

HOUSE CONCURRENT RESOLUTION NO. 5

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SEVENTH LEGISLATURE - FIRST SESSION

BY REPRESENTATIVES SEATON, Tuck, Millett, Gruenberg

Introduced: 2/11/11

Referred: Health and Social Services

A RESOLUTION

1 **Relating to prevention of disease and to vitamin D.**

2 **BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

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

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

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

9 **WHEREAS** the state has a high incidence of preventable diseases that are correlated
10 with insufficient blood serum levels of vitamin D; and

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

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

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

1 reported that a study that compared cancer rates of a group taking 1100 IU of vitamin D
2 supplements in combination with calcium to cancer rates of a group taking a placebo found
3 the risk of developing any cancer after four years was 60 percent lower in the group taking
4 vitamin D supplements; and

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

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

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

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

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

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

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

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

1 deprived winter months than during the summer months; and

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

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

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

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

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

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

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

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

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

27 **WHEREAS** a 2010 article published in the American Journal of Clinical Nutrition
28 reported that a study of a group of Japanese school children who received 2,000 IU of vitamin
29 D a day showed a 50 percent reduction in the incidence of influenza compared to other school
30 children; and

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

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

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

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

9 **WHEREAS** a 2005 article published in the Journal of the American Medical
10 Association reported that elderly persons who had blood serum levels of vitamin D of at least
11 45 ng/ml experienced a 50 percent reduction of fractures, and a 2007 article published in the
12 Journal of the American Geriatric Society reported that elderly persons who had blood serum
13 levels of vitamin D of at least 30 ng/ml experienced a 72 percent reduction in falls compared
14 to those who had blood serum levels of vitamin D below 25 ng/ml; and

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

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

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

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

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

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

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

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

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

11 **WHEREAS**, although the Institute of Medicine of the National Academy of Sciences,
12 in 2010, recommended 600 IU a day of vitamin D, levels above 2,000 IU a day may be more
13 appropriate for those who live in the northern latitude; and

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

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

20 **WHEREAS** a 2010 article published in Molecular Nutrition and Food Research
21 regarding the rate of premature death and the economic burden in Canada found that annual
22 deaths could be reduced by 37,000 and the economic burden reduced by 6.9 percent or
23 \$14,400,000,000 if blood serum levels of vitamin D of the population were adequate; and

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

27 **WHEREAS** vitamin D supplements are inexpensive;

28 **BE IT RESOLVED** that the Alaska State Legislature respectfully requests the
29 Governor to establish prevention of disease as a primary model of health care in Alaska; and
30 be it

31 **FURTHER RESOLVED** that the Alaska State Legislature encourages the Alaska

1 Department of Health and Social Services and health care providers to increase attention to
2 vitamin D deficiency and vitamin D testing and to promote awareness of the long-term health
3 benefits of and increased chances of cancer survival with sufficient levels of vitamin D; and
4 be it

5 **FURTHER RESOLVED** that the Alaska State Legislature urges the Department of
6 Health and Social Services to provide vitamin D supplements to the elderly to prevent bone
7 loss, falls, fractures, and other age-related health problems; and be it

8 **FURTHER RESOLVED** that the Alaska State Legislature urges the Department of
9 Health and Social Services to investigate substituting vitamin D supplementation for influenza
10 vaccination as a less costly method for preventing influenza; and be it

11 **FURTHER RESOLVED** that the Alaska State Legislature urges the Department of
12 Health and Social Services to provide vitamin D supplements to pregnant women and infants
13 to prevent pregnancy complications, preterm births, type 1 diabetes, and rickets.