

SECTION XXIII. CULTURE PHYSIQUE, SPORT ET KINÉSITHÉRAPIE

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NORDIC WALKING AS AN EFFECTIVE METHOD OF MEDICAL REHABILITATION AND PHYSICAL THERAPY

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According to the World Health Organization (WHO), an inactive lifestyle is a global problem for the public health system. WHO experts say that at least 60% of the world's population does not follow the recommended level of physical activity needed to have a positive effect on physical health. Insufficient physical activity is the fourth most important risk factor for global mortality (1.9 million deaths worldwide). In addition, according to WHO estimates, insufficient physical activity is the main cause of approximately 21-25% of cases of breast and colon cancer, 27% of cases of diabetes and approximately 30% of cases of coronary heart disease [1]. Of particular concern is the global trend of hypodynamics among certain groups of the population, which include young people, women and the elderly.

The Global Physical Activity Guidelines, developed by the World Health Organization, state that increasing physical activity is a problem not only for individuals but for society as a whole. Therefore, to solve it requires a multisectoral, multidisciplinary approach that focuses on individual groups and takes into account the peculiarities of culture [1]. The results of many studies conducted in different countries around the world suggest that regular physical activity is crucial for maintaining the health of people of all ages. As for the older age group, the data on health benefits are even more convincing than in all other groups, because the negative impact of insufficient physical activity on the health of the elderly is most pronounced in this age group [1].

Nordic walking is a walk at a special pace using special sticks. Nordic walking is a relatively new direction in physical culture that emerged in the mid-1990s in Finland thanks to Finnish skiers who used ski poles during off-season training. Nowadays, Nordic walking has become an independent type of physical activity, which has indisputable advantages for people of all ages. Since walking in general is one of the most appropriate forms of physical activity for older people, due to its

functionality, safety and accessibility, Nordic walking in this case is a very promising direction due to the fact that it allows to achieve even greater training effect, because with such walking involves all the big muscles as in cross-country skiing [4].

The technique of Nordic walking corresponds on the one hand to the natural stereotype of movement during normal walking, and on the other - to the technique of walking on skis, which ensures the participation of the muscles of the whole body in the process of movement. The movement of the hands allows human to increase the effectiveness of training by 40%. Experience shows that after the first steps with sticks, most participants can feel and catch their rhythm of walking. The formation of a new motor stereotype occurs during the first 2-3 sessions.

Due to the peculiarities of the movements, Nordic walking effectively affects not only the muscles of the legs, but also the shoulders, abdomen and back. Sticks, used as a support, reduce the load on the knee joints and hip area, so this type of exercise is suitable for people with foot disease. For overweight people, Nordic walking will be a great analogue of running, because the load on the joints is much less. The speed of movement in the process of Nordic walking is quite high. Walking with a support on a stick forces human to keep a straight posture and the correct position of the spine, which strengthens the muscles of the back.

The results of many studies have shown that Nordic walking improves the condition of the cardiovascular and respiratory systems [2], relieves tension in the muscles of the neck and shoulders, strengthens the back muscles, reduces the load on the joints of the legs by 10-20% compared to normal walking, improves mood, resistance to stress, reduces irritability, regulates the central nervous system. Walking with sticks keeps in tone all the major muscle groups. The energy cost of Nordic walking is higher on 50% than normal walking due to the inclusion the 90% of the muscles of the whole body, which is effectively used in the program to reduce and stabilize body weight, for the treatment of obesity and metabolic syndrome. Practicing Nordic walking in the fresh air has a positive effect on the work of all body systems. It is made the correct posture, with the straightened back and the straightened shoulders, using such type of walking.

Today, in German hospitals, Nordic walking is a mandatory element of the physical rehabilitation program [3]. Analysis of scientific studies has shown that in Western Europe, more than 10 million people are engaged in Nordic walking, 35% of them began their classes with this type of physical activity as a means of physical rehabilitation [3].

People can do Nordic walking both individually and in groups. And in addition to the beneficial effect on the functionality of the elderly, Nordic walking is important in social terms. Nordic walking programs for the elderly help to strengthen the social and intercultural interaction of the elderly, especially when they are designed for classes in small groups or social centers. Older people who regularly engage in Nordic walking, in the process of employment have the opportunity to establish new friendships and acquaintances, being more physically active, they become more active in social terms, ie less likely to be excluded from society. Regular exercising of Nordic walking in a group with an instructor or just with acquaintances and friends help the elderly to overcome feelings of loneliness, as well as help to overcome stereotypes of perception of old age and the elderly. Nordic walking and a physically active lifestyle allow older people to maintain functional independence and optimize active participation in society.

The own experience of group classes, master classes, individual trainings has proved that Nordic walking is an effective means of physical therapy and rehabilitation

in patients with pathology of the musculoskeletal system. This type of physical activity has proven its effectiveness as a form of recreational and healthful physical activity for people of all ages, including individuals with low health level and older age groups.

References:

- [1] *Глобальные рекомендации по физической активности для здоровья.* (2010). ВОЗ.
- [2] Гоженко, Е.А., Усенко, Е.А., Чабанюк Т.В., (2013) Клинико-патогенетическое обоснование применения лечебной дозированной «нордической» ходьбы у пациентов с сочетанной сердечно-сосудистой патологией. *Запорожский медицинский журнал*, (4), 69-72.
- [3] Полетаева, А.В. (2013) *Скандинавская ходьба. Здоровье легким шагом.* Санкт-Петербург :Питер
- [4] Kantaneva, M. (2010) *Original Nordic Pole Walking.* Pad-centre.
- [5] Svensson, M. (2009) *Nordic Walking.* Human Kinetics.