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MUSCULAR SYSTEM AND ITS MAIN FUNCTION

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ABSTRACT:

This article extensively covers the structure, main types and functional significance of the muscular system. It is argued that the muscular system plays an important role in ensuring movement in the human body, controlling the activity of internal organs, maintaining body position and energy metabolism. The article separately considers skeletal muscles, smooth muscles and cardiac muscle, and analyzes their morphological and physiological properties. The mechanism of muscle contraction, energy consumption and heat generation processes are also explained. The results of the study show that physical activity, proper nutrition and a healthy lifestyle are important factors for the healthy functioning of the muscular system. The main purpose of the article is to comprehensively cover the muscular system and its functions on a scientific basis.

Introduction

The muscular system is one of the important systems of the human body, which plays a key role in the implementation of movement, maintaining body position and controlling the activities of internal organs. Muscles have the property of contracting and relaxing, through which the body interacts with the external environment. The muscular system makes up approximately 40-50% of the mass of the human body and, together with the skeletal system,

forms the locomotor apparatus. Muscle tissue is divided into three main types: skeletal muscles, smooth muscles and cardiac muscle. Each type has its own structure and function, satisfying different needs of the body.

Research materials and methodology:

This article was prepared based on a study of scientific literature on anatomy, physiology and biology. The structure and functions of the muscular system were analyzed morphologically, physiologically and functionally. The data were systematized using methods of comparison, analysis and generalization of scientific sources.

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Research results:

The muscular system is considered to consist of three main types, each of which performs its own specific functions. Skeletal muscles are attached to bones and provide voluntary movements. They contract quickly and tire quickly. These muscles play an important role in activities such as walking, running, and arm and leg movements. Smooth muscles are located in the walls of internal organs and work involuntarily. They contract slowly and function for a long time. These muscles control the activity of the stomach, intestines, blood vessels and urinary tract. Cardiac muscle is located only in the heart and contracts automatically and rhythmically. It works continuously throughout life. The muscular system performs a number of important functions: providing movement, maintaining body position, controlling the movement of internal organs, supporting blood circulation, participating in the respiratory process, and generating heat. As a result of muscle contraction, energy is spent and heat is generated. This helps maintain body temperature at a normal level.

Conclusion:

The muscular system is an integral part of the human body, which plays an important role in ensuring movement, controlling the activities of internal organs, and supporting general vital processes. Different types of muscles and their specific functions are necessary for the normal functioning of the body. Muscle activity is inextricably linked with the nervous system and circulatory system, and their harmonious functioning ensures the health of the body. To keep the muscular system healthy, it is necessary to perform regular exercises, eat right, and follow a healthy lifestyle. This serves to strengthen the human body and prevent diseases.

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