CONDITION

Chronic motor or vocal tic disorder

Learn about chronic motor or vocal tic disorder, including tic symptoms, diagnosis, treatment options, school support, complications, and when to seek care.

WHAT IT IS
Neurodevelopmental disorder causing repeated movements or sounds

BODY SYSTEM
Nervous system

MAIN SYMPTOMS
Repeated movements, repeated sounds, premonitory urge, relief afterward

WHAT CAUSES IT
Unknown, with genetic factors

HOW IT IS DIAGNOSED
Symptom history and clinical examination

MAIN TREATMENT
Behavioral treatment and supportive care

CAN IT BE CURED?
No, treatments reduce impact not eliminate

IS IT AN EMERGENCY?
Sometimes, with trouble breathing or choking

LONG-TERM OUTLOOK
Often mild, with tics waxing and waning

Overview

Chronic motor or vocal tic disorder is a condition that causes repeated movements or sounds called tics . A motor tic involves movement, such as blinking or shoulder shrugging. A vocal tic involves sounds, such as throat clearing or grunting.

For this diagnosis, a person has motor tics or vocal tics, but not both during the course of the condition. Tics begin before age 18 and continue for more than one year after the first tic appears. Their type and frequency may change over time.

The formal name in the Diagnostic and Statistical Manual of Mental Disorders is persistent (chronic) motor or vocal tic disorder . If someone has had both motor and vocal tics, even if they did not occur at the same time, a clinician may instead consider Tourette syndrome. Tics lasting less than one year may meet criteria for provisional tic disorder.

Tics are not deliberate misbehavior. Some people can hold them back briefly, but doing so may cause discomfort or require intense concentration. Many describe a rising sensation, pressure, or urge before a tic and relief afterward.

The condition matters when tics cause pain, injuries, embarrassment, bullying, or difficulty with school, work, sleep, or daily activities. Mild tics that do not cause problems may not require active treatment.

Symptoms

Motor tics are brief, repeated movements. Simple motor tics involve a small number of muscles. Examples include:

Complex motor tics involve a longer pattern of movement. A person might touch objects, repeat a gesture, bend, or move in a particular sequence. These actions can sometimes look purposeful even though they are driven by a tic.

Vocal tics are sounds made by moving air through the nose, mouth, or throat. They may include:

Tics often wax and wane , meaning they become more or less noticeable over days, weeks, or months. One tic may disappear and another may take its place. Tics can increase with stress, excitement, tiredness, illness, or attention drawn to them. This does not mean stress caused the disorder.

Many people experience a premonitory urge before a tic. This may feel like pressure, tension, itching, or an uncomfortable need to move or make a sound. Younger children may have difficulty identifying or describing this feeling.

Tics can sometimes be delayed during a lesson, appointment, or social situation. They may then increase when the person reaches a comfortable setting. Suppression is not proof that the tic is voluntary. Tics often decrease during sleep, although they do not always stop completely.

- Eye blinking, facial movements, or nose twitching
- Head jerking or shoulder shrugging
- Arm, hand, or finger movements
- Abdominal tightening, hopping, or kicking
- Sniffing, coughing, or throat clearing
- Grunting, squeaking, humming, or clicking

- Repeating a sound, word, or phrase
- Changing the volume, rhythm, or pitch of speech

Causes and risk factors

Chronic motor or vocal tic disorder is considered a neurodevelopmental condition. This means it is related to how the brain develops and controls movement or sound. Researchers believe it involves differences in brain networks that help start, stop, and regulate actions.

There is no single known cause. Genetic factors are important, and tic disorders can run in families. A relative may have a different type or severity of tic disorder. Having a family history does not mean that every family member will develop tics.

Tics are not caused by poor parenting, a lack of discipline, or the person seeking attention. Pointing out a tic or repeatedly asking someone to stop may increase tension and make the tic more noticeable.

Other conditions may occur alongside a tic disorder. These include attention-deficit/hyperactivity disorder, obsessive-compulsive symptoms, anxiety, depression, sleep difficulties, and learning problems. These conditions do not cause the tics, but they may affect well-being more than the tics themselves.

Some medicines, substances, and medical conditions can cause or worsen movements that resemble tics. A clinician may therefore ask about prescription medicines, supplements, caffeine, stimulant exposure, and recreational substances. Do not stop a prescribed medicine without speaking with the prescriber.

Diagnosis

There is no blood test, brain scan, or genetic test that confirms chronic motor or vocal tic disorder. Diagnosis is based on the history of symptoms and a clinical examination.

Under current diagnostic criteria, the main features are:

The tics do not need to happen every day. They may change in location, type, or frequency during the year.

A clinician may ask when the movements or sounds began, how they have changed, and whether they interfere with daily life. They may also ask about attention, anxiety, compulsive behaviors, mood, sleep, learning, and family history.

Tics may not occur during an appointment. With the person's permission, a home video can

help the clinician understand the behavior. It is usually best to record naturally rather than repeatedly asking the person to perform the tic.

The examination helps distinguish tics from other movements or behaviors. These may include muscle spasms, seizures, repetitive habits, compulsions, stereotyped movements, or reactions to an irritated throat or allergies. Testing may be considered if symptoms are unusual, begin very suddenly, occur with other neurological changes, or suggest another cause. Routine imaging is generally not needed for a typical tic history and examination.

- One or more motor tics or one or more vocal tics, but not both
- Tics that have continued for more than one year since they first appeared
- Symptoms beginning before age 18
- Symptoms not better explained by a substance, medicine, or another medical condition
- No history that meets the criteria for Tourette syndrome

Treatment and management

Treatment depends on how much the tics affect comfort, safety, relationships, education, work, or daily activities. The goal is usually to reduce the impact of tics rather than eliminate every tic.

If tics are mild and not causing impairment, education and monitoring may be appropriate. Tics can change over time, so the decision not to treat immediately can be revisited later.

Comprehensive Behavioral Intervention for Tics , or CBIT, is a structured behavioral treatment. It includes habit-reversal training, education about tics, and strategies for situations that make tics harder to manage. A person learns to notice the urge or early signs of a tic and use a competing action that is less noticeable or disruptive. CBIT does not blame the person or suggest that tics are simply a bad habit.

Support at home, school, or work can also reduce the burden of tics. Helpful approaches may include:

Medicines may be considered when tics cause meaningful impairment and behavioral treatment is unavailable, unsuccessful, or not preferred. Options can include medicines that affect norepinephrine or dopamine signaling in the brain. Some may also help a co-occurring condition such as attention-deficit/hyperactivity disorder.

Each medicine has possible harms as well as benefits. Depending on the drug, concerns may include sleepiness, blood pressure changes, restlessness, movement-related adverse effects, weight gain, or changes in blood sugar and cholesterol. Treatment should be selected with a

clinician and monitored over time. Medicines should not be started, stopped, or changed based only on general information.

Care should also address co-occurring conditions. Treating anxiety, obsessive-compulsive symptoms, attention problems, depression, sleep difficulties, or learning needs may improve daily life even if the tics remain.

Healthy sleep routines, physical activity, and planned stress-management strategies may help with triggers. These steps are supportive, but they are not cures and should not be presented as a person's fault if symptoms continue.

- Allowing short breaks or a private space when needed
- Avoiding punishment or public correction for tics
- Providing extra time for tasks if suppressing tics affects concentration
- Addressing bullying and explaining tics to others with the person's agreement
- Adjusting activities when a tic causes pain or creates a safety concern

Complications

Many people with chronic motor or vocal tic disorder have mild symptoms. When complications occur, they depend on the type and force of the tic.

Frequent head, neck, jaw, or limb movements can cause soreness, headaches, skin irritation, or repetitive strain. Forceful movements may occasionally cause injury. Repeated vocal tics may lead to throat discomfort or interfere with speaking.

Social effects can include unwanted attention, teasing, bullying, or misunderstanding. A person may avoid activities because they fear having a tic in public. Trying to suppress tics for long periods can also reduce concentration and increase fatigue.

School or work performance may be affected when tics interrupt reading, writing, speaking, or fine motor tasks. Co-occurring attention, anxiety, obsessive-compulsive, mood, or learning difficulties may add to these challenges. Assessment should therefore look beyond the visible tics.

Follow up

Routine follow-up can review whether tics are improving, changing, or causing new problems. It is also a chance to discuss school or workplace support, emotional health, sleep, medication

effects, and whether treatment goals still match the person's needs.

Arrange a routine appointment if tics persist, become painful, interfere with daily activities, or are accompanied by attention, anxiety, compulsive, mood, or learning concerns. A clinician should also review movements or sounds that begin suddenly, look different from previous tics, or follow a medication change.

Seek prompt medical advice if a movement repeatedly causes injury, significantly interferes with eating or drinking, or is accompanied by a major decline in functioning.

Tics alone are rarely a medical emergency. Seek emergency care for trouble breathing, choking, severe injury, loss of consciousness, new weakness, or seizure-like activity. Someone taking medicine for tics also needs urgent assessment for severe muscle stiffness with fever and confusion, fainting, or another serious reaction. Immediate help is appropriate if the person may harm themselves or cannot stay safe.

Sources

- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders . 5th ed., text revision. American Psychiatric Association Publishing; 2022.
- Pringsheim T, Okun MS, Müller-Vahl K, et al. Practice guideline recommendations summary: Treatment of tics in people with Tourette syndrome and chronic tic disorders. Neurology . 2019;92(19):896-906. doi:10.1212/WNL.0000000000007466.
- Müller-Vahl KR, Szejko N, Verdellen C, et al. European clinical guidelines for Tourette syndrome and other tic disorders-version 2.0. Part I: Assessment. European Child & Adolescent Psychiatry . 2022;31:383-402.
- Andrén P, Jakubovski E, Murphy TL, et al. European clinical guidelines for Tourette syndrome and other tic disorders-version 2.0. Part II: Psychological interventions. European Child & Adolescent Psychiatry . 2022;31:403-423.
- Roessner V, Eichele H, Stern JS, et al. European clinical guidelines for Tourette syndrome and other tic disorders-version 2.0. Part III: Pharmacological treatment. European Child & Adolescent Psychiatry . 2022;31:425-441.
- Centers for Disease Control and Prevention. Diagnosing Tic Disorders . National Center on Birth Defects and Developmental Disabilities; 2024.