



SASOG, SOOMSA and SASUOG Joint Position Statement on Paracetamol Use in Pregnancy and Autism Spectrum Disorder

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Recent statements and media reports have suggested a link between paracetamol (acetaminophen) use during pregnancy and autism spectrum disorder (ASD). These claims have understandably caused concern among pregnant women, their families, and health care providers.

The South African Society of Obstetricians and Gynaecologists (SASOG), the Society of Obstetric Medicine South Africa (SOOMSA), and the South African Society for Ultrasound in Obstetrics and Gynaecology (SASUOG) have carefully reviewed the available evidence, drawing on large cohort studies, systematic reviews, sibling-controlled analyses, and authoritative international assessments. In agreement with position statements from several international bodies, we confirm that there is no evidence that taking paracetamol in pregnancy at recommended therapeutic doses causes autism in children.

While some early observational studies suggested a small association between prenatal paracetamol exposure and ASD, these analyses were particularly vulnerable to confounding by genetic, familial, and environmental factors, and in many cases relied on self-reported exposure data of limited reliability. By contrast, more robust study designs, especially sibling-control analyses, show no increased risk of ASD. A large Swedish population-based study, for example, demonstrated that when shared familial factors were accounted for, the association between paracetamol use and ASD disappeared.

Comprehensive systematic reviews and meta-analyses confirm this conclusion: once unmeasured confounding is considered, there is no meaningful increase in ASD risk. Together, the evidence strongly suggests that earlier reported associations were explained by confounding rather than a causal effect of paracetamol.

It is equally important to consider the consequences of leaving maternal symptoms untreated. Fever in pregnancy is not benign; it has been associated with miscarriage, congenital malformations including neural tube defects and cardiac defects, preterm delivery and intrauterine fetal demise. Similarly, severe or persistent pain, if not treated, can have a significant impact on maternal mental health, with clear consequences for both mother and fetus.

Against this backdrop, paracetamol remains the safest and most effective first-line treatment for pain and fever in pregnancy, as no alternative agent has a superior safety profile. At standard therapeutic doses (500–1000 mg up to four times daily, to a maximum of 4 g in 24 hours), paracetamol is not associated with an increased risk of adverse pregnancy or child health outcomes.

In light of this evidence, we firmly state that there is no reliable evidence that paracetamol use in pregnancy causes ASD. Apparent associations are explained by confounding, not causation. Clinical practice should not change. Paracetamol remains an essential, safe, and effective treatment for fever and pain in pregnancy, and pregnant women should not be denied appropriate care because of unsubstantiated claims.

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References

1. Ahlqvist VH, Sjöqvist H, Dalman C, et al. Acetaminophen Use During Pregnancy and Children's Risk of Autism, ADHD, and Intellectual Disability. *JAMA*. 2024;331(14):1205-1214. doi:10.1001/jama.2024.3172.
2. Damkier P, Gram EB, Ceulemans M, et al. Acetaminophen in Pregnancy and Attention-Deficit and Hyperactivity Disorder and Autism Spectrum Disorder. *Obstetrics and Gynecology*. 2025;145(2):168-176. doi:10.1097/AOG.0000000000005802.
3. Kwok J, Luedecke E, Hall HA, Murray AL, Auyeung B. Analgesic Drug Use in Pregnancy and Neurodevelopment Outcomes: An Umbrella Review. *Neuroscience and Biobehavioral Reviews*. 2022;136:104607. doi:10.1016/j.neubiorev.2022.104607.
4. Bühner C, Endesfelder S, Scheuer T, Schmitz T. Paracetamol (Acetaminophen) and the Developing Brain. *International Journal of Molecular Sciences*. 2021;22(20):11156. doi:10.3390/ijms222011156.
5. Worringer E, Rowland K. Acetaminophen Use During Pregnancy Was Not Linked to Autism, ADHD, or Intellectual Disability in Offspring. *Annals of Internal Medicine*. 2024;177(8):JC95. doi:10.7326/ANNALS-24-00960-JC.
6. Ji Y, Azuine RE, Zhang Y, et al. Association of Cord Plasma Biomarkers of In Utero Acetaminophen Exposure With Risk of Attention-Deficit/Hyperactivity Disorder and Autism Spectrum Disorder in Childhood. *JAMA Psychiatry*. 2020;77(2):180-189. doi:10.1001/jamapsychiatry.2019.3259. *Leading Journal*