# BBC News

# Breastfed babies 'develop fewer behaviour problems'

10 May 2011

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**By Jane Hughes** Health correspondent, BBC News

Children who are breastfed for four months or more develop fewer behaviour problems, Oxford researchers say.

The study, involving 10,000 mothers and their babies and in journal Archives of Disease in Childhood, says that may be because of the make-up of breast milk.

Or, it says, breastfeeding may lead to better mother-baby interaction.

Breastfeeding is already associated with other health benefits for babies, including lower rates of infection and less obesity in later life.

Researchers looked at the feeding habits of 10,037 mothers and their babies involved in a large study known as the [**Millennium Cohort Study**](http://adc.bmj.com/content/early/2011/03/24/adc.2010.201970.full).

**Behaviour problems**

The mothers were asked to assess problems in their children by the age of five, including anxiousness and clinginess, restlessness, and lying or stealing.

Only 6% of children who were breastfed showed signs of behaviour problems, compared with 16% of children who were formula-fed.

Mothers who breastfeed tend to be older, better educated, and from a higher socio-economic background, which may contribute towards fewer problems in their children's behaviour.

But even after the researchers, from the Universities of Oxford, Essex, York and University College London, adjusted their figures to take that into account, they still found there was a 30% greater risk of behavioural problems among formula-fed children.

"Our results provide even more evidence for the benefits of breastfeeding," said Maria Quigley of Oxford University, who led the research.

She said breast milk contained large quantities of a particular type of fatty acid, as well as growth factors and hormones, which were important for the development of the brain and nervous system.

But mothers who breastfeed also tend to interact with their children more, which could mean the babies learn more about acceptable ways of behaving.

Breastfed children also get ill less often, which may affect their behaviour.

**Close interaction**

"We just don't know whether it is because of the constituents in breast milk, or the close interaction with the mum, or whether it is a knock-on effect of reduced illness in breastfed babies," said Ms Quigley.

"But it does begin to look like we can add fewer behavioural problems as another potential benefit of breastfeeding."

The Royal College of Midwives welcomed the findings and said they added to the evidence that breastfeeding was better for babies.

Janet Fyle from the RCM said it was vital women had enough help and support from midwives to help them keep breastfeeding.

But she said it was important not to over-emphasise the study's results.

"We must not send a negative message to mothers that they have failed, or make then feel guilty because they bottle-fed their babies," she said.

The Guardian

**Breastfeeding leads to better behaviour in children, researchers claim**

* [Sarah Boseley](http://www.guardian.co.uk/profile/sarahboseley), health editor
* [guardian.co.uk](http://www.guardian.co.uk), Monday 9 May 2011 23.30 BST

Interaction between mother and child seen as significant factor in research based on Millennium Cohort Study.

Babies who are breastfed are less likely to have behavioural problems by the age of five than those given formula milk, according to new research.

The question of whether [breastfeeding](http://www.guardian.co.uk/lifeandstyle/breastfeeding" \o "More from guardian.co.uk on Breastfeeding) has a long-term impact on behaviour has been investigated before, but the studies have usually been small-scale and inconsistent in their findings.

But a large research project carried out by the universities of Oxford, Essex and York, together with University College London, has come to a more robust conclusion.

They used data from the ongoing Millennium Cohort Study, a survey of babies born in the UK during a 12-month period between 2000 and 2001.

More than 10,000 mother and baby pairs of white ethnic background took part.

They were interviewed when the baby was nine months old and again at two-yearly intervals.

The researchers asked parents to fill in questionnaires to assess their [children](http://www.guardian.co.uk/society/children" \o "More from guardian.co.uk on Children)'s potential behavioural difficulties.

These included emotional issues such as clinginess and anxiety, hyperactivity such as restlessness, and conduct problems such as lying and stealing.

Fewer than a third of the babies born at full-term (29%) and a fifth (21%) of those born prematurely were breastfed for at least four months.

But only 4% of the breastfed babies showed a tendency to behavioural problems compared with 16% of those fed formula milk.

The difference in the full-term babies was still significant even when other influences were taken into account, such as socioeconomic status and the mother's education, age and smoking habits.

However, the association was not clear among the 512 children who were born prematurely.

The researchers, writing in the journal [Archives of Disease in Childhood](http://adc.bmj.com" \o "Archives of Disease in Childhood), say they are not concerned with ordinary childhood misbehaviour.

"Children learn appropriate behaviour from people around them and, during the learning process, all children sometimes behave inappropriately – for example, have temper tantrums or are aggressive," they write.

"Behavioural problems, however, are inappropriate behaviours that occur repeatedly over a period of time, have a negative impact on the child's development and interfere with the child's or their family's everyday life."

They offer two possible explanations for their findings.

One is that breast milk contains large amounts of essential fatty acids, which are known to have an important role in the development and function of the brain and central nervous system.

But in the past decade, they note, formula manufacturers have been supplementing their products with essential fatty acids and it is likely that the children in the study were given supplemented formula milk.

The other possible answer, they write, is that "breastfeeding leads to more interaction between the mother and the child, better learning of acceptable behaviours and fewer behavioural problems".

Peter Kinderman, professor of clinical [psychology](http://www.guardian.co.uk/science/psychology" \o "More from guardian.co.uk on Psychology) at Liverpool University, called it "a very good piece of research published in an important journal".

He said he suspected the mother-child bonding that takes place during breastfeeding might be the most important factor.

"Positive bonding between parent and child is known to be fantastically helpful for development," he said, noting that the authors specifically took into account factors such as childcare arrangements because they are so well-established as important influences in development.

"This is more evidence of the importance of breastfeeding and mother-baby attachment, not just for physical health but also for the psychological development of the child," he said.

The authors said that more work needed to be done to see if their findings would contrast with other ethnic groups.

The Scotsman

May 10, 2011, Tuesday   
1 Edition

Breast-fed babies better behaved, new study finds  
  
**BYLINE:** Lyndsay Buckland Health Correspondent  
  
**SECTION:** Pg. 23

**Words 445**

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Breast-fed babies turn into better behaved children, British research suggests.

A study involving thousands of mothers and youngsters found that breastfeeding for four months or more was linked to children having fewer behavioural problems by the age of five.

Researchers said the findings added to the growing evidence on the benefits of breastfeeding.

Previous studies have found breastfeeding has many health benefits including a reduced risk of infections, obesity and eczema, while some have even suggested it could boost intelligence.

For the latest work, published in the Archives of Disease in Childhood, the researchers used data from the Millennium Cohort Study involving over 10,000 mothers and child pairs born in the UK in 2000-1.

The participants were interviewed when their child was nine months, and revisited every two years.

A questionnaire was used to score children at the age of five and identify potential behavioural problems, such as emotional clinginess and anxiety, hyperactivity and bad conduct such as lying and stealing.

The researchers, from the universities of Oxford, Essex and York and University College London, found that abnormal scores indicating potential behavioural problems were less common in youngsters breast-fed for at least four months (6.5 per cent) than in children fed with formula milk (16 per cent).

The lower risk of behavioural issues found in breast-fed children remained even when the researchers took into account other factors which could have an influence, such as levels of deprivation or parental factors such as age and education.

Breast-fed children were still 30 per cent less likely to have behavioural problems than the bottle-fed infants.

The researchers, led by Maria Quigley at Oxford's National Perinatal Epidemiology Unit, said there were several reasons why breast milk may improve **behaviour**.

One possible suggestion is that breast milk contains large amounts of essential long chain polyunsaturated fatty acids, growth factors and hormones which play a role in the development and function of the brain and nervous system.

The value of fatty acids means that over the last decade manufacturers have started to supplement formula milks with them, though the effectiveness of supplementation remains unclear, the researchers said.

Another possible explanation for improved **behaviour** could be that **breast-feeding** leads to more interaction between the mother and child, which can lead to fewer problems with **behaviour**.

"Our results provide even more evidence for the benefits of breastfeeding," Dr Quigley said.

"Mothers who want to breastfeed should be given all the support they need.

"Many women struggle to breastfeed for as long as they might otherwise like, and many don't receive the support that might make a difference."

The Sun (England)

May 10, 2011 Tuesday   
Edition 2;   
National Edition

BREASTFEED 4 MONTHS OR CHILD WILL BE BAD;   
Latest advice to new mums  
  
**BYLINE:** EMMA LITTLE  
  
**SECTION:** NEWS; Pg. 20  
  
**LENGTH:** 338 words

MUMS should breastfeed for at least four months to avoid having naughty kids, experts now advise.

It follows one of the biggest studies on **breast-feeding** yet.

Renowned Oxford University researchers examined the health and **behaviour** of almost 10,000 mums and their children for five years.

They found that the children who were breastfed for four months or more were far better behaved.

They also socialised better with other kids by their fifth birthday.

Behavioural problems more common among bottle-fed babies ranged from hyperactivity, anxiety and restlessness - to stealing and lying.

The researchers took into account other factors which could influence kids' **behaviour** - such as time spent with their parents at home.

But breastfed infants were still found to be 30 per cent less likely to be badly behaved.

The team - led by leading UK public health expert Maria Quigley - is unsure what causes the effect.

It could be the bonding process - or breastmilk nutrients such as fatty acids, which boost growth of brain cells.

They called for further studies to investigate the link.

Breast milk has long been known to stave off infections, and reduce the risk of illnesses such as asthma and eczema.

Department of Health guidelines state that women should try to solely breastfeed until babies hit six months.

Many do this, but it is common for others to try for at least the first three months before they switch to a mixture of breast and formula milk.

Large numbers only bottle-feed their babies - due to difficulty feeding, lack of time, or other reasons.

Ms Quigley called on authorities to help mums breastfeed.

She said: "Many struggle to breastfeed for as long as they might otherwise like. They should be given all the support they need."

By [Stephen Adams](http://www.telegraph.co.uk/journalists/stephen-adams/), Medical Correspondent

6:30AM BST 10 May 2011

**The Telegraph**

**Breastfed children are better behaved**

**Breastfed children are more likely to be better behaved, according to an Oxford University-led study.**

Researchers have found that those who are breastfed for at least four months as babies are 30 per cent less likely to exhibit a range of behavioural problems when they start school.

Such problems include anxiety, clinginess, bad behaviour such as lying and stealing, as well as being hyperactive.

Critics of such studies, which many fear stigmatise those who do not breastfeed, say that mothers that do tend to be older, better educated and better off.

But the researchers said their findings, reported in the journal *Archives of Disease in Childhood*, were after these differences had been statistically taken into account.

Maria Quigley of Oxford University's National Perinatal Epidemiology Unit, who led the study, said: "We found that children who were breastfed for at least four months were less likely to have behavioural problems at age five."

The team, which also included academics from Essex University, York University and University College London, looked at a group of 9,500 white children born in 2000 and 2001, included in a project called the Millennium Cohort Study.

As part of a wide-ranging interview on parenting, mothers were asked when their children were nine months old whether they had breastfed their offspring and - if so - for how long.

Parents were re-interviewed about once every two years.

When the children were five, they were asked to gauge their children's behaviour in a series of standard questions, which researchers compiled into quantitative scores for each trait.

Children in the top 10 per cent for each were classified as having an 'abnormal' score.

The 'raw figures' showed that 16 per cent of formula-fed babies had abnormal behavioural scores aged five, compared to 6.5 per cent of babies breast fed for at least four months - a more than two-fold difference,

However, after social differences between mothers were taken into account there was only a 30 per cent difference.

Miss Quigley emphasised of those with 'abnormal' scores: "We’re not necessarily talking about tearaway, unmanageable five-year-old kids.

"It might be unusual anxiousness, restlessness, inability to socialise with other children or play fully in groups."

Other studies have shown that breastfed children are more likely to have higher IQs, fewer infections and less likely to be obese, but exactly why remains unknown.

Miss Quigley said: "We just don’t know whether it is because of the constituents in breast milk which are lacking in formula, or the close interaction with the mum during breastfeeding, or whether it is a knock-on effect of the reduced illness in breastfed babies."

Peter Kinderman, professor of clinical psychology at Liverpool University, said: "I suspect it may be a combination of both mechanisms, but I also suspect that maternal attachment may be more important."

Current Department of Health guidelines urge all mothers to breastfeed their children exclusively for the first six months of life, if they are able to.