



Research in 2014 prompted new look at nutrient needs

The year 2014 included important health-related discoveries that challenged health-promotion dogma. Some of these breakthroughs represent new twists on things, and others reflect the maturing of a significant body of research that cannot be ignored.

» **Iron and autism:** It has been known for decades that iron deficiency impairs brain development during fetal development and infancy, and some research indicates that children with autism spectrum disorder tend to have lower iron status than non-autistic children. In September the results of a study conducted at the University of California at Davis found that women consuming the most iron, starting three months before pregnancy and throughout pregnancy and breastfeeding, had the lowest risk of their child becoming autistic.

The risk of autism was especially strong when iron intake was low during breastfeeding. This could prove to be an important observation because it is currently assumed that a woman's iron needs are low during breastfeeding. However, iron needs are so high during pregnancy that many women might have very low iron status after delivery.

» **Iron status assessment:** It is possible the wrong blood values are being used to determine iron status. Most commonly, people are not assumed to be iron deficient until they become anemic (low hemoglobin levels). However, research by University of Hawaii student Brian Hill found that almost 70 percent of women with clearly deficient iron stores were not anemic and would not be considered to be iron deficient by current medical standards. Consequently, Hill's results indicate there are many more iron-deficient women than the most common blood tests indicate.

» **Protein recommendations:** Evidence has been growing for many years that current recommendations for protein intake are too low. During 2014 the research in this area may have finally hit a critical mass that will lead to changed recommendations.

Newer techniques used to evaluate protein needs indicate that recommended protein intake for most age and gender groups should be 45 to 60 percent greater than current recommendations from the Institute of Medicine. This could have important implications because it is estimated that well over

half of adult women and many children and men consume protein below these higher levels.

Not meeting protein needs can contribute to many health problems. A few of the conditions linked to inadequate protein include obesity, fatty liver disease and an increased risk of stroke. Stay tuned.

» **Vegetarian diets:** Vegetarian diets come in many shapes and sizes, so it can be difficult to make sense out of research on the general topic. However, a study conducted in Austria found that those consuming vegetarian diets had higher incidences of cancer, allergies and mental health disorders and had a greater need for health care and a lower quality of life. This was not the type of study that could determine cause and effect, so it is possible that people with these health problems turned to vegetarian diets.

However, as we often say, a varied diet that provides adequate amounts of nutrients is a good diet. When you remove food groups like meat, fish and dairy from the diet, it becomes more challenging to meet the body's needs for nutrients such as protein, iron, zinc, calcium, and omega-3 fatty acids.

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