

**SPORT AND HEALTH: AN ACTIVE LIFESTYLE**

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**Annotation:** This article is dedicated to analyzing the biological effects of an active lifestyle and sports on human health. It highlights how physical exercises positively impact the cardiovascular system, muscles, nervous system, and immunity. Additionally, the article elaborates on the psychological benefits of sports and an active lifestyle, as well as their role in energy metabolism within the body. The biological foundations of maintaining health and longevity through an active lifestyle are scientifically substantiated.

**Keywords:** Active lifestyle, sports, biology, health, cardiovascular system, muscles, immunity, metabolism, psychological health.

**Introduction.** In today's modern world, a healthy lifestyle is not only the foundation of personal well-being but also a guarantee of longevity. Engaging in an active lifestyle and sports plays a significant role in ensuring the proper functioning of the human body, protecting against diseases, and fostering the development of a healthy generation.

A healthy lifestyle encompasses cultural and physical development, increased productivity, and creative activity. The main components of a healthy lifestyle include effective work habits, personal hygiene, strict adherence to hygiene standards, avoiding harmful habits, regular and timely nutrition, physical and mental strengthening, and consistent involvement in physical fitness. A healthy lifestyle serves as a primary measure for disease prevention and facilitates the fulfillment of physical and mental demands at an optimal level. With time, the variety of health-promoting methods continues to grow.

**Main part.** The relevance and importance of wellness technologies in physical education and sports stem from their focus on preserving and enhancing human health primarily through physical activity. The effectiveness of wellness practices is an essential component of any form of physical exercise. Consequently, all aspects of physical culture—sports, foundational, professional, recreational, and therapeutic physical activities—serve wellness functions.

In today's society, the need to strengthen health through physical education, including the use of new and evolving tools and technologies, is steadily increasing. This necessitates specialized, organized activities aimed at effectively addressing health-related challenges.

One of the primary objectives of wellness technologies in physical education and sports is to encourage individuals to maximize their internal potential. It also aims to inspire people to create a "healthy lifestyle" for themselves and others, to dream of a healthy generation, and to pursue the means to achieve it. These objectives emphasize preserving and strengthening health and promoting longevity.

The human body is a complex system designed for movement, and an active lifestyle ensures its optimal functioning. The biological foundations of physical exercises and sports can be explained through the following mechanisms:

1. Activation of the Muscular System:

Regular physical activity promotes the growth and development of muscles. During muscle contraction and extension, blood circulation is enhanced, delivering more oxygen and nutrients to cells. Continuous muscle activity maintains muscle tone and prevents degenerative diseases.

2. Impact on the Cardiovascular System:

Engaging in sports strengthens the heart, improves blood circulation, and helps regulate arterial blood pressure. During physical activity, the heart rate increases, ensuring that blood reaches all cells in the body.

3. Improvement of the Nervous System:

An active lifestyle accelerates signal transmission between nerve cells, enhancing brain efficiency and resilience to stress. Sports increase the production of endorphins, improving mood and reducing psychological issues such as depression.

By maintaining an active lifestyle, individuals can achieve better health, prevent illnesses, and support a long and healthy life.

Physical activity increases the body's energy expenditure and regulates metabolism. This process is biologically implemented in the following ways:

1. Utilization of glycogen and fat reserves: During exercise, muscles use glycogen and fat reserves as energy sources. This helps the body lose excess fat and maintain a healthy weight.

2. Enhancement of mitochondrial activity: Physical exercise stimulates the production of mitochondria, the "powerhouses" of the cell, which are essential for proper cellular function. This process improves endurance and strengthens the body.
3. Metabolic changes: Physical activity increases the basal metabolic rate, ensuring efficient breakdown of nutrients from food and supporting the body's optimal functioning.

Sports activities also strengthen the immune system by stimulating the production of lymphocytes and phagocytes, which are essential in fighting infections. The activation of the immune system occurs through:

1. Improved blood circulation: During exercise, blood flow increases, allowing immune cells to move effectively throughout the body.
2. Anti-inflammatory effects: Physical activity reduces inflammation markers, lowering the risk of chronic diseases.
3. Antioxidant activity: Exercise generates free radicals that can damage cells, but it also enhances the body's antioxidant system, minimizing this damage.

Active Lifestyle and Exercise: Positive Impacts on the Body's Systems.

- An active lifestyle and regular exercise have a positive effect on all systems of the body. This process includes:
  - Improvement of the cardiovascular and respiratory systems;
  - Strengthening of muscles and bones;
  - Preservation of psychological well-being;
  - Strengthening of the immune system, which contributes to an increase in life expectancy.

The human biology is well-adapted to effectively reap the benefits of physical activity. Therefore, incorporating daily exercise into one's lifestyle is not only essential for individual health but also plays a significant role in improving the overall health of society.

**Conclusion.** In conclusion, an active lifestyle is an integral part of a healthy and happy life, and its biological foundations have been scientifically proven. Physical activity not only supports health but also contributes to both internal and external personal development. This effort allows us to live healthier, more productive, and longer lives.

This article aims to shed light on the biological aspects of an active lifestyle, detailing the body's complex mechanisms and the effects of exercise on them. Everyone can achieve a healthy and prosperous life through an active lifestyle.

#### References

1. Sog'lom turmush tarzi asoslari. (2021). O'zbekiston Respublikasi Sog'liqni saqlash vazirligi.
2. Jismoniy faollik ilmi. (2021). Birlashgan Millatlar Tashkiloti Giyohvandlik va jinoyatchilik bo'yicha boshqarmasi.
3. Jamiyatda sog'lom turmush tarzini tashkil etish. (2021). O'zbekiston Respublikasi Jismoniy tarbiya va sport vazirligi huzuridagi Jismoniy tarbiya va sport bo'yicha mutaxassislarni ilmiy-metodik ta'minlash, qayta tayyorlash va malakasini oshirish markazi.
4. Jismoniy tarbiya va sport. (2020). Toshkent irrigatsiya va qishloq xo'jaligini mexanizatsiyalash muhandislari instituti.
5. Sog'lom turmush tarzini shakllantirishning pedagogik asoslari. (2020). Toshkent davlat pedagogika universiteti.