

Tourette syndrome

Tourette syndrome is a type of neurological disorder characterised by involuntary tics and repetitive vocalisations. Latest research indicates there may be as many as one in 200 people affected in Australia. It commonly affects people between the ages of two and 21 years, with the majority of cases occurring in children aged four to 12 years. More boys than girls are affected. Milder forms of Tourette syndrome can be misdiagnosed, as it often occurs at the same time as attention deficit hyperactivity disorder, obsessive compulsive disorder and conduct disorder.

This condition commonly appears first between the ages of two and 12 years. For some sufferers, there may be a lessening of symptoms in late adolescence. It is, however, a lifelong condition that is not degenerative.

Most children with Tourette syndrome are able to exert temporary control over their tics and vocalisations, while others require a cocktail of medications. The cause is mysterious, but theories include bacterial infection, abnormalities in the metabolism of brain chemicals and genetic factors. Since stress and emotional overexcitement seem to exacerbate the condition, learning relaxation techniques can help. Whether or not Tourette syndrome is linked to other disorders such as attention deficit disorder or learning disabilities, like dyslexia, is still undergoing scientific debate. Sometimes, the disorder can spontaneously resolve, for unknown reasons. There is no cure.

Symptoms

The symptoms of Tourette syndrome can differ from one child to the next, but may include:

- A variety of tics, such as eye blinking, shrugging and facial grimace. Milder forms of Tourette syndrome can be misdiagnosed, as it often occurs at the same time as attention deficit hyperactivity disorder, obsessive compulsive disorder and conduct disorders.
- At least one involuntary vocalisation such as grunting, sniffing or barking that is repeated over and over.
- 'Attacks' of tics and vocalisations, either daily or regularly.
- In some children, other behavioural or learning difficulties, such as dyslexia or obsessive compulsive behaviour.
- Appears between the ages of two and 21 years
- A waxing and waning of the symptoms over several weeks or months.

Simple and complex

Tourette syndrome can be mild, moderate or severe. The intensity of symptoms can change within the individual, sometimes on a daily basis. Stress or tension tends to exacerbate the condition, while relaxation or concentration eases the symptoms. Sometimes, the symptoms come and go over a period of months.

There are two broad categories of Tourette syndrome. These are:

- **Simple** - a milder version, which includes tics (such as blinking, sniffing, shrugging and grimacing) and vocalisations (such as grunting and clearing the throat).
- **Complex** - a more severe version, which includes jumping, spinning in circles and compulsively touching things, and vocalisations such as repeating words or sounds (echolalia) and swearing (coprolalia).

Theories on what causes Tourette syndrome

The exact cause of Tourette syndrome remains a mystery, but research is focusing on a number of possibilities, including:

- **Genetic factors** - Tourette syndrome seems to be an inherited condition. A child of a person with Tourette syndrome has a 50 per cent chance of developing the condition themselves. Boys are three times more likely to inherit the condition than girls.
- **Streptococcal infection** - the streptococcus bacterium can cause a wide range of infections, ranging from mild to severe and life threatening. One theory proposes that a particular infection may be responsible for the neurological changes.
- **Neurochemical abnormalities** - the chemicals of the brain (neurotransmitters) seem to be metabolised differently in people with Tourette syndrome, especially the mood regulators dopamine and serotonin.
- **Other disorders** Researchers are divided on whether Tourette syndrome is associated with other disorders, such as attention deficit disorder, learning disorders including dyslexia, and obsessive compulsive behaviours, although they often appear together with Tourette syndrome.

Additional difficulties

A child with Tourette syndrome may demonstrate other difficulties, including sleeping problems, poor academic performance at school, low self-esteem and the inability to control their temper. Most children with Tourette syndrome will have normal intellectual development, but some may have learning difficulties. The social stigma is particularly hard to bear, since people often don't believe that the tics and repetitive vocalisations, particularly swearing, are involuntary.

Diagnosis

Diagnosing Tourette syndrome primarily involves observation of the child's behaviour. Since tics and vocalisations are often vented in the privacy and safety of the home, the physician may have some initial difficulty witnessing the child's symptoms in a professional setting. Other tests, such as CT scans, are used to make sure the symptoms aren't caused by some other underlying disease.

Treatment options

Treatment depends on the severity of the condition. Most people with Tourette syndrome can manage their symptoms themselves, and tend to find a quiet isolated spot to 'vent' the irresistible tics and vocalisations they've been holding back throughout the day. Others require a variety of medications to help control the symptoms. Generally, the medications are introduced in small doses and slowly increased until the symptoms are managed. Different people need different ratios of drugs. Side effects of the medications can include depression, weight gain and persistent tiredness. Since stress seems to exacerbate Tourette syndrome, learning relaxation techniques is useful. Associated psychotherapy can include learning how to substitute an unacceptable tic, such as swearing, with a more tolerable one.

Where to get help

- Your doctor
- Tourette Syndrome Association of Victoria Tel. (03) 9845 2700.

Things to remember

- Tourette syndrome is a type of neurological disorder characterised by involuntary tics and repetitive vocalisations.
- The cause is unknown, but theories include genetic factors, bacterial infection and neurochemical abnormalities.
- Treatment can include medication, relaxation techniques and psychotherapy.

This page has been produced in consultation with, and approved by:

Tourette Syndrome Association of Victoria Inc.

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