



Good nutrient consumption sets stage for healthy child

We all understand how a financial endowment can provide special opportunities for a child's future. Providing a "nutrition endowment" may actually be more beneficial to the future health and success of a child.

Not providing an adequate supply of nutrients before or after the birth of a child can impair normal development in ways that are irreversible and can have serious adverse effects that persist even into adult life.

QUESTION: What is meant by a nutrition endowment?

ANSWER: During pregnancy the needs of the fetus are met so the child is born with adequate nutrients to support normal development and growth and especially normal brain development.

Q: How does an inadequate nutrient supply affect infant development?

A: Although the answer to this question is not known for all nutrients, there is a significant amount of research on iron, the most commonly deficient nutrient worldwide. It is well known that iron deficiency impairs normal infant and child brain development both before

and after birth. These negative consequences affect behavior, mental function and social interaction.

Many researchers think most of these negative effects are permanent. In other words, a child born without an adequate nutritional endowment will not have the same competitive edge as a child born with an adequate endowment. In the case of a nutrient like iron, deficiency in a critical point of development can cause damage that can never be completely undone.

Q: What can a mother do to bestow an iron endowment to her unborn child?

A: First, a woman needs to meet her own nutrient needs prior to pregnancy with a wholesome diet that provides all essential nutrients. Second, once a woman is pregnant, she needs to consume adequate calories and nutrients for both herself and her developing child. Iron needs increase substantially during pregnancy, requiring a wholesome diet (and possibly supplements) to provide for both mother and fetus.

Third, before the due date, ask the obstetrician for delayed cord clamping. An infant's iron

endowment can be affected by how quickly the umbilical cord is clamped. It has been estimated that delaying cord clamping by about three minutes provides a "placental transfusion" of blood that gives an infant the equivalent of one to three months' worth of iron needs.

Q: How can optimal iron status be maintained in infants and toddlers?

A: A healthy newborn infant with an optimal iron endowment has enough stored iron to meet daily iron needs for four to six months. This reserve compensates for the low iron content of breast milk. When this initial iron endowment starts running low, iron-fortified infant foods need to be added gradually to the baby's diet. Some pediatricians may even recommend iron supplementation of an infant's diet in specific cases.

Dozens of other nutrients play roles in health and normal development. Too little or too much of these essential nutrients (including iron) can damage development. The nutritional balancing act requires a wide variety of wholesome foods, each consumed in moderate amounts.

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