



The Heart Rhythm Charity

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Physiological Manoeuvres to stop SVTs

Introduction

Fast heart rhythms that come on suddenly can often be stopped by performing some simple physiological 'tricks'. These are safe to perform in any setting and may stop the fast rhythm and return the heart to normal. This will reduce the likelihood of having to go to a hospital casualty department or call an ambulance.

You will have been given this fact sheet following a talk with a doctor, cardiac physiologist or nurse who has assessed that this is appropriate advice for you. If you have not discussed your palpitations with anyone, please do this **BEFORE** you attempt any of the moves described on this fact sheet as it is important to make sure you are safe to perform them.

Points to note

If when the rhythm starts you feel unwell, for example you have bad chest pain; feel very faint or find breathing difficult, call for an ambulance without delay by dialling 999. If, however, you just feel uncomfortable but not ill with the fast heart rhythm, you can try these manoeuvres first.

If you are being investigated for a fast heart-rhythm problem and an ECG (Electrocardiograph and electrical recording of your heart) has never been done while the rhythm is actually going fast, it may be better to let the rhythm continue to go on running until you get somewhere where an ECG can be recorded rather than using these manoeuvres to stop it.

Sometimes it can be helpful to get to a GP practice, walk-in centre or hospital Accident & Emergency department so that an electrical recording of the heart rhythm (ECG) can be made while the rhythm is still going fast. This will provide doctors with very important information about the cause of the fast rhythm and also the best treatment for it.

You should only leave the rhythm to run if you are not too uncomfortable with it and you have someone to take you to the GP practice or hospital. You should not try to drive yourself while a fast heart rhythm is continuing – there is too much risk; you may suddenly start to feel faint and lose control of the vehicle. If you do manage to get an ECG recorded while the rhythm is continuing, remember to ask the medical staff to print a copy and give it to you to keep.

This is now a point of 'good practice' in the Government's National Service Framework chapter on arrhythmias, so you are fully entitled to ask for a copy. This means that when you see doctors in the future you can show them exactly what the problem is by giving them a copy of the ECG.

Physiological Manoeuvres

These are 'tricks' which alter nerve reflexes in the body for a few seconds. Many types of heart rhythm are triggered by changes in these nerve reflexes and can also be stopped by them.

They are listed below - see overleaf - in order of how often they are effective and how easy they are to perform:

1) Valsalva Manoeuvre

This is a way of briefly increasing the pressure inside your chest. Lie or sit down, and take a breath in and then 'strain' – as if you were constipated and trying to open your bowels.

If you are not familiar with this, some people achieve the same effect by taking a breath in and then placing the tip of their thumb in their mouth and blowing hard against their thumb trying to let as little air escape as possible. Whichever method you use, try to do this through a count of about 20 seconds and then breathe out normally.



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It is important to do this lying or sitting down as if you try to do it while standing up it may make you feel very faint. Most commonly, if this works, it does so just after breathing out. If it doesn't work the first time then try again for a longer period if you can.

2) Carotid Sinus massage

This is actually more effective if done to you by someone else. It should not be done on anyone who is known to have disease in their arteries or in older people, especially if they have ever had a stroke.

At the side of the neck there is a pulse for the carotid artery. To find this put your fingers on the angle at the back of the jaw and then move the fingers slightly backwards and down on to the side of the neck.

If you keep your fingers still in this position for a few seconds, you should feel the pulse. Gently, but firmly massage this pulse using a circular motion with the fingers for about fifteen seconds.

It is usually done on the right side of the neck. Remove fingers and re-assess. If palpitations still continue, try again. **NEVER MASSAGE BOTH CAROTID ARTERIES AT THE SAME TIME** as you may cause yourself to blackout!

3) Diving Reflex

This is a reflex which causes a slight decrease in our heart rates when we dive into water. It is sometimes enough to stop a fast rhythm. Fill a sink or bowl with cold water and then immerse your face fully in the water for a second or two.

4) Gagging/retching/vomiting

One of the most powerful ways of provoking a reflex change is to induce vomiting. This, how-

ever, may not be necessary. Just tickling the back of the throat enough to make you 'gag' may not be enough to stop the fast rhythm. Use something blunt and smooth like the handle-end of a tooth brush to touch the back of your throat behind the tongue. Of course this should be done very gently and no pressure should be exerted in this sensitive area.

This is a technique that works occasionally for some people, but may be less powerful than the methods above. However, it is easy and less unpleasant to perform. The idea is to take a good 'glug' of very cold water rather than a sip, but it is not worth drinking large volumes. If ultimately the rhythm does not stop and you have to go in to hospital it is best not to have a stomach bursting with water when you arrive!

These are probably the most common methods used, but individual people often find other methods that work well for them. Sometimes, a cough or just a deep breath in taken as soon as the sensation of the fast rhythm starts is enough. One method that is not advisable, but used to be suggested is eyeball pressure; this is dangerous and can cause damage to your eyes, so avoid it.

If you do use one of these techniques and it works with your heart suddenly going back to normal, remember to tell you doctor about this as it helps to indicate the type of fast heart rhythm that was causing the problem. Generally these techniques work well for many fast REGULAR heart rhythms, but are usually ineffective for fast IRREGULAR heart rhythms such as Atrial Fibrillation.

Keep a record of how frequently these attacks occur, even if you are able to stop them with these described methods. If you find that your condition changes talk to your GP, who should be able to refer you to a heart rhythm specialist to discuss further treatment if necessary.

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