

Starting or Expanding Your Family

How nutrition and toxins influence your child

Part 1 of 2

Written by Joachim Bartoll, January/February 2017

Since the introduction of processed food, junk food, and what we can consider the “modern diet”; most mothers cannot nourish themselves optimally before conception, and much less during a pregnancy. The art of cooking and putting nutritious food on the table has almost been lost to our current generation. Also, close-birth spacing which is common in several societies exaggerates the differences in health between siblings. While dangerous vaccines can be blamed for some of the rise in modern disorders like autism, the largest culprit is our modern diet – rich in calories, but dangerously scarce in essential nutrients.

Being the first or second child, does it matter?

After one successful pregnancy, there is a reasonable expectation that a second pregnancy will go more smoothly. And perhaps it will, at least for the mother; you know what to expect, you have the experience from the first labor, and you have more distensible pelvic tissues to facilitate a second labor. But unless the mother gives herself ample time and nutrients for her body to fully repair and replenish itself, child number two will not be as healthy as their older sibling.

A pregnancy and the development of a child will drain a lot of nutrients from the mother’s body (minerals from bone, fatty acids from brain, etcetera). If baby number two is born shortly afterwards, within 1 or 2 years after the first baby, mom’s body will likely be depleted of one or more nutrients – simply because baby number one took all she could spare. If she doesn’t get a lot of nutrients from her diet, it can take years to fully restore them after a pregnancy. Since an optimal nutritional environment is crucial for turning on all important genes and to develop a baby, this relative deficiency means baby number one usually has a less risk of abnormalities (such as wider jaw and higher cheekbones than baby number two).

However, there can also be disadvantages to being the firstborn, at least in today’s modern society. If the mother consumes too much carbohydrates (pasta, rice, sweets, soft drinks, junk food, etcetera), it will make their bodies relatively hormone insensitive, which means that their uterus will not perform optimally the first time around. And that under-performance can impact a baby’s skeletal growth and symmetry. For baby number two, uterine blood vessels, hormone receptors, and other infrastructure have all be laid down, and the uterus grows faster for the second baby. Because of this, the

second child often more biracially symmetrical and has features indicative of better hormone sensitivity compared to number one (if the mother consumes a lot of carbohydrates). We will look more into this later on in the article.

Nutrient deficiencies and their impact on the fetus

Since even a minor nutritional deficiency would hamper a baby's growth, mother nature has provided a built-in safety mechanism, allocating as many resources to the placenta as it can get away with, even if it means putting the mother's health at some risk. The baby-protection mechanism is so powerful that even on an all-sugar and junk food-diet, a woman can expect to produce a baby with at least ten fingers and ten toes.

But as mentioned, it will cost her. If a mom's diet is deficient in calcium, it will be robbed from her bones. If deficient in brain-building fats, the fats that make up the mother's own brain will be used for the fetus' development¹. Studies show that maternal brains can actually shrink, primarily in the hippocampal and temporal lobe areas, which control short-term memory and emotion. These brain regions are not responsible for basic functioning, like breathing or blood pressure regulation, and are therefore relatively expendable.

Pregnancy drains a woman's body of a wide variety of vitamins, minerals, and other raw materials, and breastfeeding demands more still. As you might expect, the demands of producing a baby empties maternal stores of a spectrum of nutrients, including iron, folate, calcium, potassium, vitamin D, vitamin A and carotenoids, magnesium, iodine, omega-3, phosphorus, zinc, EPA, DHA and other essential fatty acids, B12, and selenium². This mechanism of protecting the development of the offspring means that even in conditions of insufficient maternal nutrition the first child may come out relatively intact.

This baby-protection mechanism explains why a lot of moms have complications, extreme cravings, and overall a hard time during a pregnancy, while it is smooth sailing for other moms who consume a more varied and nutritious diet.

A mother's body may be depleted to the point that her spine has curved, her lips thinned, her nails and hair has gone brittle and almost stopped growing, and she may have trouble remembering and learning new things, or feel anxious and depressed (as in postpartum depression). And it is all due to lack of proper nutrition. It's simply nature at work. This should be a no-brainer, but unfortunately, for most people today, it isn't.

A "nutrient-depleted" mother and the second child

As mentioned earlier, any child conceived in too short a time for those "nutritional storehouses" to be refilled, will be at a significant disadvantage. In such depleted conditions, if the fetus/baby were to extract all the nutrients its genes would like it to have, it would put the mother's life at significant risk. Following the nature's laws of genetic survival, biology pragmatically chooses not to kill the mother while a baby is developing, instead it compromises. The second baby will be constructed "as well as

possible" in the depleted conditions it is being developed in – in order for the mother to survive. Tragically, this exposes the child to a variety of health problems, which can become increasingly noticeable, and even debilitating, as they grow older.

The impact of junk-food

While deficiencies create huge problems, we also have to consider the impact of toxic chemicals and food stuffs such as sugar, hydrogenated vegetable oils/margarine (trans fatty acids), and vegetable oils (risk of glyphosate contamination and the formation of aldehydes when heated). Vegetable oils are very unstable, and when heated, especially to high temperatures, they degrade into oxidation products. More than 100 dangerous oxidation products have been found in a single piece of chicken fried in vegetable oils

These poisonous foodstuffs, will over time work like static in the body, blocking and disrupting cell signaling crucial to run our metabolisms smoothly. Adding to the growth disturbances already caused by missing nutrients, not only does sugar and vegetable oil consumption disrupt maternal metabolism and lead to gestational diabetes, pre-eclampsia, and other complications of pregnancy, the sugar and vegetable oils streaming through a developing baby's blood will block signals in the womb, disrupting the sequence of highly sensitive, interdependent developmental events that contribute to a healthy birth.

The consequences of toxins from junk-food are primarily showing themselves through changes in the infant's epigenome. The epigenome consists of the set of molecules that attach themselves to DNA and other nuclear materials that control when a given gene is turned on or off. These genetic switches govern every aspect of our physiologic function.

Diseases, disorders and birth defects previously assumed to be due to "genetics" – such as cancer, diabetes, asthma, autism, down syndrome and even obesity – are all actually result from mistimed genetic expressions due to nutrient deficiencies or toxic overload. You see, proper timing of gene expression requires specific nutrients in specific concentrations. This means, that if a second sibling gestates in a worse nutritional environment than the first, their epigenetic expression will be suboptimal, and growth and development will be impaired.

We know, for example, that low birth weight, often due to mom's smoking or having high blood pressure from being obese and eating junk-food, puts children at risk for low bone mass and relative obesity for the rest of their lives^{3,4}. Abnormal epigenetic responses due to nutrient deficiency may explain why children of subsequent births are at higher risk for disease, from cancer⁵ to diabetes⁶, from weight-gain at puberty⁷, to low IQ and birth defects⁸. Studies has also shown that were both siblings have signs of autism, the second born have overall lower IQ and brain function⁹. However, the results were only highly significant if the age difference was less than 2 years, which confirms other study findings that the mother did not had ample time to restore her "nutritional stores" to support a second pregnancy.

Are looks strictly genetic?

We have all seen siblings that look very different from each other. While they may have some similarity with one of their parents, looks can differ greatly. In some families, siblings can have strong resemblances, while in other families they almost look like strangers. How is that?

Considering that our skeletal development depends on normal genetic expressions and that normal facial growth demands large quantities of vitamins and minerals^{10,11}, and that short inter-pregnancy intervals make it unlikely that the mother's body would have been given adequate time to replenish all the vitamins and minerals the first baby used up, it's no surprise that children born in close succession might look different.

In other words, if the age difference is less than 2 to 3 years, there's a big chance that siblings look less alike the other. This also holds true if the mother recently has gone through some hardship, has been stressed since the first child, and so on. The less nutrients available and the more toxins, the more the next child will differ in appearance (and health).

Generally speaking, we prefer faces with broad foreheads balanced by strong jaws, with prominent brows above deep-set eyes framed with high cheekbones – yes, those are the characteristics which tend to appeal to the majority of people. As you might have guessed, models and movie stars almost exclusively have this dynamic symmetry. And almost all of them that are considered very beautiful and sexy, are the first born of their family.

In contrast, their younger siblings' faces are often noticeably less symmetrical. Most are characterized by a narrowing of the mid-portion of the face, rounded, indistinct features including noses, cheekbones and brows, and a weakening of the chin and jaw.

There are a few exceptions to this among siblings with less than three years between them. As mentioned earlier, in the setting of maternal malnutrition, sometimes the uterus doesn't work quite perfectly the first time around. But in most cases with those who were deemed more beautiful than their older siblings, they had three or more years spaced between them.

It's important to note that a 3+ years spacing alone does not necessarily prevent this effect or other possible disorders. Unless the mother follows anything short of an optimal dietary regimen on a daily and yearly basis, producing a large number of children, even with three to four years between births, will cause her body to continuously lose nutritional ground and problems will arise. This can magnify the effects of second sibling syndrome down the line. The implications on skeletal integrity and health for the younger siblings are obvious.

In the next part, we will continue to dive into challenges and difference that can occur. We will look more closely into hormones and what differences it can play depending on the first or second child being a boy or a girl. There are actually a lot of instances where the second close-born girl is more feminine and considered more attractive than her older sister. How is that? Find out in part 2!

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