# A Behavioral Treatment for Tics

*by Mark Katz, PhD*

**CHILDREN WITH TOURETTE SYNDROME**—a neurologically based disorder characterized by both vocal and motor tics—often struggle with ADHD as well. Behavioral treatments for ADHD, however, are not typically designed to target Tourette-related symptoms. Fortunately, there's a behavioral treatment that does. Comprehensive Behavior Therapy for Tics (CBIT) is offering new hope to children who struggle with both conditions.

Developed under the auspices of the Tourette Syndrome Association, CBIT involves three components:

- increasing the child's awareness of tics
- training the child to execute a competing behavior when feeling the urge to tic
- encouraging and supporting the child's efforts at managing their tics in their daily life.



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## Increasing awareness

During treatment, children learn to describe the nature of their tics in their own words. It's a very supportive, nonjudgmental learning process, one intended to legitimize rather than further stigmatize their symptoms. The children also learn how to recognize a "premonitory urge," the buildup of tension just before the tic begins. They learn to signal its onset nonverbally, such as by raising their finger as soon as the sensation occurs. It's difficult to do at first, since the time between the premonitory urge and the actual tic is very short, perhaps only second or even half a second. With practice, however, children become more skilled in the process. Then they are ready for step two.

## Competing response training

After children have learned to signal a premonitory urge and the specific movements in their tics, they then learn to begin a competing exercise before the tic starts. Exercises vary depending on the child and the tic, but all are guided by three rules:

- It should be difficult to perform the exercise and the tic at the same time.
- The exercise must be less noticeable than the tic.
- The child has to be able to do the competing exercise for a minute, or until the urge to tic goes away.

## Making changes in daily activities

CBIT practitioners refer to this step as "functional interventions," a term familiar to proponents of Positive Behavior Intervention and Supports (PBIS). Research shows that environmental factors significantly influence how frequently or infrequently children engage in tics. Research also reveals that environmental triggers vary from child to child. In step three, CBIT practitioners work with children and parents to identify specific situations that either intensify or maintain tics. Once identified, children and parents then learn to modify such situations and encourage the child's efforts to manage

tics. Since stress often serves as a trigger, children learn to use relaxation exercises before stressful situations.

CBIT draws upon the principles of Habit Reversal Training (HRT), a behavioral treatment developed by Nathan Azrin, PhD, and Greg Nunn, PhD, in the 1970s. The treatment has since been successful in treating a number of conditions, including hair pulling (trichotillomania), thumb sucking, nail biting, OCD-related symptoms, and vocal and motor tics.

CBIT typically involves eight sessions over the course of ten weeks, although treatment length depends on individual needs. In a 2010 study published in the *Journal of the American Medical Association*, 52.5 percent of the children who received CBIT showed significant symptom improvement compared to 18.5 percent receiving the control treatment. Treatment yielded lasting results, with 87 percent of available responders exhibiting continued benefit six months following treatment.

CBIT has also been helpful to adults with Tourette syndrome. A 2013 study published in the *Archives of General Psychiatry* found that 38.1 percent receiving CBIT were rated as much improved or very much improved on the Clinical Global Impression-Improvement scale compared to 6.8 percent in the control group.

## Learn more

For a list of CBIT-trained providers, visit tsa-usa.org, the website of the Tourette Syndrome Association.

- Healthcare professionals interested in CBIT training may see tsa-usa.org for upcoming training opportunities.
- For more about CBIT, watch the two-part video presentation conducted by Douglas Woods, PhD, during at TSA's 2012 national conference.
  - Part I: http://tsa-usa.org/Z_TSA_video/2012Conf/CBIT I.html
  - Part II: http://www.tsa-usa.org/Z_TSA_video/2012Conf/CBIT II.html

A clinical and consulting psychologist, **Mark Katz, PhD**, is the director of Learning Development Services, an educational, psychological, and neuropsychological center in San Diego. He is a contributing editor to *Attention* magazine and a member of its editorial advisory board, a former member of CHADD's professional advisory board, and a recipient of the CHADD Hall of Fame Award.

### ADDITIONAL READING

Azrin, NH, and Nunn, RG (1973). Habit reversal: A method of eliminating habits and tics. *Behavior Research and Therapy*, 11, 619-628.

Azrin, NH, and Nunn, RG (1977). *Habit Control in a Day*. New York: Simon and Shuster.

Piacentini, J, Woods, DW, Scahill, L, Wilhelm, S, Peterson, AL, Chang, S, Ginsburg, GS, Deckersbach, T, Dziuira, J, Levi-Pearl, S, Walkup, JT (2010). Behavior therapy for children with Tourette Disorder: A randomized controlled trial. *Journal of the American Medical Association*, 303: 1929-1937.