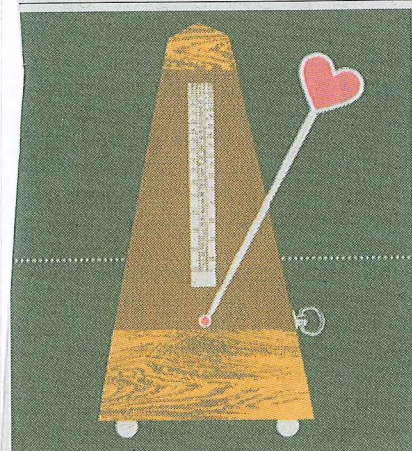


Dr Mark



A simple lifesaver

Checking your pulse takes only a minute but it could reveal potentially serious health problems, says Dr Mark Porter

Today's column is interactive and requires your participation. I would like you to check your pulse — now. Two million people in the UK suffer from some sort of abnormal heart rhythm, many of whom are at risk of potentially lethal complications such as collapse, cardiac arrest and stroke, and monitoring your pulse could determine whether you are one of them.

By the time you reach this page you have probably been sitting down with your newspaper, or at your computer, for at least five minutes — making this the ideal time to check. If you don't know how to do it, follow the instructions on the right. I would like you to work out the number of beats per minute and note the rhythm.

There are three abnormalities you are looking for: a pulse rate that is too slow, too fast or irregular. There are innocent causes for all three but it's likely to take a doctor or nurse to differentiate these from the more worrying ones.

The rate for most people is above 60 and below 100 beats a minute. Exceptions at the slower end include very fit people, who tend to have a lower resting heart rate, and those on some forms of medication for heart problems or high blood pressure, such as beta-blockers. Your resting rate may be above 100 if you have consumed a lot of caffeine, smoked, are stressed, or are on medication that raises your pulse (such as certain antidepressants and drugs used to treat asthma).

Clues that there may be a more sinister reason for a disturbance in rate include feeling faint — particularly

when you stand up after sitting, or get out of a hot bath — breathlessness, puffy ankles, cold sweats and a pale/grey complexion.

Disturbances in rhythm are more complex but likely to be more important. Some minor beat-to-beat variation is normal but your pulse should feel pretty regular. If it is obviously irregular, you need to have it double-checked by your practice nurse or GP even if you have no other symptoms.

The most common reason for an irregular pulse is atrial fibrillation (AF), where the upper two chambers of the heart don't contract in sync with the larger ventricles. This compromises the efficiency of the heart and increases the risk of blood clots forming in the chambers, which can then break off and become lodged in the brain.

If you are lucky, the clots are small and cause mini-strokes (transient ischaemic attacks or TIAs), with symptoms such as slurred speech and weakness of the face that resolve completely within 24 hours. If you are unlucky the clot can occlude a much larger blood vessel, leading to brain damage, paralysis and/or death.

It is thought that there are as many as 1.2 million people in the UK with atrial fibrillation. In about a third of them it is undiagnosed. The prevalence increases with age, ranging from one in 200 in middle age to one in ten in the elderly. People with AF are five times more likely to have a stroke than someone with a normal heart rhythm, so it is vital that they are treated.

There are a number of approaches for dealing with AF, ranging from shock treatment to restore normal rhythm to medication to try to normalise it and/or "thin" the blood to reduce the likelihood of clots. However, the key is recognising it in the first place, which is why it is so important to check your pulse.

Not all disturbances in rhythm are worrying; a lot of fit people experience the occasional missed beat at rest and this is often normal, but your GP may want to do a few basic tests (such as taking blood samples or performing an ECG) to check that all is well.

For more detailed information on checking your pulse, visit heartrhythmcharity.org.uk or call the Arrhythmia Alliance helpline on 01789 450787

How to measure your pulse rate

■ Sit down and rest for at least five minutes.

The easiest place to feel for your pulse is at the wrist, but alternatives include the inside of the elbow and in the neck, below the angle of the jaw.

■ Right-handed people should check on their left wrist and vice versa. With the palm pointing up, place your index and middle finger just behind the skin crease of the wrist joint, below the base of your thumb.

■ Count for 30 seconds and multiply by two to get the rate or, if irregular, count for a full minute.

■ Alternatively, if you own an iPhone, you could try downloading the free Know Your Pulse app from iTunes, or visit knowyourpulse.org