

# Ask The EXPERT

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People with TS take a variety of medications that were originally developed to treat other conditions, e.g. anti-hypertensives, typical and atypical neuroleptics, etc. Why are these drugs effective for some people, some of the time, and not others?

The late Arthur Shapiro M.D., one of the first physicians of the modern era to study TS, said that “every medication has made tics better and every medication has made tics worse.” It is important to understand this basic truth. Many medications used for TS were initially observed to be successful only later to be studied more rigorously and found to be less effective than originally thought.

Two groups of medications have been consistently found to be successful in reducing tic symptoms. The first group is the neuroleptics, such as haloperidol or pimozide. These medications were tried in TS in part because of clinical “hunches” that they might reduce tics. The neuroleptics are involved in dopamine metabolism and dopamine is central to movement control. Similarly, the use of alpha adrenergic agonists, such as clonidine, was based on its effect on the overall central nervous system arousal level and brain functioning. There were also preliminary data suggesting that it might be useful in treating ADHD and might not necessarily result in changes in tic severity. Guanfacine, which is similar to clonidine, was tried in TS in part because it appeared to address inattention better than clonidine, and because it could be given two times a day as opposed to three to four times per day for clonidine.

No one treatment is effective for everyone. Individual response is likely determined by many factors—only one of which is specific neurochemical activity. Much more research needs to be done to identify both clinical characteristics associated with clinical response, but also genetic and neurological factors that are associated with tic severity as well as an individual's response to medication.

What is the pharmacological basis for this variety?

All the neurochemicals implicated in causing TS symptoms such as dopamine are interconnected with the function of other neurochemicals such as serotonin and norepinephrine. In addition, certain brain regions considered to be associated with TS are connected to brain regions associated with other neurobehavioral problems. More recently, researchers have shown interest in the circuits that link one brain region to another. These circuits use a variety of neurochemicals to interrupt or facilitate certain neurochemicals or certain regions of the brain.

There are contradictory reports about strep infections and TS. Is there really a connection?

Some of the most knowledgeable and successful investigators in both TS and obsessive compulsive disorder are currently involved in the research to answer this question. Right now we do not have the data to support this link, but the concept is so compelling that we have seen some patients and doctors utilizing treatments based on this theory to treat patients with TS and OCD. This situation has gotten to the point that some consider tics and OCD associated with recent strep infections to be an established association and are using novel treatments that are not yet proven effective.

Recently, the investigators at the National Institute of Mental Health have issued a statement that encourages families who think they might have a child with tics or OCD associated with strep infection to only consider using experimental treatments such as antibiotics, intravenous immunoglobulin or plasmapheresis in centers that are actively involved in research. Please check out their statement at <http://www.nimh.nih.gov/events/pandaalert.cfm>. This website has links to other websites of interest.

## TS in the Media: East, West and In-Between

*The Los Angeles Times*, *Daily News* and *Music Connection* (a professional music publication) covered the memorial concert honoring long-time TSA supporter and world-class musician Julius Wechter, in Glendale, California. *The Times* noted that Wechter's impressive career included working with Herb Alpert and the Tijuana Brass as well as his own Baja Marimba Band.

New Jersey's leading daily, *The Newark Star Ledger*, ran a story on Evan Trost, a Jersey native and medical resident who has had TS since he was seven. Evan now works in an Arizona Medical Center, and plans a practice with a special focus on people with TS.

With a circulation of 600,000 educators across the nation, *Teaching Tolerance Magazine*, published by the Southern Poverty Law Center, has a unique readership—one that appreciated the August issue story about TS. TSA and TS were also the focus in *PTA Our Children*, the official publication of the National Parent-Teacher Association.

Cincinnati area National Public Radio listeners heard a full-hour, live call-in program on TS as part of Awareness Month activities. Dr. Don Gilbert of the Cincinnati Hospital Medical Center's TS and Movement Disorders Clinic fielded call-in questions with a panel of children and adults with TS. The show was part of the Soundhealth Series and was also carried live on the Internet.

TSA would also like to express thanks to the *New York Observer* for regularly showcasing TSA's Public Service Announcements and special events in the pages of their newspaper.

## Stars Shine in LA for TSA

TSA's 6th annual West Coast Awards Dinner will take place in February 2003 at the Regent Beverly Wilshire Hotel in Beverly Hills. This star studded event always proves entertaining while generating an important and powerful message about TS. For further information call the national development office at extension 230.

