Acute pancreatitis

Overview

Acute pancreatitis is a condition where the pancreas becomes inflamed (swollen) over a short period of time.

The pancreas is a small organ, located behind the stomach, that helps with digestion.

Most people with acute pancreatitis start to feel better within about a week and have no further problems. But some people with severe acute pancreatitis can go on to develop serious complications.

Acute pancreatitis is different to chronic pancreatitis, where the pancreas has become permanently damaged from inflammation over many years.

Symptoms of acute pancreatitis

The most common symptoms of acute pancreatitis include:

- suddenly getting severe pain in the centre of your tummy (abdomen)
- feeling or being sick
- a high temperature of 38C or more (fever)

Read more about the symptoms of acute pancreatitis and diagnosing acute pancreatitis.

When to get medical help

See a GP immediately if you suddenly develop severe abdominal pain. If this isn't possible, contact NHS 111 for advice.

Causes of acute pancreatitis

Acute pancreatitis is most often linked to:

- gallstones
- drinking too much alcohol

But sometimes the cause is not known.

By reducing how much alcohol you drink and altering your diet to make gallstones less likely, you can reduce your chances of developing acute pancreatitis.

Read more about the causes of acute pancreatitis and preventing acute pancreatitis.

How it's treated

Treatment for acute pancreatitis aims to help control the condition and manage any symptoms.

This usually involves admission to hospital. You may be given fluids directly into a vein (intravenous fluids), pain relief, liquid food through a tube in your tummy and oxygen through tubes in your nose.

Most people with acute pancreatitis get better within a week and are well enough to leave hospital after a few days.

Recovery can take longer in severe cases, as some people can develop complications.

Read more about treating acute pancreatitis and the possible complications of acute pancreatitis.

Symptoms

The main symptom of acute pancreatitis is a severe pain that develops suddenly in the centre of your tummy.

This aching pain often gets steadily worse and can travel along your back.

Other symptoms of acute pancreatitis include:

- feeling or being sick (vomiting)
- indigestion
- a high temperature of 38C or more (fever)
- yellowing of the whites of the eyes, and yellowing of the skin although this may be less obvious on brown or black skin (jaundice)
- tenderness or swelling of the tummy
- fast heartbeat (tachycardia) or rapid breathing

Eating or drinking may make you feel worse very quickly, especially if you eat fatty foods.

Leaning forward or curling into a ball may help to relieve the pain, but lying flat on your back often makes it worse.

Acute pancreatitis caused by gallstones usually develops after eating a large meal. If the condition is caused by alcohol, the pain often develops 6 to 12 hours after drinking an excessive amount of alcohol.

When to get medical advice

See a GP immediately if you suddenly develop severe pain in your tummy. If this isn't possible, you can call NHS 111 for advice. You may be admitted to hospital for further tests and treatment.

Causes

Acute pancreatitis is usually caused by gallstones or drinking too much alcohol, but sometimes no cause can be identified.

Gallstones

Gallstones are small stones that form in your gallbladder. They can sometimes trigger acute pancreatitis if they move out of the gallbladder and block the opening of the pancreas.

Alcohol consumption

It's not fully understood how alcohol causes the pancreas to become swollen (inflamed). One theory is that it causes enzymes inside the pancreas to start digesting it.

Whatever the cause, there is a clear link between alcohol use and acute pancreatitis.

Binge drinking – drinking a lot of alcohol in a short period of time – is also thought to increase your risk of developing acute pancreatitis.

Other causes

Less common causes of acute pancreatitis include:

- high blood fat levels (hypertriglyceridaemia)
- accidental damage or injury to the pancreas – for example, during a procedure to remove gallstones or examine the pancreas
- a side effect of medicine
- viruses like mumps or measles
- high blood calcium levels (hypercalcaemia)
- the immune system attacking the pancreas (autoimmune pancreatitis)

Severe pancreatitis

You're probably more likely to develop severe pancreatitis if you:

- are over 70
- are obese (you have a body mass index (BMI) of 30 or above)
- have 2 or more alcoholic drinks a day
- smoke
- have a family history of pancreatitis

Diagnosis

Acute pancreatitis is usually diagnosed in hospital, where you'll receive treatment and be monitored for any complications.

A doctor will ask you about your symptoms, family history and may feel your tummy – it will be very tender if you have acute pancreatitis.

They'll also do a blood test, and sometimes a CT scan, to help confirm the diagnosis.

At first, it can be difficult to tell whether your acute pancreatitis is mild or severe. You'll be monitored closely for signs of serious problems, such as organ failure.

Further testing

You may have further tests to help determine the severity of your condition and assess your risk of developing more serious complications. These may include:

- a CT scan – where a series of X-rays are taken to build up a more detailed image of your pancreas

- an MRI scan – where strong magnetic fields and radio waves are used to produce a detailed image of the inside of your body
- an ultrasound scan – where sound waves are used to create a picture of your gallbladder to detect gallstones, and a picture of your pancreas

Treatment

Acute pancreatitis is treated in hospital, where you'll be closely monitored for signs of serious problems and given supportive treatment, such as fluids and oxygen.

People with mild acute pancreatitis usually start to get better within a week and experience either no further problems, or problems that get better within 48 hours.

Many people are well enough to leave hospital after a few days.

Those with severe acute pancreatitis can develop complications that require further treatment and may need to be admitted to a high-dependency unit or intensive care unit (ICU). Recovery may take much longer from severe acute pancreatitis, and there's a risk it could be fatal.

Read about complications of acute pancreatitis for more information on severe cases.

Fluids

Having acute pancreatitis can cause you to become dehydrated, so fluids are given through a tube into your vein (intravenous or "IV" fluid) to prevent dehydration.

Oxygen

To make sure your body gets enough oxygen, you may be given oxygen through tubes in your nose. The tubes can be removed after a few days once your condition is improving.

If you have severe acute pancreatitis, ventilation equipment may also be used to help with your breathing.

Painkillers

Acute pancreatitis often causes severe tummy pain, so you'll probably need painkillers. Some of these can make you feel very drowsy.

If you're visiting someone who is in hospital with acute pancreatitis, don't be alarmed or concerned if they appear drowsy or unresponsive.

Antibiotics

You may need to take antibiotics if you have an infection as well as pancreatitis – for example, if you have a chest or urinary infection.

Nutritional support

If you have mild acute pancreatitis but aren't feeling or being sick and don't have tummy pain, you can usually eat normally.

But if your condition is more severe, you may be advised not to eat solid foods for a few days or longer. This is because trying to digest solid food could put too much strain on your pancreas.

If you need to avoid solid food, you may be given a special liquid food mixture, with the nutrients you need, through a tube in your tummy (enteral feeding).

Treating the underlying cause

Once the condition is under control, the underlying cause may need treating.

Gallstones

If a gallstone is causing your pancreatitis, you may need a procedure called an endoscopic retrograde cholangiopancreatogram (ERCP), or your gallbladder may need to be removed.

If you need an ERCP, you'll have a long, thin tube containing a camera (an endoscope) passed down through your mouth into your tummy. This is used to help remove the gallstones.

Gallbladder removal surgery may be done while you're in hospital or planned for several weeks' time.

Having your gallbladder removed shouldn't have a big effect on your health, but it might make it more difficult for you to digest certain foods, such as fatty or spicy foods.

Ideally, the gallbladder should be removed within 2 weeks of your attack of pancreatitis unless you are too unwell for surgery.

Alcohol consumption

After recovering from acute pancreatitis, you should completely avoid alcohol if this was the cause of your condition.

Some people with acute pancreatitis have a dependency on alcohol and need help and support to stop drinking. If this applies to you, see a GP to get help.

Treatment for alcohol dependence includes:

- one-to-one counselling
- self-help groups, such as Alcoholics Anonymous
- taking a medicine called acamprosate that can reduce cravings for alcohol

Read more about treating alcohol misuse.

Complications

Most people with acute pancreatitis recover without experiencing any further problems. But those with severe acute pancreatitis can develop serious complications.

Pseudocysts

Sometimes, sacs of fluid, called pseudocysts, can develop on the surface of the pancreas in people with acute pancreatitis.

These can cause bloating, indigestion and dull tummy pain. They often disappear on their own but can sometimes get infected and may need to be drained.

Pancreatic necrosis and infection

Sometimes people with severe acute pancreatitis can develop a complication where the pancreas loses its blood supply. This can cause some of the tissue of the pancreas to die (necrosis).

When this happens, the pancreas can become infected, which can spread into the blood (sepsis) and cause organ failure.

People with necrosis and an infection may need injections of antibiotics and surgery to remove the dead tissue.

This is a very serious complication that needs treating, and it can be fatal.

Chronic pancreatitis

If you keep getting acute pancreatitis, it may eventually permanently damage your pancreas.

This is called chronic pancreatitis and is a long-term condition that can seriously affect your quality of life.

Acute pancreatitis is often caused by gallstones or drinking too much alcohol. A healthy lifestyle can reduce your chances of developing the condition.

Gallstones

The most effective way of preventing gallstones is by eating a balanced diet that includes at least 5 portions of fresh fruit and vegetables a day.

Your diet should also include wholegrains – found in wholemeal bread, oats and brown rice. This helps lower the amount of cholesterol in your body.

Because there seems to be a link between having high cholesterol and developing gallstones, you should avoid eating too many fatty foods with a high cholesterol content.

Being overweight also increases your chances of developing gallstones. Maintain a healthy weight by eating a balanced diet and doing regular exercise to reduce your risk of developing the condition.

See exercise, healthy eating and managing your weight for more information and advice.

Alcohol

You can reduce your risk of developing acute pancreatitis by cutting back on drinking alcohol. This helps to prevent your pancreas being damaged.

It's recommended that you:

- don't drink more than 14 units a week
- spread your drinking over 3 days or more if you drink as much as 14 units a week

A unit of alcohol is equal to about half a pint of normal-strength lager or a pub measure (25ml) of spirits. A small (125ml) glass of wine (ABV 12%) or an alcopop is 1.5 units.

Remember, if you've had acute pancreatitis caused by drinking too much alcohol, you should avoid it completely.

Read about alcohol advice for more information.