

RECURRENT PERICARDITIS

Pericarditis is inflammation of the pericardium, the sac that surrounds – and protects – the heart.

Recurrent pericarditis occurs when you get pericarditis after previous symptoms have gone away for at least four weeks. Recurrent pericarditis can cause life-threatening complications if left untreated. It is a chronic condition in some patients, meaning they will likely need to take medicine, limit physical activity or make other lifestyle changes for months or even years.

RECURRENT PERICARDITIS AFFECTS

15-30%

of people who experience a first episode of pericarditis.



Episodes of pericarditis are commonly referred to as "flares."

TO 90%

of first-episode pericarditis cases are "idiopathic" meaning we don't know what causes it. If pericarditis comes back (a recurrence), it's often due to persistent inflammation in the body. This can happen because:



• The original flare wasn't fully treated



 Your immune system continues to drive inflammation, either through an autoimmune or autoinflammatory process



The primary symptom is chest pain

It gets worse when you cough, take deep breaths or lie down, and it gets better when you sit up or lean forward.

Proper treatment is key. Visit **heart.org/recurrentpericarditis** for more information.



IS IT RECURRENT PERICARDITIS?

Pericarditis is inflammation of the pericardium, a sac-like structure made of two thin layers of tissue that surround and protect the heart.

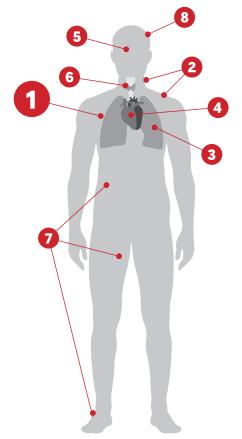
The pericardium holds the heart in place, protects it from infection and prevents it from filling with too much blood. It also shields the heart from outside pressure. A small amount of fluid between the layers reduces friction as the heart beats.

In people with pericarditis, these tissues become inflamed and irritated, which causes sharp chest pain. The chest also can feel achy, under pressure or uncomfortable if fluid builds up around the heart, leading to difficulty breathing or rapid breathing and coughing.

Up to 30% of people experience "recurrent" pericarditis, meaning they have another flare (an episode of inflammation in the pericardium) — or even several — after at least four weeks of being symptom-free.

Symptoms of pericarditis can be the same regardless of how many times you've had it, but most people experience some combination of these common symptoms.

- 1. Chest pain: This is the most common symptom and almost always present. It might feel like a sharp, stabbing pain that radiates to the arm, neck, shoulder, back or abdomen. It can also feel like a dull ache or pressure in the chest.
 Some people think they're having a heart attack. The pain worsens when coughing, taking deep breaths or lying down, and might improve by sitting up and leaning forward.
- 2. Back, neck or shoulder pain radiating from the chest pain.
- **3.** Shortness of breath or trouble breathing. This can be subtle.
- **4.** Heart palpitations, such as a "fluttering" feeling, or a faster than normal heartbeat.
- 5. Low-grade fever, chills or sweating.
- 6. Dry cough.
- 7. Swollen abdomen, legs or feet.
- 8. Lightheadedness, dizziness or fainting.
- **9.** Weakness or fatigue.





If you have chest pain, you should always call 911 in case you are having a heart attack or other cardiac emergency. Even if you have other symptoms that don't feel like an emergency or you assume you have another case of pericarditis, you should still see a doctor to be properly diagnosed and treated.

Be sure to tell your doctor if you've had any of these symptoms. Note that many people with pericarditis report being misdiagnosed with acid reflux or heartburn. Women, in particular, report being wrongly diagnosed with panic attacks, stress or anxiety.



RECURRENT PERICARDITIS DIAGNOSIS

Recurrent pericarditis occurs when you get pericarditis a second time or repeatedly, after being symptom-free for at least four weeks.

Depending on your age and medical conditions, a primary care doctor, cardiologist, rheumatologist or infectious disease specialist may treat you. To determine if you have another case of pericarditis, the doctor will listen to your heart for any rubbing sounds and might confirm the diagnosis with one or more of the following tests:



If you have chest pain, you should always call 911 in case you are having a heart attack or other cardiac emergency. Even if you have other symptoms that don't feel like an emergency or you assume you have another case of pericarditis, you should still see a doctor to be properly diagnosed and treated.

Blood test: Can reveal an abnormally high white blood cell count or other signs of inflammation.

EKG (electrocardiogram): Measures the heart's electrical activity and detects an abnormal heart rhythm.

Chest X-ray: Takes pictures of the heart, lungs and blood vessels in the chest. It can show if the heart is enlarged due to excess fluid in the pericardium and any signs of infection, sarcoidosis or malignancies that can cause pericarditis.

Echocardiogram: Uses sound waves to create pictures of the heart's size, shape and how it's working. This can reveal fluid buildup in the pericardium.

Cardiac CT (Computed Tomography): A specialized type of X-ray that takes a clear, detailed, cross-sectional picture of the heart. It can help identify inflammation, thickening, or calcification of the pericardium, as well as fluid buildup.

Cardiac MRI (Magnetic Resonance Imaging): Also called CMR, this test uses strong magnets and radio waves to create detailed images of the heart and surrounding tissues. It is especially useful for detecting inflammation, scarring or structural changes in the pericardium.

Let your doctor know if you've been diagnosed with pericarditis or had symptoms before and if you've recently been sick with any viral infection, such as the flu, herpes or a stomach virus. Also share if you have any autoimmune conditions, such as lupus, scleroderma or rheumatoid arthritis.

Recurrent pericarditis can be difficult to diagnose because it is relatively rare, and patients can go months in between episodes. In patients receiving NSAID therapy – whether as ongoing treatment for a previous episode of pericarditis or for another condition (e.g., arthritis) – symptoms of a recurrent flare may be partially masked. Even if you have been diagnosed in a hospital emergency room or urgent care center, **be sure to tell your primary care doctor or health care professional about every occurrence.** They can make sure you get treated for possible recurrent pericarditis.



Remember to speak up for yourself. Because pericarditis is relatively rare, your health care professional might not be familiar with the symptoms or treatment options. Don't hesitate to get a second opinion or to consult a specialist. Many health care professionals support and encourage patients to get second, and even third, opinions to ensure the best care.



RECURRENT PERICARDITIS CAUSES



Though its cause isn't known in **90% of patients**, pericarditis is often presumed to be related to a recent viral infection such as influenza (flu) or COVID-19.

Recurrent pericarditis can affect anyone regardless of their sex, age, race, or economic background.



Potential causes of a first-time episode of pericarditis include:

- Autoimmune conditions such as lupus, scleroderma or rheumatoid arthritis
- Complications from a heart attack or heart surgery
- Benign tumors or malignant cancers
- Health conditions, such as kidney failure
- Bacterial, viral, fungal or parasitic infections (most common in people with compromised immune systems)
- Radiation to the chest
- Injury to the chest
- Certain medications, such as phenytoin (an anti-seizure medicine) and procainamide (prescribed for irregular heartbeats)

If the pericarditis returns, it's often because the initial episode (or flare) wasn't fully resolved or because the body has had an autoinflammatory response.



RECURRENT PERICARDITIS TREATMENT

Recurrent pericarditis refers to the return of inflammation in the pericardium (also known as a "flare") after a symptom-free period of at least 4 weeks following an initial episode. Managing this condition focuses on reducing inflammation, preventing future recurrences, and minimizing complications. Treatment typically involves a combination of medications and lifestyle modifications tailored to each patient's needs.

Doctors typically first prescribe aspirin or another type of non-steroidal anti-inflammatory drug (NSAID). You also might be prescribed the anti-inflammatory drug colchicine and be advised to restrict or limit physical activity to help your body respond to the medication and prevent the pericarditis from returning.

You might also need to take additional drugs, such as interleukin-1 (IL-1) inhibitors or corticosteroids, to control your symptoms.

Ask your health care professional how long you can expect to be on any medication and any potential side effects you might experience. If you need financial help, your pharmacist can tell you about possible coupons or prescription assistance programs.

Medications your health care professional might prescribe:



Aspirin It and other NSAIDs work by blocking an enzyme involved in producing prostaglandins, substances that cause inflammation and pain.

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Colchicine This drug, which also reduces inflammation, is typically prescribed for 6-12 months in addition to aspirin or another NSAID.



Interleukin-1 (IL-1) inhibitors These medications block the activity of IL-1, a powerful proinflammatory cytokine, and help prevent pericarditis from recurring.



Corticosteroids These anti-inflammatory medications help control pericarditis symptoms. They are typically used for people who do not respond to NSAIDs and colchicine or for people who have a condition that makes it unsafe to take those medications.



Pericardiectomy The surgical removal of the sac around the heart is typically considered as a last resort if medications haven't worked.

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THOUGHTFUL TALKS WITH YOUR HEALTH CARE PROFESSIONAL: BEFORE DIAGNOSIS

Recurrent pericarditis often can be misdiagnosed. You might need to seek a second (or third) opinion or see a specialist, such as a cardiologist.

If you have an autoimmune disease, such as lupus or rheumatoid arthritis, your rheumatologist also might be helpful, as recurrent pericarditis could be related to your condition. Because it also can be caused by a bacterial or viral infection, you also could see an infectious disease specialist.

Be sure to tell the doctor if you have recently had a viral infection such as the flu, COVID-19, herpes, or a stomach virus. Also, share if you have been diagnosed with an autoimmune condition, such as lupus, scleroderma or rheumatoid arthritis. Let your doctor know if you've had a recent heart procedure like radiation or chemotherapy or an injury to your heart.

What you may experience at your appointment:

	You will be asked about your symptoms. How long have you had them? Have you had them before? If so, how long ago? Does anything make them better or worse?
Ī·	Your blood work and vital signs will be checked.
	You might be directed to get imaging tests such as an EKG, chest X-ray, echocardiogram, or MRI to look at your heart.
	You might be prescribed medication.
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Thoughtful Talks With Your Health Care Professional: After Diagnosis

Your treatment plan can be based on your doctor's expertise with your input. The following questions can help you and your health care professional make decisions about any medications and lifestyle changes.

Questions about treatment:

- How long can I expect the symptoms to last?
- How long does recurrent pericarditis last?
- What medication(s) is/are right for me?
- Are there any risks to taking that/those medication(s)?
- How long will I need to take it/them?
- How will we know if the medication(s) is/are working?
- Will medication alone be enough to treat my recurrent pericarditis?
- Are there any potential side effects I should watch for or report?
- Should I avoid any other medications or any foods or dietary supplements while taking this medication?
- How often should I have follow-up appointments, and when should they start?
- Should I consult any other kind of doctor or specialist, such as a cardiologist or rheumatologist?
- · Would it be helpful for me to see a dietician or therapist as part of my care?

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Questions about possible lifestyle changes:

- Should I avoid or limit any foods or beverages, such as caffeine or alcohol?
- Do I need to restrict exercise or keep my heart rate below a certain level? If so, for how long?
- Is it safe for me to:
 - Go for a walk, run, swim or do yoga?
 - Carry or take care of my children?
 - Walk up a flight of stairs?
 - Perform my job duties?
- Will certain positions be less painful when I sleep or lie down?
- Is it safe to get seasonal vaccines (flu, COVID-19, RSV, etc.)?
- Are there any alternative therapies or non-prescription options I can use to relieve pain?
- May I donate blood?
- Is it OK for me to travel or be away from home for an extended period?
- How can I manage the stress, depression, or sleeplessness that I might experience due to missing time from work or being unable to do my normal activities?

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"Will it happen again?"

"Why did this happen to me?"

"How can I help him feel better?"

"How long will it take me to recover?"

"How can I give her hope?"

MAKE A CONNECTION.

For Life.

Heart disease and stroke affect millions of Americans — not just patients, but the loved ones who care for them as well. Patients may feel alone, scared or depressed. Caregivers may be tired, confused or overwhelmed.

That's why the American Heart Association's **Support Network** exists: so real people can share their real stories and make a real difference in people's lives.

Signing up is easy, and membership is free — putting advice, encouragement and reliable, helpful information at your fingertips whenever you need it.

Sign up for HEALING

Find emotional support by sharing your experiences, monitoring your progress and celebrating your achievements with others who are facing a similar journey.

Sign up for HELP

Get practical advice from other patients, family members, friends and caregivers who have asked the same questions you now face.

Sign up for HOPE

Read stories of encouragement and share the strength of real people — just like you — who have survived heart disease or stroke.

Make a connection. For life.

Find encouragement at heart.org/SupportNetwork

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