

Cervical component protects against infection and preterm birth in mice

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Preterm birth is the leading cause of newborn deaths worldwide. Maternal infection is one known cause of preterm birth; however, preventative antibiotic treatment has not lowered preterm birth rates. The cervix provides structural support and serves as a barrier for infection during pregnancy and undergoes dramatic remodeling during the birth process. The extracellular matrix component hyaluronan (HA) is increased in the cervix throughout pregnancy and has been thought to contribute to cervical elasticity during birth.

A new study in the *Journal of Clinical Investigation* demonstrates that HA is not required for the cervix to open during birth, but provides protection against infection. Mala Mahendroo and colleagues at the University of Texas Southwestern Medical Center developed mice unable to produce HA in the [cervix](#) or vagina. Compared to control animals, mice lacking cervical HA had abnormal cervical structure and higher preterm birth rates in response to infection. In the absence of infection, the lack of HA did not affect the birth process or increase preterm birth rates.

The results of this study suggest that HA levels may be indicative of susceptibility to infection and subsequent [preterm birth](#).

More information: Hyaluronan in cervical epithelia protects against infection-mediated preterm birth, *J Clin Invest.* [DOI: 10.1172/JCI78765](https://doi.org/10.1172/JCI78765)

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