

## Is this picture proof that unborn babies feel mother's stress?

<http://www.dailymail.co.uk/health/article-2646530/Is-proof-unborn-babies-feel-mothers-stress-With-tiny-hand-pulled-chin-incredible-image-appears-baby-womb-thats-ANXIOUS.html>

- **Researchers used a special 4D scanner to create the stunning 3D images**
- **Stressed mothers caused their babies to touch their face more often**
- **This is the first photographic evidence that babies in the womb feel stress**

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It ought to be the most tranquil of sights – the face of an unborn child in the womb.

But the tiny hand pulled up to the chin reveals that, upsettingly, this baby appears to be under stress.

The remarkable image was taken as part of a study showing unborn children touch their faces more often if



their mother has been anxious, helpless or under pressure. +3 Researchers have used a special 4D machine which stitches together images taken from many different angles to create a clear, three-dimensional image



The mothers-to-be were quizzed over their stress levels in the month leading up the scan

Researchers believe they are picking up on her anxieties – and then trying to soothe them away with the power of touch.

As adults, we do this by holding our head in our hands. But while we use both hands, babies of stressed-out mothers preferred the touch of just one.

Although previous studies have found babies pick up on stress in the womb, this is believed to be the first to offer photographic evidence.

Researcher Nadja Reissland from Durham University gave 15 mothers-to-be 4D ultrasound scans four times during their pregnancy.

Rather than the grainy, 'flat' images produced by the 2D scanners usually used by the NHS, a 4D machine stitches together pictures taken from a variety of angles to create clear three-dimensional pictures.

These are then recorded on video – the fourth dimension.

The mothers-to-be were quizzed on their levels of stress in the month leading up to each scan and the videos were analysed to see how often the unborn babies touched their faces. In total, the eight girls and seven boys did so 342 times.

The more anxious the woman was, the more the unborn child mopped its brow, the journal *Laterality: Asymmetries of Body, Brain and Cognition* reported. Dr Reissland believes that the babies were picking up on an increase in the stress hormone cortisol being produced by their mothers.

The study also found those whose mothers had been under pressure were more likely to use their left hand when touching their face.

This is significant because attention deficit hyperactivity disorder, autism, depression and schizophrenia all more common in people who are left-handed.

Dr Reissland said: 'Most mothers are fine and needn't worry but some will need to think about reducing their stress.'



Researchers found that babies whose mothers are under stress are more likely to use their left hand in the womb while touching their face (picture posed by model)