HEART RHYTHM & SYMPTOMS

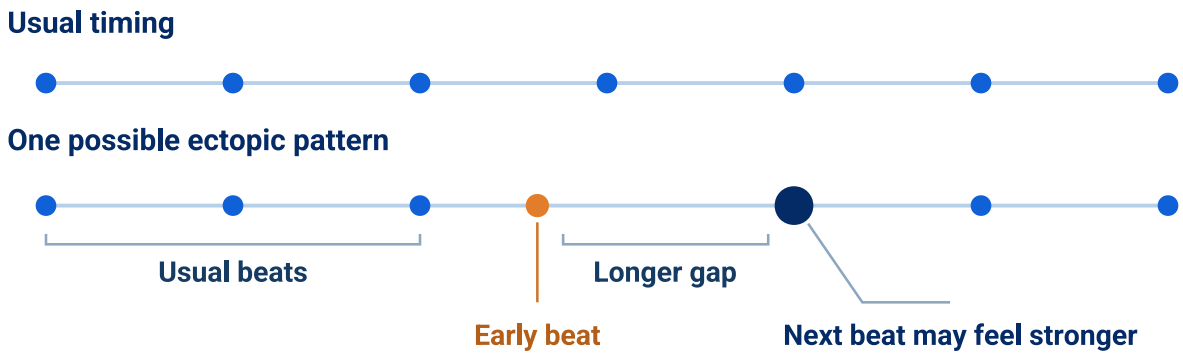
Palpitations and ectopic beats What do they mean?

The short answer

Palpitations are an awareness of your heartbeat. You may notice a thump, flutter, skipped beat or a spell of racing. Ectopic beats are a common cause and are often harmless. The useful questions are **what rhythm is causing the symptoms, whether the heart is otherwise healthy, and whether treatment would help**. [1,2,3,5]

Why can an extra beat feel like a missed beat?

An **ectopic beat** is an electrical impulse that arrives earlier than expected, from somewhere outside the heart's usual pacemaker. You may barely notice the early beat. A pause often follows, and the next beat may feel stronger. That can produce the familiar “skip, pause, thump” sensation. It does not mean the heart has necessarily stopped. Not every ectopic beat follows exactly this pattern. [2,3]



A simplified example of the timing of an ectopic beat. Patterns vary. This is an illustration, not a patient's ECG. Marker size illustrates a possible sensation, not an electrical or pumping measurement.

Two names you may see in a report

Premature atrial contraction - PAC

An early beat starting in an upper chamber. It may also be called an atrial ectopic or supraventricular ectopic beat. [3]

Premature ventricular contraction - PVC

An early beat starting in a lower chamber. It may also be called a ventricular ectopic. Both types can cause a similar sensation; a rhythm recording helps tell them apart. [2,3]

The strength of the thump is not a measure of danger

A small number of ectopic beats can be very noticeable. Other people feel few symptoms despite having frequent ectopics. We judge their significance from the recording, associated symptoms and the condition of the heart, rather than how forceful each beat feels. [2,5,6]

HEART RHYTHM & SYMPTOMS

Which rhythm is causing the symptoms?

Palpitations can have several causes, and more than one pattern can occur in the same person. The descriptions below are clues to discuss with your clinician. **They cannot establish a diagnosis on their own.** [1,4]

> The heart normally follows electrical signals from its natural pacemaker. The upper chambers, called the **atria**, and lower pumping chambers, called the **ventricles**, beat in a coordinated way. You can feel palpitations during a normal rhythm, an early beat or a sustained rhythm disturbance. How it feels gives us clues, but a recording may be needed to identify the rhythm. [1,3,4]

What you may notice	What the assessment may find
An occasional skip, lurch or thud	An isolated atrial or ventricular ectopic beat. Some occur in repeating patterns or short groups. [2,3]
A gradual increase in heart rate	A normal response to activity, stress or illness. Anaemia, thyroid problems, medicines and other causes may also make a normal rhythm faster or more noticeable. [1]
A fast, regular rhythm that starts and stops suddenly	One possibility is **supraventricular tachycardia (SVT)**, a rapid rhythm involving the upper part of the heart's electrical system. An ECG helps identify the mechanism. [8]
An irregular rhythm lasting longer than a single skipped beat	Atrial fibrillation (AF) is one possibility. Ectopics and other rhythms can also feel irregular, so an ECG recording is needed to distinguish them. [7,9]

What makes a finding reassuring?

Reassurance is strongest when the recorded rhythm explains your usual symptoms, the heart's structure and pumping are satisfactory where assessment is needed, and there are no concerning features in the history or ECG. Many people with isolated ectopic beats in an otherwise healthy heart need explanation and follow-up advice rather than a procedure. [2,5]

When do we look more closely?

Tell your clinician about **fainting or near-fainting**, symptoms during exercise, reduced exercise tolerance, or a known heart condition. A family history of an inherited heart condition or sudden unexplained death at a young age also matters. Explain whether the symptoms are new, becoming more frequent or lasting longer. [1,5,6]

What does “ectopic burden” mean?

This is the proportion of recorded heartbeats that are ectopic. The number can vary from day to day. With frequent PVCs, the clinician considers the burden, their pattern and origin, and heart function together. In some people, frequent PVCs can cause or worsen weak pumping. This may justify monitoring, further imaging or treatment even if the beats are not very noticeable. There is no single count that answers every patient's question. [5,6]

Review symptoms that change

New or changing symptoms still matter after an earlier reassuring test. Seek the level of help described on page 5; do not rely solely on an old result. [1]

HEART RHYTHM & SYMPTOMS

How do we find the cause?

The aim is to **record the rhythm at the time of your usual symptoms** and check for relevant underlying problems. Not everyone needs every test. The choice depends on the history, examination and initial ECG. [4,5]

Investigation	The question it helps answer
Clinical history and examination	What do the episodes feel like, how do they start and stop, and are there associated symptoms? Medicines, stimulants, illnesses and family history may provide useful clues. [1,10]
12-lead ECG	What is the rhythm now, and are there clues about the heart's electrical system? Sticky electrodes record electrical activity. A normal ECG between episodes does not exclude an intermittent rhythm problem. [4]
Ambulatory ECG monitor	What happens over a longer period? A portable recorder or patch can identify ectopics, measure their frequency and capture episodes. Your symptom times help match sensations to the recording. [4]
Blood tests	Could a relevant problem, such as anaemia, an overactive thyroid or an imbalance in blood minerals (electrolytes), be contributing? Testing is guided by your circumstances. [1,10]
Echocardiogram	Are the chambers, valves and pumping function satisfactory? This ultrasound test is particularly useful when frequent PVCs, other findings or the history raise a question about heart structure. [5,6]

Match the monitor to the episodes

Symptoms happening every day may be captured by a short continuous recording. Less frequent episodes may need a longer patch, an event recorder or another approach. Occasionally, an implantable loop recorder is useful for infrequent but concerning events, particularly unexplained blackouts. The right recording period matters more than choosing a particular brand. [4]

When are other tests useful?

An exercise test may help when symptoms occur with exertion or the rhythm's response to activity needs assessment. **Cardiac MRI** may be recommended if the ECG, ectopic pattern or echo suggests a heart-muscle problem, or if further tissue assessment is needed. It is not routinely required for every person with palpitations. [5,6,10]

Help the monitor answer the question

Follow the device instructions about activity, showering and skin care. If it has an event button, use it as instructed and note the time and symptom. Report skin irritation or a loose patch. Do not deliberately provoke an episode or stop medicines unless your team asks you to. [4]



Did the recording capture your usual symptoms?

If your usual symptoms never occurred during the recording, discuss what the result can and cannot exclude. A normal recording without the relevant episode may leave a question unanswered. [4]

HEART RHYTHM & SYMPTOMS

When is treatment helpful?

Treatment depends on the rhythm, the effect on daily life and any underlying heart condition. Some people need reassurance and advice. Others benefit from medicines or a procedure. **The treatment should have a clear aim**, such as relieving symptoms or protecting heart function. [1,2,5,8]

What the assessment shows	What may happen next
Occasional ectopics with reassuring assessment	An explanation and advice may be enough. Agree whether any follow-up is needed and what changes should prompt review. [2,5]
Troublesome ectopics	After reviewing potential triggers, a clinician may offer a medicine such as a beta blocker or, in selected cases, a calcium-channel blocker. The choice depends on the rhythm and other medical conditions. Discuss likely benefit and possible side effects. [5,6]
Frequent PVCs or concern about pumping function	Further assessment and treatment may be appropriate. Repeat monitoring or imaging can assess the response. Suppressing PVCs may allow pumping function to improve when the ectopics are contributing to the weakness. [5,6]
An identified sustained rhythm, such as SVT or AF	Follow a plan for that particular rhythm. Options may include medicines or a rhythm procedure. AF also needs a separate assessment of stroke risk and whether an anticoagulant is appropriate. Ectopic beats alone do not mean you need an anticoagulant. [7,8,9]

What is catheter ablation?

A rhythm specialist passes thin catheters, usually through blood vessels in the groin, to identify and treat the electrical source or circuit causing the arrhythmia. Ablation can be useful for selected PVCs or SVT, including troublesome symptoms or PVCs affecting heart function. The expected benefit, risks and alternatives depend on the specific rhythm and its location. Not everyone with ectopic beats needs it. [5,8]

Practical changes worth considering

Look for your own triggers

Caffeine, alcohol, poor sleep, stress and stimulant drugs can contribute, but the effect varies. If you notice a consistent link with coffee or an energy drink, try reducing it and see whether symptoms improve. There is no need to assume that every cup of coffee causes an arrhythmia. [1,6]

Review medicines and general health

Bring a list of prescriptions, inhalers, supplements and cold remedies. Treating an underlying problem may help. Do not stop a prescribed medicine independently. Ask for support with smoking cessation, sleep problems or anxiety when relevant. [1,2,6]

Keep activity individual

Exercise advice depends on the findings. If activity brings on palpitations, dizziness or other symptoms, stop and seek advice before pushing through. An appropriate assessment can help you return to activity with confidence. [5,6]

HEART RHYTHM & SYMPTOMS

Your symptom record and when to seek help

A short symptom record is useful

When you feel well enough to do so, note the **date and time**, how long the episode lasted, what you were doing and whether it began and ended suddenly. Record whether it felt like individual skipped beats or a sustained racing rhythm. Include any chest discomfort, breathlessness, dizziness or fainting, and possible triggers such as a new medicine. Bring this record to your appointment. [1,4]

If you are wearing a monitor, use its event marker as instructed. A precise time can be more helpful than repeatedly checking the pulse throughout the day. The clinician can compare the symptom record with the ECG rather than relying on a description alone. [4]

Can a watch or phone help?

An ECG-capable device may capture a useful tracing during symptoms. Save the original recording with its date and time for clinical review. A pulse-based “irregular rhythm” notification is different from an ECG and cannot establish the diagnosis. Movement, poor contact and ectopic beats can complicate interpretation. A normal wearable reading does not exclude every rhythm problem. **Do not delay urgent help to obtain a recording.** [9]

Questions to ask about the result

Which rhythm occurred during my symptoms? Were the episodes adequately captured? Is the heart's structure and pumping satisfactory? What is the purpose of any treatment, and how will we judge whether it helps? Do I need repeat monitoring, imaging or an activity plan? Agree who will explain the report and when to seek another review.

Get help promptly

Arrange a medical review if palpitations keep returning, become more frequent, last longer, or you have a known heart condition or relevant family history. Mention symptoms during exercise and any previous blackout. [1,5]

When to seek urgent help

Call 999 for palpitations that do not go away, or palpitations with chest pain, shortness of breath, feeling faint or fainting. Do not drive yourself to A&E. If these symptoms have stopped, seek an urgent GP appointment or contact NHS 111. Follow any individual emergency plan your clinician has given you. [1]

Sources and further reading • Numbered links are clickable in the PDF.

1. NHS. Heart palpitations.
2. British Heart Foundation. What are ectopic beats?
3. American Heart Association. Premature contractions: PACs and PVCs.
4. ISHNE-HRS. Ambulatory ECG monitoring consensus (2017).
5. ESC. Ventricular arrhythmias guideline (2022).
6. ESC CardioPractice. Asymptomatic ventricular extrasystoles (2025).
7. NICE NG196. Atrial fibrillation: diagnosis and management.
8. NHS. Supraventricular tachycardia (SVT).
9. ESC. Atrial fibrillation guideline (2024).
10. ESC. Supraventricular tachycardia guideline (2019).

Version 1.0 • 22 November 2026 • Prepared for Dr Heseltine's clinical review. This information supports individual medical advice.