CONDITION

Heart disease

Heart disease is a broad term for conditions affecting the heart's arteries, muscle, valves, structure, or rhythm.

WHAT IT IS
Conditions affecting the heart's structure, blood supply, or rhythm

BODY SYSTEM
Heart and circulation

MAIN SYMPTOMS
Chest discomfort, breathlessness, palpitations, ankle swelling

WHAT CAUSES IT
Artery damage, structural, electrical, or inherited problems

HOW IT IS DIAGNOSED
Examination, ECG, blood tests, imaging, sometimes angiography

MAIN TREATMENT
Lifestyle changes, medicines, procedures, or surgery

CAN IT BE CURED?
Sometimes - some conditions corrected, others managed

IS IT AN EMERGENCY?
Sometimes - new chest pain or severe breathlessness

LONG-TERM OUTLOOK
Often manageable, shaped by type, severity, and treatment

Overview

Heart disease is an umbrella term for several conditions that affect the heart. It is not one single diagnosis.

The main types include:

The term "cardiovascular disease" is broader. It includes diseases of blood vessels elsewhere in the body, such as stroke and peripheral artery disease.

Some heart conditions are mild and need only monitoring. Others can reduce blood flow, disturb the heartbeat, or make it harder for the heart to pump. Early assessment matters because treatment may ease symptoms, slow progression, and reduce the chance of complications.

- Coronary heart disease: fatty material narrows the arteries supplying the heart muscle
- Heart rhythm problems: the heart beats too fast, too slowly, or irregularly
- Heart valve disease: one or more valves do not open or close normally
- Cardiomyopathy: the heart muscle becomes enlarged, thickened, stiff, or weak
- Congenital heart disease: a difference in the heart's structure that develops before birth
- Heart failure: the heart cannot pump or fill as well as the body needs

Symptoms

Symptoms differ according to which part of the heart is affected. Some heart conditions cause no symptoms at first and are found during a routine examination or test.

Possible symptoms include:

Coronary heart disease may cause angina , which is chest discomfort caused by reduced blood flow to the heart muscle. It often occurs during physical effort or emotional stress and improves with rest. A change in a known pattern of angina needs prompt medical assessment.

A heart rhythm problem may feel like skipped beats or fluttering. Palpitations are common and are not always caused by heart disease, but they should be assessed if they keep returning or occur with chest pain, breathlessness, dizziness, or fainting.

A heart attack does not always cause sudden, severe chest pain. Symptoms may be milder or less typical, particularly in older adults and people with diabetes. Breathlessness, nausea, sweating, unusual weakness, or back or jaw discomfort can occur.

- Chest pressure, tightness, heaviness, burning, or discomfort
- Breathlessness during activity, while resting, or when lying flat
- A racing, pounding, fluttering, or irregular heartbeat
- Unusual tiredness or reduced ability to exercise
- Dizziness, light-headedness, or fainting
- Swelling of the feet, ankles, legs, or abdomen
- Pain or discomfort spreading to an arm, shoulder, back, neck, jaw, or upper abdomen

Causes and risk factors

Heart disease has many possible causes. Coronary heart disease usually develops when fatty

deposits, called plaques, build up inside the coronary arteries. This process is called atherosclerosis . A plaque can gradually narrow an artery or break open and trigger a blood clot.

Factors that raise the chance of coronary heart disease include:

These factors do not mean that you will develop heart disease. Some people develop it without obvious risk factors, while others with several risk factors do not.

Valve disease may be present from birth, develop with age, or follow infection or inflammation. Cardiomyopathy may be inherited, but it can also result from another illness, pregnancy, long-term heavy alcohol use, certain medicines, or an unknown cause.

Rhythm problems can come from heart damage, ageing, thyroid disease, sleep apnoea, inherited conditions, medicines, or stimulant use. Sometimes no clear cause is found.

Congenital heart disease develops before birth. It is not caused by something a child or adult did.

- Smoking or exposure to tobacco smoke
- High blood pressure
- High levels of LDL cholesterol, sometimes called "bad" cholesterol
- Diabetes
- Kidney disease
- Limited physical activity
- A diet high in salt, saturated fat, or highly processed foods
- Older age
- A close family history of early heart disease

Diagnosis

There is no single test that confirms every type of heart disease. Assessment usually begins with your symptoms, health history, family history, medicines, and risk factors.

A clinician may listen to your heart and lungs, check your pulse and blood pressure, and look for swelling. Tests are chosen according to the suspected condition.

Common tests include:

An ECG can be normal even when heart disease is present. Results are interpreted together rather than in isolation.

Some inherited or congenital conditions may require genetic counselling or testing. A genetic result can affect relatives as well as the person being tested, so its meaning should be explained carefully.

- Electrocardiogram, or ECG: records the heart's electrical activity
- Blood tests: may look for heart muscle injury, cholesterol, diabetes, anaemia, thyroid problems, or strain on the heart
- Echocardiogram: uses ultrasound to show the heart's chambers, valves, and pumping action
- Ambulatory heart monitor: records the rhythm over a day or longer
- Exercise or stress testing: checks how the heart responds when it works harder
- CT or MRI scans: provide detailed pictures of the heart and blood vessels
- Coronary angiography: uses contrast dye and X-rays to show narrowing in the coronary arteries

Treatment and management

Treatment is based on the type of heart condition, its severity, your symptoms, and your wider health. Some people need regular monitoring only. Others need medicines, a procedure, surgery, or a combination of treatments.

Lifestyle changes may include stopping smoking, being physically active within safe limits, eating a balanced diet, managing weight, and reducing excess alcohol. These steps support heart health, but they do not replace treatment for a diagnosed condition.

Medicines may be used to:

Do not stop prescribed heart medicines suddenly unless a healthcare professional tells you to. Some need monitoring with blood tests, blood-pressure checks, or ECGs.

Procedures may open a narrowed coronary artery and place a small mesh tube called a stent. Coronary bypass surgery creates a new route for blood around severely narrowed arteries.

Valve disease may be treated by repairing or replacing the affected valve. Rhythm problems may need electrical cardioversion, catheter ablation, a pacemaker, or an implantable defibrillator. Some congenital defects can be repaired with a catheter procedure or surgery.

Cardiac rehabilitation is a supervised programme combining exercise, education, risk-factor management, and emotional support. It may be offered after a heart attack, heart procedure, or diagnosis such as heart failure.

- Lower blood pressure or cholesterol
- Reduce the heart's workload
- Control the heart rate or rhythm
- Reduce fluid build-up
- Prevent or treat blood clots
- Improve symptoms from reduced blood flow
- Support the heart's pumping function

Complications

Possible complications depend on the type of heart disease.

Coronary heart disease can lead to a heart attack if blood flow through a coronary artery becomes blocked. It can also weaken the heart muscle over time.

Heart failure can cause breathlessness, tiredness, fluid build-up, and reduced kidney function. Rhythm problems may cause fainting or, in some cases, increase the risk of stroke or sudden cardiac arrest.

Valve disease can enlarge or weaken the heart and may raise the risk of rhythm problems or heart failure. Some valve and congenital conditions can also increase the risk of infection involving the inner lining or valves of the heart.

Treatment can reduce many of these risks. Routine reviews help track symptoms, heart function, blood pressure, cholesterol, kidney function, and medicine side effects.

Prevention

Not every type of heart disease can be prevented. Congenital heart disease and many inherited cardiomyopathies or rhythm conditions are not caused by lifestyle choices.

The chance of developing coronary heart disease can often be reduced. Helpful measures include:

If you already have heart disease, these measures are called secondary prevention . Their aim is to reduce further damage or complications rather than to undo all existing disease.

Activity needs may be different if you have severe valve disease, cardiomyopathy, a significant rhythm condition, or recent heart symptoms. Ask for advice before starting vigorous exercise if you have been told you have one of these conditions.

- Not smoking and avoiding second-hand smoke
- Having blood pressure, cholesterol, and diabetes checked when appropriate
- Taking prescribed treatment for these conditions
- Eating more vegetables, fruit, whole grains, pulses, nuts, and fish
- Limiting salt, saturated fat, and highly processed foods
- Building regular physical activity into your week
- Avoiding long-term heavy alcohol use

Living with it and what to expect

Heart disease often continues over months or years. Some structural problems can be repaired, but coronary artery disease, heart failure, and many rhythm or muscle conditions usually need ongoing care.

Symptoms may remain stable for long periods. They may also change with ageing, another illness, missed medicines, or progression of the heart condition. Regular follow-up is used to notice these changes early and adjust treatment.

Many people continue to work, travel, exercise, have relationships, and take part in family life. What is safe and comfortable depends on the specific condition and how well it is controlled. Rehabilitation and gradual activity can help rebuild confidence after a heart event.

It can be useful to track symptoms such as chest discomfort, palpitations, breathlessness, fainting, or swelling. People with heart failure may be asked to monitor their weight because a rapid increase can suggest fluid build-up.

Anxiety or low mood can follow a diagnosis or heart attack. These reactions are common and deserve attention. Psychological support, rehabilitation, peer groups, and treatment for anxiety or depression can help.

Keep routine appointments even when you feel well. Bring an up-to-date medicine list and mention new symptoms, side effects, or changes in what you can do.

When to get medical help

Seek emergency help now for:

Do not drive yourself if you may be having a heart attack or stroke. Call your local emergency number.

Get urgent medical advice for chest symptoms that are new, happen with less activity than usual, last longer, or are becoming more frequent. Also seek urgent advice for fainting during exercise, a sustained rapid heartbeat with dizziness, or rapidly worsening breathlessness or swelling.

Arrange a routine appointment for recurring palpitations, gradually reduced exercise tolerance, mild ankle swelling, or breathlessness that is not sudden. These symptoms have many possible causes, but they should not be ignored.

If you already have a heart condition, follow the action plan provided by your care team. Report a clear change from your usual pattern rather than waiting for the next planned review.

- New or severe chest pressure, tightness, heaviness, or pain
- Chest discomfort with sweating, nausea, breathlessness, or faintness
- Discomfort spreading to an arm, back, neck, jaw, or upper abdomen
- Severe difficulty breathing, especially at rest
- Collapse, unresponsiveness, or absent or abnormal breathing
- Sudden weakness, facial droop, speech difficulty, or loss of vision

Common questions

Is heart disease the same as a heart attack?

No. Heart disease describes several long-term conditions. A heart attack is an emergency in which blood flow to part of the heart muscle becomes blocked, usually because of coronary heart disease.

Can heart disease be cured?

Some heart defects, valve problems, and rhythm problems can be corrected with a procedure or surgery. Many other conditions cannot be fully removed but can often be managed with medicines, lifestyle changes, monitoring, and procedures.

Can I have heart disease without knowing it?

Yes. High blood pressure, coronary artery narrowing, valve disease, and some rhythm problems may cause no clear symptoms early on. Risk checks and medical assessment can find problems before they become more noticeable.

Does chest pain always mean heart disease?

No. Chest pain can come from muscles, the digestive system, lungs, anxiety, or other causes. However, new, severe, or unexplained chest discomfort should be treated seriously, especially

when it occurs with breathlessness, sweating, nausea, or pain spreading elsewhere.

Can stress cause heart disease?

Stress alone does not explain most heart disease. Long-term stress may affect sleep, blood pressure, smoking, alcohol use, activity, and eating habits. Sudden intense stress can also rarely affect heart muscle function.

Can I exercise if I have heart disease?

Many people can and should stay active, often through a gradual or supervised programme. The safe type and intensity depend on the specific condition, symptoms, and treatment. New chest pain, fainting, or marked breathlessness during exercise needs medical assessment.

Sources

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- National Health Service: Cardiovascular disease
- National Institute for Health and Care Excellence: Cardiovascular disease-risk assessment and reduction, including lipid modification, guideline NG238
- European Society of Cardiology: 2024 ESC Guidelines for the management of chronic coronary syndromes
- American Heart Association: Warning Signs of a Heart Attack