Tremor

What is tremor?
Tremor is a common movement disorder that causes rhythmic muscle contractions. These contractions lead to shaking movements in the body that cannot be controlled (involuntary). Tremor most often affects the hands or the head. It can also affect the arms, head, vocal cords, torso and legs.

Tremor can come and go (intermittent) or happen all the time (constant). It can happen on its own or as a result of another disorder. Tremor affects all genders equally. Although it is not life threatening, it can have serious impact on daily life. It be embarrassing and can make work and daily life tasks very difficult or impossible (disabling).

What are the types of tremor?

Resting tremor
Resting tremor happens while you are sitting or lying down and relaxed. The most common cause of resting tremor is Parkinson’s disease. It can also be caused by diseases or injury that damage parts of the brain.

Postural and action tremors
These tremors happen when you try to hold a body part still in a non-resting position or when you move on purpose, like when you are writing. Everyone has a little bit of shaking of the hands. This is called ‘physiologic tremor.’ It is the most common cause of this kind of tremor. A little bit of shaking is normal and people do not usually notice they are doing it. In some cases this can become exaggerated and become a problem. This can happen for many different reasons, including:

• Taking certain medicines
• Taking stimulants, such as caffeine (ex: drinking coffee)
• Anxiety
• Excitement
• Tiredness
• Hyperthyroidism
• Alcohol withdrawal
• Fever

Essential tremor
Essential tremor is a tremor disorder that causes postural and action tremors. It is different from physiologic tremor because it is not related to a specific cause, such as medicines, substances or physical conditions. Essential tremor can be passed on in families.
**Intention tremor**

Intention tremor gets gradually worse as you get closer to what you are reaching for. This tremor can be seen in people with abnormal function in the structure of the brain that helps coordinate fine motor skills (cerebellum).

**How is tremor diagnosed?**

To diagnose tremor, your child’s doctor will use their health history and the results from physical and neurologic examinations. They may ask for more tests to see how tremor affects their daily life and ability to do tasks, such as difficulty with handwriting or the ability to hold a fork or cup (functional limitations). Your doctor may ask your child to do specific tasks or exercises, such as placing a finger on the tip of their nose or drawing a spiral. They may also order blood tests, urine tests or a brain scan to make sure there is no other cause of tremor.

**What are the treatments for tremor?**

There is no cure for most forms of tremor. Treatment options are available to help manage your child’s symptoms. In some cases, the symptoms may be mild enough that treatment is not required. Early treatment does not stop or slow the natural changes of the symptoms.

Medicine is only necessary when tremor affects your child’s daily activities or causes problems. When tremor is caused by another medical problem, treating that problem sometimes helps reduce the tremor too. For example, people whose tremor is caused by high thyroid hormone levels often stop shaking when their hormone levels go back to normal. Even when no other medical problems are involved, there are treatments that can help symptoms.

**Medicines**

- Beta-blockers (such as propranolol) are a kind of medicine that are normally used to treat high blood pressure but they also help treat essential tremor. This can also be used in some people with action tremor.
- Anti-seizure medicines, such as primidone, can be effective in people with essential tremor who do not respond to beta-blockers.
- Anti-anxiety medicines, such as clonazepam, may temporarily help some people with tremor. However, their use is limited due to side effects that include sleepiness, poor concentration, poor coordination, physical dependence and several withdrawal symptoms when stopped abruptly.
- Parkinson’s disease medicines (levodopa, carbidopa) are used to treat tremor associated with Parkinson’s disease.
- Other medicines that doctors prescribe include topiramate and gabapentin.
Botulinum toxin injections
Botulinum toxin injections (sometimes just called “Botox”) are most effective for head tremor, which generally does not respond to other medicines.

Physical therapy and occupational therapy
Physical and occupational therapy (OT/PT) can help some people control tremor. A therapist can help your child improve their muscle control, functioning and strength through coordination, balancing and other exercises. Some therapists recommend the use of weights, splints, other adaptive equipment, and special plates and utensils for eating.

Eliminating or reducing tremor-inducing substances
Avoiding or reducing certain substances can help improve tremor. This includes anything that can induce tremor, such as caffeine or medicines that are stimulants. Though small amounts of alcohol can improve tremor for some people, tremor can become worse when the alcohol wears off.

Surgery
When people do not respond to medicines or therapies or have a severe tremor that significantly impacts their daily life, a doctor may recommend surgery, such as deep brain stimulation (DBS). The benefits of surgery should always be weighed carefully against its risks.