



Understanding Tremor



Christy, diagnosed with essential tremor
in childhood, with her husband, Ben.



What Is Tremor?

A tremor is the repetitive, involuntary, rhythmic trembling of one or more parts of the body. Tremor is characterized by the type of activity that produces the tremor. For example, some tremors occur when the affected body part is completely at rest. This is called *rest* tremor. Other tremors occur at the end of a voluntary movement or when aiming for a target. This type of tremor is called *intention* tremor. Some tremors occur when the person is holding a body part in one position against gravity, such as holding a cup. This is called *postural* tremor.

It is important for your doctor to understand what type of tremor you are experiencing. Knowing the tremor type may be helpful in diagnosis. For example, *rest* tremor is a common symptom of Parkinson's disease. *Intention* and *postural* tremors are common symptoms of essential tremor.

Tremor is a common symptom. But many people with tremor never seek medical care, even though most would benefit from treatment.

What Causes Tremor?

Tremor has many causes. It can be a sign that something is wrong in the nerves, spinal cord, or various regions of the brain that control movement.

Sometimes, tremor is one of many symptoms of a brain disease. For example, Parkinson's disease and dystonia can cause tremor as well as other symptoms, such as stiffness, slowness, trouble walking, and other types of abnormal movements. Thyroid or other hormonal abnormalities, alcohol, alcohol withdrawal, and certain nonprescription and prescription drugs can also cause tremor.

When tremor is the only symptom, the most common cause is essential tremor. Essential tremor affects about 10 million Americans. It is eight times more common than Parkinson's disease. Essential tremor usually appears after age 40, but it can start at any age. It is commonly hereditary, and up to 50 percent of children of people with essential tremor may develop the condition. Essential tremor typically gets worse with age. It can be disabling, causing trouble with gross and fine movements.

What Are the Symptoms?

Symptoms can differ according to the affected body part and the activities that produce the tremor. Most tremors occur in the hands or arms. They can also affect the head, face, vocal cords, trunk, and legs. Head tremor can be seen as a “yes-yes” or “no-no” motion. Tremors of the voice and head do not usually occur in Parkinson’s disease but are common with essential tremor.

With rest tremors, the tremor gets better when the body part is moved. Because the tremor is not present during action, it does not usually impair movement. Intention tremors are relatively slow and coarse. They usually stop when the action is completed. Postural tremors usually stop when the limb or body part is supported. In people with intention and postural tremor, movements such as writing, eating, and carrying may be affected by the tremor. Tremors may begin on one side of the body. Over time, both sides may be affected.

With all types of tremor, factors such as anxiety and stress, lack of sleep, illness, caffeine, and certain drugs may make the tremor worse.

Did you know?

Neurologists are medical doctors who specialize in disorders of the brain and nerves. They often diagnose and treat people with tremor.

How Is Tremor Diagnosed?

Neurologists are experts in diagnosing tremor. Much of the diagnosis is based on a description and observation of the tremor. The neurologist will also look at whether there are other movement problems. Sometimes additional tests such as brain scans or blood tests are needed. Accurate diagnosis is important; treatments vary depending on the cause of the tremor.

What Are the Treatment Options?

No cure has been found for most types of tremor. If the tremor is mild and there is no underlying disease, no treatment may be needed. If the tremor is more bothersome or is causing trouble with normal functions, treatment may be required. The treatment depends on the cause of the tremor. In some cases, an underlying illness, such as thyroid disease, must be identified and treated. In other cases, an adjustment in the type or dose of drugs taken for other illnesses must be made. When the cause is another neurologic disease, such as Parkinson's disease or dystonia, treatment depends on the treatment for that disorder. Many people with essential tremor benefit from treatment with prescription drugs.

Some people with disabling tremor that does not respond well to drugs may be candidates for brain surgery. Brain surgery procedures sometimes used to treat tremor include thalamotomy and deep brain stimulation.

In thalamotomy, a cut is made on a small part of the thalamus, a structure deep in the brain that helps control movement. The cut interferes with the abnormal brain activity causing the tremor.

In deep brain stimulation, tiny electrodes are surgically implanted in the brain. The electrodes are connected to a small control unit implanted under the skin in the upper chest. This allows electrical stimuli to be delivered from the implanted device to the thalamus or other brain structures.

Following these brain surgeries, the tremor on the side opposite the side of the brain surgery improves. While thalamotomy is usually done only on one side of the brain, deep brain stimulation may be performed on both sides.

Brain surgery can have serious side effects. Before choosing surgery, the possible benefits and risks should be discussed with a neurologist and neurosurgeon.

Living with Tremor

Because tremor can be a sign of a more serious underlying disorder, all tremors should be evaluated by a physician to rule out underlying conditions.

Essential tremor is not life-threatening. But it can be frustrating, embarrassing, and disabling. Avoiding tremor “triggers” such as stress, fatigue, low blood sugar, caffeine, and other stimulants may be helpful.

Many people find that support groups are a source of help, comfort, and information. See **Resources** for organizations to contact. The organizations’ websites also list tips for managing tremor and assistive technologies that can make tasks easier.

Partnering with Your Neurologist

To provide the best care, your neurologist needs to know all about your symptoms and medical history. Likewise, you need to get answers to your questions. Keeping a notebook about your condition and bringing a few well-organized questions to your appointments can be helpful.

For Family and Friends

The organizations listed in **Resources** can be a source of information and support for family and friends of those with tremor.

Help Us Cure Brain Disease

Make a Donation to Research

The American Brain Foundation supports vital research and education to discover causes, improved treatments, and cures for brain and other nervous system diseases. To learn more or to make a donation to support research, visit www.CureBrainDisease.org.

Make Your Voice Heard

To keep research advancing toward future cures and treatments for brain disease, it is important for people affected by neurologic disorders to advocate for more research funding. Contact your members of Congress and ask them to support neurology research by increasing funding for the National Institutes of Health (NIH). Look up your Congressional representatives at www.senate.gov and www.house.gov. Your voice can make a difference.

Take Part in Research

People are needed for clinical trials that can help find new treatments for neurologic disorders. Clinical trials are research studies. They help ensure that new drugs are both safe and effective. Ask your neurologist how to volunteer for a clinical trial. You can also find trials through patient organizations or the American Academy of Neurology website at www.aan.com/view/clinicaltrials.

Resources

American Academy of Neurology

www.aan.com

(800) 879-1960

The American Academy of Neurology website for patients and caregivers offers a wealth of articles, information about events and resources, and links to support groups, clinical trial information, and more.

Neurology Now® magazine

www.neurologynow.com

(800) 879-1960

Free magazine for patients and caregivers, courtesy of the American Academy of Neurology. Stories about people living with neurologic disorders, the latest information on resources and treatments, and more.

International Essential Tremor Foundation

www.essentialtremor.org

(888) 387-3667

Tremor Action Network

www.tremoraction.org

(510) 681-6565

WE MOVE

www.wemove.org

(347) 843-6132



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(800) 879-1960

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