. But in acute leukaemia, bone marrow starts releasing large numbers of immature white blood cells known as blast cells.

As the number of blast cells increases there is a drop in the number of red blood cells and platelet cells. This drop causes the symptoms of anaemia, such as tiredness, and increases the risk of excessive bleeding.

Also, blast cells are less effective than mature white blood cells at fighting bacteria and viruses, making you more vulnerable to infection.

Despite being uncommon overall, acute lymphoblastic leukaemia is the most common type of cancer to affect children.

The cause or causes of acute leukaemia are uncertain, but known risk factors include:

- exposure to high levels of radiation
- exposure to benzene, a chemical used in manufacturing that is also found in cigarettes

## How ALL is diagnosed

A blood test usually shows low numbers of normal white blood cells and the presence of the abnormal leukaemia cells. A sample of bone marrow is usually needed to confirm the diagnosis. A sample is also sent to the genetics department to look for any abnormal chromosomes, and for a test called MRD (minimal residual disease) analysis.

A test called a lumbar puncture is done to see if the spinal fluid contains any leukaemia cells. A chest X-ray is also done, which will show if there are any enlarged

glands in the chest. Other tests may be necessary, depending on your child's symptoms.

These tests will help to identify the precise type of leukaemia and help doctors decide on the best treatment.

# Treatment

The aim of treatment for ALL is to destroy the leukaemia cells and enable the bone marrow to work normally again. Chemotherapy is the main treatment for ALL and is given according to a treatment plan (often called a protocol or regimen).

The treatment is given in several phases, or 'blocks'.

## Induction

This phase involves intensive treatment, aimed at destroying as many leukaemia cells as possible and is usually started within days of being diagnosed. The induction phase lasts 4 to 6 weeks. A bone marrow test is taken at the end of induction treatment to confirm whether or not the child still has leukaemia. The sample that is taken is looked at under a microscope and when there is no evidence of leukaemia, the child's condition is referred to as being in 'remission'.

## Consolidation and central nervous system (CNS) treatment

The next phase of treatment is aimed at maintaining the remission and preventing the spread of leukaemia cells into the brain and spinal cord (the central nervous system, or CNS). CNS treatment involves injecting a drug, usually methotrexate lumbar puncture.

After this consolidation treatment there is a recovery period which is called interim maintenance. This is when more drugs will be given to try to keep the leukaemia in remission. The exact details will depend on which arm of treatment your child follows and will be discussed in detail by your child's doctor as it depends on your child's response to treatment so far.

Further doses of chemotherapy treatment, called 'delayed intensification', are given to kill off any remaining leukaemia cells.

## Maintenance treatment

This phase of treatment lasts for 2 years from the start of interim maintenance for girls and 3 years from the start of interim maintenance for boys. It involves the child taking daily and weekly tablets, some children also have monthly injections of chemotherapy and oral pulses of steroids and 3-monthly intrathecal treatment.

Children will be able to take part in their normal daily activities as soon as they feel able to. Most children return to school before beginning maintenance treatment.

## Bone marrow transplantation

Bone marrow treatment is only needed by a minority of patients and is used for children with ALL that is likely to come back following standard chemotherapy.

## Testicular radiotherapy

In some situations, it may be necessary for boys to have radiotherapy to their testicles. This is because leukaemia cells can survive in the testicles despite chemotherapy.

## Central nervous system (CNS) radiotherapy

Children who have leukaemia cells in their CNS when they are first diagnosed with ALL need more frequent lumbar punctures with intrathecal chemotherapy. Your child's specialist will discuss with you which treatment and how much of it your child needs, and will answer any questions you have.

## Side effects of treatment

Many cancer treatments will cause side effects. This is because while the treatments are killing the cancer cells, they can also damage some normal cells.

Some of the main side effects of chemotherapy are:

- hair loss
- reduction in the number of blood cells produced by the bone marrow, which can cause anaemia (increased risk of bruising, bleeding and infection
- loss of appetite
- feeling sick (nausea) and being sick (vomiting)

Steroid medicines can also cause side effects such as:

- increased appetite
- mood changes and irritability
- weight gain
- muscle weakness (especially in the legs)

Most side effects are temporary, and there are ways of reducing them and supporting your child through them. Your child's doctor or nurse will talk to you about any possible side effects. It's important to discuss any side effects your child is having with the team treating them, so that they know how your child is feeling.

## Late side effects of treatment

A small number of children may develop late side effects, sometimes many years later. These include possible problems with puberty and fertility, a change in the way their heart works and a small increase in the risk of developing another cancer later in life. Your child's doctor or nurse will talk to you about any possible late side effects.

## Clinical trials

Many children have their treatment as part of a clinical research trial. Trials aim to improve our understanding of the best way to treat an illness, usually by comparing the standard treatment with a new or modified version. Specialist doctors carry out trials for ALL.

If appropriate, your child's medical team will talk to you about taking part in a clinical trial and will answer any questions you have. Written information is provided to help explain things.

Taking part in a research trial is completely voluntary, and you'll be given enough time to decide if it is right for your child.

## Treatment guidelines

Sometimes, clinical trials are not available for your child. This may be because a recent trial has just finished, or because the condition is very rare. In these cases, you can expect your doctors and nurses to offer treatment which is agreed to be the most appropriate, using guidelines which have been prepared by experts across the UK. The Children's Cancer and Leukaemia Group (CCLG) is an important organisation which helps to produce these guidelines.

## Follow-up care

Most children with ALL are cured. If the leukaemia recurs after initial treatment, it usually does so within the first three years. Further treatment can then be given.

Long-term side effects (late side effects) are rare, and most children with ALL grow and develop normally.

If you have specific concerns about your child's condition and treatment, it's best to discuss them with your child's doctor, who knows the situation in detail.

# How AML is treated

AML is an aggressive type of cancer that can develop rapidly, so treatment usually needs to begin soon after a diagnosis is confirmed.

Chemotherapy is the main treatment for AML. It's used to kill as many leukaemia cells in your body as possible and reduce the risk of the condition coming back (relapsing).

In some cases, intensive chemotherapy and radiotherapy may be needed, in combination with a bone marrow or stem cell transplant, to achieve a cure

# Acute myeloid leukaemia: Children

## How AML is diagnosed

A blood test usually shows low numbers of normal white blood cells and the presence of abnormal leukaemia cells. A sample of bone marrow is needed to confirm the diagnosis. The bone marrow sample is also examined to check for any abnormalities in the chromosomes of the leukaemia cells.

A test called a lumbar puncture is done to see if the spinal fluid contains any leukaemia cells. A chest X-ray is also done, which will show if there are any enlarged glands in the chest. Other tests may be necessary, depending on your child's symptoms.

These tests will help to identify the precise type of leukaemia, and help doctors to decide on the best treatment.

# Treatment

The aim of treatment for AML is to destroy the leukaemia cells and enable the bone marrow to work normally again. Chemotherapy is the main treatment for AML. Usually a combination of chemotherapy drugs is given, according to a treatment plan (often called a protocol or regimen).

The treatment usually has different phases.

## Induction

This phase involves intensive treatment, aimed at destroying as many leukaemia cells as possible. It usually involves 2 courses (cycles) of a combination of chemotherapy drugs.

A bone marrow test is taken at the end of induction treatment to confirm whether or not the child still has leukaemia. When there is no evidence of leukaemia, the child's condition is referred to as being in remission.

## Post-remission treatment

When there are no signs of the leukaemia in the blood or bone marrow, further treatment is often given. This phase of the treatment aims to destroy any leukaemia cells that may be left and to help stop the AML from coming back. This treatment usually involves 2 more courses of chemotherapy.

## Bone marrow transplant

This treatment is usually only used for children with AML that is likely to come back or has come back (recurred) following standard chemotherapy.

## Central nervous system (CNS) treatment

AML may sometimes develop in the brain and spinal cord. This can be prevented by injecting chemotherapy drugs directly into the spinal fluid during a lumbar puncture (intrathecal chemotherapy). Intrathecal chemotherapy is usually given after each of the first 2 courses of chemotherapy. Sometimes a more intensive treatment is

needed, and the intrathecal drugs are given more frequently until all the regular chemotherapy has been completed. Occasionally, radiotherapy to the brain is also necessary.

## Side effects of treatment

Many cancer treatments will cause side effects. This is because while the treatments are killing the cancer cells, they can also damage some normal cells.

Some of the main side effects are:

- hair loss
- reduction in the number of blood cells produced by the bone marrow, which can cause anaemia (increased risk of bruising, bleeding and infection)
- loss of appetite and weight
- feeling sick (nausea) and being sick (vomiting)

Most side effects are temporary, and there are ways of reducing them and supporting your child through them. Your child's doctor or nurse will talk to you about side effects.

## Late side effects of treatment

A small number of children may develop late side effects, sometimes many years later. These include possible problems with puberty and fertility, a change in the way the heart works, and a small increase in the risk of developing a second cancer in later life. Your child's doctor or nurse will talk to you about any possible late side effects.

## Clinical trials

Many children have their treatment as part of a clinical research trial. Trials aim to improve our understanding of the best way to treat an illness, usually by comparing the standard treatment with a new or modified version. Specialist doctors carry out trials for AML. If appropriate, your child's medical team will talk to you about taking part in a clinical trial and will answer any questions you have. Written information is often provided to help explain things.

Taking part in a research trial is completely voluntary, and you'll be given plenty of time to decide if it's right for your child.

## Treatment guidelines

Sometimes, clinical trials are not available for your child's cancer. This may be because a recent trial has just finished, or because the cancer is very rare. In these cases, you can expect your doctors and nurses to offer treatment which is agreed to be the most appropriate, using guidelines which have been prepared by experts across the country. The Children's Cancer and Leukaemia Group (CCLG) is an important organisation which helps to produce these guidelines.

### Follow-up care

Many children with AML are cured. If the leukaemia comes back after initial treatment, it usually does so within the first 3 years. Most children with AML grow and develop normally.

If you have specific concerns about your child's condition and treatment, it's best to discuss them with your child's doctor, who knows the situation in detail.

# Acute pancreatitis

# How it's treated

Treatment for acute pancreatitis focuses on supporting the functions of the body until the inflammation has passed.

This usually involves admission to hospital so you can be given fluids into a vein (intravenous fluids), as well as pain relief, nutritional support and oxygen through tubes into your nose.

Most people with acute pancreatitis improve within a week and are well enough to leave hospital after 5 to 10 days.

However, recovery takes longer in severe cases, as complications that require additional treatment may develop.

Read more about treating acute pancreatitis.

# Complications

About 4 out of 5 cases of acute pancreatitis improve quickly and don't cause any serious further problems. However, 1 in 5 cases are severe and can result in life-threatening complications, such as multiple organ failure.

In severe cases where complications develop, there's a high risk of the condition being fatal.

If a person survives the effects of severe acute pancreatitis, it's likely to be several weeks or months before they're well enough to leave hospital.

# Addison's disease

# Treating Addison's disease

Addison's disease is treated with medication to replace the missing hormones. You'll need to take the medication for the rest of your life.

With treatment, symptoms of Addison's disease can largely be controlled. Most people with the condition live a normal lifespan and are able to live an active life, with few limitations.

However, many people with Addison's disease also find they must learn to manage bouts of fatigue and there may be associated health conditions, such as diabetes or an underactive thyroid.

People with Addison's disease must be aware of the risk of a sudden worsening of symptoms, called an adrenal crisis. This can happen when the levels of cortisol in your body fall significantly due to not taking your medicines, or during another illness.

An adrenal crisis is a medical emergency and warning signs include severe nausea, confusion, fever, headache and weakness. If left untreated, it can be fatal. If you or someone you know has Addison's disease and is experiencing severe symptoms, phone 999 for an ambulance.

# Adenomyosis

## Diagnosis

When you see your doctor about your symptoms, they'll carry out what is called a pelvic examination. They'll look at your vulva, vagina and cervix (the opening between the vagina and the womb) to see if there is something that could be causing your symptoms. Sometimes other tests might be needed. Your doctor will discuss this with you and you can ask any questions that you might have.

As this is an intimate examination, the doctor who performs it will have another person (chaperone) present. You can ask for a female doctor to carry it out. If there isn't a female doctor available, you can ask if there's a female health professional who could carry out the examination.

You might be referred to a specialist who'll carry out more tests. This might include an ultrasound or an MRI, which will allow a doctor to look at your womb. This can also help rule out any other health conditions.

## Treatment

Depending on your symptoms, there are different options to treat adenomyosis, including:

- anti-inflammatory medication to help relieve mild pain
- treatment during your period to help reduce the amount of menstrual blood loss
- hormone therapy such as the contraceptive pill, to help control heavy or painful periods

- a hysterectomy (removal of the womb) – this would only be considered in extreme cases, where other treatments do not work and if you do not wish to become pregnant

# Alcohol-related liver disease

# How ARLD is treated

There's currently no specific medical treatment for ARLD. The main treatment is to stop drinking, preferably for the rest of your life. This reduces the risk of further damage to your liver and gives it the best chance of recovering.

If a person is dependent on alcohol, stopping drinking can be very difficult. However, support, advice and medical treatment may be available through local alcohol support services.

A liver transplant may be required in severe cases where the liver has stopped functioning and doesn't improve when you stop drinking alcohol.

You'll only be considered for a liver transplant if you've developed complications of cirrhosis, despite having stopped drinking. All liver transplant units require a person to not drink alcohol while awaiting the transplant, and for the rest of their life.

Read more about treating ARLD.

# Complications

Death rates linked to ARLD have risen considerably over the last few decades. Alcohol is now one of the most common causes of death in the UK, along with smoking and high blood pressure.

Life-threatening complications of ARLD include:

- internal (variceal) bleeding
- build-up of toxins in the brain (encephalopathy)
- fluid accumulation in the abdomen (ascites) with associated kidney failure
- liver cancer

# Allergic rhinitis

## Diagnosing allergic rhinitis

Your GP will usually be able to diagnose allergic rhinitis from your symptoms and any triggers you may have noticed. If the cause of your condition is uncertain, you may be referred for allergy testing.

## Treatment for allergic rhinitis

Treatment for allergic rhinitis depends on how severe your symptoms are.

### Things you can do to help your symptoms

If you have mild allergic rhinitis, you can often treat the symptoms yourself.

**Do**

- take over-the-counter medications, such as antihistamines
- clean your nasal passages with a salt water solution
- avoid triggers if you can

Always read the leaflet that comes with your medicine before taking it. Follow the recommended dosage instructions. If you're not sure which treatments are suitable for you or your child, speak to a pharmacist for advice.

How to clean your nose with a homemade salt water solution

**Medication**

Medication won't cure your allergy, but it can be used to treat the symptoms.

Speak to your GP practice if your symptoms do not improve 2 weeks after starting medicine. They may prescribe a stronger medication such as a nasal spray containing corticosteroids.

# Allergies

# When to get professional advice

### Pharmacy First Scotland: Allergies treatment from your pharmacy

If you have allergies you can get advice and treatment directly from a pharmacy. Find your local pharmacy on Scotland's Service Directory.

# Getting help for allergies

If your pharmacist thinks you might have a mild allergy, they can offer advice and treatment to help manage the condition. See your pharmacist if you think you or your child might have had an allergic reaction to something. The symptoms of an allergic reaction can also be caused by other conditions. Your pharmacist can help determine whether it's likely you have an allergy.

If your allergy is particularly severe or it's not clear what you're allergic to, the pharmacist may advise you see your GP who may refer you to an allergy specialist for testing and advice about treatment.

Read more about allergy testing.

# How to manage an allergy

In many cases, the most effective way of managing an allergy is to avoid the allergen that causes the reaction whenever possible.

For example, if you have a food allergy, you should check a food's ingredients list for allergens before eating it. The Food Standards Agency has more information about food allergen labelling.

There are also several medications available to help control symptoms of allergic reactions, including:

- antihistamines – these can be taken when you notice the symptoms of a reaction, or before being exposed to an allergen to stop a reaction occurring
- decongestants – tablets, capsules, nasal sprays or liquids that can be used as a short-term treatment for a blocked nose
- lotions and creams, such as moisturising creams (emollients) – these can reduce skin redness and itchiness
- steroid medication – sprays, drops, creams, inhalers and tablets that can help reduce redness and swelling caused by an allergic reaction

For some people with very severe allergies, a treatment called immunotherapy may be recommended.

This involves being exposed to the allergen in a controlled way over a number of years, so your body gets used to it and doesn't react to it so severely.

# Alzheimer's disease

## When to speak to a healthcare professional

If you're worried about your memory or think you may have dementia, you should speak to your GP.

If you're worried about someone else, you should encourage them to make an appointment at their GP practice. You could suggest that you'll go with them.

More advice if you're worried about dementia

## Diagnosing Alzheimer's disease

Memory problems are not only caused by dementia. They can also be caused by depression, stress, medications or other health problems.

Your GP can carry out some simple checks to try to find out what the cause may be. They can refer you to a specialist for more tests, if necessary.

## Treatment for Alzheimer's disease

There's currently no cure for Alzheimer's disease. But, there are treatments that can help manage the symptoms. Your GP or healthcare professional can discuss the best treatment options for you.

There are things you can do to live well for as long as possible with dementia.

# Anal cancer

## Diagnosing anal cancer

Your GP will usually ask about your symptoms and carry out some examinations.

They may feel your tummy and carry out a rectal examination. This involves your doctor inserting a gloved finger into your bottom so they can feel any abnormalities. Your GP will refer you to hospital if they think further tests are necessary.

The National Institute for Health and Care Excellence (NICE) recommends in its 2015 guidelines that GPs should consider referring someone with an unexplained anal lump or anal ulcer. The person should receive an appointment within 2 weeks.

If you're referred to hospital, a number of different tests may be carried out to check for anal cancer and rule out other conditions.

Some of the tests you may have include a:

- sigmoidoscopy – where a thin, flexible tube with a small camera and light is inserted into your bottom to check for any abnormalities
- proctoscopy – where the inside of your rectum is examined using a hollow tube-like instrument (proctoscope) with a light on the end
- biopsy – where a small tissue sample is removed from your anus during a sigmoidoscopy or proctoscopy so it can be examined in a laboratory under a microscope

If these tests suggest you have anal cancer, you may have some scans to check whether the cancer has spread. Once these are complete, your doctors will be able to 'stage' the cancer. This means giving it a score to describe how large it is and how far it has spread.

You can read more about the stages of anal cancer on the Cancer Research UK website.

## How anal cancer is treated

If you're diagnosed with anal cancer, you'll be cared for by a multidisciplinary team. This is a team of different specialists who work together to provide the best treatment and care.

The main treatments used for anal cancer are:

- chemoradiation – a combination of chemotherapy and radiotherapy
- surgery – to remove a tumour or a larger section of bowel

In cases where the cancer has spread and can't be cured, chemotherapy alone may be considered to help relieve symptoms. This is known as palliative care.

## Chemoradiation

Chemoradiation is a treatment that combines chemotherapy (cancer-killing medication) and radiotherapy (where radiation is used to kill cancer cells). It's currently the most effective treatment for anal cancer. You don't usually need to stay in hospital when you're having chemoradiation.

Chemotherapy for anal cancer is usually given in 2 cycles, each lasting 4 to 5 days, with a 4-week gap between the cycles. In many cases, part of the chemotherapy is delivered through a small tube called a peripherally inserted central catheter (PICC) in your arm, which can stay in place until your treatment has finished.

The tube means you don't need to stay in hospital during each of the cycles of chemotherapy. However, you'll be attached to a small plastic pump, which you take home with you.

A few hospitals now offer tablet chemotherapy for anal cancer, which avoids the need for the pump and PICC.

Read more about how chemotherapy is carried out

Radiotherapy is usually given in short sessions, once a day from Monday to Friday, with a break at weekends. This is usually carried out for 5 to 6 weeks. To prepare for radiotherapy, additional scans will be required.

Read more about how radiotherapy is carried out

Both chemotherapy and radiotherapy often cause significant side effects, including:

- tiredness
- sore skin around the anus
- sore skin around the penis and scrotum in men or vulva in women
- hair loss – limited hair loss from the head, but total loss from the pubic area
- feeling sick
- diarrhoea

These side effects are usually temporary, but there's also a risk of longer-term problems, such as infertility. If you're concerned about the potential side effects of treatment, you should discuss this with your care team before treatment begins.

Other possible long-term side effects can include:

- bowel control problems
- long-term (chronic) diarrhoea
- erectile dysfunction
- vaginal pain when having sex
- dry and itchy skin around the groin and anus
- bleeding from the anus, rectum, vagina or bladder

Tell your doctor if you develop any of these symptoms so they can be investigated and treated.

## Surgery

Surgery is a less common treatment option for anal cancer. It's usually only considered if the tumour is small and can be easily removed, or if chemoradiation hasn't worked.

If the tumour is very small and clearly defined, it may be cut out during a procedure called a local excision. This is a relatively simple procedure, carried out under general anaesthetic, that usually only requires a stay in hospital of a few days.

If chemoradiation has been unsuccessful or the cancer has returned after treatment, a more complex operation called an abdominoperineal resection may be recommended. As with a local excision, this operation is carried out under general anaesthetic.

An abdominoperineal resection involves removing your anus, rectum, part of the colon, some surrounding muscle tissue, and sometimes some of the surrounding lymph nodes (small glands that form part of the immune system) to reduce the risk of the cancer returning. You'll usually need to stay in hospital for up to 10 days after this type of surgery.

During the operation, a permanent colostomy will also be formed to allow you to pass stools. This is where a section of the large intestine is diverted through an opening made in the abdomen called a stoma. The stoma is attached to a special pouch that will collect your stools after the operation.

Before and after the operation, you'll see a specialist nurse who can offer support and advice to help you adapt to life with a colostomy. Adjusting to life with a colostomy can be challenging, but most people become accustomed to it over time.

# Angina

# Diagnosing angina

To diagnose angina, you will be assessed and you may need to have several tests.

You will also be asked some questions about:

- the symptoms you experienced
- if there were any triggers for the pain
- your family's medical history
- lifestyle risk factors (like smoking, for example)

# Tests for angina

You might also be given some tests to determine if you already have heart disease or you're at risk of it.

- measuring your weight
- measuring blood pressure
- taking blood to check cholesterol levels, diabetes or anaemia

If it's thought that you have angina, you might be referred to the hospital for some more tests. These might include:

- electrocardiogram (ECG) – measures the rhythms and electrical activity of the heart
- exercise tolerance test (ETT) – measures the activity of the heart during exercise
- myocardial perfusion scan (MPS or MYoview) – measures how well blood is reaching the heart
- coronary angiography – shows whether your coronary arteries are narrow and how severe any blockages are
- blood tests – help to identify increased enzyme levels (troponin) which are released when the heart is damaged

# Types of angina

The 2 main types of angina are stable angina and unstable angina.

Stable angina is more common. Attacks are more likely to have a trigger (like physical activity or stress).

Symptoms of stable angina usually only last for a few minutes after exercise or stress. They can improve with rest and by taking a medication called Glyceryl trinitrate (GTN).

Attacks of unstable angina can be unpredictable and develop without any clear triggers. They might also last longer and continue even when resting.

Sometimes, when chest pain occurs suddenly, it’s unclear if it’s due to unstable angina or a heart attack. Until tests confirm the diagnosis, doctors sometimes call this Acute Coronary Syndrome (ACS).