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TOXIC EXPOSURES

Twins With Autism Improved 'Dramatically' After Parents Focused on Reducing Toxic Exposures

A new case report details how twin girls with autism showed dramatic improvements following a parent-led intervention focused on addressing a wide range of modifiable lifestyle and environmental factors.

by **Brenda Baletti, Ph.D.**

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A new case report details how autism spectrum disorder (ASD) symptoms in twin girls were dramatically improved through personalized lifestyle and environmental modifications.

The study documents a parent-led intervention focused on addressing a wide range of modifiable lifestyle and environmental factors and a program of multidisciplinary clinical care and autism coaching.

The report, published last week in the peer-reviewed **Journal of Personalized Medicine**, was led by doctors from the University of Maryland School of Medicine and researchers from the nonprofit **Documenting Hope**.

Both twins were initially diagnosed with Level 3 ASD, the most severe type of autism. Between March 2022 and October 2023, their scores on the **Autism Treatment Evaluation Checklist** (ATEC), a tool for measuring changes in ASD severity, dropped from 76 to 32 and 43 to 4 respectively. Lower scores indicate improvements in symptoms.

The girls also showed several other behavioral and social improvements that were maintained for over six months at the time the paper was written, with continued improvement noted since the paper was submitted, according to **Christopher D'Adamo, Ph.D.**, the lead author.

"The dramatic improvements noted among these girls, and in many other cases like theirs, demonstrate that much more can be done to improve the symptoms of autism than is often communicated to parents," D'Adamo told **The Defender**.

"These findings provide hope that proactively addressing the total load of stressors to the best of one's ability can result in life-changing recovery," he added.

Zoey O'Toole, co-editor of "**Turtles All the Way Down**: Vaccine Science and Myth," told The Defender the study is "confirmation of everything that we've come to know for the past decade," including that **recovery can happen**.

She said the evidence showing some measure of recovery by using a wide variety of interventions to decrease a child's total **toxic exposures** and increase positive exposures has often been "anecdotal."

The mainstream medical establishment often therefore dismissed the evidence, even though a lot of parents have long had positive results with their children using interventions similar to those profiled in the study.

"One of the great things about this study — and this is what I think its contribution really is — is that it's really well-documented," O'Toole said. "They had verified diagnoses, well-documented interventions and evidence of recovery.

"Now these parents have their interventions on the record," she said, "and they worked."

Environmental causes of autism: total allostatic load

One in 36 (2.8%) 8-year-old children — 4% of boys and 1% of girls — received an autism diagnosis in 2020, according to the Centers for Disease Control and Prevention (CDC).

Since the CDC started collecting the data in 2000, prevalence estimates have skyrocketed from 1 in 150, continuing an existing trend. **Autism prevalence** in the 1990s, which was 1 in 1,000 children, represented a **tenfold increase** over the condition's estimated **prevalence in the 1970s**.

Yet the CDC and **mainstream media** argue that the dramatic increase in autism diagnoses simply reflects improved screening and awareness, not an actual increase in prevalence.

Critics who have slammed these claims as "**ludicrous**" say the improved screening and awareness argument is a justification to avoid investigating autism's root causes which likely are tied to a wide range of **environmental risk factors**.

Instead, **so-called "autism experts"** for decades insisted autism is almost entirely a genetic disease. However, despite massive amounts of research and funding dedicated to genetics-only research, no one has ever identified any evidence showing an "**autism gene**," according to researcher and **Age of Autism** editor-at-large, **Mark Blaxill**.

Autism researcher James Lyons-Weiler, Ph.D., who did not participate in the study, told The Defender that parents of children with autism have long known that many children with an autism diagnosis suffer from a **detoxification deficiency** that is related to the severity of their symptoms.

"Our research showed that different genes may be responsible for various detox deficiencies made worse by environmental exposures," he said. "Our kids — all kids — can only handle so many and a limited amount of environmental toxins."

In other words, genes play a role in how well the body can detoxify, but genetics are not the sole or even primary cause. That's because genes themselves are influenced and modified by the environment, according to **Beth Lambert**, author of "**A Compromised Generation**: The Epidemic of Chronic Illness in America's Children," and one of the study authors.

There is substantial peer-reviewed evidence showing that modifiable environmental and lifestyle risk factors are linked to autism, including exposure to **environmental toxins**, **poor diet**, disruption of the **gut microbiota**, excessive exposure to non-native **electromagnetic fields**, **industrial chemicals** and accumulation of heavy metals, according to the study.

Given the limited available pharmacological treatments approved by the U.S. Food and Drug Administration, many non-pharmacological approaches have been developed that take into account the "**total allostatic load**," or the total amount of stressors linked to chronic conditions like autism.

These approaches are based on the idea "that chronic exposure to physical, mental, or environmental stressors leads to the persistent release of primary mediators (e.g., inflammatory cytokines, cortisol) that disrupt physiological function and can lead to chronic disease," the study said.

Non-pharmacological approaches can include dietary changes, targeted supplements, reduced exposure to artificial light and improved indoor air quality, among others.

O'Toole said the total load approach has powerful effects. She added that it has to be personalized because autism is a behavioral syndrome linked to different genetic predispositions and environmental exposures.

That means results can't be measured in randomized placebo-controlled trials that give every individual the same intervention.

Many of these interventions have shown promising results. However, the reversal of ASD diagnosis described in this case study is relatively rare, the authors noted.

The twins' symptoms and treatments

The two girls, fraternal twins who were conceived in vitro and carried by a surrogate mother, were born prematurely through a cesarean section. Both experienced some possible autism symptoms in their first year. However, they met developmental milestones.

During their second year, they exhibited symptoms such as language delay. One twin showed a lack of eye contact and muscle weakness and the other showed repetitive behavior, among other issues.

In March 2021, the twins received a series of "catch up" vaccines that had been delayed due to the **COVID-19** pandemic measures. The parents noticed the girls experienced a worsening of symptoms following their shots, including significant language loss for one twin.

In September 2021, at approximately 20 months of age, both girls were diagnosed with ASD with Level 3 severity "requiring very substantial support."

One girl had no language or imaginative play and exhibited repetitive and restrictive behavior patterns. The other engaged in some play but was socially aloof and struggled to follow non-verbal commands.

Tests showed they each had various biomarkers of conditions associated with autism, such as mild gastrointestinal inflammation and high aluminum.

After consulting an **autism parent coach** and **doing their own research**, the parents decided to address the total allostatic load each girl was exposed to.

Working with the team at Documenting Hope — who collected the data, engaged with the clinicians and coaches, coordinated with the parents and wrote the study — they completed the organization's Child Health Inventory for Resilience and Prevention survey to determine allostatic load.

They also used resources from **Epidemic Answers**, which has developed a road map to address chronic health conditions like autism, and **Healing Together**, a parent forum.

They also began Applied Behavior Analysis and speech therapy alongside a rigorous diet and nutrition intervention that included a strictly gluten-free, casein-free diet that was low in sugar and had no exposure to artificial colors, dyes or ultra-processed foods.

Their food was largely organic, unprocessed and freshly prepared at home from local sources.

The twins each took several dietary supplements, tailored to each child based on labs and genomic information. A naturopathic doctor helped them identify appropriate DNA-targeted precision medicine and recommended a diet rich in tryptophan B vitamins and **folate**.

They were also fed foods high in **betaine** and **choline** and supplemented with lion's mane and mushrooms.

Each girl also had independent dietary needs.

An occupational therapist worked with the twins using neuro-sensory motor reflex integration to help regulate their nervous systems.

The parents tested their home for air quality, mold, moisture risk and other toxicants, which they addressed. One of the girls also received osteopathic care.

Their results on the ATEC test changed so dramatically during only seven months of the interventions that a pediatrician said the twin whose score went down to 4 had undergone "a kind of miracle."

Lyons-Weiler said the study provides "real hope for hundreds of thousands of families and millions with less severe ASD symptoms."

Blaxill said the story of recovery documented here was "wonderful," that biomedical approaches to treating autism are helpful and in this case, there was "a huge breakthrough."

He cautioned, however, that "full recovery is more the exception than the rule, but it can happen, does happen."

He said this approach can support a wide spectrum of recovery and he thought that "even if it helps a little bit, it's worth doing."

However, he said, it's not going to stop the **"tsunami" of future autism cases** and costs. For that, many have argued, laws and regulations have to change to keep toxicants out of children's bodies from the beginning.

Parents play critical role

In the paper, the researchers emphasized the parent-driven nature of the interventions.

"They're absolutely right," O'Toole said. "The parents and the parental attitude is really, really important. You're not going to get to recovery if the parents don't believe it can happen and aren't committed to doing what they can to enable it."

She said this is partly because the treatment has to be so individualized and some elements of the treatment are quite subtle and rely on parental intuition.

"One of the things that you hear from the mainstream is that you should just ignore your parental intuition and listen to your doctor," O'Toole said. But the reality is that parents are often the only ones who know what is going on with their child or who can make necessary

They added:

> "Most importantly, in our experience as parents has been the desire to create and maintain a profound and loving bond with each of our daughters — and to remain parents, not practitioners.
>
> "Through this approach, we have witnessed the radical recovery of one daughter — who presents today as a joyful, engaging, spirited, extremely bright 4-year-old.
>
> "We remain steadfast in our support for our other daughter whose progress has also consistently amazed us and has reminded us that recovery is possible at each person's individual pace."