

Magnesium before premature birth at 30 to 34 weeks has limited benefit: Study

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Intravenous magnesium sulfate before preterm birth at 30 to 34 weeks of

gestation does not improve child survival free of cerebral palsy, according to a study published in the Aug. 15 issue of the *Journal of the American Medical Association (JAMA)*.

Caroline A. Crowther, M.D., from the University of Auckland in New Zealand, and colleagues conducted a [randomized clinical trial](#) involving pregnant individuals expected to deliver at 30 to 34 weeks of gestation at 24 Australian and New Zealand hospitals during January 2012 and April 2018; pregnant individuals were randomly assigned to intravenous magnesium sulfate (4 g) or placebo at 30 to 34 weeks of gestation. Data were included for 1,433 pregnant individuals and their 1,679 infants. Death (stillbirth or death after hospital discharge before 2 years' corrected age) or [cerebral palsy](#) at 2 years' corrected age comprised the primary outcome. The final analysis included 1,365 offspring (691 in the magnesium group and 674 in the placebo group).

The researchers found no significant difference between death or cerebral palsy at 2 years' corrected age between the groups (3.3 and 2.7 percent for the magnesium and placebo groups, respectively). There was no difference seen between the groups in components of the primary outcome. Compared with the placebo group, neonates in the magnesium group were less likely to have [respiratory distress syndrome](#) and chronic lung disease during the birth hospitalization (adjusted relative risks, 0.85 and 0.69, respectively). There were no serious adverse events reported; adverse events were more likely in those who received magnesium (adjusted relative risk, 3.76).

"Given a lack of benefit in this current cohort of infants, care must be taken to avoid therapeutic creep and the potential for unintended harm," the authors write.

More information: Caroline A. Crowther et al, Prenatal Intravenous Magnesium at 30-34 Weeks' Gestation and Neurodevelopmental

Outcomes in Offspring, *JAMA* (2023). [DOI: 10.1001/jama.2023.12357](https://doi.org/10.1001/jama.2023.12357)

Judette Marie Louis et al, Intrapartum Magnesium for Neuroprotection, *JAMA* (2023). [DOI: 10.1001/jama.2023.10673](https://doi.org/10.1001/jama.2023.10673)

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