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New Autism Statistics Are Out, and They're Shocking

Analysis by Dr. Joseph Mercola | December 19, 2024

STORY AT-A-GLANCE

- Recent data shows autism rates increased 26% from 2018 to 2020, with 1 in 30 children ages 3 to 17 diagnosed, and higher prevalence among Black, Hispanic and Asian children
- The economic burden of autism is staggering, with lifetime social costs per individual at $3.6 million and total U.S. costs projected to reach $5.54 trillion or more by 2060
- Research links high levels of linoleic acid metabolites in cord blood to increased autism severity, raising concerns about processed foods and seed oils in modern diets
- Studies reveal that infant gut microbiome composition, particularly decreased beneficial bacteria like Akkermansia and Coprococcus, correlates with later autism development
- EMF exposure from devices may contribute to autism through disruption of voltage-gated calcium channels in the brain; practical steps help reduce exposure

Autism spectrum disorder (ASD) has surged in children in recent years, even among those who are just 4 years old. According to data from the Autism and Developmental Disabilities Monitoring (ADDM) Network, the overall prevalence of ASD in 2020 was 21.5 per 1,000 children aged 4.[1] This marks a 26% increase from 2018, when the prevalence was 17 per 1,000.

The numbers are not uniform across all regions, with California reporting the highest rate at 46.4 per 1,000, while Utah saw the lowest at 12.7 per 1,000. Stark gender and racial disparities also exist in ASD diagnoses.

Boys are diagnosed with autism more frequently than girls, with a prevalence of 32.3 per 1,000 compared to 10.4 per 1,000 for girls, whose ASD symptoms often differ from their male counterparts. Overall, however, in 2020, 1 in 30, or 3.49%, of children ages 3 to 17 were diagnosed with autism[2] — that's about 33 per 1,000 individuals.

Shifting Demographics: Autism Rates Higher in Certain Groups

Recent data reveals a significant shift in autism prevalence among different racial and ethnic groups. For the first time, the ADDM Network reported that White children aged 8 years have a lower prevalence of autism compared to their Black, Hispanic and Asian or Pacific Islander peers.[3]

Specifically, the prevalence was 24.3 per 1,000 among White children, while it was 29.3 among Black children, 31.6 among Hispanic children and 33.4 among Asian or Pacific Islander children.

Another compelling aspect of the latest autism statistics is the nuanced relationship between socioeconomic status (SES) and autism prevalence. Unlike earlier years, where higher SES was strongly associated with increased autism diagnoses, the 2020 data shows a more complex picture.

In three out of the 11 ADDM Network sites — Arizona, New Jersey and Utah — children from lower-income households exhibited higher autism prevalence. When data from all sites were combined, there was a noticeable trend of lower autism prevalence in higher SES census tracts. However, the differences across low, medium and high SES groups were relatively modest, ranging between 23 to 27.2 per 1,000 children.

Understanding when children are diagnosed with autism is important for ensuring they receive timely interventions. The 2020 ADDM Network data provides valuable insights into the age at which children receive their first autism diagnosis. The median age of earliest known autism diagnosis was 49 months, with significant variations across states — from as early as 36 months in California to as late as 59 months in Minnesota.[4]

Additionally, children diagnosed with ASD who also have an intellectual disability tend to receive their diagnoses earlier, with a median age of 43 months compared to 53 months for those without an intellectual disability.

The Economic Burden of Autism

Research estimates that each individual with autism incurs a lifetime social cost of approximately $3.6 million.[5] When you consider the entire population of individuals diagnosed with autism from 1990 to 2019, the total social costs in the U.S. have surpassed a staggering $7 trillion. This figure is equivalent to about two years of total federal revenue, highlighting the immense economic impact of autism.

A different model takes into account the actual rise in autism diagnoses over time, revealing another staggering figure.[6] It looks at different age groups, inflation and future predictions of autism rates to forecast costs. According to this model, the annual cost of autism in the U.S. was around $223 billion in 2020.

This cost is expected to jump to about $589 billion by 2030, reach $1.36 trillion by 2040, and could hit between $4.29 and $6.78 trillion — estimated to be $5.54 trillion — by 2060.[7]

Looking ahead, the financial strain of autism may escalate even more dramatically. If the prevalence of autism remains constant over the next decade, a study published in Research in Autism Spectrum Disorders found the lifetime social costs in the U.S. are projected to increase to $11.5 trillion by 2029.[8]

However, if the current trend of rising prevalence continues, these costs could soar to nearly $15 trillion within the same period. This projection represents an unprecedented economic challenge on top of the public health ramifications.

Unveiling the Biological Underpinnings of Autism

Intricate biological mechanisms contribute to autism. A study published in Psychiatry and Clinical Neurosciences, for instance, explored the role of lipid metabolism, specifically focusing on arachidonic acid-derived dihydroxy fatty acids (diHETrE) in neonatal cord blood.[9] diHETrE is a metabolite of arachidonic acid (derived from **linoleic acid** (LA)).

The study found that higher levels of certain diHETrE metabolites are significantly associated with increased severity of autism symptoms and impairments in social adaptive functioning at age 6.

These findings suggest that the metabolic processes involving polyunsaturated fatty acids (PUFAs) during the fetal period play a role in the developmental trajectory of children with autism. In short, PUFAs like linoleic acid are precursors to proinflammatory metabolites like diHETrE, which the Psychiatry and Clinical Neurosciences study associates with increased autism symptom severity.[10]

LA is abundant in modern diets, particularly in processed, restaurant and fast foods, leading to higher consumption levels compared to historical norms. The metabolism of LA through the cytochrome P450 (CYP) pathway produces diHETrE metabolites, raising concerns about the widespread availability and consumption of LA in contemporary diets.

Re-evaluating the sources of fats in your diet, **opting for healthier alternatives** like saturated fats, is an important choice to protect brain health, including during pregnancy. Reducing linoleic acid consumption might not only help lower the inflammatory markers associated with autism but also promote overall brain health and development.

Your Infant's Gut Microbiome and Autism Risk

The foundation of your child's neurological development might, in fact, be set within the first year of life. Recent research tracking 16,440 Swedish children for two decades

uncovered a significant link between the gut microbiome of infants and the later development of autism.[11]

The study found that certain beneficial bacteria, such as Akkermansia muciniphila and Coprococcus, were notably less abundant in infants who later received an autism diagnosis. These bacteria play a role in maintaining gut barrier integrity and modulating the immune system, which are essential for healthy brain development.

A child's early years are a key period for gut health, and common childhood infections and antibiotic treatments might have long-lasting effects on their microbiome and neurodevelopment. The study revealed that frequent infections, particularly ear infections (otitis), and repeated antibiotic use during infancy were strongly associated with a higher likelihood of developing autism and other neurodevelopmental disorders.[12]

Antibiotics disrupt the delicate balance of gut bacteria, reducing beneficial microbes like Coprococcus and increasing harmful ones like Citrobacter. This imbalance, or dysbiosis, leads to immune dysregulation and inflammation, which are linked to impaired brain development and function.

Beyond the microbial landscape, the study uncovered significant metabolic differences in infants who later developed autism. Higher concentrations of environmental toxins such as perfluorodecanoic acid (PFDA) "**forever chemicals**" in cord serum were strongly linked to autism risk. PFDA disrupts immune responses and promotes chronic inflammation, further impacting brain health.

Additionally, metabolomic profiles in stool samples revealed disruptions in amino acids and vitamins crucial for neurotransmitter synthesis and antioxidant defense. It's rarely just one factor that triggers a neurodevelopmental disorder or other chronic disease. Typically, it's a combination of factors — like processed food loaded with LA, childhood vaccines, antibiotic overuse and environmental pollutants — that causes gut dysfunction and other imbalances in the body.

Understanding EMFs and Their Impact on Brain Health

Electromagnetic fields (EMFs) have been likened to the cigarettes of the modern era, with the majority of individuals exposed to them around the clock. Key sources of this pervasive radiation include cellphones, cell towers, computers, smart meters and Wi-Fi devices, among others.

Exposure to EMFs is linked to significant mitochondrial dysfunction caused by free radical damage. Chronic exposure to EMFs leads to serious brain-related conditions such as Alzheimer's disease, anxiety, depression and autism.[13]

A study published in Pathophysiology indicates that autism may be connected to biological disruptions similar to those caused by EMF and radiofrequency exposures.[14] Additionally, Dr. Martin Pall discovered a novel mechanism of harm from microwaves emitted by cellphones and other wireless technologies. This harm occurs through voltage-gated calcium channels (VGCCs) located in your cell membranes.[15]

VGCCs are highly concentrated in the brain, and animal studies have demonstrated that even low levels of microwave EMFs produce significant and diverse effects on brain function. When EMFs activate these VGCCs, it results in a variety of neuropsychiatric issues.

To date, at least 26 studies have associated EMFs with neuropsychiatric effects, and five specific criteria have been established to confirm a causal relationship, indicating that EMFs can indeed cause these adverse effects.[16]

In another study, published in Brain Sciences, Pall highlights how VGCCs in your body's cells lead to excessive intracellular calcium levels.[17] This calcium overload disrupts processes involved in brain development, particularly during the perinatal period when synaptogenesis — the formation of synapses — is at its peak.

Synaptogenesis is essential for establishing the intricate networks that underlie social interactions, communication and behavior. When EMFs interfere with this process by overactivating VGCCs, it leads to the synaptic dysfunctions observed in autism spectrum disorders.

Compelling Evidence — How EMFs Contribute to Autism

The evidence linking EMF exposure to autism is both extensive and compelling. Genetic studies have shown that mutations increasing VGCC activity are directly associated with higher autism rates, underscoring the significance of calcium regulation in autism causation.[18]

Animal studies further reinforce this connection, where prenatal EMF exposure in rodents led to autism-like behaviors and significant changes in brain structure and function. For instance, rats exposed to EMFs exhibited impaired social interactions and elevated oxidative stress, mirroring the biochemical and behavioral traits seen in human autism patients.[19]

Additionally, epidemiological research, though limited, has identified correlations between high-EMF environments — such as areas near military radar stations or where pregnant women had elevated EMF exposures — and increased autism prevalence.[20] These findings collectively suggest that EMFs are not just a coincidental factor but a driver of the autism epidemic.

While completely avoiding EMF exposure is nearly impossible, there are practical methods to minimize it. Given the constant barrage of EMFs in daily life, educating yourself about their negative impacts is imperative for your health. This is especially important if you are managing a serious illness or a neurodevelopmental disorder like autism. Taking steps to **reduce your EMF exposure** will significantly benefit your well-being.

One effective strategy is to connect your desktop computer to the internet using a wired connection and activate airplane mode on both your desktop and cellphone. Additionally, steer clear of wireless peripherals such as keyboards, trackballs, mice, game systems, printers and landline phones. Instead, opt for their wired counterparts.

If you need to use Wi-Fi, remember to turn it off when it's not in use, particularly at night while you sleep. Turning off the electricity in your bedroom during nighttime also helps decrease your overall EMF exposure.

Taking Action for a Healthier Future

The rising prevalence of autism, coupled with the significant economic and emotional burdens it imposes, underscores the urgency of addressing the root causes of this condition. Prioritizing gut health through a balanced diet rich in beneficial bacteria and minimizing exposure to harmful substances like EMFs and excessive linoleic acid, are necessary first steps.

Moreover, understanding the profound impact of environmental factors and genetic predispositions empowers you to create a safer, more supportive environment. Simple changes, such as opting for wired connections over wireless devices and choosing healthier fat sources, may significantly reduce the risk of developing neurodevelopmental disorders.

Additionally, advocating for cleaner environments and supporting policies that limit harmful exposures contribute to broader societal changes that benefit all children. Remember, early intervention and informed choices are your best tools in combating the rising tide of autism. By staying informed, making conscious lifestyle adjustments and fostering a nurturing environment, you take steps toward ensuring a healthier, brighter future for children.

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