

# STATE OF ALASKA THE LEGISLATURE

2011

Source  
CSHCR 5(HSS)

Legislative  
Resolve No.  
16



Relating to prevention of disease and to vitamin D.

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## BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

**WHEREAS** the nutrient and pre-hormone vitamin D is manufactured in the skin during exposure to ultraviolet B light from high-angle sunshine; and

**WHEREAS**, for seven months a year, the angle of the sun's rays is too low for adequate ultraviolet B exposure in the state; and

**WHEREAS** Alaskans have one of the lowest levels of vitamin D blood serum in the nation because of the state's northern latitude; and

**WHEREAS** the state has a high incidence of preventable diseases that numerous studies indicate may be correlated with insufficient blood serum levels of vitamin D; and

**WHEREAS** a 2008 study by the Ketchikan Indian Community Tribal Health Clinic found that blood serum levels of vitamin D of Alaska Natives tested in Ketchikan averaged between 6 and 17 ng/ml; and

**WHEREAS** a 1986 study by the University of Alaska Fairbanks found the blood serum levels of vitamin D of Caucasian males averaged 27 ng/ml; and

**WHEREAS** a 2007 article published in the American Journal of Clinical Nutrition

reported that a study that compared cancer rates of a group of postmenopausal women taking 1,100 IU of vitamin D supplements in combination with calcium to cancer rates of a group taking a placebo found the risk of developing any cancer after four years was 60 percent lower in the group taking vitamin D supplements; and

**WHEREAS** a study presented at the 2008 annual meeting of the American Association for Cancer Research found that blood serum levels of vitamin D of at least 50 ng/ml were associated with an 83 percent reduction in the incidence of breast cancer compared to blood serum levels of vitamin D of 25 ng/ml; and

**WHEREAS** a 2007 article published in the American Journal of Preventative Medicine reported that a study found that a group with blood serum levels of vitamin D of at least 42 ng/ml had a 60 percent reduction in the incidence of colorectal cancer compared to a group with blood serum levels of vitamin D of 25 ng/ml; and

**WHEREAS** a 2010 study by the University of San Diego showed that the incidence of bladder cancer increases as latitude increases and that the incidence of bladder cancer decreased by 40 percent with adequate blood serum levels of vitamin D; and

**WHEREAS** a study referenced by Michael F. Holick, Ph.D., M.D., in The Vitamin D Solution found that men with prostate cancer who received 2,000 IU of vitamin D a day for two years had a 50 percent reduction in the rise of prostate-specific antigen, an indicator of prostate cancer activity; and

**WHEREAS** a 2001 study published in The Lancet found that a group with blood serum levels of vitamin D of 52 ng/ml had a 66 percent reduction in the incidence of type 1 diabetes compared to a group with blood serum levels of vitamin D of 25 ng/ml; and

**WHEREAS** a 2001 study published in The Lancet found that children in Finland who received 2,000 IU a day of vitamin D for the first year of life were 80 percent less likely to develop type 1 diabetes by age 30 compared to children receiving 400 IU a day of vitamin D; and

**WHEREAS** a 2006 study published in Diabetes Care found that taking 800 IU of vitamin D in combination with calcium resulted in a 33 percent reduction in the risk of type 2 diabetes; and

**WHEREAS** a 1998 study published in the Journal of the American College of Cardiology found that the incidence of heart attacks is 53 percent higher during the sun-

deprived winter months than during the summer months; and

**WHEREAS** a growing body of research from around the world indicates that deficiency in vitamin D correlates with a broad spectrum of conditions, such as high blood pressure, poor insulin sensitivity, inflammation, and other conditions related to heart disease; and

**WHEREAS** numerous studies have found that vitamin D suppresses the inflammation that plays a role in rheumatoid arthritis, chronic muscle pain, metabolic syndrome, congestive heart failure, and stroke; and

**WHEREAS** a 2008 study published in the Archives of Internal Medicine showed that the risk for heart attack in men with vitamin D blood serum levels at or below 15 ng/ml is 2.4 times greater than that for men whose vitamin D levels are at or above 30 ng/ml; and

**WHEREAS** a 1999 study published in the Journal of Nutrition, Health and Aging found that patients with seasonal affective disorder treated with a single dose of 100,000 IU of vitamin D showed significant improvement after one month; and

**WHEREAS** a 2004 study published in the American Journal of Clinical Nutrition found that low blood serum levels of vitamin D were associated with periodontal disease; and

**WHEREAS** a 2005 study published in the American Journal of Public Health found that the rate of oral disease among Alaska Natives is disproportionately high; and

**WHEREAS** a 2010 study published in the Journal of Laryngology and Otology found that low levels of vitamin D are associated with an increased incidence of upper respiratory tract infections; and

**WHEREAS** the Centers for Disease Control and Prevention report that influenza vaccine effectiveness varies greatly; and

**WHEREAS**, in 2010, the Department of Health and Social Services, reported that the state is no longer subsidizing universal vaccinations for influenza because of a seven-fold increase in cost over 10 years and a decrease in federal funding; and

**WHEREAS** a 2010 article published in the American Journal of Clinical Nutrition reported that a study of a group of Japanese school children who received 1,200 IU of vitamin D a day showed a 50 percent reduction in the incidence of influenza compared to other school children; and

**WHEREAS** vitamin D has been shown to influence the immune response to

tuberculosis, and studies have shown that vitamin D deficiency is associated with increased risk of acquiring tuberculosis; and

**WHEREAS** a 2010 article in The Lancet reported that the risk of multiple sclerosis increases with latitude and with low blood serum levels of vitamin D; and

**WHEREAS** a 2006 article published in the Journal of the American Medical Association reported that a study examining blood samples of more than 7,000,000 army recruits from 1992 - 2004 found that higher blood serum levels of vitamin D were associated with a significantly lower risk of developing multiple sclerosis; and

**WHEREAS** a 2005 article published in the Journal of the American Medical Association reported that elderly persons who had blood serum levels of vitamin D of at least 45 ng/ml experienced a 50 percent reduction of fractures, and a 2007 article published in the Journal of the American Geriatrics Society reported that elderly persons who had blood serum levels of vitamin D of at least 30 ng/ml experienced a 72 percent reduction in falls compared to those who had blood serum levels of vitamin D below 25 ng/ml; and

**WHEREAS** the elderly are at high risk for vitamin D deficiency because of indoor lifestyle and the reduced ability of aging skin to manufacture vitamin D; and

**WHEREAS** a 2009 article published in the Journal of Alzheimer's Disease reported that vitamin D reduces the risk of several types of diseases that have been identified as risk factors for or precursors to dementia; and

**WHEREAS** a 2010 article published in the Journal of Alternative and Complementary Medicine reported that a study in Egypt found that children without autism had blood serum levels of vitamin D averaging 40.1 ng/ml, and children with autism had significantly lower blood serum levels of vitamin D, averaging 28.5 ng/ml; and

**WHEREAS** Sara B. Arnaud, M.D., found that infants and children with blood serum levels of vitamin D of at least 18 ng/ml have a 99 percent prevention rate of the bone disease rickets; and

**WHEREAS** a 2007 study published in the Journal of Clinical Endocrinology and Metabolism found that females who received regular vitamin D supplementation during the first year of life are 50 percent less likely to develop preeclampsia in their first pregnancy; and

**WHEREAS** a 2009 article published in The Journal of Clinical Endocrinology and Metabolism found that pregnant women with low blood serum levels of vitamin D were

nearly four times more likely to deliver by cesarean section than women with blood serum levels of vitamin D of at least 15 ng/ml; and

**WHEREAS** a 2009 study at the Medical University of South Carolina found that pregnant women who took 4,000 IU a day of vitamin D during pregnancy had a 50 percent reduction in the rate of premature birth and delivered fewer babies with low birth weight than women who took 400 IU a day of vitamin D; and

**WHEREAS** a 2010 study at the Rebecca Sieff Hospital in Israel found that when patients with hepatitis C were given 1,000 IU a day of vitamin D, the blood of 44 percent of the participants was virus-free after a month of treatment, and the blood of 96 percent of the participants was virus-free after three months; and

**WHEREAS**, although the Institute of Medicine of the National Academy of Sciences, in 2010, recommended 600 IU a day of vitamin D, levels above 2,000 IU a day and an upper level intake of 4,000 IU a day may be more appropriate for those who live in the northern latitudes; and

**WHEREAS** a 2007 study published in the American Journal of Clinical Nutrition found vitamin D toxicity only above 30,000 IU a day; and

**WHEREAS** a 2007 article published in the Journal of Photochemistry and Photobiology estimated that the United States economic burden due to vitamin D deficiency from inadequate exposure to ultraviolet B light, inadequate diet, and lack of supplements was estimated at \$40,000,000,000 - 56,000,000,000 in 2004; and

**WHEREAS** a 2010 article published in Molecular Nutrition and Food Research regarding the rate of premature death and the economic burden in Canada found that annual deaths could be reduced by 37,000 and the economic burden reduced by 6.9 percent or \$14,400,000,000 if blood serum levels of vitamin D of the population were adequate; and

**WHEREAS** part of the budget of the Department of Health and Social Services is used to treat illnesses that could potentially be prevented with adequate blood serum levels of vitamin D; and

**WHEREAS** the above-referenced studies and findings taken in aggregate provide significant evidence for the benefits of vitamin D supplements; and

**WHEREAS** vitamin D supplements are inexpensive;

**BE IT RESOLVED** that the Alaska State Legislature respectfully requests the

Governor to establish prevention of disease as a primary model of health care in Alaska; and be it

**FURTHER RESOLVED** that the Alaska State Legislature encourages the Department of Health and Social Services and health care providers to increase attention to vitamin D deficiency and vitamin D blood testing and to promote awareness of the potential long-term health benefits of and increased chances of cancer survival with sufficient levels of vitamin D; and be it

**FURTHER RESOLVED** that the Alaska State Legislature urges the Department of Health and Social Services to

- (1) promote vitamin D supplements for the elderly potentially to prevent bone loss, falls, fractures, and other age-related health problems;
- (2) determine the relative effectiveness of influenza vaccination as compared with vitamin D supplementation, using the comparative treatment effectiveness analysis;
- (3) investigate substituting vitamin D supplementation as a cost-effective method for preventing influenza in the adult population not identified as high risk; and
- (4) promote vitamin D supplements for pregnant women and infants to prevent pregnancy complications, preterm births, type 1 diabetes, and rickets.