



# AN EDUCATOR'S GUIDE TO TOURETTE SYNDROME

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Dear Educator:

The fact that you are reading this pamphlet on Tourette Syndrome (TS) means that you probably have had some contact with a child in your school or classroom who has been diagnosed with this disorder, or, perhaps you have heard something about the condition in the media and are wondering if a child you know might have TS. In either case, by becoming better informed, you have taken a very important step in the total care of that child. The treatment of this complex, perplexing neurobiological disorder requires a strong team approach. The parents, child, medical professionals and especially the teacher, all working together, can effectively ensure that children with this disorder can live up to their fullest potential as individuals.

While you may not know a great deal about TS, as you read this booklet, you will undoubtedly see that the skills and knowledge you have gained by integrating those children with chronic medical problems, physical differences or other types of disabilities into your classroom, also apply when helping children with TS. This publication aims to provide specific information about TS and to guide you in choosing your approaches to educating these children.

Three sections are presented. The first describes Tourette Syndrome - its causes, symptoms and treatments. In the second section, suggestions are provided for teachers and school personnel for adapting to the specific needs TS children may have. The final section suggests answers to questions that teachers frequently ask when dealing with children with TS and their families.

Medical science is hard at work unraveling the puzzle of Tourette Syndrome. New understanding of its cause and new methods of treatment are being researched. The Tourette Syndrome Association can always provide you with the most current information.

Thank you for your interest and caring. We hope you will share this information with your colleagues and school administrators.

# Handwriting, Computers, and Tourette Students

by Marilyn P. Dornbush, Ph.D. Child Neuropsychologist &  
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## Intervention Strategies

Handwriting problems occur in nine out of ten individuals with Tourette Syndrome and Attention Deficit Hyperactivity Disorder and are the result of impaired fine motor skills, slow writing speed, impulsivity (rapid, unplanned writing), and/or lack of persistence when required to write. TS students have difficulty writing legibly with the appropriate spacing, but frequently can write letters and words correctly when there are no time constraints or pressure demands. However, if they write slowly enough to have legible handwriting, they typically do not complete class assignments. While handwriting can be accomplished cognitively, it is not automatic and requires conscious effort. Thus, it cannot be used as an efficient tool in school.

TS students, when required to express their ideas in writing, have problems handling complex memory demands of the writing task. They have difficulty recalling and maintaining ideas, spelling correctly, retrieving specific vocabulary words, remembering the visual image of letters and words and how they are formed, and remembering the mechanics of writing (punctuation, capitalization, syntax, and grammar). They lack self-monitoring skills and are unable to persist in order to edit the accuracy of their work. These problems interfere with the students' ability to be able to think and write.

As most Muscular Dystrophy students need wheelchairs to be able to function more effectively, Tourette Syndrome students need a computer with a word processor and printer in order to produce written documents that reflect their intelligence and creativity. It is essential that TS students be provided direct instruction, so that they become computer literate. Any instruction must promote a positive attitude toward the computer.

The computer eliminates the demand for fine motor skills, retrieval of the visual images of letters and words, and immediate recall of capitalization and punctuation

rules. A word processor can also compensate for incorrect spelling, poor use of space, organizational problems, and an inability to edit work. Clinical observations have demonstrated that students with graphomotor problems show a dramatic increase in written production with the use of a computer.

Keyboarding classes offered in the schools should be modified for TS students when appropriate. Mandatory requirements for timed practice tests, typing accuracy and homekey position frequently are difficult to meet. To complete a task in a limited time frame produces excessive stress, which interferes with the students' ability to retrieve skills on demand. Motor accuracy cannot be expected when motor tics are present. Homekey position is often very difficult for TS students to learn and should not be required. Children who have obsessive-compulsive problems at times repeatedly push the same key.

Fortunately, current technology allows for a wide variety of inexpensive but excellent programs. Some computer stores understand that it is necessary to select a program that the TS students are comfortable using and can master. These stores allow home trials and easy returns when the program does not match the user.

Keyboarding programs are available with a high interest game format. Games that require typed in answers should be selected to prepare the students for keyboarding instruction. However, homekey position and keyboard mastery should not be prerequisites for word processing. The word processing program should include a spelling checker and thesaurus. Grammar and punctuation checks can be inexpensively added.

Word processing and desktop publishing can be encouraged with the onset of a child's school career. By third grade, the computer becomes a necessary tool for the ease of written production.



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