In the early 1990’s I consulted with parents of four children who had all lost previously attained skills between 18 and 26 months. These cases, unlike any I had seen previously, were puzzling. Today these children would be diagnosed with Pervasive Developmental Disorder (PPD). Fifteen years ago, experts did not recognize autism as a regressive disorder, but rather as a neurological condition present, although not necessarily recognized, at birth.

DDR was born during the course of searching for answers for these and the many cases that came through the floodgates in the years that followed. Similarities shared by the first four youngsters were that they all took numerous rounds of antibiotics, and their regressions followed illnesses or vaccinations. The cofounders of DDR hypothesized several theories of causation which we tested with a survey. Could antibiotics, vaccines, allergies or ear infections be at the root of autism? Fifteen years later, I wish we knew then what we know now.

**Suspicion #1 - Excessive antibiotic use may contribute to developmental delays**

Then: The DDR survey found an association between children who took many rounds of antibiotics and an increased incidence of developmental regression. While the association did not prove causation, DDR practitioners committed themselves to avoiding further infections and antibiotic use as well as possible gut injury by promoting the use of probiotics and other gut-healing treatments.

Now: Joan Fallon, DC, an early leader in treating developmental problems, writing in the journal *Medical Hypotheses* in 2005, proposed a mechanism whereby children who received the antibiotic Augmentin, could develop autism as a result of urea/ammonia toxicity in the gastrointestinal tract. She further drew a link between the introduction of Augmentin in the early 1980’s, and the growing number of children with autism who also had protracted ear infections.

After the publication of her paper she received over 2000 unsolicited calls from parents of potentially affected children. Today, probiotics, elimination diets, yeast control and other gut-healing components are standard in biomedical protocols.

**Suspicion #2 - Ear infections may be related to food allergies**

Then: In the early 1990’s, we were not sure what was responsible for developmental regressions. Talal Nsouli, MD published his findings in Annals of Allergy in 1994 relating ear fluid build-up and infections to food reactions. He reported elimination diets eradicated infections and fluid in approximately 90% of his cases. Across the ocean, Kalle Reichelt of Norway published research linking gluten and casein consumption with autistic behaviors.

The histories of a very high number of children later diagnosed with autism-like disorders reported early ear infections and allergies. Milk proteins are the most reactive in the diet and had also been associated with ear infections so it made sense that a gluten- and casein-free diet might be useful. Speakers promoted eliminating gluten and casein at DDR’s first conference in Bethesda, MD in 1995.

Now: The gluten-free casein-free (GF/CF) diet is well established as a biomedical treatment for autism. Approximately one third of children on the spectrum who start the diet before age three have a dramatic positive response. Elimination of additional foods can also be helpful, depending upon a child’s medical history.

**Suspicion #3 - Vaccines may contribute to regressions in development**

Then: Thimerosal, a mercury containing preservative, was added to vaccines in 1989. While we were aware that mercury is a neurotoxin and immune suppressant, we had no idea how much of a contaminant it was in vaccines. We guessed that the viruses and bacteria, not other ingredients, were the problem.

In 1999, a group of parents with affected children suspected mercury was causing autism. Their advocacy and tenacity culminated in the now classic paper “Autism: A Unique Form of Mercury Poisoning.” This paper, showing system by system the similarity between mercury toxicity and autism, is available at www.safeminds.org. The dramatic increase in autism frighteningly paralleled higher exposure to mercury from vaccines.

Controversy ensued, followed by more studies and some emotional Congressional hearings. Everything from increased industrial pollution to fish consumption was blamed for the “mercury problem.” Even though thimerosal was never officially implicated as a cause of developmental delays, the Food and Drug Administration recommended, but did not require vaccine manufacturers to remove it.

Now: Acute thimerosal toxicity has been reported in a handful of cases but few studies have looked at adverse reactions to typical exposure. Some vaccines still contain thimerosal, despite widespread belief that it has been removed from all vaccines.

We now know mercury is only one part of an increasingly toxic environmental load. Can fish and birds be sick while our children remain unaffected? Absolutely not!

Researchers structure studies to look at one factor at a time, while our youngsters are bombarded simultaneously from numerous and diverse sources. Genetic weaknesses in regulating how toxins are processed and excreted may explain why some children’s immune systems collapse more quickly than others under environmental stressors, such as mercury. The originally suspected viral and bacterial components of vaccines still remain under suspicion. (See last quarter’s DDR newsletter.)

**Looking toward the future**

From the beginning DDR postulated that developmental delays were related to an overload of several environmental and controllable factors. We now understand the components of the “total load” better and how genetics affect load capacity.

New technology is also providing us with better tools to support the biochemistry behind development. Our hope for the future is more focus on prevention and control of environmental factors affecting the nervous system rather than treatment after the fact.