

Appendicitis

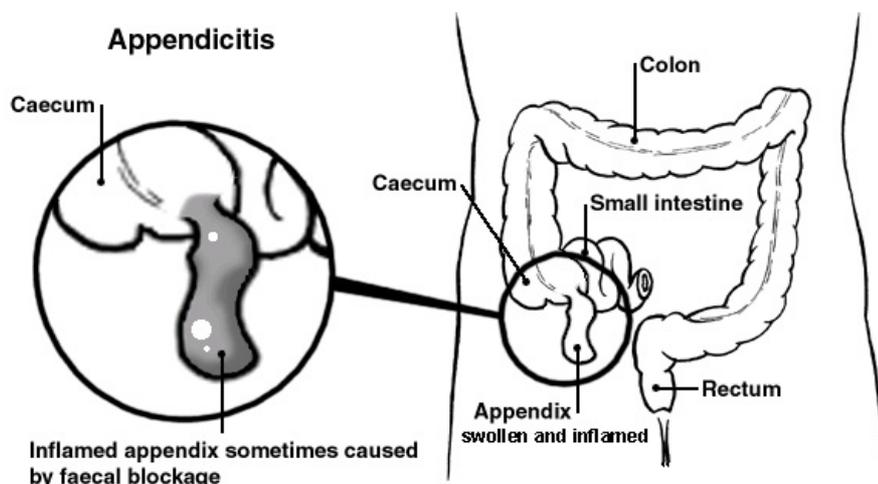
Appendicitis means inflammation of the appendix. The appendix is a small pouch that comes off the gut wall. Appendicitis is common. Typical symptoms include abdominal pain and vomiting that gradually get worse over 6-24 hours. Some people have less typical symptoms. An operation to remove the inflamed appendix is usually done before it perforates (bursts). A perforated appendix is serious.

What and where is the appendix?

The appendix is a small dead end pouch, like a little tube, that comes off the caecum. The caecum is the first part of the large intestine (large bowel) just before the colon. The small intestine digests and absorbs food. The parts of the food that are not digested begin to be formed into faeces (motions) in the caecum.

The appendix is normally about 5-10 cm long and quite thin. The appendix appears to have no function. The reason it is there is a bit of a mystery.

What is appendicitis?



Appendicitis means inflammation of the appendix. The inflamed appendix becomes infected with bacteria (germs) from the intestine. The inflamed appendix gradually swells and fills with pus. Eventually, if not treated, the swollen appendix might perforate (burst). This is very serious, as the contents of the intestine then spill into the abdominal cavity. This can cause a serious infection of the membrane that lines the abdomen (peritonitis), or an abscess in the abdomen. So, if appendicitis is suspected, early treatment is best before it bursts.

Who gets appendicitis?

Appendicitis is common and can affect anyone of any age. Teenagers and young adults are the most commonly affected. About 6 in 100 people in the UK have appendicitis at some time in their life. Appendicitis is the cause of the most common abdominal surgical emergency admission to hospital in the UK. It is slightly more common in men than in women. It is much more common in western countries. This is thought to be partly due to the western diet which is often low in fibre.

What causes appendicitis?

The reason why the appendix becomes inflamed in the first place is not known in most cases. Some cases are thought to be due to a blockage that occurs somewhere along the short appendix. This may be due to some hard faeces (sometimes called motions, stools or poo) that get stuck. Bacteria may then thrive and cause inflammation behind the blockage in the dead end of the appendix.

What are the symptoms of appendicitis?

Pain in the abdomen (tummy pain) is usually the main symptom. Commonly, the pain starts in the middle of the abdomen. The pain normally develops quickly, over an hour or so. Over the next few hours the pain typically travels to the lower right-hand side of the abdomen. This is over where the appendix normally lies.

Typically the pain becomes worse and worse over 6-24 hours. The pain may become severe. The pain tends to be more sharp if you cough or make any jarring movements. The pain may ease a bit if you pull your knees up towards your chest. The lower abdomen is usually tender, particularly in the lower right-hand side.

Other symptoms that may occur include the following.

- **Feeling sick** and being off food is typical. You may vomit.
- **Fever** and generally feeling unwell.
- **Constipation** may occur. Sometimes diarrhoea.
- **Frequent passing of urine** may develop. This is thought to be due to the inflammation irritating the nearby ureter (the tube between the kidney and bladder).

If the appendix perforates (bursts) then severe pain can spread to all the abdomen. You also become very ill.

In some cases, the symptoms are not so typical. For example, in some cases the pain may develop more slowly and run a more smouldering course. The pain may also start in the lower right-hand side of the abdomen. Also, the pain may not become severe until the appendix perforates. The site of the pain may not be typical if the appendix lies in an unusual place.

How is appendicitis diagnosed?

A doctor may diagnose appendicitis quite easily if you have the typical symptoms. However, as described above, not everyone has typical symptoms. Sometimes it is difficult for doctors to be sure that appendicitis is the cause of the symptoms.

Some people develop pain that is similar to appendicitis, but which is caused by other conditions. For example, pelvic inflammatory disease or a urine infection. Some people have surgery only to find that the appendix is normal and not inflamed.

There is no easy and foolproof test to confirm appendicitis. A surgeon often has to make a judgement whether to operate or not. It depends on whether the symptoms and also the findings when you are examined suggest that appendicitis is the probable diagnosis. Your doctor will examine your abdomen to assess where you are tender.

Sometimes a surgeon advises to wait and see for a few hours or so while you are being monitored in hospital. This allows some time to see if your symptoms progress to a more definite diagnosis, or even if they change or go away.

Sometimes tests are used if there is doubt about the diagnosis. For example, an ultrasound scan or a CT scan may help to clarify the cause of the symptoms in some cases. Blood tests are also done when you are admitted to hospital. A new urine test has recently been assessed in clinical trials which looks promising to help the diagnosis of appendicitis. This is not yet widely available though.

However, doing scans takes time and may get in the way of doing prompt surgery, which is often the top priority (see below).

What is the treatment for appendicitis?

You will be admitted to hospital if appendicitis is suspected. An operation to remove the inflamed appendix is usually done quite quickly once the diagnosis is made. It is much better to remove an inflamed appendix before it bursts. The inflamed appendix is found and cut off the caecum. The hole left in the caecum is stitched up to stop any contents from the gut leaking out. Antibiotic medicine is given just before the operation to reduce the risk of an infection developing at the site of the operation.

Removal of the appendix is one of the most commonly performed operations in the UK. In most cases, the operation is done before the appendix perforates. This is usually a straightforward and successful operation needing just a short recovery. However, surgery can be more difficult and you will take longer to recover if the appendix has perforated.

Surgery is commonly done by a keyhole operation, as the recovery is quicker compared to having an open operation. The keyhole operation is performed through three tiny cuts, the largest of which is only around 1.5 cm in size.

There are usually no long-term complications after the operation. As with any operation, there is a small risk of complications from the operation itself and from the anaesthetic. However, if you don't have an operation, an inflamed appendix is likely to perforate and cause a serious infection in the abdomen (peritonitis) which can be life-threatening.

Further reading & references

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Peer Reviewer: Dr Tim Kenny

Last Checked: 24/01/2012

Document ID: 4564 Version: 41

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