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Pancreatic cysts

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Definition

Pancreatic cysts are abnormal, sac-like pockets of fluid on or within your pancreas. Though it may be alarming to learn you have a pancreatic cyst, the good news is that most pancreatic cysts aren't cancerous — and many don't even cause symptoms.



Pancreas



Types of pancreatic cysts

In fact, many pancreatic cysts aren't technically cysts at all. Called pseudocysts, these noncancerous (benign) pockets of fluids aren't lined with the type of cells found in true cysts but, instead, with inflammatory or scar tissue.

But because some pancreatic cysts can be cancerous, your doctor may want to take a sample of the pancreatic cyst fluid to determine whether cancer cells are present. If your cyst is or can become cancerous, treatment involves surgical removal.

Symptoms

You may have pancreatic cysts, including pseudocysts, but experience

no symptoms. Pancreatic cysts are often discovered when imaging tests of the abdomen are done for another reason. When signs or symptoms do occur, they typically include:



Types of pancreatic cysts

- Persistent abdominal pain, which may radiate to your back
- A mass you can feel in your upper abdomen, where your pancreas is located
- Nausea and vomiting

When to see a doctor

Cysts can become infected, so see a doctor if you are feverish and have persistent abdominal pain.

A ruptured pseudocyst is a medical emergency. When a cyst ruptures, the released fluid can damage nearby blood vessels and cause massive bleeding. It may also cause infection of the abdominal cavity (peritonitis). Seek emergency medical treatment if you have signs or symptoms of internal bleeding and shock, including:

- Fainting
- Severe abdominal pain
- Decreased consciousness
- Weak and rapid heartbeat
- Vomiting blood

Causes

In many cases, the cause of a particular pancreatic cyst is unknown. Genetic mutations can lead to cancerous cysts. Some cysts are associated with rare illnesses — such as von Hippel-Lindau disease, which is a genetic disorder that can affect the brain, retina, adrenal glands, kidneys and pancreas.

Pseudocysts often follow a bout of pancreatitis, a painful condition in which the pancreas's digestive enzymes become prematurely active and digest some of the pancreas itself. Pseudocysts can also result from blunt trauma to the abdomen, such as during a car accident.

Risk factors

Heavy alcohol use and gallstones are risk factors for pancreatitis, and pancreatitis is a risk factor for pseudocysts — the most common type of pancreatic cyst.

Preparing for your appointment

Many pancreatic cysts are discovered during abdominal scans for other problems. If so, you may be referred to a digestive diseases specialist (gastroenterologist) for further evaluation.

However, if the signs and symptoms of pancreatic cysts cause you to make an appointment with your doctor, there are some things you can do to prepare for your appointment.

What you can do

- **Write down any symptoms you're experiencing.** Include those that you think may be related to pancreatic cysts, as well as any symptoms that may seem unrelated to the reason for which you scheduled the appointment.
- **Write down key personal information,** such as a history of trauma or injury from a car crash.
- **Make a list of all medications,** as well as any vitamins or supplements, that you're taking.
- **Write down questions to ask** your doctor.

Your time with your doctor is limited, so preparing a list of questions ahead of time can help you make the most of your time together. List your questions from most important to least important in case time runs out. For pancreatic cysts, some basic questions to ask include:

- What is likely causing my symptoms or condition?
- What are other possible causes?
- What kinds of tests do I need?
- Is my condition likely temporary or chronic?
- What is the best next step?
- What are the alternatives to the primary approach that you're suggesting?
- I have these other health conditions. How can I best manage them together?
- Are there any restrictions that I need to follow?
- Should I see a specialist?

What to expect from your doctor

Your doctor is likely to ask you questions about your symptoms, such as:

- When did you begin experiencing symptoms?
- Have your symptoms been continuous or occasional?
- Where do you feel your symptoms most?
- How severe are your symptoms?
- What, if anything, seems to improve your symptoms?
- What, if anything, appears to worsen your symptoms?
- Have you ever had pancreatitis?
- Is there a history of pancreatitis or pancreatic cancer in your family?
- How many alcoholic drinks do you consume daily?
- Do you have gallstones?

Think about how you'll answer these questions before you arrive.

Tests and diagnosis

Pancreatic cysts are diagnosed more often now than in the past, but not because more people have them. Instead, improved imaging technology has made pancreatic cysts easier to find. In fact, many pancreatic cysts are found during abdominal scans for other problems.

The biggest challenge of the diagnostic process is determining whether the pancreatic cyst is cancerous or not. The following tests are often used to help with diagnosis and to help plan treatment:

- **Medical history.** A previous history of pancreatitis or abdominal injury typically is an indication of a pseudocyst.
- **CT scan.** A CT scan of your pancreas combines a series of X-rays from different angles to give your doctor detailed information about the structure of a pancreatic cyst. It can sometimes help differentiate cancerous cysts from noncancerous ones.
- **MRI scan.** An MRI scan, which uses a magnetic field and radio waves to create images, can highlight subtle details of a pancreatic cyst structure, including whether there are any solid components to the cyst.
- **Endoscopic ultrasound.** Your doctor may also order an endoscopic ultrasound to visualize the cyst and to obtain fluid from the cyst for analysis. In this study, a thin

flexible tube (endoscope) is passed through your mouth and into your stomach and upper small intestine. The endoscope is equipped with a small ultrasound probe used to obtain images of the cyst, and with a needle to obtain fluid from the cyst.

- **Cyst fluid evaluation.** Fluid taken from a cyst is examined in a laboratory for possible signs of cancer. One such sign, or marker, is a substance called carcinoembryonic antigen (CEA). Elevated levels of CEA in the fluid sample are suggestive of cancer.

In some cases, the characteristics and location of the cyst in your pancreas — along with your age and sex — can help doctors pinpoint what type of cyst you have.

- **Serous cystadenoma.** This growth can become large enough to displace nearby organs, causing such symptoms as abdominal pain and a feeling of fullness. Serous cystadenomas occur most frequently in middle-aged women and become cancerous only rarely.
- **Mucinous cystadenoma.** This type of cyst is usually located in the body or tail of the pancreas and occurs most often in middle-aged women. It's precancerous and may already be cancerous when discovered. Larger cysts are more likely to be cancerous.
- **Mucinous duct ectasia.** More common in men, this type of cyst consists of dilated ductal segments, usually within the head of the pancreas. Also known as an intraductal papillary mucinous tumor, this type of growth is usually precancerous or cancerous.
- **Papillary cystic tumor.** A papillary cystic tumor — also known as a papillary cystic neoplasm, or solid and pseudopapillary neoplasm — occurs most often in young women and is usually located in the body or tail of the pancreas. It's usually cancerous.
- **Cystic islet cell tumor.** This type of pancreatic tumor is mostly solid but can have cyst-like components. It may be confused with other pancreatic cysts.

Treatments and drugs

Treatment differs depending on the type of cyst and whether it causes symptoms. Sometimes, no treatment is necessary.

Watchful waiting

A benign pseudocyst — even a large one — can be left alone as long as it isn't bothering you.

Because a serous cystadenoma so rarely evolves into cancer, it also can be left alone unless it causes symptoms or enlarges. Your doctor may want to follow its size over time by checking repeat scans, especially if a precancerous cyst can't be ruled out.

Drainage

A pseudocyst that is causing bothersome symptoms or growing larger may be drained with a needle, often with the use of an endoscope, a small flexible tube that's passed through your mouth to your stomach and small intestine. The endoscope can be equipped with a needle to drain the cyst.

Surgery

An enlarged pseudocyst or serous cystadenoma that's causing pain or other symptoms can be surgically removed. However, a pseudocyst that is removed may recur if you have ongoing pancreatitis.

Treatment for most other types of lesions in the pancreas is generally surgical removal, because of the risk of cancer. Surgery is very effective, with little chance of recurrence.

Prevention

The best way to avoid pseudocysts is to avoid pancreatitis, which is usually caused by gallstones or heavy use of alcohol. If your pancreatitis is due to alcohol abuse, abstaining from alcohol can reduce your risk. If gallstones are triggering pancreatitis, you may need to have your gallbladder removed.

References

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