CONDITION

Heart failure

Heart failure is a condition in which the heart cannot pump or fill well enough to meet the body's needs.

WHAT IT IS
Reduced heart pumping or filling ability

BODY SYSTEM
Heart and circulation

MAIN SYMPTOMS
Breathlessness, tiredness, ankle swelling, reduced exercise tolerance

WHAT CAUSES IT
Heart damage or strain from several conditions

HOW IT IS DIAGNOSED
Clinical assessment, blood tests, ECG, and echocardiogram

MAIN TREATMENT
Medicines, lifestyle support, and sometimes devices or surgery

CAN IT BE CURED?
Sometimes - reversible causes may resolve

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

LONG-TERM OUTLOOK
Often manageable, but may worsen over time

Overview

Heart failure means the heart cannot pump blood effectively or cannot fill with blood normally. As a result, the body may not receive enough oxygen-rich blood during activity. Blood and fluid can also back up in the lungs, legs, or abdomen.

The name does not mean that the heart has stopped. Many people live with heart failure for years, especially when its cause is treated and symptoms are well controlled.

"Congestive heart failure," or CHF, is an older name that refers to fluid congestion. Not everyone with heart failure has obvious fluid build-up, so "heart failure" is now the broader term.

There are several types. In heart failure with reduced ejection fraction, the main pumping

chamber does not squeeze strongly enough. Ejection fraction is the percentage of blood pumped out with each heartbeat. In heart failure with preserved ejection fraction, the heart may squeeze normally but be too stiff to fill properly. Symptoms can be significant in either type.

Heart failure matters because it can affect breathing, energy, kidney function, heart rhythm, and daily independence. Treatment aims to improve symptoms, reduce time in hospital, protect the heart, and help you remain active.

Symptoms

Symptoms may develop gradually or appear more suddenly. They can be mild at first and may be mistaken for ageing, reduced fitness, or another lung or heart condition.

Common symptoms include:

Some people need extra pillows because lying flat makes breathing harder. Others wake suddenly feeling short of breath.

Symptoms alone cannot confirm heart failure. Breathlessness and swelling have many possible causes, including lung conditions, kidney problems, vein problems, anaemia, and medication effects.

- Breathlessness during activity, when lying flat, or during sleep
- Tiredness, weakness, or reduced ability to exercise
- Swelling of the ankles, feet, legs, or abdomen
- Rapid weight gain caused by retained fluid
- A persistent cough, sometimes worse at night
- A fast, pounding, or irregular heartbeat
- Reduced appetite, nausea, or feeling full quickly
- Difficulty concentrating or unusual confusion

Causes and risk factors

Heart failure usually develops because another condition has damaged the heart or made it work harder over time. Sometimes more than one cause is involved.

Common causes include coronary artery disease, in which narrowed heart arteries reduce

blood flow, and previous heart attack, which can leave damaged heart muscle. Long-standing high blood pressure can make the heart thick, stiff, or weak.

Other causes include:

Diabetes, chronic kidney problems, obesity, sleep apnoea, smoking, and older age increase the likelihood of developing heart failure. Pregnancy can rarely be associated with heart muscle weakness.

Some cardiomyopathies are inherited. In other cases, testing does not find a definite cause.

- Heart valve narrowing or leakage
- Cardiomyopathy, meaning a condition affecting the heart muscle
- Fast, slow, or irregular heart rhythms
- Inflammation of the heart muscle, called myocarditis
- Heart conditions present from birth
- High pressure in the blood vessels of the lungs
- Certain cancer treatments or other medicines that can damage the heart
- Heavy alcohol use or stimulant drug use

Diagnosis

Diagnosis begins with your symptoms, medical history, medicines, and a physical examination. The clinician may listen for fluid in the lungs, check your heartbeat, examine neck veins, and look for swelling.

Blood tests may measure BNP or NT-proBNP. These substances often rise when the heart is under strain. The result helps decide whether heart failure is likely, but it is not a perfect test. Kidney function, age, body size, and other conditions can affect the level.

An electrocardiogram, or ECG, records the heart's electrical activity. It can show rhythm problems or signs of previous heart damage. A chest X-ray may show an enlarged heart, lung congestion, or another explanation for breathlessness.

An echocardiogram is a painless ultrasound scan of the heart. It shows how well the chambers pump and fill, and whether the valves are working normally. It also measures ejection fraction.

Further tests may include exercise testing, heart rhythm monitoring, cardiac MRI, scans of the heart arteries, or coronary angiography. These are used when more detail is needed about the cause or severity.

Treatment and management

Treatment is based on the type of heart failure, its cause, your symptoms, kidney function, blood pressure, and other health conditions. A combination of treatments is often needed.

Diuretics like furosemide or hydrochlorothiazide , sometimes called water tablets, help the kidneys remove extra salt and water. They can reduce swelling and breathlessness, but require monitoring because they can affect blood pressure, kidney function, and body salts.

For heart failure with reduced ejection fraction, several medicine groups can protect the heart and reduce the risk of worsening. These include beta blockers like metoprolol or propranolol , medicines acting on the renin-angiotensin system, mineralocorticoid receptor antagonists, and SGLT2 inhibitors. The exact combination and timing must be chosen and monitored by the care team.

For heart failure with preserved ejection fraction, treatment commonly focuses on relieving fluid build-up, managing blood pressure and other contributing conditions, and using medicines shown to reduce worsening in suitable patients. SGLT2 inhibitors are one option for many people with this type.

Never stop heart failure medicine suddenly unless a healthcare professional tells you to. Report dizziness, faintness, dehydration, or other possible side effects. Regular blood tests may be needed after starting or changing some medicines.

Daily management may include:

Some anti-inflammatory painkillers, including ibuprofen and naproxen, can cause fluid retention or kidney problems. Check before using non-prescription medicines, supplements, or salt substitutes.

A pacemaker-like device called cardiac resynchronisation therapy can improve pumping in selected people whose heart chambers contract out of step. An implantable cardioverter-defibrillator may protect some people from dangerous rhythms.

Procedures may treat blocked heart arteries or faulty valves. Advanced heart failure may sometimes require a mechanical pump called a ventricular assist device or a heart transplant.

- Taking medicines consistently and keeping an up-to-date medicine list
- Tracking symptoms and, if advised, body weight
- Reducing excess salt, particularly from processed foods
- Following personalised advice about fluids
- Staying active within safe limits, often through cardiac rehabilitation

- Avoiding smoking and limiting alcohol
- Managing blood pressure, diabetes, kidney problems, and sleep apnoea

Complications

Heart failure can reduce blood flow to organs and cause fluid to collect in the lungs or elsewhere. Possible complications include:

These outcomes are not inevitable. Treatment, monitoring, and early attention to worsening symptoms can reduce some risks.

Depression, anxiety, poor sleep, and difficulty managing everyday tasks are also common. They deserve attention as part of heart failure care rather than being treated as separate or unimportant concerns.

- Sudden fluid build-up in the lungs
- Kidney or liver dysfunction
- Abnormal heart rhythms
- Blood clots or stroke in some people
- Loss of muscle strength and physical independence
- Repeated hospital admissions
- Dangerous heart rhythms or cardiac arrest

Prevention

Not every case can be prevented. Inherited heart muscle conditions, congenital heart problems, and some unpredictable infections or treatment effects may cause heart failure despite healthy habits.

Risk can sometimes be reduced by preventing or treating conditions that damage the heart. This includes controlling high blood pressure, diabetes, and high cholesterol; not smoking; remaining physically active; and seeking care for symptoms of coronary artery or valve problems.

Avoiding heavy alcohol use and stimulant drugs can protect the heart muscle. People receiving treatments known to affect the heart may be offered monitoring before, during, or after treatment.

If heart failure is already present, these steps do not replace medicine. They may help prevent further damage and support overall health.

Living with it and what to expect

Heart failure is often a long-term condition. Symptoms may remain stable for months or years, but they can also fluctuate. An infection, heart rhythm change, missed medicine, kidney problem, or excess fluid can cause a temporary worsening.

Many people continue working, travelling, exercising, and taking part in family life. The amount you can do may change, and planned rest can help. Cardiac rehabilitation provides supervised activity, education, and support for returning to everyday tasks.

Follow-up usually includes symptom review, blood pressure checks, blood tests, and medicine adjustments. Repeat heart imaging may be needed, especially after treatment changes or if symptoms alter. Ejection fraction sometimes improves, but this does not always mean the underlying tendency has gone away.

It can help to notice your usual pattern of breathing, swelling, activity, and weight. A clear action plan can explain whom to contact if that pattern changes.

Heart failure can worsen over time in some people, while others remain stable or improve after the cause is treated. If the condition becomes advanced, supportive and palliative care can help with symptoms, planning, and quality of life alongside heart treatment. Palliative care is not limited to the final stage of life.

When to get medical help

Call your local emergency number if you have:

These may indicate fluid in the lungs, a heart attack, a dangerous rhythm, or another emergency.

Contact your heart failure team or usual healthcare service promptly if breathlessness or swelling is getting worse, you need more pillows to sleep, your weight rises rapidly, or normal activities become noticeably harder. Also seek advice for ongoing dizziness, vomiting, diarrhoea, poor fluid intake, or problems taking your medicines.

Routine appointments remain important even when you feel well. They allow medicines, kidney function, blood pressure, symptoms, and device function to be checked.

- Severe or sudden breathlessness, especially at rest

- Chest pain, pressure, or tightness that persists
- Fainting, collapse, or inability to wake normally
- Blue or grey lips, severe confusion, or extreme drowsiness
- A very fast or irregular heartbeat with chest pain, faintness, or breathlessness
- Coughing up pink, frothy fluid

Common questions

Is heart failure the same as a heart attack?

No. A heart attack happens when blood flow to part of the heart is suddenly blocked. Heart failure describes reduced pumping or filling ability. A heart attack can cause heart failure by damaging heart muscle.

Can heart failure go away?

Sometimes heart function improves greatly after treatment of a reversible cause, such as a prolonged fast rhythm, valve problem, or certain forms of heart inflammation. Many cases remain long term. Even after improvement, follow-up and medicine may still be needed.

How long can you live with heart failure?

There is no single life expectancy. Outlook is influenced by the cause, severity, type of heart failure, kidney function, age, other conditions, and response to treatment. Some people live for many years with stable symptoms; advanced heart failure can shorten life.

Can I exercise with heart failure?

Regular, suitable activity is helpful for many people. Walking, cycling, or supervised cardiac rehabilitation may improve stamina and confidence. The safest starting point depends on current symptoms and stability. Sudden intense exercise is not appropriate during a flare-up.

How much water should I drink?

There is no single fluid limit for everyone. Some people do not need a restriction, while others may be advised to limit fluids because of congestion or low blood sodium. Follow the plan given for your situation rather than reducing fluids on your own.

Why am I breathless if my ejection fraction is normal?

A normal ejection fraction only shows how much blood is squeezed out. The heart may still be stiff, fill at high pressure, or struggle during activity. This is why heart failure can occur with a preserved ejection fraction.

Sources

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