

Westhill High School GHE Nutrition Club

THE NEED FOR VITAMIN D

In a recent study by the American Academy of Pediatrics, 70% of Americans age 1-21 were found to have deficient levels of Vitamin D. Vitamin D, which promotes calcium absorption and maintains calcium and phosphate concentrations in the body, is essential for bone growth, repair, and mineralization. With Vitamin D deficiency, the body cannot meet its need for calcium. Deficiencies in Vitamin D cause bones to become thin, brittle, and misshapen, and may cause rickets in children and osteomalacia and osteoporosis in adults.

Intake of regular doses of Vitamin D is associated with a decrease in total mortality rates due to life-threatening medical conditions including cancer, cardiovascular disease, and type-one diabetes, which account for around 65% of deaths in first-world countries. It is recommended that persons ages 1-50 should take in 5 mcg, or 200 IU, or Vitamin D daily, whereas persons ages 51+ should take in 10 mcg, or 400 IU. Foods such as salmon, mackerel, sardines, tuna, egg yolks, liver, beef, Swiss cheese, and fortified or enriched mushrooms, orange juice, milk, yogurt, margarine, and cereals contain high levels of Vitamin D, and can help a person meet these intake guidelines. Adequate Vitamin D can also be achieved through exposure to the sun, approximately 15 minutes daily.

Sources:

1. Office of Dietary Supplements, National Institute of Health, Dietary Supplement Fact Sheet: Vitamin D, <http://ods.od.nih.gov/factsheets/vitamind.asp>
2. Oregon State University, Linus Pauling Institute: Micronutrient Research for Optimum Health, <http://lpi.oregonstate.edu/infocenter/vitamins/vitaminD/>
3. National Center for Biotechnology Information, A service of the US National Library of medicine and the National Institutes of Health, Vitamin D Supplementation and Total Mortality, <http://www.ncbi.nlm.nih.gov/pubmed/17846391>