

# Health News: News

## Suckling Infant Triggers 'Trust' Hormone in Moms

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FRIDAY, July 18 (HealthDay News) -- How do infants and mothers bond, biologically speaking?

Researchers have discovered that babies nursing at their mother's breast set off a cascade of events leading to release of oxytocin, known as the "trust" hormone in their mother's brains.

Recent research has found oxytocin to be involved in trust and love in both humans and animals. It is also causes the release of milk from the mammary gland.

Researchers from the University of Warwick, in collaboration with other universities and institutes in Edinburgh, France and Italy, now seem to have pinpointed the actual mechanism by which suckling triggers the release of oxytocin.

Neurons start releasing oxytocin from their dendrites (the arms that extend outward from the nerve cell that transport messages to and from other nerve cells) and from their nerve endings when a baby suckles.

Dendrites had been thought to receive more than transmit information, but now it appears that the release of oxytocin from the dendrites increases intra-neuron communication. That leads to more oxytocin being produced, which facilitates the process of mother-child bonding.

"We knew that these pulses arise because, during suckling, oxytocin neurons fire together in dramatic synchronized bursts. But exactly how these bursts arise has been a major problem that has until now eluded explanation. This research has allowed us to incorporate all the latest research in a large computational model of the whole population of oxytocin cells," study co-author Jianfeng Feng, a computational biology researcher at the University of Warwick, said in a university news release.

"In this model, we have shown that the dendritic interactions are enhanced enough to trigger a massive positive-feedback on activity," he continued. "The model gives us a possible explanation of an important event in the brain that could be used to study and explain many other similar brain activities."

The findings are published in the July 18 issue of *PLoS Computational Biology*.

### More information

Visit [womenshealth.gov](http://womenshealth.gov) for more on breast-feeding.