



VITAMIN & MINERAL NUTRITION

FOR HEALTHY GROWTH AND DEVELOPMENT

THE PROBLEM

1^{IN} 6

One in six U.S. women is iron deficient during pregnancy; deficiency is higher among non-Hispanic blacks and Hispanics.



Fewer than one in five US women take a prenatal vitamin containing iodine during pregnancy.



Globally more than half of children younger than 5 years old suffer from vitamin and mineral deficiencies.



VITAMIN AND MINERAL DEFICIENCIES CAN BE DEVASTATING

Vitamins and minerals are critical for several important bodily functions. Often referred to as micronutrients, vitamins and minerals are not produced in the body, with the exception of vitamin D. Instead they are consumed through food or supplements. Micronutrient deficiencies can have devastating consequences, even for unborn children.



"Micronutrients are key to helping infants and children grow, learn, and thrive.

In the United States and beyond, we need to continue to work together to assess and address the need."



-Dr. Ruth Petersen, Director of CDC's Division of Nutrition, Physical Activity, and Obesity

WHY IT MATTERS



Iron helps develop the brain of a fetus and child. Iron deficiency is a leading cause of anemia. Severe anemia during pregnancy can result in poor fetal growth, preterm birth, or low birth weight. Anemia during pregnancy also increases the risk of death for both the mother and baby. In addition, iron deficiency limits physical productivity and work capacity.



Folate is a general term for many different forms of vitamin B9, which is essential in the earliest days of fetal growth. Folic acid, the form of folate found in supplements and fortified foods, is the only form shown to prevent serious birth defects of the brain, spinal cord, and skull. These birth defects are often preventable if women get enough folic acid before and during early pregnancy.



Vitamin A supports healthy eyesight and immune system functions. Children who are deficient face an increased risk of blindness and death from infections such as measles and diarrhea.



Iodine is also required during pregnancy and early infancy for brain and cognitive development. Iodine deficiency can lead to developmental delays and is the most common cause of preventable mental retardation.



Zinc promotes immunity, resistance to infection, and proper growth and development of the nervous system. This mineral is also important for healthy pregnancies.



Vitamin D is essential for bone health as well as muscle and nerve functions. Vitamin D also helps the immune system fight off bacteria and viruses.

WHAT CDC IS DOING IN THE U.S. AND AROUND THE WORLD

- In the United States, we conduct surveillance to identify and monitor iodine, iron, and anemia levels among vulnerable and high-risk populations, and carry out research to fill surveillance data gaps.
- We help countries develop national-level nutrition surveillance systems and national micronutrient surveys.
- We help countries design, monitor, and evaluate interventions such as mass food fortification, home fortification, and micronutrient supplementation.
- We build laboratory capacity for vitamin and mineral biomarker monitoring.
- We work with partners, such as the World Health Organization, to develop global guidelines on vitamin and mineral interventions as well as the assessment of anemia and micronutrient status.
- We provide the Infant and Toddler Nutrition website as a resource for parents and caregivers. This site offers practical strategies on feeding healthy foods and drinks to infants and toddlers, from birth to 24 months of age.
- We work with partners such as the American Academy of Pediatrics to engage pediatricians in advising on the importance of good nutrition practices for young children.



MAKING A DIFFERENCE

SINCE 2000, WE HAVE PROVIDED TECHNICAL ASSISTANCE TO APPROXIMATELY 60 COUNTRIES.



Our ongoing and new surveillance efforts will help fill data gaps in the U.S. and around the world.

Countries use this information to inform, develop, monitor, and evaluate policies and programs, especially for women, infants, young children, and adolescents.

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U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

FOR MORE INFORMATION, VISIT:
Division of Nutrition, Physical Activity, and Obesity
www.cdc.gov/nccdphp/dnpao
<https://www.cdc.gov/nutrition/about-micronutrients/index.html>