

Tourette syndrome

Tourette syndrome is a type of neurological disorder characterised by involuntary tics and repetitive vocalisations. 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. Research indicates that as many as one in 100 school children may be affected in Australia.

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

Milder forms of Tourette syndrome can be misdiagnosed, as it often occurs at the same time as attention deficit hyperactivity disorder (ADHD), obsessive compulsive disorder and conduct disorder.

While most people with Tourette syndrome are able to exert temporary control over their tics and vocalisations, others may require a combination of medications. Sometimes, Tourette syndrome can spontaneously resolve, for unknown reasons. There is no cure.

The cause of Tourette syndrome is unknown, but theories include bacterial infection, abnormalities in the metabolism of brain chemicals and genetic factors. As stress and emotional overexcitement seem to make the condition worse, learning relaxation techniques can help. Whether or not Tourette syndrome is linked to other disorders (such as ADHD) or learning disabilities (such as dyslexia) is still not scientifically proven.

Symptoms of Tourette syndrome

The symptoms of Tourette syndrome can differ from one person 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 ADHD, 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
- Other behavioural or learning difficulties, such as dyslexia or obsessive compulsive behaviour
- Waxing and waning of the symptoms over several weeks or months.

Levels of Tourette syndrome

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

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

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

Causes of 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 associated with Tourette syndrome.
- 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 or not Tourette syndrome is associated with other disorders (such as ADHD and dyslexia) and obsessive compulsive behaviours. Such disorders often appear together with Tourette syndrome.

Additional difficulties for children with Tourette syndrome

A child with Tourette syndrome may demonstrate other difficulties, such as 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 of Tourette syndrome

Diagnosing Tourette syndrome primarily involves observation of the person's behaviour. Since tics and vocalisations are often vented in the privacy and safety of the home, the doctor may have some initial difficulty witnessing the symptoms in a professional setting like their office or clinic.

Other tests, such as CT scans, are used to make sure the symptoms aren't caused by some other underlying disease.

Treatment for Tourette syndrome

Treatment for Tourette syndrome 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 medications. Side effects of the medications can include depression, weight gain and persistent tiredness.

As stress seems to make Tourette syndrome worse, 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
- Tourette Syndrome Association of Australia Tel. (02) 9382 3726

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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