



Medicine for Managers

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Palpitations

We have all experienced palpitations at times of stress, when exercising or, perhaps as teenagers, on seeing the person we believed would be our first true love! They feel like the heart is pounding or racing as though it would jump out of your chest. They may last seconds or minutes or sometimes longer. Though sometimes unpleasant, they are, in most cases, harmless.

Palpitations are simply an awareness of one's own heart beat. They may be noticeable because they are rapid or forceful or the beat may be irregular in some way. Sometimes the beats are less forceful and more like a fluttering sensation or feeling of missed heartbeats.

Palpitations can be felt in a normal heart and also in a heart affected by some sort of medical disorder.

Heart conditions which can cause palpitations include:

- Heart attack
- Heart failure
- Disease of the heart valves
- Arrhythmias (abnormalities of heart rhythm)
- Cardiomyopathy (heart disease which affects the heart's ability to pump)
- Congenital heart disease (structural heart problems present at birth)

They may also be caused by:

- Intense exercise
- Stress and panic attacks
- Large amounts of coffee, tea or caffeine containing energy drinks
- Some spicy or rich foods
- Alcohol
- Recreational drugs such as cocaine and amphetamines
- Some medicines, prescribed or available over the counter
- Smoking (and vaping)
- Hormonal effects such as in pregnancy or during the menopause
- A high temperature
- Medical causes, such as anaemia due to iron deficiency, thyroid overactivity
- Obesity
- Low blood sugar or low blood pressure

The large majority of palpitations are harmless. Fear, excitement and passion can all generate palpitations as a result of release of hormones such as adrenaline.

The heart may become noticeable if it is beating at more than 100 beats a minute (*tachycardia*), if it is beating irregularly (*atrial fibrillation*) or if the heart is producing extra beats (*extrasystoles*) which usually occur when there is more than one point of origin of the beat mechanism. Panic attacks are a common cause of palpitations, in circumstances where an individual is frightened or anxious. The palpitations may be accompanied by shaking, nausea, and sweating.

In general it is appropriate to seek a medical opinion if experiencing palpitations if:

- The episodes last a long time or they are occurring with increased frequency
- The episodes are getting more severe
- They develop in someone already known to have a heart condition
- They worry or frighten the individual

If an episode of palpitations results in:

- the development of chest pain or the chest becomes tight
- breathlessness
- dizziness or feelings of faintness
- loss of consciousness
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it is important to summon urgent medical assistance (999) and adopt supportive measures including cardio-pulmonary resuscitation (CPR) if the pulse cannot be felt.

If palpitations occur on a number of occasions, it is wise to consult a General Practitioner. The doctor will obtain a detailed history of the symptoms in order to understand the nature and frequency of the symptoms and indeed what the patient may mean by 'palpitations'.

They will ask where they are felt, how long they last, any aggravating or relieving factors and whether the palpitations are regular or irregular and fast or slow.

The doctor will ask about personal activities such as consumption of caffeine containing drinks (e.g. *Coca Cola*® or *Red Bull*®), smoking and recreational drug usage.

The doctor will conduct a general physical examination to exclude obvious possible causes such as anaemia, blood pressure problems, thyroid disease and evidence of clinical heart abnormalities.

The next port of call will be the electrocardiogram (ECG). This may identify some types of cardiac pathology, such as extra beats. Commonly of course the ECG is normal because the episodes are intermittent or induced by particular circumstances.

It may be necessary to have a 24-hour ECG monitor fitted. This will monitor all the heart activity for a day and will pick up any episodes of abnormal beat that occur during that time. If the palpitations are brought on or affected by exercise, then it may be necessary to carry out the ECG with the person on a treadmill to induce the cardiac changes.

It is important to note whether the palpitations are caused by, or induce chest pain, breathlessness or feelings of faintness and imminent collapse.

If the ECG shows changes which the patient recognises as palpitations, they may be caused by a variety of different causes. They may be the result of disturbances in the way in which the

rhythm is generated in the heart, or damage to the heart itself (e.g. disease of the heart valves) may be responsible.

Some types of abnormal rhythm are serious and may need the patient to be admitted for more sophisticated tests and treatment to eliminate or control the problem.

The sudden onset of a serious abnormality in the heart beat (a dysrhythm) can be serious or, on occasion, fatal.

For most patients, however, the heart will be found to be in robust good health. There may then be advice on smoking, alcohol or illicit drug usage. There may be the need to investigate and treat other medical problems such as anaemia, diabetes or thyroid disease which result in cardiac anomalies.

If the palpitations are born out of panic type attacks, there may be a need for anxiolytic drugs or for cognitive behavioural therapy (CBT). In some cases a group of drugs called the beta-blockers are very valuable.

They are used for palpitations of many sorts, including those in people who panic before exams or things like driving tests. The medication blocks the actions of adrenaline and thereby reduces the fight, flight or fright mechanism.

The drug is much beloved of actors, musicians, public speakers and dancers to avoid performance anxiety.

They are also very useful for golfers and, particularly, snooker players to keep them calmer and eliminate tremors.

In summary, palpitations are commonly minor, sometimes serious. If in any doubt, seek a medical opinion and if experiencing chest pain, breathlessness or dizziness or fainting seek emergency care.

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