

Patient information from the BMJ Group

Essential tremor

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Essential tremor

If you have essential tremor, sometimes your hands will tremble or your head will shake. This can make it hard for you to do everyday things like drink a cup of coffee. Some people find it embarrassing and may even avoid going out. There are medicines that can help with this condition.

We've brought together the best research about essential tremor and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for you.

What is essential tremor?

If you have essential tremor, you get rhythmic shaking in one part of your body. This is usually in your hands, head, or both.

You won't notice the tremor when you are resting or sleeping. The tremor happens when you're in a certain position (such as holding your arms out), or when you try to make a particular movement (such as writing).



If you find your tremor distressing, you don't have to put up with it.

You may find it hard to do simple things like hold a cup, write a letter, or shave. But essential tremor isn't a normal part of ageing. If you find it distressing, you don't have to put up with it.

The name essential tremor means that you have a tremor but doctors can't find any definite reason for it. Doctors aren't sure why some people get essential tremor, but it seems to run in families. About half the people who have essential tremor also have a family history of it. ^[1]

What are the symptoms of essential tremor?

You're most likely to notice essential tremor in your hands.

About 9 in 10 people with essential tremor have **hand tremor**.^[2] It may start in only one hand, but over time both hands are usually affected.

You may notice the tremor when you stretch out your arms and try to hold them steady but they shake. Or you may notice it when you do something with your hands, such as eating or writing. Doctors call this type of tremor an **action tremor**.^[3]

The second most common kind of essential tremor is **head tremor**. About half the people with essential tremor have this.^[2] You can have tremor in your hands and head at the same time. Your head can shake either up and down or from side to side. Sometimes your voice may also shake, especially if you're older.^[3] Your body or legs can also have a tremor.^[4]

But if you only have a tremor in your voice, tongue, chin, or leg (without a tremor in your hands or head), you don't have essential tremor.^[5]

The tremor may be worse when you are tired or stressed. You may notice that drinking alcohol reduces the tremor.^[2]

Your doctor will try to find out whether anything is causing your tremor. Some illnesses, such as a **stroke**, **thyroid** problems, and [Parkinson's disease](#), can cause a tremor. Some medicines can also cause tremor. Your doctor will only diagnose essential tremor if he or she can't find a definite reason for your tremor.^[5] If there's a sudden change in how bad your tremor is, it may be that something is causing it.

Your doctor will ask you about the medicines you take, your family history, and any other symptoms that you have. He or she will examine you, and you'll have blood tests. For example, you may have a test to make sure your thyroid gland (a gland in your neck) isn't overactive.

Some people may need tests, such as a **CT scan** or an **MRI scan**, to look for other problems that may be causing a tremor, such as a stroke.

You may need to see a doctor who specialises in the nervous system (a neurologist).

How common is essential tremor?

Essential tremor is very common.

Between 1 in 100 and 7 in 100 people have it.^[6] And it may be even more common than this. Some people have it but don't go to see their doctor.^[7]

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Essential tremor usually happens after the age of 60, but some people get it in their 20s. ^[6] Men and women are equally likely to get it. But head tremor may be more common in women. ^[8]

What treatments work for essential tremor?

If your tremor interferes with your life, there are treatments that can help. Medicines can't cure essential tremor, but they can help with the symptoms.

- If you aren't bothered by your tremor, you may not need treatment.
- Lifestyle changes (such as avoiding caffeine) may help you.
- There are drugs that can help your symptoms, such as propranolol (a type of drug called a [beta-blocker](#)) or primidone (a drug usually used for [epilepsy](#)).
- Medicines may not work for everyone. Or they may reduce the tremor, but not enough to help you to do everyday things.
- Lots of drugs have been tried for essential tremor. But some of them have side effects, and we don't know for certain whether some drugs work.
- If you've tried several drugs and you still have very bad essential tremor, your doctor may suggest surgery on part of your brain. But this is rare.

We've looked closely at the research and put the treatments for essential tremor into categories, according to whether they work.

Treatment Group 1

Treatments for essential tremor

Treatments that are likely to work

- [Propranolol](#)

Treatments that work but whose harms may outweigh benefits

- [Primidone](#)
- [Topiramate](#)
- [Phenobarbital](#)
- [Botulinum A](#)

Treatments that need further study

- [Benzodiazepines](#)
- [Gabapentin](#)
- [Calcium channel blockers](#)
- [Clonidine](#)

Other treatments

We haven't looked at the evidence for these treatments in the same detail as other treatments on our site. (To read more, see Our method.) But we wanted to cover these treatments because you may be interested in them.

- [Lifestyle changes](#)
- [Surgery](#)

What will happen to me?

If you have essential tremor, it probably won't go away without treatment. But in most people it's mild, and in some people it stays this way.

Many people aren't bothered by the tremor and don't even go to see their doctor. But usually the tremor slowly gets worse.

In some cases, the tremor may affect your life. You may have trouble doing things that need a steady hand, such as sewing, eating, or writing. Some people change jobs or retire because of the tremor.^[9] You may not feel able to enjoy your social life.

If the tremor affects your life, you should see your doctor. There are treatments that can help.

Treatments:

Propranolol

In this section

Propranolol is a beta-blocker. These are drugs that slow down your heartbeat. They're usually used to treat **high blood pressure** or **angina** (chest pain). They may also help control essential tremor.

Brand names for propranolol include:

- Angilol

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- Inderal
- Half-Inderal LA
- Inderal-LA.

There's been lots of research to show that propranolol is likely to help if you have essential tremor.^{[10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20]} We found 11 small, good-quality studies (called **randomised controlled trials**), all of which found that taking propranolol helped control shaking.

One study also found that taking propranolol for a year worked about as well as taking another blood pressure drug (called clonidine).^[21] But there haven't been any other studies lasting longer than six weeks. So we don't know whether propranolol works for longer or whether the effect wears off.

There hasn't been enough research to know for certain how other beta-blockers compare with propranolol for treating essential tremor. Three small studies found that sotalol (brand names Beta-Cardone and Sotacor) and atenolol (Atenix, Tenormin) seemed to help.^{[15] [19] [22]} One study found that pindolol (brand name Visken) made essential tremor worse.^[18]

Beta-blockers can have side effects. In studies, about 1 in 10 people stopped taking propranolol because they felt tired or got a slow heart rate.^[12] Other side effects are **depression**, dizziness, and sexual problems.

If you have **asthma**, heart problems, or **diabetes**, you need to tell your doctor. You may not be able to take these drugs.

Primidone

In this section

Primidone is a drug that doctors usually use to treat **epilepsy**, but they also prescribe it for essential tremor. Its brand name is Mysoline.

Three small studies compared people who took primidone with people who took a dummy treatment (a **placebo**). People who took primidone felt that their tremor had been reduced.^{[23] [24] [25]} Primidone also helped people with daily activities, such as writing and eating.

But primidone has side effects. In one study, one-quarter of the people had to stop taking primidone. You may get a bad reaction to the first dose you take. You could get nausea or dizziness, or feel confused. Other side effects include being tired and feeling depressed.^[24] Primidone may also cause memory problems. You're more likely to get side effects if you're very old or very young. Also, epilepsy drugs can cause birth defects. If you're

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taking this drug and you are pregnant or you are thinking about getting pregnant, then talk to your doctor.

Topiramate

In this section

Topiramate is a drug that's usually used to treat epilepsy. Its brand name is Topamax. In three studies of people with essential tremor, topiramate reduced tremor.

But topiramate also caused side effects. In one study, about one-third of people taking topiramate dropped out of the study because they had side effects such as loss of appetite, confusion, difficulty concentrating, nausea, weight loss, and numbness and tingling.^[26]^[27] Also, epilepsy drugs can cause birth defects. If you're taking this drug and you are pregnant or you are thinking about getting pregnant, then talk to your doctor.

Phenobarbital

In this section

Phenobarbital is a medicine that's usually used to treat epilepsy. Three small studies looked at whether it can help with essential tremor.^[16] ^[23] ^[24]

One study found that phenobarbital reduced tremor when it was measured by a machine. But it didn't help people write better or feel that they had less tremor.^[24]

Phenobarbital can cause tiredness, depression, and memory problems, especially if you're very young or very old. Also, epilepsy drugs can cause birth defects. If you're taking this drug and you are pregnant or you are thinking about getting pregnant, then talk to your doctor.

Botulinum A

In this section

Botulinum toxin type A (brand names Botox and Dysport) is produced by certain bacteria. It works by blocking signals from your nerves. Doctors can inject tiny amounts of this toxin into a muscle to relax it. It can be injected into the muscles of the forearm (for a hand tremor) or into the muscles of the neck (for a head tremor).

Two studies of people who had hand tremor found that getting an injection of botulinum A into the forearm helped. The people got less tremor, and the effect lasted from one to three months.^[28] ^[29] ^[30] But the injections didn't always help people with activities like eating.

The main side effect of botulinum A injection is hand weakness. Very rarely, botulinum toxin may spread from the place it has been injected. If you get any problems with

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swallowing, talking, or breathing after one of these injections, get medical help straight away.^[31]

We need more research to say for certain whether this treatment can help.

Benzodiazepines

In this section

Benzodiazepines are a kind of sedative. Examples of benzodiazepines are lorazepam (brand name Ativan), alprazolam (Xanax), and clonazepam (Rivotril).

There have been a few small studies of using benzodiazepines for essential tremor.^[25]^[32] ^[33] One study found that people who took alprazolam for about a month could write and feed themselves better.^[25] But we don't know for certain whether benzodiazepines work for essential tremor. That's because the studies were small and didn't last very long.

If you're very bothered by tremor, and other medicines haven't worked for you, your doctor may prescribe a benzodiazepine. But they can cause sleepiness, and you can get addicted to them, so your doctor needs to supervise their use.

Gabapentin

In this section

Gabapentin (brand name Neurontin) is usually used to treat epilepsy.

Three small studies compared gabapentin with a dummy treatment (a placebo).^[17] ^[34]^[35] But we're not sure whether it works. The studies were very small and their results differed. People in the studies got side effects that included tiredness, drowsiness, nausea, and dizziness. Also, epilepsy drugs can cause birth defects. If you're taking this drug and you are pregnant or you are thinking about getting pregnant, then talk to your doctor.

Calcium channel blockers

In this section

Calcium channel blockers are usually used for high blood pressure and angina (chest pain). Examples are nifedipine (brand names Adalat and Coracten SR) and nimodipine (Nimotop). There isn't much good research about whether these drugs help with essential tremor. So we don't know whether they work.^[36]

Calcium channel blockers can cause dizziness, flushing, swelling in the legs, and an upset stomach.

Clonidine

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In this section

Clonidine (brand name Catapres) is a drug that's usually used for high blood pressure.

One study found that taking clonidine for a year worked about as well as taking propranolol (a beta-blocker).^[21] Another study compared clonidine with a dummy treatment (a placebo). But the study was too small to draw any conclusions.^[37] Clonidine can cause sleepiness and a dry mouth.

Lifestyle changes

In this section

Lifestyle changes may help some people with essential tremor. Things you could try are:

- Avoiding caffeine (coffee, tea, and chocolate)
- Avoiding being stressed or tired
- Using heavier cups and utensils when eating
- Drinking through a straw
- Using a computer to type instead of writing
- Using wrist weights
- Doing yoga or relaxation exercises
- Talking to your doctor about which over-the-counter or prescription medicines may be making your tremor worse
- Joining a support group.

Some people notice that drinking alcohol reduces their tremor, but doctors don't recommend drinking regularly. That is because some people become dependent on alcohol. And your symptoms may get worse when the alcohol wears off.

Surgery

In this section

If you have very bad essential tremor, and have tried several drugs without finding one that helps, your doctor may advise surgery. This is very rare. Surgery can have side effects, so it's only used for a few people who aren't helped by drugs and who have very severe tremor.^[38]

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Two types of surgery are used. ^[39]

- In one, called thalamotomy, a part of the brain called the thalamus is destroyed on one side.
- The other kind of surgery is called deep brain stimulation. Wires and electrodes are put into the thalamus on one or both sides of your brain. The electrodes are connected to a machine under the skin on your chest. You use a magnet to turn it on and off.

The National Institute for Health and Care Excellence (NICE) has reviewed deep brain stimulation for tremor (and also another condition called dystonia). It says current evidence supports deep brain stimulation in some circumstances. ^[40]

Further informations:

Glossary:

stroke

You have a stroke when the blood supply to a part of your brain is cut off. This damages your brain and can cause symptoms like weakness or numbness on one side of your body. You may also find it hard to speak if you've had a stroke.

thyroid gland

Your thyroid gland is a small organ that sits in your neck, just in front of your windpipe. It sends out a hormone called thyroxine. This acts on receptors within cells. By acting on the receptors it gives the cells a message to speed up their metabolism and work harder.

CT scan

A CT scan is a type of X-ray. It takes several detailed pictures of the inside of your body from different angles. CT stands for computed tomography. It is also called a CAT scan (computed axial tomography).

MRI scan

A magnetic resonance imaging (MRI) machine uses a magnetic field to create detailed pictures of the inside of your body.

Beta-blockers

These drugs work by blocking the effects of certain chemicals produced by your body (such as adrenaline). Beta-blockers slow your heart rate and improve the beating of your heart. They are often used in people with angina or heart failure.

high blood pressure

Your blood pressure is considered to be high when it is above the accepted normal range. The usual limit for normal blood pressure is 140/90. If either the first (systolic) number is above 140 or the lower (diastolic) number is above 90, a person is considered to have high blood pressure. Doctors sometimes call high blood pressure 'hypertension'.

angina

Angina is the name that doctors use for a pain in your chest that you get when your heart muscle isn't getting enough oxygen.

randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

depression

Depression is a mental illness in which your mood is low and you feel sad most of the time. It can range from a mild illness through to a severe one in which you lose interest in life and may be suicidal.

asthma

Asthma is a disease of the lungs. It makes you wheeze, cough and feel short of breath. Asthma attacks are caused by inflammation and narrowing of your airways, which makes it hard for air to pass in and out of your lungs.

diabetes

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Diabetes is a condition that causes too much sugar (glucose) to circulate in the blood. It happens when the body stops making a hormone called insulin (type 1 diabetes) or when insulin stops working (type 2 diabetes).

Epilepsy

Epilepsy is a condition that affects your brain. If you have epilepsy, the normal electrical activity in your brain gets disturbed from time to time. This leads to seizures (also called fits).

placebo

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

bacteria

Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

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