

# Mother's touch could change effects of prenatal stress

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Scientists at the Universities of Liverpool, Manchester, and Kings College, London, have found that mothers who stroke their baby's body in the first few weeks after birth may change the effects that stress during pregnancy can have on an infant's early-life development.

Researchers world-wide have been studying whether stress in pregnancy can lead to emotional and behavioural problems in children for many years. Attention is now moving towards how parents might alter these effects after birth. Researchers are aiming to improve understanding of the issues to help enhance information services for [pregnant women](#) and their partners.

Scientists believe that stress in pregnancy can have an effect on an infant in later life by reducing the activity of [genes](#) that play a role in [stress response](#). Studies of early care-giving in rats have found that high levels of mothers' licking and grooming their pups soon after birth can increase the activity of these genes and may reverse the effects of prenatal stress on their [offspring](#).

Some studies suggest that impacts of prenatal stress on an infant's development can be either positive or negative depending on the type of environment a child encounters. It is thought that some children may experience the effects through being more prone to high levels of fear or anger.

The team at Liverpool, Manchester and London followed first-time mothers from pregnancy through to the first years of their children's lives as part of Medical Research Council (MRC) funded research, The Wirral [Child Health](#) and Development Study.

It showed 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 their baby on the head, back, legs and arms in the early

weeks of life. The results suggest that stroking may alter [gene activity](#) in a similar way to that reported in animals.

Dr Helen Sharp, from the University of Liverpool's Institute of Psychology, Health and Society, explains: "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.

"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."

The study is published in the journal *PLOS ONE*.

Provided by University of Liverpool

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