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Maternal holding with glucose or breastfeeding best analgesic

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(HealthDay)—Maternal holding of newborns, combined with oral

glucose and in breastfeeding, is associated with the greatest analgesic effect in infants, according to a study published in the September issue of *Pediatrics*.

Stefano Bembich, Ph.D., from the Institute for Maternal and Child Health in Italy, and colleagues randomly assigned 80 healthy term newborns undergoing a heel stick to four parallel groups of 20 infants each: group 1, in which infants received a glucose solution on a changing table; group 2, in which infants were given expressed breast milk on a changing table; group 3, in which infants were given a glucose solution in their mothers' arms; and group 4, in which mothers breastfed the infants. Multichannel near-infrared spectroscopy assessed cortical activation in parietal, temporal, and frontal cortices.

The researchers found that oral glucose alone or combined with maternal holding was associated with no cortical activation during heel stick. Localized bilateral activation of somatosensory and motor cortices was associated with expressed breast milk, whereas breastfeeding was associated with extensive bilateral activation of somatomotor, somatosensory, and right parietal cortices. With the maternal-infant relationship, pain expression was lower.

"Maternal relationship, both combined with oral glucose and in breastfeeding, shows the greatest analgesic effect, although the neural patterns involved are distributed differently," conclude the authors.

More information: Abstract/Full Text (subscription or payment may be required)

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