

## Nutritional intervention dramatically reduces aggression

Violent behavior in children and adults can be drastically reduced through the use of nutritional supplements individually tailored to correct biochemical abnormalities, according to a new study by William Walsh and colleagues.

Walsh et al. evaluated the effects of treatment on 207 consecutive patients with behavior disorders, all admitted to the Pfeiffer Treatment Center in Illinois. The patients, who ranged in age from 3 to 55 and included 149 males and 58 females, were diagnosed as having attention-deficit disorder, conduct disorder, oppositional-defiant disorder, or other behavior disorders. Ninety-five percent had undergone behavior modification, psychotherapy, conflict resolution therapy, or counseling, and 85 percent had undergone treatment with Ritalin, antidepressants, or other psychotropic drugs, but these treatments had been unsuccessful.

All patients underwent extensive biochemical testing including 90 different chemical analyses of blood, urine, and hair. The tests identified problems including metal-metabolism disorders, methylation problems, disordered pyrrole chemistry, heavy metal overload, malabsorption syndromes, and impaired glucose regulation. Each patient then underwent an individualized program of nutritional supplementation designed to correct the biochemical abnormalities identified by testing.

Following each patient for four to eight months after treatment began, the researchers found that 76 percent complied with therapy. (Half of the noncompliant group never began the therapy, while the other half complained of nausea, vomiting, or a dislike of swallowing pills.) In the treatment-compliant group, the researchers say, "A reduced frequency of assaults was reported by 92 percent of... assaultive patients, with 58 percent achieving elimination of the behavior." Eighty-eight percent of compliant patients with destructive behavior reported a reduced frequency of destructive acts, with 53 percent reporting a complete cessation of destructive behavior. Younger patients responded the most positively to treatment.

Walsh and colleagues conclude, "The high incidence of biochemical imbalances in the behavior-disordered population and the major behavioral improvements following the correction of these imbalances suggest that individual biochemistry has a powerful influence on human behavior."

"Reduced violent behavior following biochemical therapy," W. J. Walsh, L. B. Glab, and M. L. Haakenson, *Physiology and Behavior*, Vol. 82, No. 5, October 15, 2004, 835-9. Address: William Walsh, Pfeiffer Treatment Center, 4575 Weaver Parkway, Warrenville, IL 60555.

## —UPDATE: Terbutaline and brain damage, autism—

The previous issue of ARRI (18/4) summarized animal studies tentatively linking the drug terbutaline, given to women experiencing preterm labor, to fetal brain damage. Several readers have referred us to recent articles in two science magazines—*Science News* and *Johns Hopkins Public Health*—which cite a preliminary study also implicating terbutaline as a factor in autism.

In this small study, first reported in 2002, Susan Connors, Andrew Zimmerman and colleagues studied fraternal twin pairs in which at least one twin had autism. In ten of the pairs, both twins were concordant for autism—that is, both twins exhibited the disorder—while in eight "discordant" pairs, only one twin was autistic.

The researchers found that mothers who took terbutaline for long periods during pregnancy were significantly more likely than other mothers to have two twins who developed autism. Half of the twin pairs concordant for autism had been exposed to terbutaline for two weeks or more, while seven of the eight discordant pairs had not been exposed to the drug for an extended period. Additional investigation by the researchers suggested that children who possess a

particular variant of the beta-2 adrenergic receptor (B2AR) gene are at particular risk of developing autism after exposure to terbutaline.

Terbutaline, an asthma medication currently given to thousands of pregnant women each year as a treatment for preterm labor, is not approved by the Food and Drug Administration as a method for stopping early labor, and the drug has never been formally tested for this purpose. The FDA has cautioned doctors against prescribing terbutaline to pregnant women for extended periods, saying that the drug's effects are unknown and that it appears to delay premature labor for only 48 hours or less.

"Brainstorm," Melissa Hendricks, *Johns Hopkins Public Health*, Fall 2004.

"Assault on autism," Diana Parsell, *Science News Online*, November 13, 2004.

"Prenatal modulation of the beta-2 adrenergic receptor in autism: analysis of dizygotic twins," S. L. Connors, D. E. Crowell, S. J. Spence, C. J. Newschaffer, and A. W. Zimmerman, International Meeting for Autism Research (IMFAR) conference poster, Orlando, November 2002.

## LETTER TO THE EDITOR

To the Editor:

I am the Oregon representative for Homeowners Against Deficient Dwellings (www.HADD.com). Our "bad builder" story was told on Channels 6 and 12 here in Portland, and was in the January issue of *Consumer Reports*.

My children were ages one and three when we moved into a newly built house. The first day we moved in, the boys started vomiting. The diarrhea didn't stop until about a month after we moved out of the house, which we did four months later when my face went numb, and we discovered the walls were soaking wet and full of mold.

My oldest, now six, is probably headed for an Asperger's diagnosis.... My four-year-old is being evaluated now and will end up with a similar diagnosis. Neither is capable of being in a normal classroom setting. I know their problems were caused by the intense mold exposure. I'm working with a local naturopathic doctor and have seen improvement, but not enough. I believe they are both damaged for life.

I understand that, even with changes in vaccinations, autism numbers continue to rise. I also understand that in the Northwest, multiple sclerosis is rising exponentially. I believe that "self-composting houses" may be the reason. Here's why:

—Today's houses are built with composite woods that didn't exist a few years ago. More of the tree is ground into the compressed boards, including the bark where natural mold occurs.

—Due to energy conservation codes, builders are using R-Max foamboard—and similar materials which soak up rain like a sponge—and then sealing up the walls so they are unable to "breathe" and dry as older houses do.

—Due to demand, homes are built more quickly and year-round. They are frequently closed up wet (as ours was), and windows and doors aren't properly installed.

—Due to binding arbitration, builders have learned how to protect themselves so they have little liability or incentive to build properly.

—Due to the glut of new homes to inspect, counties aren't properly inspecting.

Oregon is obligated by law to educate all children to the age of 21. For an autistic child, this bill amounts to two million dollars. If politicians see the mold connection to the education crisis, maybe someone will get involved. Maybe someone with a little power will put a stop to unscrupulous builders putting children's quality of life in jeopardy.

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