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PHYSICAL ACTIVITY OF THE STUDENT YOUTH

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The article focuses on the problem of physical activity, which is extremely widespread in the today's world. The article's author defines the term of the lack of physical activity, finds out and explain the reasons and negative health outcomes of it. The better half of the article is dedicated to the standarts of normal physical activity, and in conclusion the author encapsulates the ways to lead healthy lifestyle.

Keywords: *lack of physical activity, healthy lifestyle, hypodynamia, human health, diseases, body, students, young people, sedentary lifestyle.*

Topicality. As it is known, human health more than 50 % depends on his lifestyle. One of the most important components of a student healthy lifestyle is the optimal level of physical activity. The lack of physical activity (also known as hypodynamia) leads to increasing of an amount of physical and psychological problems and chronic diseases, reducing mental and physical performance. Nowadays it is very common among young people, because of computerisation's process of the modern society affecting, people expecially, of 18 to 50 years of age. One of the most apparent side affect of it is the spread of so-called sedentary lifestyle, that means people spend the larger part of their life sitting motionlessly in front of the computer, at workplace or at university.

The problems of the lack of physical activity of students. According to the opinion of experts from the World Health Organization (WHO), physical activity is any bodily movement produced by skeletal muscles that requires energy — including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational activities [1].

As for adults aged 18—64 years (the group that includes students as well) WHO recommends at least 150 minutes of moderate-intensity physical activity throughout the week, or at least 75 minutes of high-intensity physical activity throughout the week, or an equivalent combination of moderate— and vigorous-intensity activity. For additional health benefits, adults should increase their moderate-intensity physical activity to 300 minutes per week, or so. Muscle-strengthening activities should be done with major muscle groups involved 2 or more days a week [1; 2].

WHO's experts say, there is a lot of key facts of physical activity, they include the statement that insufficient physical activity is one of the leading risk factors for death worldwide, being also a key risk factor for non-communicable diseases (NCDs) such as cardiovascular diseases, cancer and diabetes. Physical activity has significant health benefits and contributes to NCDs prevention. However, globally, 1 of 4 adults is not active enough. Also, More than 80 % of the world's adolescent population is insufficiently physically active [3].

Physical Activity Facts. Overview

The Physical Activity Guidelines for Americans, 2nd edition recommends children and adolescents ages 6 to 17 years do 60 minutes or more of moderate-to-high intensity physical activity daily [6].

Benefits of Physical Activity

Regular physical activity can help children and adolescents improve cardiorespiratory fitness, develop strong bones and muscles, control weight, reduce symptoms of anxiety and depression, and reduce the risk of developing health conditions such as [5]:

- heart disease;
- cancer;
- type 2 diabetes;
- high blood pressure;
- osteoporosis;
- obesity.

Consequences of Physical Inactivity

Physical inactivity can:

- Lead to energy imbalance (e.g., expend less energy through physical activity than consumed through diet) and can increase the risk of becoming overweight or obese [18].
- Increase the risk of factors for cardiovascular disease, including hyperlipidemia (e.g., high cholesterol and triglyceride levels), high blood pressure, obesity, and insulin resistance and glucose intolerance [5; 9; 10].
- Increase the risk for developing type 2 diabetes [5; 11].
- Increase the risk for developing breast, colon, endometrial, and lung cancers [7; 8].

- Lead to low bone density, which in turn, leads to osteoporosis [15].

Physical activity behaviors of young people:

- Less than one-quarter (24 %) of children 6 to 17 years of age participate in 60 minutes of physical activity every day [12; 14].
- In 2017, only 26.1 % of high school students do at least 60 minutes per day of physical activity all 7 days of the previous week [13].
- In 2017, 51.1 % of high school students did in muscle strengthening exercises (e.g., push-ups, sit-ups, weight lifting) 3 or more days during the previous week [16].
- In 2017, 51.7% of high school students attended physical education classes in an average week, and only 29.9 % of high school students attended physical education classes daily [17].

The harmful effects of not getting enough physical activity. According to the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), not getting enough physical activity can lead to heart disease — even for people who have no other risk factors. Also, can increase the possibility of developing other heart disease risk factors, including obesity, high blood pressure, high blood cholesterol, and type 2 diabetes. Not getting enough physical activity can raise a person's risk of developing type 2 diabetes. Physical activity helps control blood sugar (glucose), weight, and blood pressure and helps raise «good» cholesterol and lower «bad» cholesterol. Adequate physical activity can also help reduce the risk of heart disease, cardiovascular disorders that are associated with obesity (cancer, hypertension, myocardial infarction, and stroke) and nerve damage, which are often problems for people with diabetes. Doing the recommended amount of physical activity one can lower the risk of many cancers, including cancers of the bladder, breast, colon, uterus, esophagus, kidney, lung, and stomach. These effects apply regardless of weight status [2].

The main reason of low level of a physical activity of students. Recently, most of the students has lack of motor activity because of the excessive academic workload that leads to physical inactivity. Typically, students spend the majority of their time sitting in front of the computer at home or attending classes at university. It should be noted, that only the time student spends inactively has a negative effect on one's health. On average, student's class lasts for 90 minutes, and, considering 3—4 classes per day, an average student spends 4,5—6 hours sitting. Hence, such processes like compromisation of cardiovascular system, muscle and fatty degeneration take place. All of this leads to many diseases beyond cure, like prostatitis, osteochondrosis, lumbago, radiculitis, curvature of the spine [4].

The way to prevent the lack of physical activity. As we can see, firstly the lack of motor activity reflects on the musculoskeletal, heart-vascular, the respiratory and central nervous system. Research and analysis of the healthy lifestyle problem in scientific literature showed, that there is different data on the student physical activity.

Professor A. Ostrovski from the Gomel State University of Medicine has stated that average daily motor activity of students is proportional to 5,5—8 kilometres of walking, with 2,1—2,8 kilometres at the period of term exams, and 9—12 kilometres during the holidays. This demonstrates that the level of motor activity of students is notably higher at the period of the holidays, coinciding with the physical need for motion.

During the semester and session period there is a real lack of motor activity in students, that lasts for 10 months. Physical inactivaty can be caused by the situation when a student does exercises only 4 hours a week. Unfortunately, attending only physical education classes cannot recoup general lack of weekly physical activity. The most relevant physical activity regime is that of 8—12 of physical activity hours per week for youn men, and 6-10 hours for young women.

Therefore, the determining factor of optimization of physical activity is doing sports out-of-class. Forms of out-of-class lessons are various: morning exercises, break for physical activity, doing diverse sports or remedial gymnastic during non-study time. On average, a student should work out and do sports about 1,5—2 hours 3 times per week. Those who are fond of self-exercising must be cyclical physical exercises: walking, running, swimming, skiing, skating, cycling etc. It is good for the cardiovascular and the respiratory system and develops endurance.

The most popular way to preserve a healthy lifestyle among students is going to gym, pool, some specialized sports club, for example martial art's clubs (boxing, judo, karate). In addition, most of educational institutions can afford students an opportunity to go to sport clubs and even participate in sports competitions. The most popular forms of them are volleyball, football and tennis.

Summary. The problem of the lack of physical activity is real and, probably, being depreciated, first of all, by students themselves. However eventful and difficult the student's life may be, this is an absolute necessity to find time to do sport to keep oneself alert

and alive. Above mentioned results of research demonstrate, by what accompanied the sedentary lifestyle for young people and with what problems they'll deal in the future. Hence, it becomes perfectly clear that immediate surrender from such regime is the key to be healthy.

References

1. Physical activity. What is physical activity? *World Health Organization*. Available at: https://www.who.int/news-room/fact-sheets/detail/physical-activity.

2. Lack of physical activity. *CDC. Centers for Disease Control and Prevetion*. Available at: https://www.cdc.gov/chronicdisease/resources/publications/factsheets/physical-activity.htm.

3. Zavgorodneva D.V., & Safonova O.A. Negative impact of a sedentary lifestyle on students. *Success pedagogy: prospects and opportunities*. Cheboksary, Interaktiv plus. Available at: https:/interactive-plus.ru/en/article/472158/discussion_platform.

4. Simona F., Radu L. Vanvu G. I. The Level of Physical Activity of University Students. *Procedia — Social and Behavioral Sciences*, 2015, no. 197, pp. 1454—1457.

5. Physical Activity Guidelines Advisory Committee. *Physical Activity Guidelines Advisory Committee Scientific Report*. Washington, US Dept of Health and Human Services, 2018.

6. US Department of Health and Human Services. *Physical Activity Guidelines for Americans*. 2nd ed. Washington, US Department of Health and Human Services, 2018.

7. National Physical Activity Plan Alliance. *The 2018 United States Report Card on Physical Activity for Children and Youth*. Washington, National Physical Activity Plan Alliance, 2018.

8. *Institute of Medicine. Preventing childhood obesity: health in the balance*. Washington, The National Academies Press, 2005.

9. Loprinzi, P. D., Lee I., Andersen R. E., Crespo C. J., Smit E. Association of concurrent healthy eating and regular physical activity with cardiovascular disease risk factors in US youth. *American Journal of Health Promotion*, 2015, no. 30 (1), pp. 2—8.

10. Cuenca-Garcia M., Ortega F. B., Ruiz J. R. et al. Combined influence of healthy diet and active lifestyle on cardiovascular disease risk factors in adolescents. *Scandinavian Journal of Medicine & Science in Sports*, 2014, no. 24 (3), pp. 553—562.

11. Kriska A., Delahanty L., Edelstein S. et al. Sedentary behavior and physical activity in youth with recent onset of type 2 diabetes. *Pediatrics*, 2013, no. 131 (3), pp. e850—e856.

12. The Child & Adolescent Health Measurement Initiative (CAHMI). *National Survey of Childrens Health*. Data Resource Center for Child and Adolescent Health, 2016.

13. Laura K., McManus T., Harris W. A. et al. Youth Risk Behavior Surveillance — United States, 2017. *MMWR*, 2018, no. 67 (8), pp. 1—144.

14. Centers for Disease Control and Prevention. School Health Guidelines to Promote Healthy Eating and Physical Activity. *MMWR*, 2011, vol. 60, no. RR-5.

15. *Physical Activity Guidelines for Americans Midcourse Report: Strategies to Increase Physical Activity Among Youth*. Washington, US Department of Health and Human Service, 2012.

16. *Institute of Medicine. Educating the Student Body: Taking Physical Activity and Physical Education to School*. Washington, The National Academies Press, 2013.

17. *Centers for Disease Control and Prevention. A Guide for Developing Comprehensive School Physical Activity Programs*. Atlanta, Centers for Disease Control and Prevention, US Department of Health and Human Services, 2013.

18. *Centers for Disease Control and Prevention. The Association Between School-Based Physical Activity, Including Physical Education, and Academic Performance*. Atlanta, Centers for Disease Control and Prevention, US Department of Health and Human Services, 2010.

19. Michael S. L., Merlo C., Basch C. et al. Critical connections: health and academics. *Journal of School Health*, 2015, no. 85(11), pp. 740—758.

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Физическая активность студенческой молодежи

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Статья посвящена проблеме физической активности, которая необычайно распространена в наши дни. Автор объясняет причины нехватки физической активности, выявляет и объясняет её негативные последствия для здоровья студентов. Автор рассматривает разные аспекты здорового образа жизни и приходит к выводу, что здоровье человека зависит от его образа жизни более чем на 50 %. Одним из самых значимых составляющих здорового образа жизни студента является оптимальный уровень физической активности. Недостаток физической активности (также известный как гиподинамия) ведет к увеличению числа физических и психологических проблем, хроническим заболеваниям, снижению психологических и физических показателей.

Ключевые слова: *недостаток физической активности, здоровый образ жизни, гиподинамия, студенты, сидячий образ жизни.*

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