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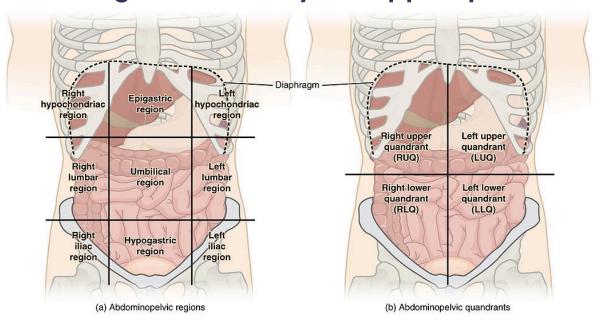
Left upper quadrant pain

This leaflet looks at pains which can develop in the upper part of the tummy (abdomen) on your left hand side. It deals with possible causes (such as stomach ulcers or pancreatitis), how a diagnosis might be made and what the treatment might be.

Where is my left upper quadrant?

The left upper quadrant (LUQ) is a section of your tummy (abdomen). Look down at your tummy, and mentally divide the area from the bottom of your ribs down to your pubes into four quarters. The quarter on your left side closest to your ribs is your LUQ.

What organs are in my left upper quadrant?



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The organs within your LUQ include:

Spleen.

- Stomach.
- Pancreas (a part of it it crosses the midline).
- Left kidney (at the back behind the other organs) and left adrenal gland.
- Upper part of the large bowel (colon).
- A small part of your liver (most of it is on the right side, but a small part of it crosses over the midline into your LUQ).

And don't forget the skin and nerves of that section.

What causes left upper quadrant pain?

There are a lot of possible causes for pain in the upper left abdomen area. These include:

- Problem with the spleen.
- Problems with your gut (bowels).
- Shingles.
- Kidney stones.
- Aortic aneurysm.
- Pancreatitis.
- Pancreatic cancer.
- UTI's.

The following are some of the possibilities, not in order of how common they are.

Problems with the spleen

Your spleen is just behind your stomach, under and behind the lower ribs on your left. Its main functions are to filter your blood, create new blood cells and store platelets. It is also a key part of your body's immune system. It may cause pain:

• When it becomes enlarged, which can happen in certain blood-related cancers such as leukaemias and lymphomas. This tends to be a vague ache which may gradually get worse. An enlarged spleen can also occur during infections such as glandular fever, in which case a very mild pain would be associated with tiredness and repeated bouts of a sore throat and sometimes high temperature (fever).

"To prevent spread, you should avoid kissing and close body contact with other people whilst you are ill. It is also best not to share cups or towels."

Source: Dr Laurence Knott

- If it bursts (ruptures) following an injury, such as in a road traffic accident. This causes a sudden severe pain shortly after trauma to the tummy (abdomen.
- If it is damaged as part of a crisis in sickle cell disease.

Problems with your guts (bowels)

All sorts of common and uncommon problems to do with the upper and lower part of your guts can give you pain in this area. For example:

- Stomach ulcers. Stomach ulcers tend to give you pain in the middle
 of your tummy just under your ribs. The pain may be worse after
 eating or when you are lying down at night. Antacids may ease the
 pain.
- Indigestion (dyspepsia). You can get some pain in the upper part of your tummy associated with heartburn and acid reflux. Again this tends to be worse lying flat or after meals. You may get some bloating.
- Gastroenteritis. Infections in your guts tend to cause pain all over your tummy, which is crampy and which is usually accompanied by diarrhoea and/or being sick (vomiting).
- Diverticulitis. This is an inflammation of a pouch or pouches which
 people who have diverticular disease have in their guts. Usually the
 pain from diverticulitis is lower in the abdomen, but sometimes it can
 be felt higher up. It usually comes with a temperature and an altered
 bowel habit.

- Crohn's disease and ulcerative colitis. These are long-term conditions which can cause pain anywhere in the tummy at times. They usually cause loose stools, sometimes with blood.
- Constipation. If your guts are full of poo, this can cause discomfort anywhere in your tummy. You will normally be aware that you are not opening your bowels as often, and that your poo is hard.
- Irritable bowel syndrome. This tends to cause pain lower down but can give pain anywhere in the tummy, especially as it often causes bloating which can make you feel uncomfortable higher up. It comes and goes and may be associated with diarrhoea and/or constipation.

Shingles

In some cases you can get the pain from shingles before the rash appears. You may have pain for a few days before a blistery rash appears. The pain tends to be quite sharp or burning, and you may feel not quite right in yourself. The tummy is a common place for a shingles rash.

Other people find they continue to get a pain long after the shingles rash is gone. This is called postherpetic neuralgia (PHN).

Kidney stones and infections

Problems with the left kidney tend to give you pain more around the left-hand side of the abdomen, or in your back (loin), but the pain may spread and involve the front of the tummy area. Kidney stones can cause a severe pain (usually round the back) which occurs in spasms lasting from a few minutes to several hours. There may also be blood in your wee.

A kidney infection can cause pain anywhere along your urinary tract. So this could be anywhere from the loin in your back, round to the front, the LUQ, or down to the lower part of your tummy. It may be associated with a fever, pain when you wee, or going to the loo more frequently.

Pain coming from the aorta

Your aorta is the main blood vessel of your body, carrying blood from your heart, and passing through the middle of your tummy, taking blood down to your legs and elsewhere. In some people this can swell, making it more vulnerable to leaking or bursting. This is called an aortic aneurysm.

If it develops a leak, you can get a tummy pain which you may feel in your back. If it bursts (ruptures), you will get a very severe pain in your tummy, back or chest and feel very unwell indeed. Any pain which is suspected to come from a leaking aortic aneurysm is a major medical emergency and needs instant treatment.

Pain coming from the pancreas

Your pancreas is in the middle of the upper part of your tummy. Chemicals (enzymes) made by cells in the pancreas pass into the guts to help digest food. The hormones insulin and glucagon are also made in the pancreas and help to regulate the blood sugar level.

It can become inflamed in the conditions acute pancreatitis and chronic pancreatitis, causing upper tummy pain, usually with feeling sick (nausea) and/or being sick (vomiting). The pain is usually in the centre of the upper part of your tummy, but can be felt on the left. In acute pancreatitis there is usually also a fever and you may feel very unwell in yourself.

Cancers of the pancreas can also cause upper tummy pain, although they often don't cause any symptoms which is why they can be diagnosed late.

What causes left upper quadrant pain in pregnancy?

Any of the above conditions can cause pain in the LUQ area, whether you are pregnant or not, so you should always get checked out. However, in pregnancy a common cause of discomfort is the sheer pressure of the womb pressing on other organs, and pressing them into the diaphragm.

Also problems with indigestion tend to be common in pregnancy, again at least partly due to the pressure on the stomach. Urinary tract infections are also more common in pregnancy.

What causes left upper quadrant pain in children?

In young children it is often quite difficult for them to show exactly where the pain is. If this is the case, the field of options widens to almost any cause of tummy ache. In children common causes include:

- Constipation.
- Anxiety.
- Gastroenteritis.
- Mesenteric adenitis. In children with viral infections such as colds, glands within the tummy commonly become inflamed giving them tummy ache.
- Appendicitis. Usually this gives pain in the *lower right* part of the tummy, but if a child can't show you exactly where the pain is, or if the appendix has burst (ruptured), appendicitis may be a possible diagnosis to consider.
- Pneumonia. Infections in the lower parts of the lungs can cause pain in the tummy.

What else could it be?

The more common causes are those which arise from an organ which is located in the LUQ region. However, sometimes a pain is felt in the tummy (abdomen), which is due to a problem elsewhere. Either this is because it is close by, or because the pain is 'referred' from another part of the body further away.

Pain coming from a problem in your lungs

Problems with the lower part of your lungs may feel as though the pain is in the upper part of your tummy. The lower part of your lungs and the upper part of your tummy are separated only by the sheet of muscle called the diaphragm.

Problems which might cause pain include infections such as pneumonia or pleurisy. You would usually have other common symptoms such as a cough, high temperature (fever), or pain on breathing.

Pain coming from a problem with your heart

Problems with your heart more usually cause a pain in your chest. However, again the chest and tummy cavities are very close together and sometimes it may feel more as though the pain is in your upper tummy. Heart problems which might do this include:

- Angina. Pain usually comes on as you exert yourself and settles when you rest.
- A heart attack (myocardial infarction). Pain is sudden and crushing.
 There may also be pain in the left arm or jaw, and you may feel
 generally very unwell and/or short of breath. Call an ambulance
 immediately if you think you are having a heart attack.
- Pericarditis. This is an inflammation of the surrounding sac of the heart. More typically it gives you chest pain, usually with a fever.

Referred pain

Problems in your spine or back can be 'referred' so that you feel the pain around the front. Pain may also be referred from problems in the pelvis, which is below the tummy. This might include conditions such as infections (pelvic inflammatory disease) or ovarian cysts. Again the pain in the LUQ area would usually be accompanied by one or more typical symptoms of these conditions.

Muscular problems

Muscle pulls and sprains can also affect you in the tummy area, after an unusual exercise or activity. If this is the case, moving that particular muscle would make the pain worse, whereas if you lie completely still it wouldn't hurt.

Medical illnesses causing pain

Medical illnesses which occasionally may cause pain in the upper part of the tummy include:

- A serious complication of type 1 diabetes, called diabetic ketoacidosis. This makes you very unwell generally, but occasionally tummy pain can be one of the symptoms.
- A complication of a condition called Addison's disease, called an Addisonian crisis, occasionally can give you tummy pain. Again you would be unwell in other ways other than the pain.
- Sepsis. This is infection which has spread through your body, and again, in addition to pain you would be very unwell.
- An unusual blood disorder called acute porphyria.

Cancers

Tumours in any of the organs within the LUQ area may cause a pain. This includes cancers of the stomach, kidney, upper colon, and pancreas. As mentioned previously, enlargement of the spleen due to lymphomas or leukaemias can also cause pain.

These lists of possible causes are by no means exhaustive and there are many other conditions which can occasionally cause pain in the LUQ area.

Are everybody's organs in the same place?

Very rarely, it is possible to have organs the opposite way round to the usual arrangement. This occurs in fewer than 1 in 10,000 people and is called situs inversus. If you were one of these few then all the causes which affect most people in the right upper quadrant (RUQ) could give you pains on the left.

How is left upper quadrant pain diagnosed?

Your doctor will narrow the (enormous) field of possible diagnoses by talking to you and by examining you. They may be able to find the cause simply from doing so. For example, if they find the typical rash of shingles, you will need no further tests to find the cause.

If they find your spleen to be enlarged this suggests the problem is related to your spleen or blood. If examination is normal, that already rules out quite a few possible diagnoses. The doctor will certainly need to feel your tummy (abdomen) in the area you have the pain, but may also need to examine other parts too, such as the rest of your tummy and your chest.

You may be asked to provide a sample of urine, to rule out kidney problems.

You may well have to go for blood tests. These might include tests to:

- Check the function of your pancreas, liver and kidneys.
- Rule out any inflammation or infection in your system.
- Screen for lymphomas and leukaemias and to look for anaemia.
- Check your blood sugar level.

What are the next steps?

Next it will depend on what examination and which tests above have suggested. In some cases no further tests will be needed - if, for example, your doctor is confident you have indigestion, or constipation or shingles.

If a heart or lung problem is suspected, a heart tracing (electrocardiogram, or ECG) and/or chest X-ray might be required. If a problem with your stomach or upper bowel is suspected, you may need an examination with a tube with a camera put down into your stomach (an endoscopy).

A computerised tomography (CT) scan or an ultrasound scan may be helpful to look at your spleen, pancreas or kidneys. In some cases an X-ray of the tummy may be useful. Further tests include other 'scopes' (such as a colonoscopy or endoscopic retrograde cholangiopancreatography (ERCP) and other scans (such as a magnetic resonance imaging (MRI) scan).

Nobody will need all these tests, and some people may not need any.

Treatment for left upper quadrant pain

There is no single answer to this until you know what the cause of your pain is. See the relevant leaflet for the condition with which you have been diagnosed. Treatments for a few of the causes of LUQ pain are briefly discussed below.

- Shingles. The pain and rash settle on their own in time, but some people may be advised to take an antiviral tablet to reduce the risk of long-term nerve pain after shingles.
- Kidney infections are treated with antibiotics. Mild infections can be treated with antibiotics at home. If you are very unwell you may need admission to hospital for antibiotics and fluids through a drip (intravenously).
- Kidney stones. Small kidney stones pass on their own eventually, in which case you will need to drink plenty of fluids and take strong painkillers. Larger kidney stones may need one of a number of procedures done to break them up or remove them altogether.
- A stomach ulcer and indigestion are usually treated with acidsuppressing medication.

- Gastroenteritis usually doesn't need any treatment, other than
 drinking plenty of fluid to compensate for all that is being lost.
 Occasionally when germs (bacteria) which can be treated with
 antibiotics are causing the infection an antibiotic may help.
- Ruptured spleens are usually removed with an operation (a splenectomy). You can survive without your spleen, but you do need to take certain precautions, as your spleen is important for your immune system. These include having certain immunisations and in some people taking regular antibiotics.
- If the spleen is enlarged by lymphoma or leukaemia, treatment is usually with chemotherapy.
- Pneumonia is treated with antibiotics.

What is the outlook?

Again this depends entirely on the cause of the pain. Some conditions settle very quickly on their own (for example, gastroenteritis), or with the help of antibiotics (for example, a kidney infection).

Others can be cured with treatment, such as stomach ulcers. Some can rumble on for a long time, such as postherpetic neuralgia (PHN). Your doctor should be able to give you an idea of the outlook (prognosis) once a diagnosis has become clear.

Further reading

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