

POSITION STATEMENT

Autism Spectrum Disorder, paracetamol (acetaminophen) and vaccines

Rebuttal of false claims

As a member organisation of over 900 doctors with a clinical or academic interest in developmental paediatrics, including autism spectrum disorder, the ASDP (Australian Society for Developmental Paediatrics) joins reputable clinical and scientific experts worldwide in rejecting the claims of the US Government and President Trump regarding the causes of autism and ADHD, in particular, the association with paracetamol (acetaminophen) use during pregnancy.

Autism is a complex neurodevelopmental condition diagnosed when individuals have differences in social communication and restricted interests and repetitive behaviours. The increased number of diagnoses is primarily due to the expanded definition of autism as a spectrum disorder in 1994 and again in 2013. This should not be characterised as an 'epidemic'.

Whilst the causes of autism are not fully understood, evidence shows that it is caused by a combination of genetic (or inherited) factors and environmental factors. Linking autism to one cause is not supported by the evidence and is oversimplification of a complex neurotype.

The evidence

Robust scientific evidence shows **no link** between paracetamol use during pregnancy and increased risk of autism or ADHD. The most recent and robust study to investigate this association was published in 2024 by Ahlqvist et alⁱ. This was a large study of 2.5 million Swedish children, which found that, when controlling for important factors such as parent neurodivergent diagnoses and sibling relationships, there was **no association between paracetamol exposure and autism or ADHD in the child**.

In addition, there is **no scientific evidence of any causal link between vaccinations and autism**. ASDP recommends that children should receive vaccination according to the standard schedule. The now disproven claims of a causal link between vaccines and autism were based on a 1998 study by Dr Andrew Wakefieldⁱⁱ, who was later stripped of his medical license when the research was found to be fraudulentⁱⁱⁱ. Large population-based studies show **no link** between vaccines and autism^{iv}.

Leucovorin is a form of folinic acid currently used to reduce the side effects of some forms of chemotherapy. There have been some very small studies looking at Leucovorin as a possible treatment for some of the symptoms of autism^v, however, more research is needed, with larger sample sizes and robust examination, before we can be clear about any role for this drug as a treatment.

ASDP position

ASDP endorses the RANZCOG position^{vi} that paracetamol use during pregnancy does not increase the chance of neurodivergence in the offspring. Therefore, it should be considered safe to use in pregnant where there is a clear reason to do so, including management of fever.

In addition, the statements made by President Trump do not align with current approaches to neurodivergence. Autism is not considered a medical disease to be cured or prevented, but a different neurotype as distinct from the typical or most common neurotype, to be supported in a neuro-affirming model of care.

References

- ⁱ Ahlqvist VH et al. Acetaminophen use during pregnancy and children's risk of autism, ADHD and intellectual disability. JAMA 2024;331 (14):1205-1214
- ⁱⁱ Wakefield AJ, Murch SH, Anthony A, Linnell J, Casson DM, Malik M, Berelowitz M, Dhillon AP, Thomson MA, Harvey P, Valentine A, Davies SE, Walker-Smith JA. Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. Lancet 1998; 351(9103): 637-41.
- ⁱⁱⁱ Retraction—Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. Lancet 2010; 375(9713): 445.
- ^{iv} Madsen KM, Hviid A, Vestergaard M, Schendel D, Wohlfahrt J, Thorsen P, Olsen J, Melbye M. A population-based study of measles, mumps, and rubella vaccination and autism. N Engl J Med. 2002 Nov 7;347(19):1477-82. doi: 10.1056/NEJMoa021134. PMID: 12421889.
- ^v Rossignol, D.A.; Frye, R.E. Cerebral Folate Deficiency, Folate Receptor Alpha Autoantibodies and Leucovorin (Folinic Acid) Treatment in Autism Spectrum Disorders: A Systematic Review and Meta-Analysis.
- ^{vi} <https://ranzcog.edu.au/news/paracetamol-use-in-pregnancy/>