Exclusive breastfeeding may cause B12 deficiency in babies

Vitamin B12 is the collective term for a group of chemical substances also known as cobalamins. The vitamin is essential for cell division, the formation of red blood cells and the general functioning of the nervous system.

B12 is particularly important for infants, and a lack of B12 may ultimately slow down a baby’s physical and mental development and may cause irreversible nerve damage.

But although scientists are aware of the importance of B12, they still lack knowledge about how humans absorb it. Only recently did it become possible to measure the B12 levels in breast milk and it’s this new method that’s the starting point for Greibe’s PhD study.

Mothers should consider a food supplement

She measured the B12 levels in the blood of around 100 women during and after pregnancy. The B12 levels in some of the women’s breast milk and in the newborn babies’ blood were also monitored.

“Immediately after birth, the B12 levels in the breast milk are high, but four months after birth the levels have dropped dramatically. And when we look at the babies after four months, we see that their B12 levels are so low that we can conclude that they’re not getting sufficient amounts of B12,” says the researcher.

“This is a bit strange because breastfeeding and breast milk are regarded as the best thing you can do for...
babies. We definitely agree that the women should continue with their breastfeeding, but we believe it’s worth considering whether to introduce supplements in the shape of regular food or breast milk substitute rich in B12 when the babies reach the age of 3-4 months.”

The cause remains a mystery

The researcher is unable to say anything about the cause of the dramatic drop in B12 levels in breast milk over the first months of a baby’s life.

"We don’t know why the B12 levels drop. Maybe it’s hormonal; maybe it’s nature’s way of forcing the babies to eat more – we don’t know,” she says.

“But we can see that babies who are fed with breast milk substitute have higher B12 levels. We also do not know whether exclusive breastfeeding in the first six months is harmful for the baby.”

And that’s why there’s such a great need for further studies, she adds.

"B12 is extremely important for a child’s development and we really need to look further into this. And moreover, it’s not only the B12 levels that drop in the breast milk in the first 4-6 months, but also iron, copper, potassium and zinc – and that just adds to the importance of carrying out further studies in this field.”

But the researcher is keen to point out that the conclusions need to be confirmed in follow-up studies before we can start talking about making changes to the recommendations.

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Fact box

Exclusive breastfeeding means that an infant receives only breast milk with no additional foods or liquids, not even water.

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Eva Greibe

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