

Hydrotechnical projects often have environmental implications. It is crucial to mitigate negative impacts on ecosystems and biodiversity. Incorporating eco-friendly practices, such as habitat restoration and sustainable water management, ensures a harmonious coexistence between hydrotechnical structures and the environment [2].

The integration of emerging technologies can significantly enhance safety in hydrotechnical structures. Monitoring systems, advanced materials, and data analytics contribute to real-time risk assessment and early detection of potential issues, allowing for timely intervention.

Safety in hydrotechnical structures requires collaboration among various stakeholders, including government agencies, engineers, and local communities. Public engagement initiatives foster a culture of safety awareness and enable collective efforts to address potential risks.

Analyzing historical incidents related to hydrotechnical structures provides valuable insights into improving safety practices. By learning from past failures, the industry can implement measures to prevent similar incidents and continuously enhance safety protocols.

**Conclusion.** Ensuring the safety of hydrotechnical structures is a shared responsibility that requires a holistic approach. By prioritizing compliance with regulations, embracing technological innovations, and learning from past incidents, the industry can create a safer environment for both the infrastructure and the communities it serves. Continuous vigilance, collaboration, and innovation are key to mitigating potential hazards and ensuring the long-term sustainability of hydrotechnical projects [1,2,3].

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## STRETCHING AS A MEANS OF FLEXIBILITY DEVELOPMENT

**Introduction.** Recently, the state of health of students is increasingly deteriorating. According to the researches of N. V. Bohdanovskoi, H. L. Apanasenko, M. V. Dutchak, "the general regularity of the increase in cardiovascular diseases and the deterioration of the body's functional reserves is revealed. In the Decree of the President of Ukraine on the approval of the State-wide program "Health-2020: Ukrainian dimension" it is stated that 61% of the population of Ukraine aged 16-19 years has a low level of physical fitness'. [3] To improve physical fitness, namely the development of flexibility, you can use stretching (the direction of fitness aimed at stretching all muscle groups, increasing flexibility and mobility). That is why the research of stretching as a means of developing flexibility is an urgent problem.

**Purpose:** to investigate stretching as a means of developing flexibility and to determine its impact on human health under the condition of constant training.

**Analysis of literary sources.** D. Iu. Andriievska (2022) talks about the importance of stretching as a form of fitness in her article "The role of stretching in the development of a person's physical and psychological state." She cites many arguments regarding the benefits of stretching, the most important of which are: improvement of muscle blood flow, strengthening of strength endurance, and suspension of muscle atrophy processes. [1]

A. M. Harlinska, N. M. Korniiichuk, O. V. Solodovnyk (2022) in their study "Modern physical culture and health technologies in physical education" consider variations of stretching exercises, namely: static, dynamic and ballistic stretching. They explore combinations of these exercises when performed, their benefits and advantages over other exercises. The article also provides recommendations and rules that should be followed to achieve the best results. [2]

During the analysis of literary sources, the benefits of stretching and its varieties were clarified, variations of exercises, as well as recommendations for their implementation, were studied.

**Research results.** According to the results of the study, it was established that stretching, as one of the types of fitness programs, has a positive effect on the human body with regular practice. Stretching exercises are aimed at training muscles and increasing their elasticity, as well as joint mobility and increasing endurance. Regular classes improve blood circulation and reduce heart load. That is why people who have cardiovascular diseases are recommended to perform various stretching exercises. In addition, the improvement of blood flow improves the condition of the skin and muscles, because in this way their metabolism improves and toxins are removed. Researchers have also found that stretching exercises have a positive effect on the psycho-emotional state, the main thing is to enjoy the process and not overload the body, since incorrect execution of exercises, on the contrary, can lead to a deterioration in well-being.

Stretching is recommended as a separate type of physical activity, and as an additional method of helping the body during other types of sports activities. Stretching itself is divided into several types, which differ in load and sets of exercises. Looking at this, everyone can choose an appropriate set of exercises, taking into account their physical capabilities, as well as personal needs and preferences.

**Conclusions:** During the research of stretching as a means of developing flexibility, it was established that, under the condition of constant training, it has a comprehensive positive effect on the physical and psycho-emotional state of a person. Stretching helps develop flexibility by increasing muscle elasticity and improving joint mobility.

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