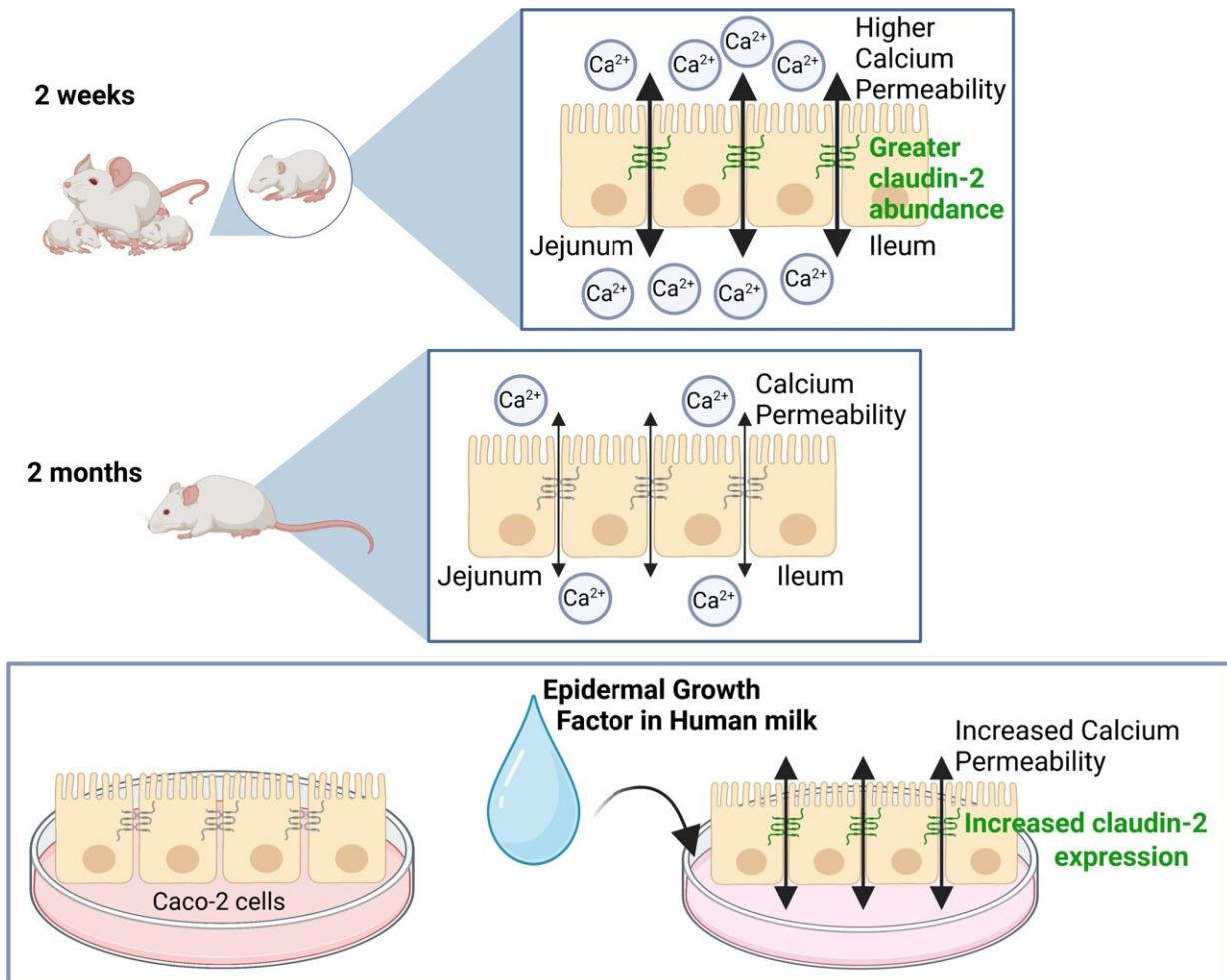


Key protein helps infant mice absorb more calcium from breast milk

July 25 2023



Credit: *Function* (2023). DOI: 10.1093/function/zqad033

A key protein known as claudin-2, which lines the intestinal epithelial cells of infant mice, helps them absorb more calcium from breast milk, according to a new study published in the journal *Function* titled "Maternal epidermal growth factor promotes neonatal claudin-2 dependent increases in small intestinal calcium permeability."

Researchers from the University of Alberta in Canada also discovered a hormone in [breast milk](#)—called [epidermal growth factor](#)—causes the intestine to produce more claudin-2. As a result, epidermal growth factor in breast milk enhances calcium absorption in young mice.

Infants and children need to absorb minerals such as calcium from their diet to build strong bones during growth and development. Babies born prematurely are at risk of low bone mineralization.

"This study provides key knowledge of how infants meet their high calcium requirements to enable growth, and how a factor in breast milk helps increase calcium absorption," said R. Todd Alexander, Ph.D., the first author of the study.

"These findings contribute a molecular understanding that could be potentially manipulated to improve bone health."

More information: Megan R Beggs et al, Maternal Epidermal Growth Factor Promotes Neonatal Claudin-2 Dependent Increases in Small Intestinal Calcium Permeability, *Function* (2023). [DOI: 10.1093/function/zqad033](#)

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