# ED429397 1998-10-00 Teaching Children with Tourette Syndrome. ERIC Digest E570.

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ERIC Identifier: ED429397
Publication Date: 1998-10-00
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Source: ERIC Clearinghouse on Disabilities and Gifted Education Reston VA. Teaching Children with Tourette Syndrome. ERIC Digest E570.

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Tourette Syndrome (TS) is a neurological disorder characterized by repeated,

involuntary body movements (tics) such as blinking, twitching, shoulder shrugging, or leg jerking and vocal sounds such as throat clearing or sniffing. Symptoms typically appear before the age of 18 and the condition occurs in all ethnic groups with males affected 3 to 4 times more often than females. Associated conditions can include obsessivity, attentional problems, and impulsiveness. Since many people with TS have yet to be diagnosed, there are no absolute figures, but the official estimate by the National Institutes of Health is that 100,000 Americans have full-blown TS. Symptoms include:

- \* Multiple motor and one or more vocal tics at some time during the illness, although not necessarily simultaneously
- \* The occurrence of tics many times a day (usually in bouts) nearly every day or intermittently throughout a span of more than one year
- \* Periodic changes in the number, frequency, type, location, and severity of the tics; for example, symptoms may disappear for weeks or months at a time
- \* Onset before the age of 18.

#### ASSOCIATED BEHAVIORS

Additional problems may include:

- \* Obsessions, which consist of repetitive unwanted or bothersome thoughts.
- \* Compulsions and ritualistic behaviors. Examples include touching an object with one hand after touching it with the other hand to "even things up," repeatedly checking to see that the flame on the stove is turned off, or repeating a sentence many times until it "sounds right."
- \* Attention Deficit Disorder (ADD) with or without Hyperactivity (or ADHD). Indications of ADHD may include: difficulty with concentration; failing to finish what is started; not listening; being easily distracted; often acting before thinking; shifting constantly from one activity to another; needing a great deal of supervision; and general fidgeting. ADD without hyperactivity includes all of the above symptoms except for the high level of activity.
- \* Learning disabilities, including reading and writing difficulties, arithmetic disorders, and perceptual problems.
- \* Difficulties with impulse control, which may occasionally result in overly aggressive behaviors or socially inappropriate acts. Defiant and angry behaviors can also occur.

In many cases, medication can help control the symptoms, but there may be side

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effects, some of which interfere with cognitive processes. Stimulants such as Ritalin, Cylert, and Dexedrine that are prescribed for ADHD may increase tics, and their use is controversial. Other types of therapy may also be helpful, including psychotherapy, behavior modification therapy that can teach the substitution of one tic for another that is more acceptable, and the use of relaxation techniques, biofeedback, and exercise to reduce the stress that often exacerbates tics.

## ESTABLISHING THE PROPER LEARNING ENVIRONMENT

While school children with TS as a group have the same IQ range as the general population, many may have some kind of learning problem. That condition, combined with attention deficits and the problems of dealing with frequent tics, often call for special educational assistance. The use of tape recorders, typewriters, or computers for reading and writing problems, untimed exams (in a private room if vocal tics are a problem), and permission to leave the classroom when tics become overwhelming are often helpful.

The following are tips for dealing effectively with TS symptoms in the classroom setting:

- \* Some movements and noises can be annoying or disruptive to the class. Please remember that they are occurring involuntarily, and do not react with anger or annoyance! This requires patience but reprimanding a student with TS is like disciplining a student with cerebral palsy for being clumsy. If the teacher is not tolerant, others in the class may feel free to ridicule the child with TS. If some aspect of the child's tics affect the privacy or safety of others (e.g., touching others), it is important to find ways to work around the problem, but acceptance of the child is critical even when the behaviors are unacceptable.
- \* Provide opportunities for short breaks out of the classroom. Time in a private place to relax and release the tics can often reduce symptoms in class. Private time may also enhance the student's ability to focus on schoolwork, because energy will not be used to suppress the tics.
- \* Allow the student to take tests in a private room, so energy will not be expended on suppressing tics during a quiet time in the classroom.
- \* If tics are particularly disruptive, consider eliminating recitation in front of the class for a while. Oral reports might be tape recorded, so those skills can be judged without the added stress of standing before the class.
- \* Work with other students to help them understand the tics and reduce ridicule and teasing. School counselors, psychologists, and representatives from the local Tourette Syndrome Association chapter can provide information and appropriate audio-visual materials for students and staff.

#### ACCOMMODATIONS FOR WRITING PROBLEMS

Many children with TS also have visual-motor integration problems. Therefore, tasks that require seeing material, processing it, then writing it down are often difficult and time consuming. This problem also affects copying from the board or from a book, completing long assignments, neatness of written work, and prescribed times for completion of written work. Even very bright children with TS who have no trouble grasping concepts may be unable to finish written work because of visual-motor impairments. Sometimes it appears as though the student is lazy or avoiding work, but in reality the effort to record the work on paper may be overwhelming. A number of accommodations can be made to help children with writing difficulties succeed in the classroom:

- \* Modify written assignments by: having the child copy down and complete every other math problem; allowing the child to present a taped report rather than a written one; allowing a parent to record work or act as "secretary" so the child can dictate his ideas to facilitate concept formation. It helps to focus on what the child has mastered rather than the quantity of written work produced.
- \* Since the student with visual-motor problems may not be able to write quickly enough to get important information on paper, assign a reliable "note-taking" buddy or "homework partner" who can use carbon paper to make copies of notes and assignments. Be sure to work this out discreetly, so the child with TS does not feel different in yet another way.
- \* On tests with computer scoring sheets, allow the student to write on the test booklet. This helps avoid poor grades caused by the visual confusion that can occur when using the grid answer sheet.
- \* When possible, allow as much time as needed for taking tests.
- \* Students with visual-motor problems may be poor spellers. Rather than penalizing for spelling errors, encourage proof-reading and using a word processor with a spell checker.
- \* Students with TS seem to have special problems with written math. Encourage the use of manipulatives in teaching math and the use of a calculator to perform rote calculations. Using grid paper with large boxes or turning regular lined paper sideways to form columns can also help the child maintain straight columns when calculating.

### ACCOMMODATIONS FOR LANGUAGE PROBLEMS

\* Provide visual input as well as auditory whenever possible. The student could receive

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written directions as well as oral ones, or have a copy of a lecture outline to follow while listening to instructions. Pictures and graphs that illustrate the text are usually quite effective.

- \* Give directions one or two steps at a time. Ask the student to repeat the instructions. Then have the student complete one or two items and check with you to see that they have been done properly.
- \* If you notice a student mumbling while working, suggest a seat where he will not disturb others. Sometimes quietly "reauditorizing" instructions or information to himself can help a student grasp and remember the assignment.

Children with TS may repeat their own words or those of someone else. This may sound like stuttering but it actually involves the utterance or words or whole phrases. Other students may exploit this problem by whispering inappropriate things so that the child with TS will involuntarily repeat them and get into trouble. Be alert to this provocation.

This urge to repeat can be seen in reading and writing activities. Students may be unable to complete work because they "get stuck" rereading or rewriting words or phrases over and over. This is called "looping." The following can be helpful.

- \* Have the student take a break or switch to other work.
- \* When reading, give the child a note card with a cut out "window" that displays only one word at a time. The student slides the window along while reading so the previous word is covered and the chances of getting stuck are reduced.
- \* When writing, have the student use pencil or pen without an eraser or allow the student to complete the work orally. Brief reminders to move on may help.

### ACCOMMODATIONS FOR ATTENTION PROBLEMS

- \* Seat the child in front of the teacher for all instruction and directions to minimize the visual distraction of classmates.
- \* Seat the child away from windows, doors, or other sources of distraction, i.e., where reading groups meet. Give the student an "office," a quiet workplace. This could be in a corner, the hall, or the library. This place should not be used as a punishment, but rather a place the student can choose to go to when focusing becomes more difficult. Have the student work in short intense periods with breaks to run an errand or simply wiggle in the seat. Change tasks frequently. For example, complete five math problems, then do some spelling, etc.
- \* Contract for work to be done in advance. For example, finish a specific number of

problems by a certain reasonable time. Short assignments with frequent checks are more effective than two or three sheets of independent work at one time.

\* With younger children, simple gestures, such as a hand on the student's shoulder, can be a helpful reminder to focus during listening periods.

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This publication was prepared with funding from the Office of Educational Research and Improvement, U.S. Department of Education, under contract no. RR930020005. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

**Title:** Teaching Children with Tourette Syndrome. ERIC Digest E570.

**Document Type:** Information Analyses---ERIC Information Analysis Products (IAPs)

(071); Information Analyses---ERIC Digests (Selected) in Full Text (073);

Available From: ERIC Clearinghouse on Disabilities and Gifted Education, The Council

for Exceptional Children, 1920 Association Drive, Reston, VA 20191-1589; Tel:

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http://www.cec.sped.org/ericec.htm

**Descriptors:** Attention Deficit Disorders, Behavior Problems, Classroom Environment, Classroom Techniques, Elementary Secondary Education, Inclusive Schools, Individualized Instruction, Learning Disabilities, Neurological Impairments, Special Health Problems, Student Characteristics, Student Needs

Identifiers: ERIC Digests, Tourette Syndrome

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