CONDITION

Pericarditis - after heart attack

Inflammation of the sac around the heart that develops after a heart attack.

WHAT IT IS
Inflammation of the heart's surrounding sac after heart attack

BODY SYSTEM
Heart and circulation

MAIN SYMPTOMS
Sharp chest pain, breathlessness, fever, fatigue

WHAT CAUSES IT
Heart injury and sometimes a delayed immune reaction

HOW IT IS DIAGNOSED
Clinical criteria supported by ECG and echocardiogram

MAIN TREATMENT
Anti-inflammatory medicines, rest, and ongoing heart care

CAN IT BE CURED?
Yes - most episodes fully resolve

IS IT AN EMERGENCY?
Sometimes - new chest pain needs emergency assessment

LONG-TERM OUTLOOK
Usually full recovery; recurrence or serious complications are uncommon

Overview

Pericarditis is inflammation of the pericardium, the thin, two-layered sac around your heart. It can develop after a heart attack because damaged heart tissue triggers inflammation nearby.

There are two main patterns.

Early post-heart-attack pericarditis usually begins within the first few days. It is more likely when damage extends through much of the heart muscle wall. Modern treatment that restores blood flow quickly has made this pattern less common.

Delayed pericarditis can appear several weeks or, less often, months later. This is often called Dressler syndrome or post-cardiac injury syndrome. It appears to result from an immune response to damaged heart tissue.

Both patterns can cause chest pain that feels similar to another heart problem. New or

worsening chest pain after a heart attack must therefore be assessed promptly rather than assumed to be pericarditis.

Most episodes settle with suitable treatment. Follow-up matters because inflammation can sometimes return or cause fluid to collect around the heart.

Symptoms

The most typical symptom is sharp chest pain. It may:

Symptoms can also include a mild fever, tiredness, a dry cough, or shortness of breath. Some people notice a fast or pounding heartbeat.

A clinician may hear a scratchy sound called a pericardial friction rub through a stethoscope. This comes from the inflamed layers rubbing together, but it can come and go and may not be present during an examination.

Symptoms of delayed pericarditis may begin after you have already started recovering from the heart attack. They can include fever and a general feeling of being unwell as well as chest pain.

Symptoms alone cannot reliably separate pericarditis from another heart attack, a blood clot in the lung, or other serious causes of chest pain.

- Feel worse when you breathe deeply, cough, swallow, or lie flat
- Improve when you sit up and lean forward
- Spread toward one or both shoulders or the upper back
- Feel different from the pressure or squeezing of a heart attack

Causes and risk factors

Early pericarditis is caused by inflammation spreading from heart muscle damaged during the heart attack to the nearby pericardium. Larger heart attacks that affect the full thickness of the heart wall are more likely to cause it.

Delayed pericarditis is thought to involve the immune system. After heart tissue is injured, the immune system may react to proteins released from damaged cells. This can inflame the pericardium and sometimes the lining around the lungs.

Similar immune-related inflammation can happen after heart surgery, a chest injury, or some procedures involving the heart. Together, these conditions are known as post-cardiac injury

syndromes.

A heart attack is the trigger, but not everyone who has one develops pericarditis. It is not contagious, and it is not caused by something you ate or by ordinary physical activity.

Diagnosis

New chest pain after a heart attack is assessed urgently because several conditions can produce similar symptoms. Your healthcare team will ask when the pain began, what it feels like, and whether breathing or changing position affects it.

Acute pericarditis is usually diagnosed from a combination of findings. Clinicians commonly look for at least two of the following:

An ECG records the heart's electrical activity. Pericarditis can produce changes across several areas of the ECG, while a heart attack usually causes changes related to a particular artery. Recent heart-attack changes can make the ECG harder to interpret.

An echocardiogram uses sound waves to show the heart's movement and check for a pericardial effusion , meaning fluid between the layers of the pericardium. It also shows how well the heart is pumping and whether fluid is affecting blood flow.

Blood tests may measure inflammation, using markers such as C-reactive protein. Other tests assess heart muscle injury, blood counts, kidney function, and possible alternative causes. Because heart-attack markers may remain raised for a while, results are interpreted alongside symptoms, ECGs, and imaging.

A chest X-ray, cardiac MRI, or CT scan may be used when the diagnosis remains uncertain or a complication is suspected.

- Typical pericarditis chest pain
- A pericardial friction rub
- Characteristic changes on an electrocardiogram, or ECG
- New or increasing fluid around the heart

Treatment and management

Treatment aims to reduce inflammation and pain while protecting your recovery from the heart attack. The plan must account for medicines you already take, including antiplatelet or anticoagulant medicines that reduce blood clotting.

Aspirin is often the preferred anti-inflammatory medicine after a heart attack. The amount used to treat pericarditis differs from the low dose commonly used to prevent blood clots. Do not increase aspirin or take additional anti-inflammatory medicines on your own. These medicines can cause bleeding, affect the kidneys, and interact with heart treatments.

Colchicine may be added to reduce inflammation and lower the chance of pericarditis returning. It is not suitable for everyone and can interact with other medicines. Digestive side effects, especially diarrhoea, can occur.

Other non-steroidal anti-inflammatory drugs like ibuprofen or naproxen , or NSAIDs, are used cautiously after a heart attack. The choice depends on your heart condition, kidney function, bleeding risk, and other medicines.

Corticosteroids like prednisone or hydrocortisone reduce immune activity but are generally reserved for selected situations, such as when standard anti-inflammatory treatment cannot be used or has not worked. They may increase the chance of recurrent pericarditis and require a carefully managed reduction rather than sudden stopping.

Rest is usually advised during active pain and inflammation. Your team may recommend pausing strenuous exercise and adjusting cardiac rehabilitation until symptoms and inflammation have settled. Light daily activity may still be appropriate, depending on your heart-attack recovery.

Keep taking prescribed heart medicines unless the clinician responsible for your care changes them. In particular, do not stop aspirin, other antiplatelet medicines, or anticoagulants like warfarin or apixaban without medical advice.

A large effusion that affects heart function may need drainage, but most people do not require a procedure.

Complications

Possible complications include:

Cardiac tamponade is uncommon but is an emergency. Constrictive pericarditis is also uncommon after heart-attack-related pericarditis.

Bleeding into the space around the heart is a concern when someone is taking medicines that reduce clotting. Clinicians balance this risk against the important reasons those medicines were prescribed.

- Pericardial effusion: a build-up of fluid around the heart
- Cardiac tamponade: pressure from fluid that prevents the heart filling properly

- Recurrent pericarditis: inflammation that returns after a symptom-free period
- Constrictive pericarditis: lasting scarring that restricts the heart's movement

Prevention

Pericarditis after a heart attack cannot always be prevented. It is a response to heart injury, and delayed cases involve an immune reaction that cannot be predicted reliably.

Rapid treatment of a heart attack limits heart muscle damage and may reduce the chance of early pericardial inflammation. If you think you are having a heart attack, emergency treatment should not be delayed.

Afterwards, take medicines as prescribed and attend cardiac rehabilitation and follow-up appointments. There is no proven diet, supplement, or home remedy that specifically prevents post-heart-attack pericarditis.

Living with it and what to expect

Many episodes improve over days to weeks as inflammation settles. Blood tests may take longer to return to normal, and treatment may continue after pain has improved. Recovery also reflects the size and effects of the original heart attack.

Fatigue can come from both conditions. Return to work, driving, exercise, and sexual activity may need to be based on your overall heart recovery rather than pericarditis alone. Your cardiac rehabilitation team can help you increase activity safely.

Some people have another episode after treatment ends. Recurrent pain does not automatically mean another heart attack, but it still needs medical assessment. Treatment may then last longer and be reduced gradually.

Attend routine follow-up even when you feel better. Appointments may include a symptom review, examination, blood tests, ECG, or repeat echocardiogram. These checks confirm that inflammation and any fluid around the heart are improving.

Most people do not develop permanent pericardial damage. Long-term health is often influenced more by the underlying heart attack and its risk factors than by a single episode of pericarditis.

When to get medical help

Call emergency services for new, severe, or worsening chest pain after a heart attack. Do not drive yourself or wait to see whether changing position relieves it.

Emergency help is also needed for:

These symptoms may come from another heart attack, cardiac tamponade, a dangerous rhythm, or another urgent condition.

Contact your healthcare team promptly for a returning fever, increasing positional chest pain, new palpitations, worsening breathlessness, or swelling in your legs or abdomen. Also seek advice if treatment causes persistent diarrhoea, vomiting, black stools, unusual bleeding, or reduced urination.

Routine follow-up is appropriate when symptoms are steadily improving and you have no warning signs. Keep planned appointments even if the pain has stopped.

- Severe or rapidly worsening shortness of breath
- Fainting, near-fainting, confusion, or marked weakness
- Chest pain with sweating, nausea, or a heavy pressure
- Blue or grey lips, or difficulty staying awake
- A very fast heartbeat with dizziness or collapse

Common questions

Is Dressler syndrome the same as pericarditis after a heart attack?

Dressler syndrome is a delayed form of pericarditis after heart injury. It usually begins weeks after a heart attack and appears to involve the immune system. Pericarditis beginning in the first few days is caused more directly by inflammation next to damaged heart muscle.

How can I tell pericarditis pain from another heart attack?

Pericarditis pain is often sharp, worse with a deep breath or lying down, and better when leaning forward. Heart-attack pain is often described as pressure, squeezing, or heaviness. These patterns can overlap, so new chest pain after a heart attack always needs urgent assessment.

Will fluid around my heart need to be drained?

Usually not. A small effusion often improves as the inflammation is treated. Drainage may be needed if the fluid is placing pressure on the heart, is rapidly increasing, or must be tested to investigate another cause.

Can pericarditis damage my heart permanently?

A single uncomplicated episode usually heals without permanent damage to the pericardium. Rarely, repeated or severe inflammation causes scarring. The original heart attack may have lasting effects on heart muscle even when the pericarditis resolves.

Can I exercise while recovering?

Strenuous exercise is generally avoided while you have pain, fever, or evidence of active inflammation. Your return to activity must also take account of the heart attack itself. Follow the plan from your cardiac rehabilitation or cardiology team rather than testing your limits alone.

Can pericarditis come back?

Yes. Recurrence is possible after symptoms have settled, particularly if inflammation remains active. Returning chest pain should be assessed rather than treated with leftover medicine, because other heart and lung conditions can feel similar.

Sources

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