CDC's Second Nutrition Report
First-time measurement of new iron marker improves iron deficiency assessment

Background

Iron is needed to make hemoglobin, the protein in red blood cells that carries oxygen to tissues. Children and women of childbearing age are at risk for iron deficiency, which can progress to anemia if not treated.

Iron deficiency is most often diagnosed by measuring a protein called ferritin in blood serum. But inflammation affects ferritin, and ferritin levels do not track well with the progression of iron deficiency to anemia. Measuring a new marker, serum soluble transferrin receptor (sTfR), and calculating the ratio of sTfR to ferritin overcomes both these problems.

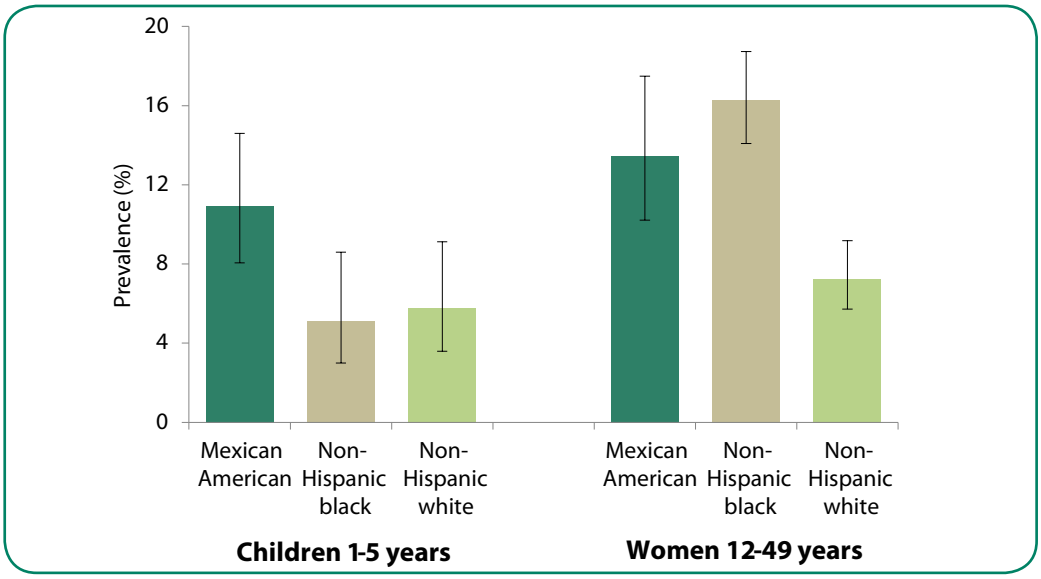
Intake recommendations

Dietary Guidelines for Americans advise that women capable of becoming pregnant choose foods that supply heme iron and enhancers of iron absorption such as vitamin C. It is advised that women who are pregnant or breastfeeding take an iron supplement, as recommended by a health care provider.

The *Second Nutrition Report* provides:

- The first-time measurement of sTfR in the U.S. population
- The first iron deficiency assessment using the sTfR/ferritin ratio
- Reference intervals from these measurements which will help physicians interpret iron status better

Precent of iron deficiency varies by race/ethnicity



SOURCE: National Health and Nutrition Examination Survey (NHANES) 2003 - 2006

Mexican-American children had a higher rate of iron deficiency compared to non-Hispanic black and white children. More Mexican-American and non-Hispanic black women of childbearing age had higher rates of iron deficiency compared to non-Hispanic white women.

Additional information about iron is available online at **http://www.cdc.gov/nutrition/everyone/basics/vitamins/iron.html**

Second National Report on Biochemical Indicators of Diet and Nutrition in the U.S. Population **www.cdc.gov/nutritionreport**

National Center for Environmental Health
Division of Laboratory Sciences

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