

Researchers examine the importance of a mother's soothing touch

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Mothers who stroke their newborn infants in the first few weeks of their life could change the effects that stress during gestation has on early-life development, new research from the United Kingdom shows. Increasing maternal depression has been linked with decreasing physiological adaptability and with increasing negative emotionality when mothers do

not stroke their babies enough. The study, recently presented in the journal *PLOS ONE*, could help increase our understanding of this issue and in turn provide better information services for pregnant women and their partners.

Past studies have found that the stress incurred during pregnancy can trigger both emotional and behavioural problems in children for extensive periods of time. In this latest study, researchers from the Universities of Liverpool and Manchester, and Kings College London in the United Kingdom examined mothers and infants who took part in the Wirral [Child Health](#) & Development Study to determine a mother's capacity to alter stress effects after birth.

Stress in pregnancy can affect an infant in later life by reducing the activity of genes that influence stress response. Research has shown that prenatal stress can elicit either positive or negative responses, depending on the environment a child faces. A number of children have a tendency to become susceptible to high levels of fear or anger.

'Negative emotionality is a core component of infant temperament comprising anger proneness to constraints such as being placed in a car seat and fearfulness to unfamiliar events such as the approach of strangers,' the authors wrote. 'Elevated anger proneness is associated with conduct disorders and fearfulness with anxiety disorders later in childhood.'

They found that links between symptoms of depression in pregnancy and subsequent infant emotions of fear and anger, as well as heart rate response to stress at seven months of age changed by how often a mother stroked her baby on the head, back, legs and arms in the early weeks of life. Stroking therefore may alter gene activity.

'We are currently following up on the Wirral children in our study to see

if reports of early stroking by their mothers continue to make a difference to developmental outcomes over time,' said Dr Helen Sharp from the Institute of Psychology, Health and Society at the University of Liverpool. 'The eventual aim is to find out whether we should recommend that mothers who have been stressed during pregnancy should be encouraged to stroke their babies early in life.

More information: Sharp, H., et al., 'Frequency of Infant Stroking Reported by Mothers Moderates the Effect of Prenatal Depression on Infant Behavioural and Physiological Outcomes', *PLOS ONE*, 2012, 7(10), e45446. [doi:10.1371/journal.pone.0045446](https://doi.org/10.1371/journal.pone.0045446).
www.plosone.org/home.action;jsessionid=743FC61F437E3555B3AF

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