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Tremors (Shaking)

Anxiety, fear, feeling generally unwell and fever can all make you feel trembly - the expression 'shaking in his boots' is one we all recognise. Of course, feeling shaky without knowing what's causing it can make you feel anxious - which can lead to a vicious cycle of shakiness.

If you feel shaky as a one-off, it's likely that a temporary cause like fever, fear or stress is to blame. But if you have repeated or persistent episodes, there's a long list of possible causes.

It's important to remember that essential tremor, or other causes not related to a serious underlying medical problem, are by far the most likely explanation for tremor if you feel otherwise well.

What are tremors?

A tremor is a repetitive, rhythmical movement of a part of your body. Many of the muscles of your body come in pairs, which 'oppose' each other; in other words, contracting one muscle moves your body part in one direction, while contracting the opposing muscle moves it the opposite way.

Tremor comes about when these opposing muscle groups contract in turn. It is involuntary. This means that it is generally not controllable and happens without you deciding to move that body part. It is often felt as a trembling or shaking sensation.

A slight tremor is present in all people. That is called physiological tremor. It may not be noticeable. Try stretching your hands out in front of you, with your fingers straight, and look closely at the fingers. You will probably see a tiny tremor - which is normal. Certain things can make a physiological tremor more noticeable, so you may only notice it now and then.

Who has tremors?

Tremor symptoms severe enough to seek medical help are remarkably common – in fact, tremor is the most common movement disorder seen in specialist neurology clinics in hospital. Conditions like essential tremor often run in families.

What affects your risk of getting tremor as a result of other conditions, such as those below, depends very much on what that condition is.

Tremor causes

Tremor is a symptom, rather than a medical condition on its own. Sometimes there is no obvious cause; sometimes it's a magnification of your normal physiological tremor, brought on by a temporary stimulant such as caffeine or medication.

Among the most common and important causes of tremor are the following:

Essential tremor

The most common cause of significant, persistent tremor is essential tremor. The medical term for it used to be 'benign essential tremor', on the basis that it wouldn't do you any harm, wouldn't lead to any other condition and didn't affect your life expectancy.

But for many patients, uncontrollable shaking is anything but harmless. It can make the simplest daily activities a challenge, and has a huge effect on their self-esteem.

Anxiety

Anxiety, like excitement, stimulates release of a hormone called adrenaline (epinephrine), the so-called 'fight or flight' hormone. This has profound effects on many parts of your body, mostly aimed at increasing your alertness, muscle strength and ability to run away from danger or turn to face it.

Adrenaline stimulates your nerve endings, raising your awareness, and increases the blood flow to the muscles in your arms and legs. Both of these factors make you more likely to tremble. As well as the obvious feeling of being anxious, anxiety-related tremor is often accompanied by rapid heartbeat (palpitations), shortness of breath, dry mouth and sometimes chest pain.

Low blood sugar

Episodes of low blood sugar, also known as hypoglycaemia, or 'hypos', are most common if you have diabetes treated with insulin, or type 2 diabetes treatment with sulfonylurea (SU) tablets.

SU tablets stimulate your pancreas to produce more insulin, which can drop your blood sugar too low. Other symptoms include sweating, feeling very hungry, irritability, poor concentration, feeling sick, blurred vision and palpitations.

Caffeine

Like adrenaline, caffeine is a stimulant, which raises your level of alertness and stimulates your nerves. While it can be useful for keeping you alert, large quantities of caffeine in a short period can lead to tremorand palpitations.

Medications

Culprits include too much salbutamol (used to relieve asthma symptoms); lithium carbonate (usually used in bipolar disorder); some epilepsy medicines; and some cancer treatments. Some antidepressants can also make you feel trembly, especially when you first start them.

Recreational drugs

A variety of recreational drugs including MDMA and amphetamines can lead to tremor and other movement disorders, which may persist after you stop using them.

Alcohol withdrawal

if you're dependent on alcohol, withdrawal can lead to severe symptoms including shaking, anxiety, confusion, sweating, palpitations and even seizures. This tremor can persist, even weeks after you stop drinking. If you think you're experiencing alcohol withdrawal, speak to a doctor urgently.

If you're dependent on alcohol, don't stop drinking suddenly. Instead, reduce the amount you're drinking slowly over several weeks. Alcohol support services can provide advice and help.

Alcohol can also damage your brain, including your cerebellum, which is responsible for your balance and for co-ordinating your movements. Some people who are dependent on alcohol go through frequent 'miniwithdrawal' within hours of their last drink, so they frequently have tremor.

Parkinson's disease

Tremor is one of the three 'key features' of Parkinson's disease, although it doesn't always happen. When it does, it tends to affect your hands and arms and it tends to be worse when you're not moving.

The other main symptoms of Parkinson's disease – slowness of movement and stiffness – may start at about the same time as the tremor, but may be put down to getting older or to general unfitness. Therefore tremor is often the first symptom people bring to a doctor's attention and this often leads to a diagnosis.

Overactive thyroid gland

Along with feeling shaky, an overactive thyroid gland can often lead to weight loss despite eating more, anxiety, palpitations, sweating, intolerance to heat, diarrhoea and shortness of breath. You may start off with just one or two symptoms, with more developing over a few weeks.

Multiple sclerosis (MS)

Tremor can be a symptom of MS, but it's highly unlikely to be the only symptom you get, and other causes are much more likely. In fact, tremor is usually a relatively late symptom, and the average time from diagnosis of MS todeveloping tremor is 11 years.

Vitamins and minerals

Vitamin deficiency, particularly of vitamin B1, can lead to tremor. So can Wilson's disease, an inherited condition in which too much copper builds up in your body. Rare causes like poisoning with arsenic or heavy metals can cause a variety of symptoms including tremor.

How is tremor diagnosed?

Because tremor is a symptom rather than a medical condition, your doctor will concentrate on finding out what is causing your tremor. This is key, because the treatment for tremor depends on what is causing it. They can often narrow down the cause of your tremor by asking key questions. These include:

- **Does your tremor happen when you're not moving?** This sort of 'rest tremor' is most often associated with conditions affecting your nervous system, such as Parkinson's disease or MS. In Parkinson's disease, the tremor often gets better when you're moving your limb.
- Do you get tremor when you try to hold part of your body (usually your arm) out against gravity? This kind of tremor, which can also be brought on by movement, can be due to physiological tremor (which may be exaggerated if your thyroid gland is overactive or you're anxious or have drunk a lot of caffeine); by some medications; by certain diseases of the nervous system; and by long-term alcohol misuse.
- Does your tremor get worse when you try to point at something specific - the closer you get, the wider your aim is from your goal? This is called intention tremor, and may suggest a problem with part of your brain called your cerebellum.
- Which part or parts of your body are affected by tremor? For instance, essential tremor often starts in one hand or arm, as does the tremor of Parkinson's disease.
- Is it there all the time (ie permanently or whenever you carry out a movement that brings it on) or are you sometimes able to sit still, or move around, without any tremor? If it is intermittent, what brings it on (for example, caffeine, when you're feeling stressed)?
- **Do you have any other symptoms along with your tremor?** In about 7 in 10 people diagnosed with Parkinson's disease, tremor is the first symptom they tell their doctor about.

Doctors will also want to examine the tremor, and examine the nerves in your head, arms, and legs for any other signs of nerve problems.

Sometimes, this is all that's needed to determine the course. Otherwise, depending on what they think the cause is, further tests might be needed. For example, a blood test to check the thyroid, or special brain scans if Parkinson's disease is suspected.

Tremor treatment

The treatment your doctor suggests will depend very largely on the cause. For instance, if your thyroid gland is overactive, correcting the levels of this hormone in your body should stop your tremor. If you are anxious, your doctor may recommend talking therapy like cognitive behavioural therapy (CBT).

If it's related to medication, changing or reducing the dose of your medication may help, although you should only do this with advice from your doctor. There are lots of alternative medications for treating type 2 diabetes apart from sulfonylureas, which can cause hypos - your doctor can discuss this with you.

Whatever the cause of your tremor, too much caffeine may make it worse. It's therefore worth thinking about cutting down on your caffeine intake (from tea, coffee, cola drinks and chocolate) or cutting it out altogether.

And while alcohol can sometimes improve tremor in the short term, too much alcohol can lead to severe, disabling tremor, as well as other lifethreatening complications. As a consequence, doctors never recommend that you 'self-medicate' with alcohol.

The possible treatments of essential tremor, the most common cause of tremor, are outlined in detail in the separate leaflet called Essential Tremor. Sometimes these treatments are used if you have another kind of tremor, especially if it is having a major impact on your life.

Further reading

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