

ence of chronic diseases in the cadets overall effect on the level of vitamin D ($p=0.025$), but this is not due to nosological forms ($p=0.189>0.05$). From the bone-joint system, there are differences in the levels of vitamin D at 5 % level of significance, with low levels of vitamin D observed in the cadets with the chest deformity and flat feet. Thus, there is a contribution to an insufficient level of vitamin D are contributing factors such as the combination of in the body available virus - bacterial infection on the background of chronic pathology of gastrointestinal tract and disorders KSS-71,4%. It has the value of summer holiday of teenagers in areas of high solar insolation resulting in increased and even in winter was significantly higher than in adolescents, the vacation of which took place in the zone of low insolation($p<0.001$). Influenced by and taking multivitamins which include prophylactic dose of cholecalciferol (400-500ME) Alphabet, and Vitrum Duovit in contrast to the group with low vitamin D and adolescents did not take multivitamins($p<0.001$).

The analysed results indicate a high frequency of failure and deficiency of cholecalciferol in the Amur region in children 15-17 years of 86.6% with a mean level of vitamin 25(OH)D=26,74±0,81 ng/ml.

Conclusion. To prevent low vitamin D level of adolescents is necessary to study 25(OH)D, its correction and control, taking into account risk factors for developing deficiency of vitamin D. Prophylactic administration of vitamin D should continue, and adolescent children year-round, given the low solar insolation, with the use of vitamin d compounds.

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SOY – FROM ANCIENT BEANS TO MODERN SOY FOODS

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For Asia people Soy is a traditional food. Considering its role the leading specialist in the study of healthy effects of soy foods M. Messina wrote: "In China the word for soybean is ta-tou, which means "greater bean. It is not surprising to give the importance to soybeans because in Asian culture, they were both as a food and a medicine" (Messina, 1995). There are a lot of oriental soy-foods, such as soy milk – Doujiang (China), Tonyu (Japan), bean curd – Tofu (Japan), Dòufu (China), fermented beans – Natto (Japan), fermented bean paste – Miso (Japan), Doubanjiang or Douchi (China), Doenjang (Korea), soy sauce - Chiyou/siyau (China), Shōyu (Japan) and many others. In the West, soybeans for many years were best known for their high protein content. The healthy effects of Soy foods are being increasingly recognized in the USA, Europe and Russia only within the last decades mainly because of the results of epidemiological studies revealing the low incidence of pros-

tate and breast cancer and lower blood cholesterol in people from Asia countries. An impressive amount of research on Soy has evaluated the role of Soy foods in reducing chronic disease risk. Eight International Symposia on the Role of Soy in Health Promotion and Chronic Disease Prevention and Treatment were held within 1995-2009. The new Western style Soy foods were created and marketed as healthy foods. Soybeans were brought to Russia from northern-eastern China and nowadays are planted in the Amur Region, Altai region and Kuban territory near the Black Sea.

We begin the study of Soy phospholipids as membrane stabilizing drugs, capable to prevent and eliminate the damages of biological membranes caused by free radical oxidation of lipids (Archakov et al, 1982, 1983; Borodin et al., 1985) and to extract the excess of cholesterol from plasma cell membranes (Borodin et al., 1981, 1984; Borodin & Lopukhin, 1987) in the 80-th of the former century.

In the last decades we focused on the antioxidants of Soy (Borodin et al., 2000, 2012), cholesterol lowering effect of consumption of Soy protein foods (Borodin et al., 2009, 2011) and on the possibility of use of Soybean trypsin inhibitor for the development of new protease inhibitor drug (Pamirsky et al., 2012; Borodin et al., 2013). Our study of the effects of soy protein isolate and casein on blood lipids and glucose in Russian adults with moderate hyperlipidemia (Borodin et al., 2009) was cited by M. Messina, who wrote: "The first study was conducted by Russian investigators and utilized a cross over design. Twenty-eight middle aged hypercholesterolemic subjects (19 females and 9 males aged 50+/-2 y) consumed diets that contained cookies providing either 30 g isolated soy protein or 30 g skimmed milk protein. After two months, non-HDL-cholesterol (total cholesterol minus HDL-cholesterol) decreased 11% from 223 to 201mg/dL ($p=0.0023$) in the soy group whereas there was no change in the control" (Messina, 2010).

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