

## Toxins and Infant Feeding

The question of toxins in breastmilk is being addressed in a patient handout because the issue comes up every few months, as regular as clockwork, in the media and frightens many pregnant women out of breastfeeding their babies and many women who are already breastfeeding into stopping. Journalists do not seem to know how to handle this question very well. It is likely that some have an ulterior motive (“my baby wasn’t breastfed and he’s okay”), and are carrying some baggage of their own, thus finding a way of getting back at breastfeeding advocates and justifying their “choice of infant feeding”. It is, of course, unprofessional to do this, but that doesn’t stop them. Others are merely trying to get out the news, but without understanding, often, what they are doing. They don’t understand, for example, that by talking about toxins in breastmilk and considering formula as an almost as good alternative, they are striking a blow against breastfeeding.

Why are there all these studies that look at toxins in breastmilk? One gets the impression that there is panic about the state of breastmilk in the modern world, that it is so polluted that everyone is trying to study it. But the reason that breastmilk is being studied so often is that it is easily available, and gives us an easily obtained sample of human fluid. That’s the reason, not because scientists are worried about breastmilk in particular.

### Is formula almost the same as breastmilk?

No, and not by a long shot. Just because every few years the formula manufacturers add something to their formulas that we knew was in breastmilk for years, but the manufacturers denied were of any importance, doesn’t mean that the “new and improved” formula is just like breastmilk. In some cases, the formula *is* improved, but remember, they were telling us that the formula before the “new and improved” version was also “almost like breastmilk”. This is true, for example, of the long chained polyunsaturated fatty acids (DHA and AA) that are supposed to make your baby smarter (one company even calls their formula A+, but it deserves a C- at best). We’ve known how important these fats are for many years, but for many years (before they were added to formula, of course), the manufacturers, echoed by many health professionals, just kept saying that it didn’t matter, and that there was no proof that these fats were of any importance at all (this is still in the Canadian Paediatric Society’s 1995 statement on the nutrient needs of premature babies). This cycle of “our milk is just like breastmilk” followed by “we have now added x to our milk so that it is even more like breastmilk” has been going on since the 19<sup>th</sup> century.

The truth of the matter is this:

1. Just adding something to formula, even if it is in the same amounts as in breastmilk, does not mean that the baby will get the amount or the best sort he needs of this particular something. The example of iron helps us understand this. Breastmilk contains enough iron (with the stores the baby has during pregnancy), to keep the baby iron sufficient for at least 6 months. To maintain iron sufficiency in formula fed babies, formula needs to contain at least 6 times more iron than breastmilk, just because iron does not get absorbed from the baby’s gut as well from formula as it does from breastmilk.
2. There are still hundreds of components of breastmilk that are still not added to formulas.
3. Breastmilk varies in what it contains, from morning to evening, from day to day, from beginning of the feeding to the end, from day 1 to day 4 to day 10 to day 100, so there is no way we can know what breastmilk *really* contains. This means that there is no way to duplicate breastmilk because there is no such thing as a *standard* breastmilk. In fact, since every woman produces somewhat different breastmilk, the notion of a standard breastmilk becomes an absurdity. Breastmilk is a living, dynamic fluid. Formula is a chemical soup.

## So what does this mean?

This means that we should consider formula a drug, which, if one thinks about it, is exactly what it is. It replaces a normal fluid (breastmilk). It is only very superficially like that fluid it replaces. There are known side effects of formula, in the short term, medium term and long term, some quite serious and irreversible. Formula may, occasionally, be necessary, but so are drugs. In rare cases, formula can be lifesaving, but so can some drugs.

A drug is, as my pharmacology professor said to us in medical school, a poison or toxin with beneficial side effects. There is much wisdom in that statement. So when a mother decides to feed her baby artificial milk instead of breastfeeding, she is not avoiding the problem of giving toxins to her baby.

In fact, it is amazing how indulgent we are towards formulas. In none of the articles or television programmes that bring us the news of toxins in breastmilk, do they ever, in any I have read or heard, talk about toxins in formula. There *are* toxins in formula. Why would everything on earth be polluted, even the far reaches of the Arctic, but not formula? Formula is full of heavy metals, including lead, for example, in quantities much higher than breastmilk. And why would pesticides not be present in formula? After all, the cows do grow up in the countryside where the fields are sprayed. And soybeans grow there too. Interesting you never read about this in the newspapers.

## But toxins are not good are they?

No they are not, but breastfeeding helps to diminish their bad effects. Here are some facts:

1. Toxins increase the risk of developing some cancers. True, but the evidence shows that breastfeeding babies have a lower risk of some cancers than artificially fed babies.
2. Toxins may interfere with neurological function and learning abilities. True, but the evidence shows that children who were breastfed do better on neurological and intelligence tests than artificially fed children, and the longer they are breastfed, the better they do.
3. Toxins may interfere with immunity. True, but the evidence shows that infants who are breastfed have better and more mature immunity than artificially fed infants, and that this better immunity carries on much longer than the length of time the infant or child is breastfed.

## What should you do?

If you breastfeed your baby, you are doing the best for your baby, and for the world, for that matter. Breastfeeding is a very environmentally friendly thing to do. Formula feeding pollutes the environment. The fact that there are pollutants in breastmilk can be likened to the situation of the canary in the coal mine. We should be worried about what we are doing to our planet, but this should not lead us to encourage mothers to feed their babies artificially.

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