

# Late-onset meningitis identified in 1 percent of extreme preemies

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One percent of children born extremely preterm have late-onset

meningitis (LOM), which is associated with an increased risk for death or neurodevelopmental impairment (NDI), according to a study published online Dec. 8 in *JAMA Network Open*.

Jane E. Brumbaugh, M.D., from the Mayo Clinic in Rochester, Minnesota, and colleagues reported the incidence of LOM during birth hospitalization and neurodevelopmental outcomes at 18 to 26 months of corrected age in 13,372 children born extremely preterm at 22 to 26 weeks of gestation between 2003 and 2017.

The researchers found that 1, 34, and 65 percent of [infants](#) had LOM, late-onset sepsis (LOS) without LOM, and neither LOS nor LOM, respectively. There was a decrease noted in the observed incidence of LOM, from 2 percent in 2003 to 0.4 percent in 2017. The performance of lumbar puncture (LP) in LOS evaluations decreased from 36 to 24 percent from 2011 to 2017. LP performance decreased from 58 to 45 percent among infants with culture-confirmed LOS.

Among all LOS evaluations and those with culture-confirmed LOS, LP performance varied by center (10 to 59 percent and 23 to 79 percent, respectively). In 16 percent of cases, LOM occurred in the absence of concurrent LOS. Among children with LOM and those with LOS without LOM, the adjusted relative risk for [death](#) or NDI was increased (adjusted odds ratios, 1.53 and 1.41, respectively) compared with [children](#) with neither infection.

"LOM may be an underrecognized contributor to NDI among extremely [preterm](#) infants," the authors write.

One author disclosed financial ties to Provepharm and Tellus Therapeutics.

**More information:** Jane E. Brumbaugh et al, Incidence of and

Neurodevelopmental Outcomes After Late-Onset Meningitis Among Children Born Extremely Preterm, *JAMA Network Open* (2022). DOI: [10.1001/jamanetworkopen.2022.45826](https://doi.org/10.1001/jamanetworkopen.2022.45826)

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