CONDITION

Hereditary benign tremor

Hereditary benign tremor is an inherited tendency to develop shaking during movement or while holding a position.

WHAT IT IS
Inherited form of essential tremor

BODY SYSTEM
Nervous system

MAIN SYMPTOMS
Hand shaking, head tremor, voice tremor, difficulty with precise movements

WHAT CAUSES IT
Inherited susceptibility; exact genes often unknown

HOW IT IS DIAGNOSED
Neurological examination and exclusion of other tremor causes

MAIN TREATMENT
Lifestyle adaptations, tremor-control medicines, and sometimes procedures

CAN IT BE CURED?
No, symptoms can often be controlled

IS IT AN EMERGENCY?
No, unless sudden onset or stroke signs

LONG-TERM OUTLOOK
Often slowly progressive, usually without shortened lifespan

Overview

Hereditary benign tremor is an older term for essential tremor that runs in families. Essential tremor is a nervous system condition that causes involuntary, rhythmic shaking. The shaking usually appears while you are moving or holding part of your body against gravity.

The hands and arms are affected most often. Tremor can also involve the head, voice, jaw, or legs.

The word "benign" means that the condition is not cancerous and does not usually threaten life. However, the term can be misleading. Tremor may interfere with eating, writing, dressing, work, or social activities. Clinicians now generally use the term essential tremor , noting separately when there is a family history.

Essential tremor is different from Parkinson's disease, although both can cause shaking. Parkinson's disease usually has other features, such as slowed movement, stiffness, and balance changes. A neurological examination helps distinguish between them.

Symptoms

Essential tremor most often causes an action tremor . This means the shaking happens when you use a muscle, rather than when it is fully relaxed.

You may notice shaking when you:

Both hands are usually affected, but one side may be more noticeable. The tremor is generally rhythmic and may begin gradually.

A head tremor can look like repeated "yes-yes" or "no-no" movements. Voice tremor may make your voice sound shaky or unsteady. Tremor affecting the jaw or legs is less common.

Symptoms can become temporarily more noticeable with stress, tiredness, illness, anxiety, hunger, or stimulants such as caffeine. They may also change from day to day without an obvious reason.

Some people notice that alcohol briefly reduces their tremor. This response does not confirm the diagnosis, and alcohol is not a safe long-term treatment. Tremor may rebound and become more noticeable after its effects wear off.

Essential tremor does not usually cause numbness or muscle weakness. New weakness, loss of coordination, confusion, or a sudden change in speech may point to another condition and should not be assumed to be part of the tremor.

- Hold a cup, phone, or sheet of paper
- Write, draw, type, or use utensils
- Reach for an object
- Apply makeup, shave, or fasten buttons
- Hold your arms out in front of you

Causes and risk factors

The exact biological cause of essential tremor is not fully understood. It appears to involve altered signalling within brain networks that coordinate movement, including connections involving the cerebellum. The cerebellum is the part of the brain that helps control balance and

precise movement.

A family history is common. In some families, the pattern appears to be autosomal dominant . This means inheriting one altered gene from either parent may be enough to increase susceptibility. However, essential tremor is genetically complex. No single gene explains most cases, and not everyone who inherits susceptibility develops noticeable symptoms.

Having an affected parent does not make tremor inevitable. The age when symptoms begin and their severity can differ widely, even among relatives.

Age is another factor. Tremor can begin during childhood, adolescence, or adulthood, but it becomes more common and may become more noticeable with increasing age.

Medicines, stimulants like methylphenidate or lisdexamfetamine , thyroid problems, low blood sugar, alcohol withdrawal, and other neurological conditions can also cause tremor. These do not cause inherited essential tremor, but they can imitate it or make an existing tremor worse.

Diagnosis

There is no single blood test, scan, or genetic test that confirms common hereditary essential tremor. Diagnosis is based mainly on your symptoms, family history, medication history, and neurological examination.

During the examination, you may be asked to hold out your arms, drink from a cup, write, draw a spiral, or touch a target. The clinician may also check your muscle tone, walking, balance, reflexes, eye movements, and speed of movement.

The current movement-disorder classification describes essential tremor as an isolated action tremor of both upper limbs lasting at least three years, with or without tremor elsewhere. This time requirement helps avoid giving a permanent label to a recently developed tremor. It does not mean that assessment or symptom treatment must wait three years.

Depending on your history, tests may be used to look for other causes. These may include blood tests for thyroid function, blood sugar, liver or kidney problems, or medicine effects. Brain imaging is not routinely needed for a typical longstanding essential tremor, but it may be considered when symptoms begin suddenly or the examination suggests another problem.

A specialised dopamine-transporter scan can sometimes help when Parkinson's disease remains a concern. It does not directly confirm essential tremor.

Routine genetic testing is usually unable to provide a clear answer because the common inherited forms do not have one established genetic cause.

Treatment and management

You may not need treatment if the tremor is mild and does not interfere with your life. Treatment is based on how much it affects daily activities, work, communication, or emotional well-being rather than how visible it appears to other people.

Practical changes can make tasks easier. Examples include using travel mugs or cups with lids, voice controls, electric grooming tools, larger handles, or clothing with simple fasteners. An occupational therapist can suggest equipment and techniques suited to the tasks that matter to you.

Reducing a clear trigger may help. This could mean getting enough rest or limiting caffeine if you notice a consistent connection. Do not stop a prescribed medicine suddenly because you suspect it is worsening the tremor. A clinician or pharmacist can review it safely.

Medicines used to reduce essential tremor include propranolol and primidone. Propranolol is a beta blocker that changes how the body responds to certain nerve signals. Primidone is an anti-seizure medicine that can also reduce tremor. Other medicines, including topiramate, may be considered in selected situations.

These medicines do not cure the condition, and their benefits differ between people. Choice depends on your health, other medicines, the body parts affected, and possible side effects.

Botulinum toxin injections may help some hand, head, or voice tremors. The injections weaken selected muscles for a limited period. Possible effects include unwanted hand weakness or, when treating the neck or voice, swallowing or voice changes.

For severe tremor that remains disabling despite medicine, specialist teams may discuss procedures such as deep brain stimulation or focused ultrasound. Deep brain stimulation uses implanted electrodes to alter activity in movement-control circuits. Focused ultrasound creates a small, targeted treatment area in the brain without an implanted device. These treatments have different benefits, limitations, and risks and require detailed specialist assessment.

Complications

Essential tremor does not usually damage muscles or cause paralysis. Its main complications come from difficulty performing precise or steady movements.

Tremor may lead to spilled drinks, trouble preparing food, handwriting changes, or difficulty using tools and devices. Voice or head tremor may affect communication and confidence. Some people avoid eating in public or taking part in social activities because they feel

self-conscious.

Severe tremor can affect employment or independent living. Adaptive equipment, workplace adjustments, therapy, and treatment can help preserve independence.

Balance problems are not a defining feature of uncomplicated essential tremor. If you develop repeated falls, clear walking changes, marked stiffness, or slowed movement, arrange a reassessment rather than assuming the tremor has simply progressed.

Prevention

Hereditary essential tremor cannot currently be prevented. Having a family history does not mean that you caused the condition or could have avoided it through lifestyle choices.

Avoiding triggers may reduce how visible the tremor is at a particular time, but it does not prevent the underlying condition. There is no established diet, supplement, or exercise programme proven to stop inherited essential tremor from developing.

If several relatives are affected and you are concerned about inheritance, genetic counselling may help you understand the uncertainty. In most families, a genetic test cannot predict who will develop tremor or how severe it will be.

Living with it and what to expect

Essential tremor is usually long-lasting. It may stay mild for years, or gradually become more noticeable over time. Progression is often slow, but no individual course can be predicted.

Symptoms can fluctuate over hours or days because of sleep, stress, illness, caffeine, and other factors. These short-term changes do not necessarily mean that the condition is permanently worsening.

Some people need treatment only for particular activities or stages of life. Others use regular medicine or practical adaptations. Treatment may need review over time if symptoms change, side effects develop, or daily needs are different.

Essential tremor itself does not usually shorten life. Many people continue working, driving, exercising, and living independently. More pronounced tremor may require adjustments, especially for tasks involving hot liquids, sharp tools, detailed hand movements, or a steady voice.

The emotional effect also matters. If embarrassment or worry is causing you to withdraw from activities, mention this during routine care. Counselling, support groups, workplace

adjustments, and better symptom control may help.

When to get medical help

Arrange a routine medical appointment if you develop a persistent tremor, even when relatives have similar symptoms. An assessment can check whether the pattern fits essential tremor and whether medicines or another health condition could be contributing.

Routine follow-up is also appropriate if:

Seek urgent or emergency help for a tremor that begins suddenly with facial drooping, one-sided weakness or numbness, severe difficulty speaking, sudden loss of coordination, a severe new headache, collapse, or loss of consciousness. These are not typical features of hereditary essential tremor and may indicate a stroke or another urgent condition.

Shaking accompanied by severe agitation, heavy sweating, hallucinations, confusion, or a seizure after stopping alcohol or a sedating medicine also needs emergency assessment.

- Tremor is gradually worsening or affecting daily tasks
- You develop stiffness, slowed movement, falls, or coordination problems
- Treatment is not helping enough
- A medicine causes troublesome side effects
- Tremor is affecting work, eating, communication, or emotional well-being

Common questions

Is hereditary benign tremor the same as essential tremor?

It usually refers to essential tremor occurring in a family. "Hereditary benign tremor" is an older label. Essential tremor is preferred because symptoms are not always mild or harmless to daily functioning.

Will my children inherit it?

They may inherit a susceptibility, but the risk cannot usually be predicted precisely. Even within one family, some people develop no tremor while others develop symptoms at different ages or with different severity.

Does essential tremor turn into Parkinson's disease?

Essential tremor and Parkinson's disease are separate conditions. Essential tremor does not simply transform into Parkinson's disease. A person can have both, so new stiffness, slowed

movement, or walking changes should be assessed.

Why does my tremor get worse when I am nervous?

Stress activates the body's normal alerting system. This can make muscle activity and any existing tremor more noticeable. It does not mean that anxiety caused the underlying condition.

Can alcohol treat essential tremor?

Alcohol temporarily reduces tremor in some people, but the effect is short-lived and may be followed by worse shaking. Regular use can lead to dependence and other health problems, so it is not recommended as treatment.

Can hereditary tremor go away?

It is usually a long-term condition rather than one that disappears permanently. Symptoms may remain mild, fluctuate, or gradually progress. Practical adaptations, medicines, injections, or procedures can often reduce their effect.

Sources

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