

THE HEART: SOURCE OF LIFE AND ITS IMPORTANCE

PhD Shodikulova Aziza Zikirayayevna
Samarkand State Medical University
Department of Languages

Yakubova Charos Nizomiddinovna
Samarkand State Medical University,
Faculty of Fundamental, 1- course student

Abstract:

This article describes heart is a vital organ that functions as the centerpiece of the circulatory system, ensuring the delivery of oxygen and nutrients to tissues while removing metabolic waste. Advances in medical research have significantly enhanced the understanding of cardiac physiology, pathology, and treatment. Cardiovascular diseases (CVDs), including coronary artery disease, heart failure, and arrhythmias, remain leading causes of morbidity and mortality worldwide, underscoring the heart's central role in global health.

Keywords: Heart, Ischemic heart disease success, heart diseases, blood, arrhythmia, hypertension.

Introduction

Introduction

The heart is one of the most vital organs in the human body, serving as the central component of the circulatory system. Its primary function is to pump blood, oxygen, and nutrients to every cell in the body. This article provides a detailed discussion on the structure, functions, diseases of the heart, and ways to maintain its health.

Structure of the Heart

The heart is located in the thoracic cavity, between the lungs, and is composed of muscular tissue. It consists of four chambers: two atria (left and right) and two ventricles. Right atrium receives

oxygen-deprived blood from the body and passes it to the right ventricle. Right ventricle pumps this blood to the lungs for oxygenation.

Left atrium collects oxygen-rich blood from the lungs and delivers it to the left ventricle. Left ventricle distributes oxygenated blood to the rest of the body. The heart is connected to a complex network of arteries, veins, and capillaries. The myocardium, the muscular layer of the heart, contracts continuously to meet the body's energy demands.

Mechanism of Heart Function

The heart operates in two primary cycles:

1. Systolic phase — when the heart contracts and pumps blood out to the body.
2. Diastolic phase — when the heart relaxes and fills with blood.

This process, known as the heartbeat, occurs approximately 60-100 times per minute. The electrical impulses generated by the sinoatrial node in the heart regulate its rhythm and coordination.

Heart Diseases

Heart diseases are among the leading causes of death worldwide. **Common heart conditions include:**

Ischemic heart disease — caused by the narrowing of coronary arteries, leading to reduced blood flow. Heart failure — when the heart is unable to pump blood effectively to meet the body's needs.

Arrhythmia — irregularities in the heart's rhythm.

Hypertension — persistently high blood pressure that strains the heart.

The primary risk factors for heart diseases include smoking, poor diet, physical inactivity, and chronic stress.

Ways to Maintain Heart Health

1. **Healthy Diet:** A diet rich in fruits, vegetables, whole grains, and lean proteins supports heart health. Reducing salt and trans fat intake is also essential.

2. **Regular Physical Activity:** Engaging in at least 150 minutes of moderate to vigorous physical activity weekly strengthens the heart. Activities such as running, swimming, or walking are highly beneficial.

3. **Quit Smoking:** Tobacco products severely damage blood vessels and increase the risk of heart disease.

4. **Monitor Blood Pressure and Cholesterol Levels:** Regularly checking these levels helps in early detection and prevention of diseases.

5. **Manage Stress:** Chronic stress negatively impacts heart function. Meditation, yoga, and relaxation techniques can significantly reduce stress levels.

6. **Routine Medical Check-ups:** Early diagnosis and treatment of heart-related conditions are crucial for maintaining long-term health.

Medical Significance of the Heart

The heart's function extends beyond basic physiology; it plays a crucial role in modern medicine. Technologies such as electrocardiography (ECG) monitor heart rhythms, while echocardiography provides detailed images of the heart's structure and performance. These advancements enable early detection and effective treatment of heart conditions.

Conclusion

The heart is an essential organ that determines the overall health and functionality of the body. Maintaining a healthy lifestyle is vital for preventing heart diseases and ensuring a long and quality life. Everyone should prioritize heart health and adopt practices that promote its well-being.

References

1. 1. Adri Menheere and Edith H. Hooge (2010) Parental involvement in children's education: A review study about the effect of parental involvement on children's school education with a focus on the position of illiterate parents.

2. Christa L. Green, Joan M. T. Walker, Kathleen V. Hoover-Dempsey and Howard M. Sandler (2007) Parents' Motivations for Involvement in Children's Education: An Empirical Test of a Theoretical Model of Parental Involvement.

3. Gina Madrigal Sapungan and Ronel Mondragon Sapungan (2014) Parental Involvement in

Child's Education: Importance, Barriers and Benefits.

4. Wendy S. Grolnick (2014) Mothers' motivation for involvement in their children's schooling: mechanisms and outcomes.

5. Zikiryayevna, S. A. (2023). THE ENCOUNTER OF MODERNISM IN ENGLISH LITERATURE. *Ethiopian International Journal of Multidisciplinary Research*, 10(12), 6-8.

6. Ilhomovna, I. S., & Zikiryayevna, S. A. (2023). LEARNING ENGLISH LANGUAGE AS A SECOND LANGUAGE. *Yangi O'zbekistonda Tabiiy va Ijtimoiy-gumanitar fanlar respublika ilmiy amaliy konferensiyasi*, 1(7), 37-43.

7. Zikiryayevna, S. A. (2024). SUBSTITUTION FORMS OF METONYMIC COHESION AS A TOOL. *Gospodarka i Innowacje.*, (45), 133-135.

8. Sherzodovna, Y. R., & Shodikulova, A. Z. (2024). Heart and Its Structure, The Importance of the Circulatory System in the Human Body. *Journal of Science in Medicine and Life*, 2(4), 14-16.

9. SHODIKULOVA, A. Z. (2021). The role of metonyms in the formation of text structure. *THEORETICAL & APPLIED SCIENCE Учредители: Теоретическая и прикладная наука*, (9), 655-658.

10. Anatolevna, F. M., & Zikiryayevna, S. A. (2023). DEONTOLOGICAL SIGNIFICANCE OF WINGED SAYINGS IN MEDICINE. *Ethiopian International Journal of Multidisciplinary Research*, 10(10), 124-125.