

# TOURETTE SYNDROME (TS)



## About TS

Tourette syndrome (TS) is a neurological disorder characterized by repetitive, stereotyped, involuntary movements and vocalizations called tics, which are sudden twitches, movements, or sounds. Children who have tics cannot stop them. Tics may be described similarly to having the hiccups. Researchers do not know the exact cause but suggest genetics may be involved.

Current data indicate that 1 in 360 children ages 6 through 17 years old in the United States have TS.<sup>1</sup> All racial and ethnic groups can be impacted by Tourette syndrome, and boys are three to five times more likely to be diagnosed than girls.<sup>2</sup> No blood, laboratory, or imaging tests are needed for a diagnosis. A clinician experienced in working with individuals with TS determines the diagnosis by verifying that the child has had both motor and vocal tics for at least one year.

## What Does It Look Like?

### ***Motor Tics***

- Movements of the body; for example, blinking, shrugging the shoulders, or jerking an arm

### ***Vocal Tics***

- Sounds made with the voice; for example, humming, clearing the throat, or yelling out a word or phrase

### ***Simple Tics***

- Tics involving just a few parts of the body; for example, squinting the eyes or sniffing

### ***Complex Tics***

- Tics involving several parts of the body and perhaps having a pattern; for example, bobbing the head while jerking an arm, and then jumping up.

## **Symptoms**

Symptoms may be triggered by excitement or anxiety. Tics may subside for weeks or months and then recur.

### ***Types of Tics***

- Facial tics
- Motor tics
- Unacceptable sounds, words, or phrases
- Involuntarily shouts of obscenities (coprolalia)
- Repetition of words of other people (echolalia)
- Repetitive touching of people
- Possible self-harm

## Symptoms and Interventions

	Symptoms	Interventions
Classroom	<ul style="list-style-type: none"> <li>• Challenges with writing</li> <li>• Experiences difficulties informing others of onset of symptoms</li> <li>• Struggles with obsessions</li> <li>• Fears not having friends</li> </ul>	<ul style="list-style-type: none"> <li>• Provide a computer for student to type on</li> <li>• Establish a timeframe for work to be completed and modify work to fit within timeframe</li> <li>• Have another adult “scribe” for the child while the student dictates</li> <li>• Establish a communication system</li> <li>• Extend time for tests, assignments, or response time during class discussion</li> <li>• Reduce assignments if tics interfere with functioning</li> <li>• Provide breaks throughout the school day</li> <li>• Have child present to teacher alone or videotape at home</li> <li>• Use a signal to let child know his or her turn is coming</li> </ul>
School Work	<ul style="list-style-type: none"> <li>• Experiences difficulties with test taking</li> <li>• Engages in ritualistic behaviors</li> </ul>	<ul style="list-style-type: none"> <li>• Extend time on tests</li> <li>• Provide alternate place for taking tests</li> <li>• Modify tests to include word banks or equation sheets</li> <li>• Extend time for work to be completed</li> </ul>
Desk	<ul style="list-style-type: none"> <li>• Struggles taking notes</li> <li>• Experiences physical symptoms that student does not want others to see or becomes distractible</li> </ul>	<ul style="list-style-type: none"> <li>• Assign a peer buddy to assist the student</li> <li>• Arrange student’s seat to minimize distractions or place near understanding peers</li> </ul>
Outside the Classroom	<ul style="list-style-type: none"> <li>• Struggles with reading</li> <li>• Experiences peer rejection</li> </ul>	<ul style="list-style-type: none"> <li>• Provide audio books for student to listen to</li> <li>• Facilitate back-and-forth conversation/role-play on what TS is and present symptoms so student can speak to it</li> <li>• Facilitate peer groups at lunch, in the classroom, and in the community</li> <li>• Create social opportunities with small groups</li> </ul>
Transitions	<ul style="list-style-type: none"> <li>• Struggles with sudden changes in routine</li> </ul>	<ul style="list-style-type: none"> <li>• Provide notice about upcoming change(s) verbally or visually on the daily schedule</li> <li>• Send a note home with upcoming change in routine</li> </ul>

## Student Strengths

- Determined
- Bright
- Cooperative
- Creative
- Curious
- Careful
- Hard-working
- Knowledgeable

## References

- <sup>1</sup> Bitsko, R. H., Holbrook, J. R., Visser, S. N., Mink, J. W., Zinner, S. H., Ghandour, R. M., & Blumberg, S. J. (2014, June). A national profile of tourette syndrome, 2011-2012. *Journal of Developmental & Behavioral Pediatrics, 35*(5), 317-322. doi:10.1097/DBP.0000000000000065
- <sup>2</sup> Centers for Disease Control. (2015, November 30). Facts about Tourette syndrome [Webpage]. Retrieved from <http://www.cdc.gov/ncbddd/tourette/facts.html>

## Resources

- **National Institute of Neurological Disorders and Stroke**  
[http://www.ninds.nih.gov/disorders/tourette/detail\\_tourette.htm](http://www.ninds.nih.gov/disorders/tourette/detail_tourette.htm)
- **Child Development Institute**  
[http://childdevelopmentinfo.com/child-psychology/tourette\\_syndrome/](http://childdevelopmentinfo.com/child-psychology/tourette_syndrome/)
- **Centers for Disease Control and Prevention**  
<http://www.cdc.gov/ncbddd/tourette/facts.html>
- **Tourette Association of America**  
<http://tourette.org/index.html>
- **Neuroscience for Kids**  
<https://faculty.washington.edu/chudler/ts.html>