

# Nutrition & Mental Health

The Quarterly Newsletter of the International Schizophrenia Foundation



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## FROM THE EDITOR

### The Germs of Mental Illness

The orthomolecular way to optimal mental health is about working with nature: adding substances natural to the body to compensate for its particular genetic and environmental factors. Like our genetic inheritance, the toximolecular environment of the modern world is a given which we must consider. An overlooked but significant niche of that environment is occupied by the other phylogenetic orders of life—the bacterial, viral and fungal life forms which can impinge on our mammalian selves to produce mental illnesses. Researchers have long suspected that infection affects both physical and mental health and enough data has now accumulated to sketch the outlines of its significance.

Do viruses actually affect mental health? Recent studies indicate that the cerebrospinal fluid (CSF) of patients with recent-onset schizophrenia shows a significant increase in reverse transcriptase (an enzyme) activity, an important component of infectious retroviruses. When the CSF from these patients was used to inoculate a monkey cell line there was a ten-fold increase in reverse transcriptase activity suggesting the presence of a replicating virus. Quite by happenstance, antipsychotic drugs like Thorazine, Haloperidol and Clozapine have been found to also inhibit viral replication. The human

immunodeficiency virus (HIV), long associated with severe cognitive deficits, can cause anxiety, delirium, depression, psychosis and suicidal impulses. HIV does its damage using a Trojan horse strategy. Instead of directly attacking brain cells, the virus infects macrophages, the immune-system enforcers that roam the bloodstream. These macrophages then travel to the brain, where the virus produces inflammatory cytokines that kill off neurons in the memory-storing temporal lobes, which can lead to dementia-like syndromes.

Parasites like the protozoan *Toxoplasma gondii* which cause toxoplasmosis, also have a strong statistical link to mental illness. Several major studies show that toxoplasmosis antibodies are associated with persons with schizophrenia and other severe psychiatric disorders. In humans, acute infection with toxoplasmosis (primarily from ingestion of undercooked meat or exposure to cat feces) can cause brain lesions, neurotransmitter dysfunction, changes in personality and symptoms of psychosis (including delusions and auditory hallucinations).

Exposure to cats appears to be the primary cause for toxoplasmosis transmission in childhood, and may be a risk factor for the development of schizophrenia later in life. Intriguingly, certain antipsychotic and mood-stabilizer drugs such as Haloperidol and Valproic acid also

inhibit this parasite *in vitro* at the same physiological concentrations typical of individuals treated with the medication. Perhaps some antipsychotic medications used to treat schizophrenia and bipolar disorder may actually work indirectly via an immunological effect.

“Fluffy” is not getting off easy with just toxoplasmosis. Who would have thought that the apparently innocuous “cat scratch fever,” a usually benign infection caused by *Bartonella* bacteria found in children following a cat scratch, could prove to be so devastating to those with compromised immune systems? One UCLA study of AIDS patients with psychosis showed 50% had *Bartonella* antibodies in their CSF fluid, versus none in AIDS patients without psychosis.

In January, 2005, the journal *Medical Hypotheses* published a ground breaking article confirming yet another bacteria may be implicated in psychosis. Scientists in Germany reported that of 75 patients with schizophrenia, 40% were infected by one or more of the three varieties of Chlamydia, compared with only 6% of people without schizophrenia.

Wayne State University researcher Alan Hudson, Ph.D., conducted a study linking *Chlamydia pneumoniae* to late-onset Alzheimer’s patients as well. In 17 of 19 patients, brain areas with typical Alzheimer’s pathology showed the pres-

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Editor/Production: Greg Schilhab

Managing Editor: Steven Carter

*From the Editor (continued)*

ence of *Chlamydia*, a finding absent in 18 of 19 non-Alzheimer's control patients. *Chlamydia pneumoniae* may cause dementia in Alzheimer's patients in a manner similar to the HIV virus, by slipping into the brain and manufacturing cytokines which cause atrophy and destruction.

Few children avoid coming down with a strep throat at some point in their early years, and scientists now think that one in 1,000 children affected with streptococcus infection also develops obsessive-compulsive disorder (OCD). This is a strange abrupt-onset form of OCD which occurs in a matter of weeks after infection. Because their immune systems are underdeveloped, children can mount a vigorous over-response to streptococci, building up antibodies that, for an unknown reasons, begin to attack the basal ganglia, causing inflammation.

In an experiment conducted earlier this year, Dr. Susan Swedo, at the National Institutes of Health, replaced the blood plasma of 28 children who suffered from OCD (and who had elevated levels of streptococcus antibodies) with healthy donor plasma, reasoning that such a switch would remove the trouble-making antibodies. Within a month, the incidence of tics and other OCD symptoms were reduced by 60%. Streptococcus is

a factor in other mental illnesses as well. Though anorexia nervosa has traditionally been tied to a distorted body image or societal pressure to be thin, doctors have also noted that the eating disorder sometimes appears or worsens after a case of strep throat. Streptococcus has also been implicated in some cases of Tourette's syndrome.

For years we've heard how heavy metals, pollution, additives and other extrinsic variables can influence cognitive function. The viruses, parasites and bacteria in which our world is steeped should be added to these environmental pressures.

Standard psychiatry still clings to a dichotomy between disorders of the body and those of the mind, a persistent error which impedes progress in psychiatry. The accumulating data on infectious agents, however, demonstrate at least one clear-cut body/mind connection. Since we cannot take antibiotics preventively (contrary to general prescribing practice!) we must use orthomolecular nutrition and medicine to ensure a robust immune system—our only real defence against the germs of mental illness. Orthomolecular psychiatry's great contribution is to teach us how the total environment of the individual is the foundation of mental health.

—Greg Schilhab

## NEWS

### Autism Rates Drop as Mercury Removed from Vaccines

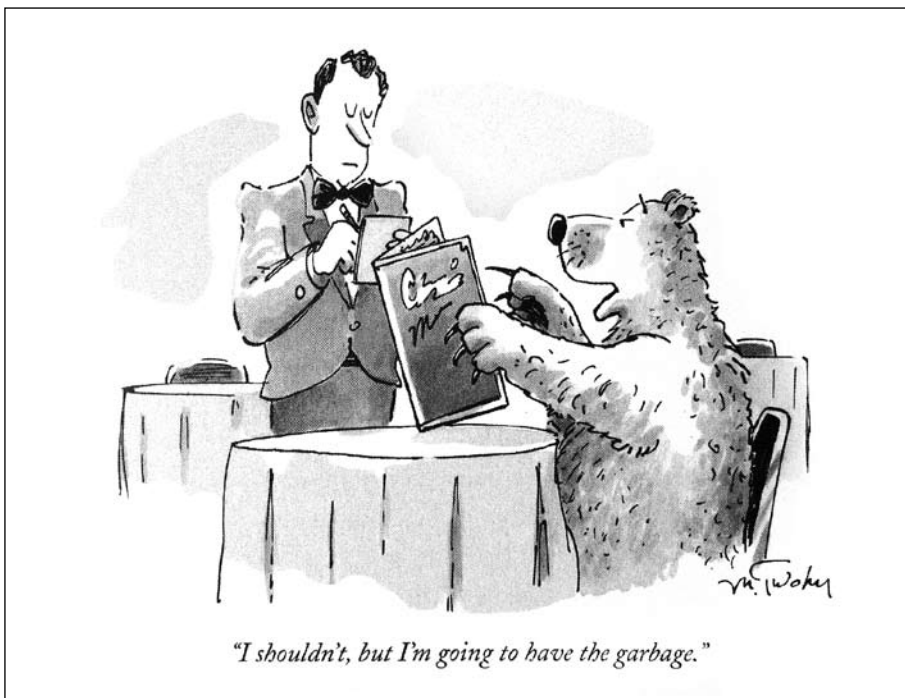
A new study shows that autism may be linked after all to the use of mercury in childhood vaccines. This new study directly contradicts 2004 recommendations of the Institute of Medicine which stated that "the evidence favored rejection of a causal relationship between thimerosal and autism, that such a relationship was not biologically plausible, and that no further studies should be conducted to evaluate it."

An article in the Spring, 2006 issue of the *Journal of American Physicians and Surgeons* shows that since mercury was removed from childhood vaccines, the alarming increase in reported rates of autism and other neurological disorders (NDs) in children not only stopped, but actually dropped by as much as 35%.

Using the government's own databases, independent researchers analyzed reports of childhood NDs, including autism, before and after removal of mercury-based preservatives. The numbers from California show that reported autism rates hit a high of 800 in May 2003. If that trend had continued, the reports would have skyrocketed to more than 1,000 by the beginning of 2006. In fact, the Geiers report that the number actually went down to only 620, a real decrease of 22 percent, and a decrease from the projections of 35 percent.

Up until about 1989 pre-school children got only three vaccines (polio, DPT, MMR). By 1999 the CDC recommended a total of 22 vaccines to be given before children reach the first grade. Many of these vaccines contained mercury. The cumulative amount of mercury being given to children in this number of vaccines would be an amount 187 times the EPA daily exposure limit. Between 1989 and 2003, was an explosion of autism. The incidence of autism (and other related disorders) went from about 1 in 2,500 children to 1 in every 166. Currently there are more than a half million children in the U.S. that have autism.

—Geier DA, Geier MR: Early Downward Trends in Neurodevelopmental Disorders Following Removal of Thimerosal-Containing Vaccines. *J Am Physic Surg*, Spring, 2006



## LETTERS

*Stories of recovery are essential to our educational mission. The following letter is from an ISF member to Dr. Abram Hoffer.*

### Out of the Labyrinth

My first encounter with orthomolecular medicine was a very close one and it occurred in the summer of 1969. Six months before that encounter, I had been diagnosed as “schizoid type” by the psychiatrist who presided over my treatment in a local mental hospital. I had admitted myself into that hospital, suffering from what I thought was a “nervous breakdown.” Years later, while reconstructing the incident, I was able to identify the idiot who had slipped a tab of LSD into my coffee while I wasn’t looking. This explained the delusions and hallucinations I’d been “enjoying” while under the care of the psychiatrist at the mental hospital. However, it did not explain why I didn’t “recover” in short order, as some of my friends had done after ingesting, smoking and sniffing as many street drugs as they could find. I kept getting these “flashbacks,” as they are called. It was as if the LSD had found a home in me and didn’t want to leave.

I began to wonder if I’d ever feel normal again. I even entertained the possibility that I had never been normal; that I’d been on the edge of “madness” most of my life; an existence punctuated by brief, unexplainable bouts of “sanity” sandwiched between long periods of emotional instability which in turn were accompanied by abnormal mental states.

These were some of the thoughts that were running through my head in the summer of 1969 as I languished in my father’s lazyboy chair, lost in the pharmaceutical fog caused by the Chlorpromazine and Kemedrin that had been prescribed for me. My story most probably would have ended there, sprinkled with the appropriate adjectives usually used to describe unhappy

endings. Probably my storyteller would have ended my tale with the hopeful assertion that “Perhaps, someday an even more effective drug will be developed by a brilliant pharmaceutical research scientist that will help Bill, and others like Bill, to cope better with the symptoms of the dreaded disease known as schizophrenia which as everyone knows, is unfortunately, incurable...so give generously.”

However, my story was to take an unexpected turn. You see, as I lay there in the lazyboy, staring at the TV, trying to figure out how the Japanese could have put LSD in all the mandarin oranges, thereby rendering the population of North America helpless to resist their well-planned invasion, I became dimly aware that some doctor was being interviewed on a television news

together we watched and listened as Dr Abram Hoffer, a practising psychiatrist (then in Saskatoon, Saskatchewan), answered questions about mental illness as if it were something curable like scurvy or rickets! I remember thinking “what a “crazy” idea!”, but I was so eager to get out of my “chemical strait-jacket” that I was ready to try anything. To put it another way, I was not “living better through chemistry”!

In that moment, my story somehow escaped its sad ending and headed off in the direction of a new and brighter future with its storyteller running to catch up. I’m still running, but I’ve long since caught up and now I’m in the lead. I still take large doses of vitamin B<sub>3</sub> and C along with an assortment of other nutrients added to a sensible diet. This year I attended the 35th Annual Nutritional Medicine Today Conference in Vancouver, Canada, and was able again to shake the hand of the man who had changed my life and showed me the way out of the labyrinth of mental illness. Thanks again Dr. Hoffer. I’ll be sending you a copy of my latest album through the mail. On it you will find a song entitled “Little Green Pills”, co-written by myself and Carlene Hope, criticising current psychiatric practice and lamenting the sad fact that after more than fifty years since your discovery, too many of us still haven’t

had the good fortune to encounter orthomolecular medicine as I did. That song was written for and is dedicated to you, Dr. Hoffer, and in fact most probably would not exist without your pioneering work and steadfast spirit.

Someday, the whole human family will know and appreciate what you have done for it, and medicine will have another hero to honour. Until then I salute you as the man who put me on the path you discovered way back in 1952; the path that led me out of the labyrinth.

—Bill Houston  
[www.billhouston.ca](http://www.billhouston.ca)



Bill Houston at Dr. Hoffer’s Orthomolecular Vitamin Information Centre in Victoria, BC. ([www.orthomolecularvitamincentre.com](http://www.orthomolecularvitamincentre.com))

program. The doctor was explaining in very clear terms even I could understand, that after extensive clinical studies and careful scientific testing dating back to 1952, he had reached the conclusion that schizophrenia was really caused by a biochemical disorder that could be successfully treated by massive doses of vitamins. I can’t remember exactly which of the words the doctor spoke that caused a lightbulb to come on in my brain, but it might have been words such as “chemical” and “hallucinogen” and phrases like “massive doses of vitamin B<sub>3</sub>” that made me sit up. I called my mother into the room and

# THE ISF ATTENDS THE 159<sup>TH</sup> APA ANNUAL MEETING

The 2006 annual meeting of the American Psychiatric Association in Toronto, Canada, was the setting for a summit of the “pharmaceutical superpowers,” and from a little booth along the periphery of the massive exhibit hall, the tiny orthomolecular principality of ISF established a beachhead. From our base, we handed out literature, sparked interest in our own nutritional conferences and generally enlightened hard-nosed psychiatrists to Hoffer’s Laws.

Today, psychiatrists are squeezed between a strained health-care system and direct-to-consumer drug advertising and increasingly rely on the pharmaceutical option. But one has to attend an APA mega-event like this to appreciate the sea-change in psychiatry.

The floor of the exhibit area illus-

trated this new reality. One is immediately hit by a paradox: the luxurious splendor of it all, in the face of the poverty in mental health-care funding. Among the million



Steven Carter, Talya Rotem and Greg Schilhab at the APA meeting

dollar displays, throngs of visitors toting bags of promotional gimcracks wandering through the stage-lit temples to

strange deities like “Lunestra” and “Ef-fexor.” Some of the more adventurous played contestant on *Jeopardy*-like game show sets. (what is “prescribe an SSRI, Alex?”) or nestled into pleather cocoons with surround-sound and virtual reality visors.

We’re a long way from the older, gentler psychiatry—a mix of cognitive, group and developmental therapies along with a modest use of drugs. Alternative therapies are rapidly disappearing with the harsh new bottom line.

But this chemical echo-chamber is not yet unanimous and the orthomolecular theory of mind remains a powerful counterpoint. The ISF surprised many of the meeting’s delegates with some real alternatives and created genuine interest in our comprehensive approach.

