



British Heart  
Foundation

# Inflammation and your heart: Endocarditis, pericarditis and myocarditis

## Types of inflammation

When you see the letters 'itis' at the end of a word, it means inflammation.

**Myocarditis, pericarditis and endocarditis refer to inflammation around or in the heart.**

- **Myocarditis** – inflammation of the myocardium (the heart muscle)
- **Pericarditis** – inflammation of the pericardium (the sac which surrounds the heart)
- **Endocarditis** – inflammation of the endocardium (the inner lining of the heart)

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## Myocarditis

### What causes myocarditis?

Myocarditis is inflammation of the myocardium – the heart muscle. It is usually caused by a viral, bacterial or fungal infection. Sometimes the cause is unknown – or 'idiopathic'.

### What are the symptoms?

The symptoms of myocarditis usually include a pain or tightness in your chest which can spread to other parts of your body, shortness of breath and tiredness. You may also have flu like symptoms, such as a high temperature, feeling tired, headaches and aching muscles and joints.

### What tests will I need?

You may need to have an electrocardiogram (ECG), echocardiogram (a scan of your heart similar to an ultrasound) and various blood tests.

### Will I need treatment?

Myocarditis is often mild and goes unnoticed, but you may need to take medicines to relieve your symptoms such as non-steroidal anti-inflammatories and sometimes antibiotics.

If the myocarditis it is causing a problem with how well your heart pumps, you may develop the symptoms of heart failure which you will need to take several different types of medicines for. In very extreme cases where there is severe damage to the heart you may be considered for a heart transplant.

Inflammation of the heart often causes chest pain, and you may feel like you are having a heart attack.

**If you have not been diagnosed with one of these conditions and you have chest pain, or any of the symptoms we describe below, call 999 immediately.**

## Pericarditis

### What causes pericarditis?

Pericarditis is inflammation of the pericardium – the protective sac that surrounds your heart. The pericardium has an inner and outer layer, and can become inflamed if blood or fluid leak between the two layers or the sac itself is damaged.

### This can happen because:

- You have recently had a heart attack or heart surgery.
- You have a virus or bacterial infection (such as the flu).
- You have another inflammatory condition (such as rheumatoid arthritis).
- You have kidney failure, or rarely some forms of cancer.

Sometimes the cause is unknown – or ‘idiopathic’.

### What are the symptoms?

The symptoms are very similar to those of angina, and you may feel like you are having a heart attack. You will usually feel a sharp and stabbing pain in your chest. It can also feel tight and crushing, and spread to your arms, neck, jaw, back or stomach.

The pain in your chest may worsen if you take a deep breath in or when you lay flat, and ease if you sit upright or lean forward. You may also feel short of breath, sick, sweaty and light-headed. Or you may just feel generally unwell and ‘not quite right’.

### What tests will I need?

If your doctor thinks you have pericarditis you will usually be sent to have an echocardiogram (similar to an ultrasound), which can check for any fluid between the two layers of the pericardium. You may also need to have an electrocardiogram (ECG), a chest X-ray, various blood tests and an MRI or CT scan or your chest.

### Will I need treatment?

You may be given medicines to relieve your symptoms, such as non-steroidal anti-inflammatories to reduce both the pain and inflammation. You may also need to take other painkillers, aspirin and corticosteroids (steroids) and your symptoms should start to settle within a few weeks.

If you have a large amount of fluid in your pericardial sac, you may need to have a treatment called pericardiocentesis, or a ‘pericardial tap’. This involves inserting a thin tube through the chest wall to drain the fluid, and is carried out under a local anesthetic. If the fluid keeps returning, you may need to have an operation – called a ‘pericardial window’ – to try and stop the fluid collecting.

### What is constrictive pericarditis?

Constrictive pericarditis is a rare condition in which the pericardium becomes thickened and rigid, and scar tissue forms. It can happen if you have a long-term infection, such as tuberculosis, but often the cause is unknown.

## Endocarditis

### What causes endocarditis?

Endocarditis is a rare condition where the inner lining of the heart – most commonly one of the heart valves – becomes infected. It is caused by a certain type of bacteria, or in some rare cases another type of infective organism, which enters into your bloodstream and travels to your heart. Endocarditis can be life-threatening if not treated quickly.

### What are the symptoms?

The symptoms of endocarditis can be very subtle and non-specific, developing slowly over a few weeks or sometimes months. Or they can develop very quickly.

### The most common symptoms are:

- Flu like symptoms with a high temperature – these include tiredness, headaches, aching muscles and joints, a cough and sore throat.
- Weight loss.
- A heart murmur (an abnormal heart sound that can be heard when listening to your heart with a stethoscope).

If you have been told you are at high risk of getting endocarditis and you have flu-like symptoms with a high temperature for longer than a week, you should see your GP.