

# CDC's Second Nutrition Report

## Vitamin D deficiency closely related to race/ethnicity

### Background

Vitamin D is found naturally in only a few foods such as fish-liver oils, fatty fishes, mushrooms, egg yolks, and liver. In the United States, vitamin D commonly is added to milk and other foods.

Vitamin D is essential for good bone health, and it may help with muscle strength and protecting against cancer and type 2 diabetes.

Ultraviolet light from the sun helps people form vitamin D in the skin. It is transported to the liver and converted to 25-hydroxyvitamin D.

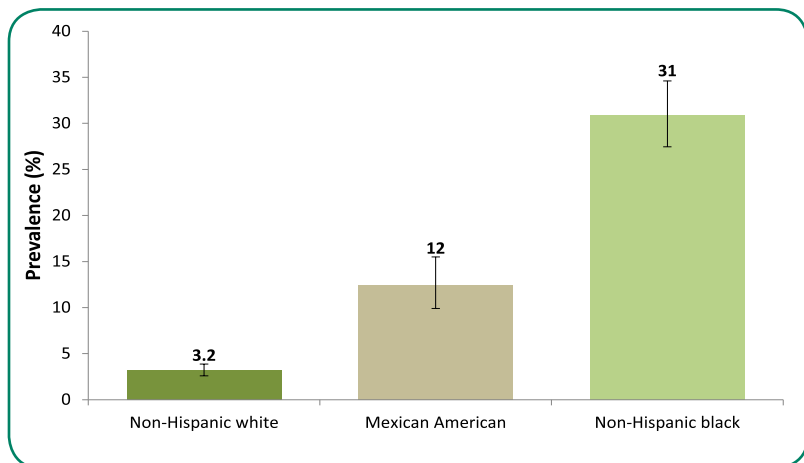
Doctors use this form of vitamin D to determine whether a person has enough vitamin D because it is a good reflection of the vitamin D that people receive from food and exposure to sunlight.



### Intake recommendations

*Dietary Guidelines for Americans* indicate vitamin D is a nutrient of concern in American diets, advising that people choose foods that provide more vitamin D.

### Percent of vitamin D deficiency by race/ethnicity

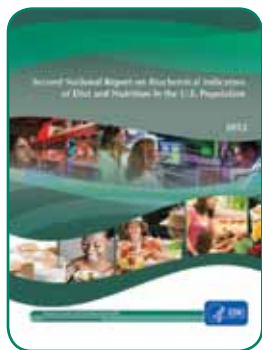


### Other report findings

- Serum 25-hydroxyvitamin D levels generally decreased as age increased.
- Males and females had similar 25-hydroxyvitamin D levels.
- Serum 25-hydroxyvitamin D levels decreased by about 10% from NHANES 1988–1994 to more recent surveys conducted between 2001 and 2006.

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

The report found the highest rates of vitamin D deficiency in non-Hispanic blacks despite clinical data showing greater bone density and fewer fractures in this group compared to other race/ethnic groups. Further research is needed on this topic.



### The *Second Nutrition Report* ([www.cdc.gov/nutritionreport](http://www.cdc.gov/nutritionreport)) provides:

- Rates of nutrient deficiencies
- Reference information for physicians and scientists to detect high or low nutrient levels in people
- A look at nutrient levels over time to detect trends of health significance
- The nutrition status of specific populations for nutrient deficiencies

Additional information about vitamin D is available online at <http://www.cdc.gov/nutrition/everyone/basics/vitamins/index.html>

National Center for Environmental Health  
Division of Laboratory Sciences

