



HEALTH FACTS

Following is information concerning the benefits of certain vitamins and minerals particularly as they pertain to malnourished children.

VITAMIN A*

Vitamin A deficiency (VAD) is the leading cause of preventable blindness in children and raises the risk of disease and death from severe infections. In pregnant women VAD causes night blindness and may increase the risk of maternal mortality. Vitamin A deficiency is a public health problem in 118 countries, especially in Africa and Southeast Asia, once again hitting hardest young children and pregnant women in low-income countries.

Crucial for maternal and child survival, supplying adequate Vitamin A in high-risk areas can significantly reduce mortality. Conversely, its absence causes a needlessly high risk of disease and death.

- For children, lack of Vitamin A causes severe visual impairment and blindness and significantly increases the risk of severe illness, and even death, from common childhood infections such as diarrhoeal disease and measles.
- For pregnant women in high-risk areas, Vitamin A deficiency occurs especially during the last trimester when demand by both the unborn child and the mother is highest. The mother's deficiency is demonstrated by the high prevalence of night blindness during this period. VAD may also be associated with elevated mother-to-child HIV transmission.

ZINC†

The signs and symptoms of Zinc deficiency include anorexia, growth retardation, delayed sexual maturation, hypogonadism and hypospermia, alopecia, immune disorders, dermatitis, night blindness, impaired taste (hypogeusia), and impaired wound healing. The first signs of Zinc deficiency in marginally nourished children are suboptimal growth, anorexia, and impaired taste.

VITAMIN B₁₂‡

Vitamin B12 deficiency results in impaired nerve function, which can cause numbness, pins-and-needles sensations, or a burning feeling. It can also cause impaired mental function that in the elderly mimics Alzheimer's disease. Vitamin B12 deficiency is thought to be quite common in the elderly and is a major cause of depression in this age group.

In addition to anemia and nervous system symptoms, a Vitamin B12 deficiency can also result in a smooth, red tongue and diarrhea. This occurs because rapidly reproducing cells such as those that line the mouth and entire gastrointestinal tract cannot replicate without Vitamin B12. Folic acid supplementation masks this deficiency symptom.

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IRON*

Iron deficiency is the most common nutritional disorder in the world. The numbers are staggering: as many as four to five billion people may be iron deficient; two billion people are anemic, mainly due to iron deficiency. In developing countries this is frequently exacerbated by malaria and worm infections.

Invisible yet ubiquitous in many developing countries, the true toll of iron deficiency and anemia lies hidden in the statistics of overall death rates, maternal hemorrhage, reduced school performance, and lowered productivity.

For children, health consequences include premature birth, low birth weight, infections, and elevated risk of death. Later physical and cognitive development are impaired, resulting in lowered school performance. For pregnant women, anemia contributes to 20 percent of all maternal deaths.

IODINE*

Iodine deficiency remains the single greatest cause of preventable brain damage and mental retardation worldwide. World Health Organisation (WHO) estimated in 1990 that 1,570 million people, or about 30 percent of the world's population, were at risk of Iodine Deficiency Disorders (IDD). In 1995, WHO estimated that the number of people with goiter was 750 million.

Insufficient intakes of iodine in pregnancy and early childhood result in impaired mental development of young children. Even marginal deficiency may reduce a child's mental development by about 10 percent.

Forty-three million people were estimated to be affected by some degree of IDD-related brain damage, ranging from frank cretinism, spastic diplegia, milder mental retardation, and impaired educability.

*World Health Organization

†The Merck Manual of Diagnosis and Therapy

‡Encyclopedia of Nutritional Supplements; by Michael T.Murray, N.D.

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