CONDITION

Heart disease and women

Heart disease in women includes conditions affecting the heart and blood vessels, sometimes with overlooked symptoms and sex-specific risks.

WHAT IT IS
Heart and blood vessel conditions affecting women

BODY SYSTEM
Heart and circulation

MAIN SYMPTOMS
Chest discomfort, breathlessness, fatigue, nausea

WHAT CAUSES IT
Artery disease, muscle disorders, valve problems, electrical problems

HOW IT IS DIAGNOSED
ECG, blood tests, imaging, and coronary tests

MAIN TREATMENT
Lifestyle support, medicines, procedures, or surgery

CAN IT BE CURED?
Sometimes - some causes can be corrected

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

LONG-TERM OUTLOOK
Often manageable; outlook reflects type and severity

Overview

"Heart disease" is an umbrella term for conditions affecting the heart or its blood vessels. It includes coronary artery disease, heart rhythm problems, heart failure, heart valve disease, and diseases of the heart muscle.

Coronary artery disease develops when the arteries supplying the heart become narrowed or blocked. It can cause angina, which is chest discomfort from reduced blood flow, or a heart attack, when part of the heart muscle is injured.

Women can develop the same heart conditions as men, but there are important differences. Some risk factors affect women differently. Pregnancy-related conditions and early menopause may also provide clues about future risk.

Heart attack symptoms can be missed when they do not match the expected picture. Women commonly have chest pain or pressure during a heart attack, but may also have breathlessness, nausea, unusual tiredness, or pain elsewhere in the upper body.

Some women have heart-related chest pain without a major blockage in the large coronary arteries. Possible causes include problems in the heart's smallest blood vessels, called coronary microvascular dysfunction, or temporary tightening of an artery, called coronary spasm.

Symptoms

Symptoms depend on the part of the heart affected. Some conditions cause no obvious symptoms until they become more advanced.

Possible symptoms include:

Women should not be expected to have only "atypical" symptoms. Chest discomfort remains a common heart attack symptom in women. However, symptoms such as breathlessness, nausea, or marked fatigue may be more prominent or may occur alongside mild chest discomfort.

Angina often appears during physical effort, emotional stress, or cold weather and improves with rest. Symptoms from small-vessel disease may be less predictable, last longer, or occur at rest. Symptoms alone cannot show which cause is present.

- Pressure, tightness, heaviness, burning, or pain in the chest
- Shortness of breath during activity or at rest
- Unusual tiredness or a sudden drop in stamina
- Pain or discomfort in an arm, shoulder, back, neck, jaw, or upper abdomen
- Nausea, sweating, dizziness, or feeling faint
- A fast, pounding, fluttering, or irregular heartbeat
- Swelling in the ankles, feet, legs, or abdomen
- Needing extra pillows to breathe comfortably at night

Causes and risk factors

Heart disease has several causes. Atherosclerosis is a major one. This is the gradual buildup of fatty material, cholesterol, inflammatory cells, and scar tissue inside an artery.

Other causes include inherited heart muscle conditions, heart valve damage, inflammation, infections, congenital heart differences, and problems with the electrical signals that control heartbeat.

Factors linked with a higher risk include:

Diabetes and smoking may be associated with a particularly important increase in coronary risk among women. Autoimmune inflammatory conditions are also more common in women and can affect cardiovascular risk.

Pregnancy can reveal how the heart and blood vessels respond to physical stress. High blood pressure during pregnancy, pre-eclampsia, gestational diabetes, preterm birth, and giving birth to a baby who is small for gestational age are associated with higher cardiovascular risk later in life. They do not mean heart disease is certain to develop.

Risk tends to rise after menopause. This is partly related to age and changes in blood pressure, cholesterol, body composition, and blood sugar control. Menopause before age 40 is associated with higher cardiovascular risk.

Some heart attacks in younger women result from spontaneous coronary artery dissection, or SCAD. This happens when a tear or bleeding within an artery wall reduces blood flow. It is not the same as a typical cholesterol blockage and can occur without standard risk factors.

- High blood pressure
- High LDL cholesterol
- Diabetes
- Smoking or regular exposure to tobacco smoke
- Kidney disease
- Limited physical activity
- Excess body fat, particularly around the waist
- A close family history of early heart disease
- Increasing age
- Inflammatory conditions such as rheumatoid arthritis or lupus

Diagnosis

There is no single test for every kind of heart disease. Assessment usually begins with your symptoms, medical history, pregnancy history, family history, medicines, and risk factors.

A physical examination may include checking blood pressure, pulse, oxygen level, heart sounds, lungs, and signs of fluid buildup.

Tests may include:

A normal resting ECG does not rule out every heart condition. Large coronary arteries can also appear clear even when symptoms come from coronary spasm or small-vessel dysfunction. Further testing may be considered when symptoms remain concerning.

Other conditions can cause similar symptoms, including lung disease, acid reflux, anaemia, anxiety, and muscle or rib pain. These possibilities should not be assumed without assessing potentially serious heart causes.

- An electrocardiogram, or ECG, which records the heart's electrical activity
- Blood tests for cholesterol, blood sugar, anaemia, thyroid problems, or organ function
- Troponin blood tests, which look for heart muscle injury during a possible heart attack
- An echocardiogram, which uses ultrasound to examine heart structure and pumping
- A heart rhythm monitor worn for a day or longer
- Exercise or medicine-based stress testing
- CT coronary angiography to look for narrowed coronary arteries
- Coronary angiography, in which contrast dye and X-rays show blood flow through the arteries
- Cardiac MRI for detailed images of the heart muscle

Treatment and management

Treatment is based on the specific condition, symptom burden, and risk of future problems. It may combine lifestyle support, medicines, a procedure, or surgery.

Lifestyle measures may include stopping smoking, being physically active at a safe level, following a heart-supportive eating pattern, sleeping regularly, and managing blood pressure, cholesterol, and diabetes. Cardiac rehabilitation provides supervised exercise, education, and emotional support after some heart events or procedures.

Medicines may be used to:

A narrowed coronary artery may sometimes be treated with angioplasty and a stent, which holds the artery open. Coronary bypass surgery creates a new route for blood around severe blockages. Valve disease may require valve repair or replacement.

Not every coronary problem needs a stent. Small-vessel disease, coronary spasm, and SCAD may require different approaches. Treatment decisions also take account of pregnancy, plans for pregnancy, breastfeeding, menopause symptoms, and possible medicine interactions.

Do not stop prescribed heart medicines because symptoms improve. If side effects, cost, pregnancy, or another concern makes treatment difficult, discuss it with the prescribing healthcare professional.

- Lower LDL cholesterol
- Reduce high blood pressure
- Prevent or treat blood clots
- Control angina
- Manage an abnormal heart rhythm
- Reduce fluid buildup
- Help the heart pump more effectively

Complications

Possible complications depend on the underlying condition. They can include:

Heart disease can also affect sleep, work, relationships, mood, and confidence in physical activity. Anxiety after chest pain or a heart event is common. Persistent low mood, fear, or avoidance of normal activities deserves support as part of heart care.

Early assessment and ongoing management can reduce the risk of some complications, although no treatment removes all risk.

- Heart attack
- Heart failure, when the heart cannot pump or fill well enough
- Abnormal heart rhythms
- Stroke or other blood clots
- Heart valve damage
- Reduced ability to exercise or complete daily activities
- Sudden cardiac arrest

Prevention

Not all heart disease can be prevented. Inherited conditions, congenital heart differences, SCAD, and some valve or heart muscle disorders may occur despite healthy habits.

The chance of common cardiovascular conditions can often be reduced by addressing changeable risks. Useful steps include avoiding tobacco, checking blood pressure and cholesterol, managing diabetes, staying active, and eating a pattern rich in vegetables, fruit, whole grains, beans, nuts, fish, and unsaturated fats.

Routine follow-up is especially important after pre-eclampsia, pregnancy-related high blood pressure, or gestational diabetes. Make sure these events remain in your long-term medical history.

Menopausal hormone therapy is not started for the purpose of preventing heart disease. Decisions about using it for menopause symptoms require an individual discussion of benefits and risks.

Living with it and what to expect

The course of heart disease differs by condition. High blood pressure or stable coronary disease may need lifelong monitoring even when you feel well. Some rhythm or valve problems remain stable for years, while others gradually need more treatment.

Symptoms can improve with medicines, rehabilitation, procedures, and changes in activity. Many people continue working, exercising, travelling, and caring for family. Some need to pace activities or adjust routines during recovery or if heart function is reduced.

Follow-up may involve blood pressure checks, blood tests, repeat heart imaging, or review of symptoms and medicines. Keep routine appointments even when symptoms are controlled, because blood pressure and cholesterol often cause no warning signs.

If pregnancy is possible, discuss it before trying to conceive when you have known heart disease. Pregnancy increases the work of the heart, and some heart medicines are not suitable during pregnancy. Planning allows treatment to be reviewed safely.

Recovery after a heart attack or procedure can take weeks to months. Energy and confidence may return unevenly. Cardiac rehabilitation can help you rebuild fitness safely and understand which symptoms require attention.

When to get medical help

Call emergency services for new chest pressure, squeezing, heaviness, or pain that lasts more than a few minutes, returns, or occurs with:

Also seek emergency help for severe breathlessness at rest, collapse, or unresponsiveness. If someone is unresponsive and not breathing normally, call emergency services and begin CPR if you are able. Do not drive yourself when a heart attack may be happening.

Arrange prompt medical assessment for new chest discomfort with activity, unexplained breathlessness, repeated palpitations, fainting, or a clear decline in stamina.

Routine follow-up is appropriate for medication reviews, blood pressure or cholesterol monitoring, stable long-term symptoms, and discussions about exercise, pregnancy, contraception, or menopause treatment.

- Shortness of breath
- Cold sweating
- Nausea or vomiting
- Fainting or severe light-headedness
- Pain in the arm, back, neck, jaw, or upper abdomen
- Sudden extreme weakness

Common questions

Do women have different heart attack symptoms from men?

There is considerable overlap. Chest pain or discomfort is common in both. Women may also experience breathlessness, nausea, back or jaw discomfort, and unusual fatigue. These symptoms can occur with or without strong chest pain.

Can I have heart disease if my coronary arteries are not blocked?

Yes. Symptoms can come from the small vessels within the heart, temporary coronary spasm, inflammation, SCAD, valve disease, rhythm problems, or heart muscle conditions. A test showing no large blockage does not answer every heart-related question.

Does menopause cause heart disease?

Menopause does not directly mean that heart disease will develop. Cardiovascular risk rises with age, and changes around menopause can affect cholesterol, blood pressure, blood sugar, and body composition. Earlier menopause is associated with greater risk.

Does hormone replacement therapy protect my heart?

Menopausal hormone therapy is not recommended solely to prevent heart disease. It may be appropriate for some menopause symptoms, but its benefits and risks are influenced by age, timing, medical history, and the type of treatment.

Can young women get heart disease?

Yes, although many common heart conditions become more likely with age. Younger women can have inherited heart conditions, rhythm disorders, congenital differences, inflammation, SCAD, or premature coronary disease.

Can stress cause a heart attack?

Stress can raise heart rate and blood pressure and may trigger symptoms in someone with underlying disease. Severe emotional or physical stress can also be associated with takotsubo syndrome, a temporary weakening of the heart muscle. Stress is not the only cause, and chest symptoms should not be dismissed as stress without appropriate assessment.

Sources

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