

Tourette Syndrome

BIRTH DEFECT RESEARCH FOR CHILDREN



What is Tourette Syndrome?

Tourette Syndrome is a neurological disorder characterized by the presence of various involuntary motions and uncontrollable vocalizations. These motions and vocalizations are referred to as “tics.” Tics are divided into two categories: simple and complex. The more common “simple” tics involve sudden, brief movements occurring in a single, isolated fashion (ex. eye blinking, grimacing, yelping). Complex tics occur in coordinated patterns of successive movements that involve several muscle groups (ex. jumping, touching others, self-harming behaviors).



Tourette Syndrome (TS)



What are symptoms of TS?

Facial Tics

- Eye-blinking
- Nose-twitching
- Grimacing

Motor Tics

- Head-jerking
- Neck stretching
- Foot stamping
- Body-twisting

Vocal symptoms

- Throat clearing/noises
- Coughing
- Sneezing
- Grunting
- Yelping
- Barking
- Shouting
- Yelling obscenities (called coprolalia)
- Repeating other people's words (called echolalia)

What causes TS?

The cause of TS is not currently known. Research shows that the cause could be due to a gene abnormality that affects the brain's neurotransmitters. Neurotransmitters are chemicals in the brain that carry signals from one nerve cell to another. Some examples of neurotransmitters are dopamine, serotonin, and norepinephrine.

Is TS inherited?

Most cases of TS are inherited in a dominant mode. This means that a person with TS has a 50-50 chance of passing this gene on to each of his or her offspring. The gene, however, may express itself in different ways: as a milder tic disorder; as obsessive compulsive behaviors or as ADHD (Attention Deficit Hyperactivity Disorder). Or the child carrying the gene may not have any symptoms. Some cases of TS are sporadic and inheritance can not be determined.

Are there any conditions associated with TS?

Children who have Tourette Syndrome may also suffer from any combination of the following conditions: Obsessive-Compulsive Disorder, attention disorders, learning disabilities, and sleep disorders.

How is TS diagnosed?

TS is diagnosed by obtaining a description of tics and a family history. For a positive diagnosis of TS, both motor and vocal tics must have been present for at least a year. There is no medical lab test to definitively diagnose TS, but tests like Magnetic Resonance Imaging (MRI), CT, and EEG can help rule out conditions confused with TS.

How is TS treated?

The majority of children who suffer from TS do not need medication. Medication is only administered when severe symptoms interfere with daily functioning. Some medications that are commonly used to treat TS are haloperidol, clonidine, pimozide, fluphenazine and clonazepam. Psychotherapy and relaxation techniques can also be effective in helping the child reduce stress and learn to cope with TS. Stimulants that are used to treat Attention Deficit Disorders may increase tics.

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How often does TS occur?

The official estimate by the National Institutes of Health is 100,000 Americans have full-blown TS, and as many as 1 in every 200 may have some symptoms of TS. However, there are no absolute figures because so many children with TS have not been diagnosed. TS is more common in males than females.

Is there a cure for TS?

There is no cure for TS. Tics may become less frequent as the child matures, but neuropsychiatric disorders such as depression, panic attacks, mood swings and antisocial behaviors can become more prevalent with age. A child with TS can expect to live a normal lifespan. Although TS is chronic, it is not degenerative. There have been some cases of complete remission.

Fact Sheet by:

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