

Autism Research Review

I N T E R N A T I O N A L

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Reviewing biomedical and educational research in the field of autism and related disorders

Gluten, casein-free diet: major improvement seen

In the first long-term controlled study of its kind, A. M. Knivsberg and colleagues report that a gluten-free, casein-free diet caused marked improvement in autistic children with abnormal urinary peptide patterns.

Knivsberg and colleagues (including Karl Reichelt, one of the first researchers to implicate gluten and casein in autism—see *ARRI 5/4*) placed 10 autistic children with identified peptide abnormalities on the casein- and gluten-free diet for one year, with 10 similar children serving as controls. All were between the ages of 6 and 10.

The researchers report that the group on the special diet, but not the control group, showed a significant reduction in aloofness, anxiety, and ritualistic behavior, and improvements in response to learning, empathy, peer relationships, tolerance of physical contact, nonverbal communication, eye contact, responsiveness when spoken to, range of interests, and responsiveness to dangerous situations. Children on the diet also showed reductions in excessively passive or restless behavior. Tests of nonverbal cognitive skills showed a significant improvement in children on the diet after one year, while revealing a decline in the skills of the control group. In addition, children in the special-diet group had a mean increase in linguistic age of 11 months, compared to 8 months for the control group.

Overall, Knivsberg et al. say, "The development for the group of children on [the] diet was significantly better than for the controls." The researchers say their findings support laboratory evidence implicating insufficient breakdown of gluten and casein, and a resulting release into the bloodstream of opioid-like peptides capable of altering behavior and brain development, in the genesis of autism.

Editor's Note: See letters, p. 7.

"A randomized, controlled study of dietary intervention in autistic syndromes," A. M. Knivsberg, K. L. Reichelt, T. Høien, and M. Nødland, *Nutritional Neuroscience*, Vol. 5, No. 4, 2002, 251-61. Address: A. M. Knivsberg, Center for Reading Research, Stavanger University College, P.O. Box 8002, Ullandhaug N-4068, Stavanger, Norway.

The California Epidemiology Report and the Danish MMR/Autism Report

These two new reports made the front-page headlines throughout the U.S. The following statements were prepared in response to numerous media requests for ARI's position on these highly publicized studies:

ARRI Response to California Epidemiology Study

The study released October 17 by the M.I.N.D. Institute will prove to be a landmark, in that it clearly dispels many myths and misconceptions regarding the reality of the widely discussed epidemic of autism.

The report states that:

I. The epidemic is very real. There has been an enormous increase in the prevalence of autism, and the increase cannot be explained by artifacts of:

—Greater awareness of autism.

—Looser criteria for the diagnosis of autism.

—Immigration of families seeking services for autistic children.

II. The cause of the increase cannot be attributed to genetic factors (there is no genetic epidemic). Therefore, the environmental causes which have been implicated by numerous researchers in the U.S. and the U.K., especially immune and autoimmune dysfunction due to exposure of the child to the mercury and viruses in childhood vaccines, must be given high priority research attention.

III. The recent increase in gastrointestinal symptoms in the first 15 months of life, as reported in the study, is highly consistent with the excessive vaccination theory of causation and underlines the urgency of exploring vaccine-related issues.

While I am in agreement with the major conclusions of the California Study, which support and confirm the findings of studies done elsewhere, I disagree with the statement that "recent estimations put the prevalence at 10 to 12 per 10,000 persons." In fact, a number of studies in the U.S. and the U.K. have reported figures as high as 45 to 60 cases of autism per 10,000 live births. The epidemic is not only real, but very serious.

I also observe that while the focus of the new report is on autism, there are similarly

unexplained large increases in the last 15 years in a number of other childhood disorders involving immune system dysfunction such as ADHD, asthma, allergies, and juvenile diabetes. These, like autism, have increased dramatically since the 1980s, while the number of vaccine doses given before age two has increased from 8 to 22.

This new report on the epidemiology of autism in California is a call for action that must not be ignored. Vaccines have never been properly evaluated for safety. The assumption of safety is not warranted. The problem must be confronted with research aimed at rational changes in vaccine policy.

ARRI Response to Denmark/MMR-Autism Study

The authors of the Danish study purportedly disproving the role of the MMR vaccine in causing autism reached their conclusion by ignoring inconvenient information. They blithely dismissed the series of molecular biology studies which show vaccine-strain measles virus in autistic children but not in controls.

They also failed to mention that Danish toddlers, unlike their counterparts in the U.S., are not given multiple doses of mercury-containing vaccines prior to being given the MMR shot. The mercuric vaccines were banned in Denmark in 1993. That is a crucial omission—it precludes the Danish findings from being considered applicable to the U.S. population, where the children's immune systems, brains, and gastrointestinal systems have been subjected to many times the supposedly "safe" level of mercury from mercury-laden vaccines. The mercury exposure greatly increases the susceptibility of genetically sensitive U.S. children to damage from the MMR vaccine.

The fact that the Danish study reports much lower (50 percent) prevalence rates for autism in their country than the current U.S. figures is a likely result of their having banned thimerosal from their vaccines, and reinforces the inapplicability of their findings to the U.S. population.