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ADHD and Tics and Tourette Syndrome

About the series: These five information sheets provide an overview of attention-deficit/hyperactivity disorder (ADHD) and some of the more common conditions that coexist with ADHD. Extended versions of each may be found at www.help4adhd.org.

WHAT IS A TIC DISORDER?

Simple tics are sudden, purposeless, repetitive, involuntary movements or vocalizations. Tics occur in up to 20 percent of all children. Tics can be temporary, lasting less than 12 months, or chronic.

Simple tics may include:

- eye-blinking.
- mouth-opening.
- sniffing.
- throat clearing.

WHAT IS TOURETTE SYNDROME (TS)?

Tourette's Disorder (popularly called Tourette Syndrome) is a complex, inherited disorder whose primary symptoms include tics (both motor and vocal) lasting for more than one year. Tourette Syndrome is usually mild and is often accompanied by other conditions, including ADHD.

Motor tics may include:

- eye-blinking.
- lip-licking or mouth opening.
- like facial grimacing.
- head movements.
- shoulder shrugging.
- any combinations of those above.

Vocal tics may include:

- throat clearing.
- coughing, barking.
- unnecessary belching.
- repeating parts of words or phrases.
- saying obscene words (rarely).

ADHD AND TICS OR TOURETTE SYNDROME

Some children may develop a simple motor tic disorder that first appears during treatment for ADHD. Most experts believe the co-occurrence in most cases is purely coincidental. It has been reported that 60 percent of children with Tourette Syndrome have ADHD. The ADHD diagnosis usually precedes the onset of the motor or vocal tics of Tourette's, although sometimes the two come on together.

WHICH DISORDER DO YOU TREAT FIRST?

With simple tics, the doctor may treat the ADHD first because it will have the greater benefit for the child and treatments are more effective. Tics may only need to be treated if they are causing significant difficulties. In most cases, doctors will treat the Tourette's symptoms first.

This will decrease the chance of making tics worse during the initial treatment or when higher doses of stimulants are needed. If a child has been treated with stimulants and significant tics develop, the physician may decide to stop treatment with stimulants until the tics are under control. At that time, the stimulants may be added back to treat the ADHD symptoms.

TREATMENT OF TOURETTE SYNDROME

Patient and family education is the first step in the treatment of Tourette Syndrome. Before deciding how to treat the patient, it is important to decide whether to treat the Tourette Syndrome-related symptoms.

- Counseling and behavioral modification may be sufficient for those individuals with mild symptoms.
- Medications may be considered when symptoms interfere with the activities of daily living.
- Therapy should be geared to the individual's needs and the most troublesome symptoms should be targeted first.

MEDICATION

In children with ADHD and Tourette Syndrome, milder symptoms can usually be treated with clonidine, which has the advantage of treating all the symptoms of Tourette Syndrome. The major side effect of clonidine is sedation or tiredness if the dose is too high or raised too rapidly. Other medications, such as haloperidol or pimozide, may also be used.

BEHAVIORAL INTERVENTIONS

There is growing evidence that behavioral interventions can cause a substantial reduction of tics. Practice on how to control tics in everyday situations can be part of therapy sessions and self-monitoring has been shown to have temporary but significant benefit. Habit reversal therapy consists of awareness training and competing response training is when a competing movement is done for three minutes after each tic and after each sensation that a tic is about to occur.

Comprehensive behavioral intervention (CBIT) is based on the fact that tics are preceded by a sensation in advance that signals a tic is coming. CBIT for tics includes:

- guidance for parents on what makes tics better or worse.
- relaxation techniques.
- strategies to reduce tic severity.
- counseling for individuals and their families on dealing with tic symptoms, rejection by peers, school problems, and other issues.

TREATING THE ADHD

After the tics are controlled, an appropriate medication may be needed to treat the ADHD symptoms. ADHD medication is often effective in helping to control the ADHD and may improve school performance. In some individuals, this treatment may result in a mild to significant increase in the tics, although this is not common with doses typically prescribed in actual practice. If this cannot be controlled by a moderate increase in tic medication, the ADHD medication may be stopped or replaced by a different medication. Your child's doctor can determine whether ADHD medication is an appropriate treatment for your child with a co-occurring tic disorder.

For more information on ADHD and Tics and Tourette Syndrome, please see *What We Know #5A: ADHD and Coexisting Conditions: Tics and Tourette Syndrome* on our website at: www.help4adhd.org/en/treatment/coexisting/WWK5A.

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