

In conclusion, it can be said that the use of spf-protection can reduce vitamin D levels in young people, especially in the climate of Belarus with limited solar radiation. The study showed that the majority of students demonstrate hypovitaminosis D, regardless of the use of SPF protection, however, those who constantly use sunscreen cosmetics have slightly lower vitamin D levels.

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DEFECTS OF THE MUSCULOSKELETAL SYSTEM

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The human musculoskeletal system is a complex system that provides support and movement of the body, supporting its weight and allows you to perform various tasks of a mechanical nature. At the same time, congenital malformations can disrupt the normal function of the musculoskeletal system, leading to significant health problems [1].

Keywords: malformations of limbs, musculoskeletal system, teratogens, embryogenesis, fetus.

According to the World Health Organization, about 8 million children are born annually in the world with congenital anomalies, of which 3 % are defects of the musculoskeletal system. Skeletal abnormalities include polydactyly, congenital clubfoot, clinodactyly, syndactyly, campomelia, amelia, ectrodactyly, brachydactyly, fociemia. The most common reducing limb malformations are amelia (1 in 10,000 newborns) and polydactyly (1 in 1,000 newborns) [2].

Congenital malformations of the musculoskeletal system are formed during fetal development. Reducing limb defects constitutes a diverse group of such anomalies. This group of defects is characterized by total hyperplasia or partial absence of skeletal limb structures. According to the classification used in international monitoring systems for congenital malformations of the musculoskeletal system, reductive limb malformations are divided into the following groups: proximal-intercalary defects; transverse terminal defects; longitudinal defects; splitting of the hand/foot. The critical periods of limb abnormality are 4–6 weeks of fetal development (peak limb formation). The main causes of limb malformations include exogenous causes (ionizing radiation, mechanical action, chemical factors, infectious agents) and endogenous factors (biological inferiority of germ cells, genetic pathology). Genetic predisposition affects the formation of limb defects in 15-30 % of cases: chronic maternal diseases (diabetes, thyroid diseases) – 10-20 %: hormonal changes in women – 10-15 %. In 50-70 % of cases, the etiology of the occurrence of defects of the musculoskeletal system cannot be established [2,3].

Defects of the musculoskeletal system can limit physical activity, cause chronic pain and lead to disability. In some cases, such defects require surgery or long-term rehabilitation. To reduce the likelihood of having children with defects of the musculoskeletal system, it is recommended to carry out periconceptual prophylaxis, which consists in creating optimal conditions for the maturation of germ cells, the formation of a zygote, its implantation and early fetal development. It is necessary to conduct medical and genetic counseling with an analysis of the pedigree, determination of the karyotype and HLA antibodies of the parents; diagnosis of the carriage of viral and bacterial infections [1,3].

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