“Miss Brown, Mary keeps blinking her eyes, shaking her head and making a funny clucking noise. She says she can’t help it. Why doesn’t she stop?”

“Mr. Smith, Johnny is disturbing me and I can’t concentrate on my work. He is throwing his head and arms around and keeps clearing his throat. He even snorts like a pig. Tell him to stop behaving that way.”

An otherwise well-behaved child may suddenly begin yelping, hissing, or barking. Shoulders may twist, arms fly, torsos bend. Is this child looking for attention? Is he emotionally disturbed? Is he a behavior problem? No, these descriptions are not of a child who is emotionally disturbed or a child who is deliberately misbehaving to seek attention. They are descriptions of children with a neurological tic disorder called Tourette Syndrome (TS).
An explanation of what Tourette Syndrome is and how it can be managed in the classroom is offered in this booklet. After reading it a teacher may ask how it's possible to meet the needs of such children in a classroom with 25 or more other pupils. The answer is very simply, “we must.” These students have the same needs for companionship and acceptance as anyone else. They are intelligent and also have the same intellectual needs as other children. The school has an obligation to meet these needs — not only a moral obligation, but a federally mandated one as well in the form of I.D.E.A.

It is important to note that the suggestions made for dealing with the child with TS can be applied to dealings with numerous other “special” students. While the symptoms of Tourette Syndrome are unique, the solutions to the psychological, educational and social problems that arise from the situation have far-reaching applications.

**what is tourette syndrome?**

Tourette Syndrome is an inherited neurological multiple tic disorder. It often emerges in early childhood before the child enters school. The nature of the classroom setting, however, with its inherent restrictions and demands can turn what was already a difficult problem into a nightmarish situation if not handled skillfully. The symptoms are characterized by involuntary body movements and uncontrollable vocalizations and/or verbalizations. For example, the motor manifestations may include blinking, nose twitching, facial grimacing, shoulder, arm or leg jerking. The verbal tics may include hissing, snorting, barking, clucking or more explicit verbal outbursts of words and phrases which erupt without warning.

Sometimes coprolalia (the uncontrollable uttering of obscenities or socially inappropriate words), echolalia (repeating the words of others), or palilalia (repeating one’s own words) are associated with Tourette Syndrome as well as compulsive or ritualistic repetitive behavior. The tics and movements of TS change every few months with new ones replacing or being added to the old ones. Research indicates that while tics can sometimes be inhibited for short periods of time, voluntary inhibition frequently causes explosive build-up of other symptoms. There is medication that can help control the symptoms for many, but the relief is only partial and there may be undesirable side effects, some of which interfere with cognitive processes.

Although it has been mentioned in the medical journals since Dr. Georges Gilles de la Tourette identified it in 1885, Tourette Syndrome is still poorly understood and often misdiagnosed. It is most often misdiagnosed as an emotional problem, which it is not. It is difficult enough living with such bizarre symptoms both at home and in a school environment, but imagine how horrendous it must be to twitch, jerk, and yelp uncontrollably without even knowing why your body is doing such strange things. Such is the plight of vast numbers of people with TS, who on the average suffer for 7 to 10 years before they are properly diagnosed.

Although increasing numbers of doctors are now able to accurately diagnose this syndrome (due in great part to the efforts of the Tourette Syndrome Association), a full 80% of all newly diagnosed patients still come to their doctors having diagnosed themselves after reading a popular article or viewing a program about TS. This startling statistic should highlight for educators the importance of the part they can play in identifying students who may unknowingly have Tourette Syndrome.

To make it easier to recognize Tourette Syndrome, the following list has been compiled. A person with TS may exhibit one or more of these tics, as well as others, depending on the severity of the case:

- Eyeblinking
- Other facial twitches
- Head jerks
- Shoulder jerks
- Arm movements
- Finger movements
- Stomach jerks
- Kicking
- Other leg movements
- Low noises
- Loud noises
- Coprolalia (obscene or socially inappropriate words)
- Words out of context
- Coughing
- Echolalia
- Throat clearing
- Grunting
- Other sounds
- Stuttering
- Touching part of body
- Touching other people
- Touching objects
- Picking at things (clothing, etc.)
- Self-harming behavior
- Low frustration tolerance
- Anger, temper fits
associated disorders

A very large number of children with TS have other associated neurological disorders. The most common of these are Attention Deficit Hyperactivity Disorder (ADHD), Obsessive Compulsive Disorder (OCD) and Learning Disabilities. These associated disorders are frequently as challenging in the classroom as the tics themselves.

Learning disabilities

Aside from being plagued with uncontrollable movements and noises, some students with TS have accompanying learning disabilities. Understanding how to deal with a child with learning disabilities can be confusing for the classroom teacher even without the added complication of the TS movements and noises. While each student must, of course, be evaluated on an individual basis, there are certain general characteristics of the child with learning disabilities that are worth noting.

While the child with TS may be of average to above average intelligence, he may be unable to assimilate, process, remember and reproduce information in the same way as the non learning disabled student. These children should not just be considered lazy, unmotivated or disinterested. They may have significant learning disabilities, quite frequently in the area of Nonverbal Learning Disabilities, i.e. Central Auditory Processing Difficulties, Fine Motor, Visual Motor Impairment and Executive Dysfunction.

The most obvious sign of a learning disability is poor academic performance which often includes difficulty in acquiring the basic skills of reading, writing, spelling and math. These children could appear to be trying very hard, but not achieving. Teachers often misinterpret these poor grades as a lack of motivation and interest. In reality, this is the result and not the cause of the problem.

Children with these disabilities have difficulty sustaining attention, are very impulsive, don’t seem to be listening, are unable to get an assignment started or finished and are very disorganized. They are given three things to do and seem only to remember one of the three. As children get older, they may study and study but not retain what they have learned. They have a difficult time taking notes, completing assignments and adequately expressing their thoughts in writing.

They exhibit very poor handwriting. Their handwriting is sloppy and uneven and looks like it comes from a much younger child. No matter how hard they try, they have great difficulty copying things correctly from the chalkboard, the textbook, the overhead.

They may have great difficulty picking up on social cues that other children absorb naturally. They therefore may be socially very awkward.

Any combination of these warning signs can be indicative of a learning disability. This in no way reflects on the innate intelligence of the child. Many of these children have average to above average intelligence, but continue to fail in school. Alternative teaching methods are required when teaching through the traditional method proves unsuccessful. The environment in any classroom can be adapted to meet the needs of individual students if a teacher is willing to be flexible and creative. Classroom modifications will be dependent on the child’s specific TS symptoms and learning disabilities. The following are some examples of possible modifications. Please refer to TSA’s online catalog/video section at http://tsa-usa.org or simply call TSA at 718-224-2999 to acquire the materials which are suggested here.

Possible modifications:

— Preferential seating
— Testing in a separate location with time limits waived or extended
— The use of a computer/word processor
— A frequent break out of the classroom to release tics
— Assignments broken into more manageable pieces
— The use of a daily assignment sheet verified by the teacher
— Mandatory in-service on TS for all teachers working with your child.

These are just a few examples of classroom modifications which can be of great benefit to the child with TS and associated disorders. For a more complete list, see Specific Classroom Strategies and Techniques for Students with TS, Helpful Techniques to Aid the Student with TS. These brochures are available from TSA, Inc.
Methods of evaluating and reporting on such students should also be modified to meet their individual needs. Imagine how discouraging it is for the child who has worked to his capacity level and made excellent progress for a specific period of time to be given a grade of “D” simply because classmates, who are not coping with a disability, have acquired greater expertise in a particular subject. Progress and acquisition of knowledge for a child with TS should be measured according to his own potential and abilities. An “Individualized Educational Plan” (IEP) for TS students should be created accordingly.

Students sensitive about their learning problems and fearing that they will be laughed at often develop the defensive posture of “class clown.” They deliberately act funny and call attention to themselves for silly behavior in the hopes that others will be “blinded by their footwork” and won’t notice their true shortcomings. Teachers should be sensitive to this pattern of behavior and deal with it firmly but with kindness. At times children with TS may exhibit subtly puzzling behavior patterns. In these cases, teachers should consult with parents to determine whether or not this behavior is a manifestation of the syndrome or perhaps a side effect of medication.

**Attention deficit hyperactivity disorder**

Research shows that a very large number of children with TS also have ADHD. ADHD is a neurological disorder characterized by impulsivity, hyperactivity, impaired ability to sustain attention, disorganization, the inability to get started on or to finish a task. Children with this disorder are very forgetful and have difficulty sequencing information and regulating their emotional responses.

**Obsessive-Compulsive behaviors**

Obsessive compulsive symptoms include recurrent unwanted thoughts and repetitive ritualistic behaviors. There may be a need to redo work over and over until it is perfect, a need to “even things up,” or a need to check things over and over. Classroom teachers may wish to consult with other professionals to better understand the management of such behavior in the classroom.

**role of the teacher**

Teachers, as well as other school personnel such as nurses, psychologists, guidance counselors, and administrators, can play a vital role in the lives of these students in two very distinct ways. One is in helping to accurately identify new cases and referring them to the proper channels for help. The second is in skillfully handling the child in the educational setting.

The first is easier to achieve, although no less important than the latter. By merely being knowledgeable and informed on the subject and sharing this knowledge with their colleagues, teachers are in an excellent position to save many lives, not from death because Tourette Syndrome is not fatal, but from years of torment and embarrassment, and from the ultimate destruction of all self-esteem and motivation which so often leads to a wasted life.

The second way in which teachers dramatically affect the lives of students with TS, or any student with a special disability or need, is in how they handle the classroom situation vis-a-vis this special child. The two main areas of concern are the psycho-social and the educational, which of course overlap.

**self-esteem**

The most overwhelmingly useful thing a teacher can do for a child with a special problem such as Tourette Syndrome is to foster feelings of self-worth and self-esteem. While this may often seem to be difficult, it is by no means impossible. How wonderful it would be if more teachers would adopt as their own, the adage, “the difficult we do immediately, but the impossible takes a little longer.” It may be difficult at first to get past the tics and yelps to the “real” child, but it will be worth the effort. Children with TS have positive qualities that can be tapped as a source to bolster their self-image. Does Mark create beautiful drawings and paintings? Can Ellen sing or play an instrument, or write lovely poems? What about Eric’s collection of butterflies, or stamps? Aren’t John and Susan excellent office assistants—responsible, efficient, trustworthy? A teacher sensitive to a child’s need to feel good about himself can find numerous opportunities to promote these feelings. How often have we heard adults relate stories about how a positive contact with a particular teacher changed their lives?
A lesson in social studies is easily forgotten. What is the capital of Paraguay? Who discovered the Mississippi River? But the lessons, “My teacher thinks I’m dumb” or “My teacher thinks I try hard and often do well,” are lessons that remain with an individual for his entire life. An aware and sensitive teacher can help teach a child to accept and like himself in the classroom by showing him acceptance and appreciation. Treating a child with sensitivity and respect, when others around him may offer nothing but ridicule and rejection, will have an indelible and positive effect on his life.

A constructive suggestion for increasing a child’s self-image would include giving him positive and immediate feedback. Let him know that he’s doing a good job and praise him for things you might take for granted with another child. Stress the positive things he does, not the negative. For example, many children with TS have severe handwriting problems. Whereas you might comment that another child’s paper “could be neater,” why not mention to the child with TS that his writing looks better than his last paper and that you are happy to see him making such an effort at writing. However, handwriting alternatives to writing should always be sought such as the use of a computer, oral tests, a tape recorder and/or notes provided by the teacher. Standardized tests which require the use of computer answer sheets are almost always a problem for these children. They should be allowed to write the answers directly in their test booklet which could then be transferred to the answer sheet by the teacher or teacher aide. These children should always be encouraged to use spell check rather than marking spelling words wrong.

**compassion**

What about tolerance and compassion? Can they be taught to students as history or math can be taught? The answer is yes. And once the lesson is learned, its effect can be carried out of the classroom into the cafeteria, onto the playground, and hopefully much further. The following incident recently observed by an elementary school teacher illustrates how successful a teacher can be in this area. A great deal of noise was overheard outside. On looking through the window to the playground, it was observed that one sixth grade boy was pummeling another in retaliation for being called “a name.” The teacher related that what she expected to see next was the surrounding ten boys take sides and proceed to encourage the antagonists with “Let him have it, Mike” or “Give it to him, Rob,” as is often the case under these circumstances. What transpired, however, was an unusual and touching scene. The bystanders proceeded to separate the fighters and tried to calm the situation with exclamations of, “You didn’t mean it, did you, Mike? Say you didn’t mean it,” and Cool it, Rob. Give him a break.” The teacher further related, “These students are all in Ed’s class. Ed is a sixth-grade teacher who insists that students and parents address him by his first name. He is a different sort of teacher. His classroom environment, unlike so many rigid classrooms, is open, accepting, free. Tolerance and goodwill pervade the entire atmosphere. Mike does in fact have a special problem and he is far from the most popular boy in the class, but obviously the others have been encouraged to develop enough compassion for him to act as they did.” When the classroom atmosphere encourages feelings of human kindness, tolerance and compassion, the benefits will accrue to society as a whole. The lesson isn’t learned overnight, but is well worth the extended effort.

Very often dislike or rejection of another person is based on fear—usually fear of the unknown. In this case, a teacher who has taken the trouble to understand the limitations or symptomatology of a particular disability can then share with the class the knowledge and confidence acquired. This in turn can help the entire group to overcome a major stumbling block to acceptance. An older student with TS who expresses himself well, recently summed up his desires and frustrations in this way, “All I ever wanted was for my teachers to understand and accept me. Underneath my tics and noises, I’m a person just like anyone else.”

**medication**

A wide variety of medications are now used to treat TS depending on the severity of the tics and all of the associated disorders. Medications for TS have side effects which may affect performance and behavior in school. Use the school nurse and the parents as resources to keep informed about the medications the child is taking and what may result in the classroom.

The parents along with the treating physician will be monitoring how much medication a child needs. The parent needs to be constantly aware of the...
severity of symptoms at school and the extent to which the symptoms and the side effects of the medication impact on classroom performance. Constant communication between parents and teachers is therefore extremely important.

The following section is reprinted from a pilot study on the Cognitive and Educational Implications of Tourette Syndrome conducted by the Learning Disorders Unit, New York University Medical Center, New York, NY, under the direction of Rosa Hagin, Ph.D. These guidelines which represent a summation of this study are an invaluable tool for any educator working with a student with TS.

**guidelines for the education of children with TS**

1. **Look at the whole child—not the disorder.** The variation observable even in the small sample of this pilot study underlines the importance of focusing on the whole child, not just the problem; specifically this means assessing the child's strength and resources for compensation, as well as the specific symptoms he/she presents.

2. **Early diagnosis is a crucial factor in the management of TS symptoms in children.** Early diagnosis permits a resolution of the panic, confusion, guilt, and anxiety which beset the family as the symptoms begin to emerge. When a definitive diagnosis is made, the family can turn their efforts in the direction of educational planning and implementation.

3. **Medication should be regarded as an individual matter for the child, his family and the physician to resolve.** This pilot study and the questionnaire responses convinced us of the wide variation in response to medication. It is necessary for the physician to monitor not only the child's response to medication, but also other aspects of the child's functioning as well.

4. **Clear, recent factual information about Tourette Syndrome should be provided to all the people involved in the child's education.** Information about Tourette Syndrome is a crucial matter in educational planning. It is important for parents in order that they can keep current as new advances in the field are reported. It is important for educators to understand the scope of the problem even when the child appears to be relatively symptom-free at school. Information is important to the peers of the child because it can signal the beginning of acceptance and may help the child to avoid the social isolation reported so frequently by the youngsters. TSA, Inc. has a new brochure entitled *Educating Classmates about TS* that will assist in helping other students in the class understand and accept TS. Information is important for the professionals who seek to help the family; it can enable them to recognize and to assist in the family's search for adequate diagnosis. It will also serve an important role in updating the training of professionals in order to keep them abreast of new developments in the field. Finally, information is important for the general public to build acceptance and understanding of the implications of Tourette Syndrome, as well as to serve as-yet unrecognized children with Tourette Syndrome.

5. **Effects of Tourette Syndrome upon cognitive functioning may vary greatly between children and with the individual child over time.** The Syndrome may have effects at different levels of cognitive functioning: A) direct effect of the tics upon specific cognitive tasks, as for example in performing the skilled motor activities required in handwriting or typing, B) indirect effects of the tics as the learner attempts to inhibit symptoms in the classroom, C) medication effects, such as the blunting of cognitive processes associated with the use of medications prescribed to relieve the symptoms, D) interpersonal effects resulting from the symptoms which may result in school isolation, rejection and sometimes exclusion from school participation.

6. **Children with Tourette Syndrome need sufficient intellectual challenge.** School is an area in which youngsters with Tourette Syndrome may excel. Their troubles in demonstrating what they know should not prevent them from receiving the most challenging educational experience possible.

7. **Caution should be used in interpreting I.Q. scores as estimates of cognitive potential in children with Tourette Syndrome.** Our data show that formal testing, even on an
individual basis, may underestimate what children with TS are capable of accomplishing educationally.

8. Caution also is advised in interpreting results of standardized educational achievement tests. Formal testing of educational achievement, particularly long achievement batteries, may also underestimate the child's accomplishments. Modification in administration of any formal achievement test is necessary. This is particularly apparent with group tests when the pupils must work independently for a sustained period of time. More adequate sampling of these youngsters' achievements can be obtained from the more recently developed individual tests of achievement or from the introduction of rest periods during the administration of group tests.

9. Parents represent an invaluable resource in the education of children with Tourette Syndrome. Educators should draw upon parents understanding of Tourette Syndrome, as well as their knowledge of their own child's educational needs. Parent participation in this regard should represent more than a signature on an IEP to represent compliance with the federal law. Since the parent is now a voting member of the CSE, it is even more important that teachers and parents maintain ongoing communication and mutual support.

10. Most children with Tourette Syndrome learn best in a moderately structured classroom. Although there are some variations with regard to this recommendation, the study group as a whole seemed more comfortable with a moderate degree of structure, something between the open classroom and the more rigid organized traditional classroom. The children need the guidance of clearly articulated directions from the teachers, but they also need the opportunity for independent movement which moderately structured classrooms permit.

11. Children with Tourette Syndrome need opportunities for physical movement. The restlessness which they experience, even if they are relatively symptom free, suggests a need for freely expressed physical activity.

12. They need a refuge for times when symptoms become intensified. A resource room, a nurse's office, a library, a counselling office, a school secretary's office—some refuge must be made available at times when symptoms are intense. A private area where the expression of the tic will not be noticed by other people is an important need in educational planning for these children.

13. Children with Tourette Syndrome are not necessarily learning disabled. Many, however, do experience problems associated with a learning disability. There should be adequate provisions for these children, as for any youngster enrolled in the schools. These provisions might be a resource room, a learning disability classroom, or individual one-to-one help. For those with a learning disability, some compromise between the freedom of movement required by the TS symptoms and the firmer structure required for freedom from distraction must be achieved. One should not, however, assume that all children with Tourette Syndrome will have learning difficulties.

14. Provisions need to be made for fine motor and visual motor deficits which are so prevalent with children with TS. Schools need to find alternatives to writing in order to help the child compensate. The most useful alternative is a computer, but other suggestions include notes provided by the teacher, oral tests and reports and the use of a tape recorder.

15. Timing is a crucial issue. These children need extra time to finish school work. It is therefore most important that time limits for tests and assignments be waived or extended. Work can be divided into brief segments. Parents can also be helpful in filling in the gaps which may occur in school work. Teachers also need to be aware of the medication effects and also of the fact that TS symptoms wax and wane. Therefore, what is accomplished quickly on some days will take much longer on others.

16. Stress effects must be considered in all school settings. In general, stress exacerbates symptoms. Therefore, the effects of stress must be considered in all learning settings, including competitive sports. The unstructured periods of the day may be sources of stress for these children, and the need for benign adult supervision at such times might
be considered. Teachers can also protect youngsters from stress by avoiding abrupt transitions and split-second timing in the classroom. It is more useful to anticipate and help the youngster prepare for stress producing experiences than to have to deal with the consequences.

17. Many of these children need help with the social isolation they may experience in the classroom. Nearly all the youngsters reported feelings of isolation in the classroom. Awareness of this interpersonal problem should lead the teacher to avoid situations which emphasize this problem, such as the choosing up of teams. Adults may need to exercise some ingenuity in order to initiate alternative means of including these youngsters in classroom activities.

It should also be remembered that these children will profit from an adult model in the case of social acceptance. The teacher who values the child as a contributing member of the class will be offering the child’s classmates an appropriate mature model.

**Conclusion**

Students with disorders such as Tourette Syndrome, or in fact any atypical condition that sets them apart from their classmates, deserve to be educated in an atmosphere that will allow them to reach their maximum potential. Samuel Johnson, the prominent 18th century literary figure, accomplished his lofty goals despite the intrusion of twitches and compulsions that plagued him all his life. Today, adults with Tourette Syndrome who have themselves gone on to become successful psychologists, musicians and business people often relate how a supportive educational environment helped to compensate for many hardships and contributed to their future successes. An environment that is hostile is a much less effective place to learn and grow than one that is tolerant and accepting.

**An Informed and Sensitive Teacher Can Make a World of Difference**
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additional TSA resources

Videos & Vignettes

**AV-9  After the Diagnosis . . . The Next Steps**
Produced expressly for individuals and families who have received a new diagnosis of TS. This video was developed to help clarify what TS is, to offer encouragement, and to dispel misperceptions about having TS. Features several families in excerpts from the Family Life With TS A Six-Part Series who recount their own experiences as well as comments from medical experts. Narrated by Academy Award Winner Richard Dreyfuss. 35 min.

**AV-2A  Teaching Children with Tourette Syndrome: A Resource for Educators**
Clarifying many of the challenges inherent in teaching children with TS, this latest addition to TSA’s new video series features teachers, education specialists, and physicians discussing issues relevant to the school environment. With keen insight, the experts articulate useful methods for avoiding common problems and focus on ways to manage TS symptoms and improve our understanding of how the syndrome’s co-morbid disorders can impact the learning process. 15 min.

**AV-10a  Clinical Counseling: Towards an Understanding of Tourette Syndrome**
Targeted to counselors, social workers, educators, psychologists and families, this video features expert physicians, allied professionals and several families summarizing key issues that can arise when counseling families with TS. Includes valuable insights from the vantage point of those who have TS and those who seek to help them. 15 min.

**AV-11  Family Life With Tourette Syndrome . . . Personal Stories . . . A Six-Part Series**
Adults, teenagers, children, and their families . . . all affected by Tourette Syndrome describe lives filled with triumphs and setbacks . . . struggle and growth. Informative and inspirational, these stories present universal issues and resonate with a sense of hope, possibility, and love. 59 min.

**AV-12  A Teacher Looks at Tourette Syndrome**
Susan Conners, M.A., TSA Education Specialist is very much in world-wide demand for her helpful and inspiring in-service training programs. Filmed at an all day TSA Educators Conference, she introduces teachers to what it is like to have TS in the classroom. She gives her techniques to help students learn best, and helps teachers be most effective and informed. Aspects of ADHD, OCD and other related conditions are covered. Susan’s years of teaching experience, personal insight and abundant humor make for compelling viewing. You get both full hour and half hour versions designed to be shown at teacher training sessions, chapter meetings, educational and clinical conferences. Features a personal introduction by actor-writer Polly Draper. 90 min.

An up-to-date Catalog of Publications and Videos, can be obtained by contacting:

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