

Arterial Hypertension in Young People

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Abstract In this article, we will explore the various aspects of arterial hypertension in young people, shedding light on the alarming rise, potential reasons, and the importance of early detection and management. We will delve into the impact of lifestyle choices, genetics, and underlying medical conditions, along with highlighting the long-term implications and effective strategies for prevention and control.

Keywords Arterial hypertension, Young people, Hypertension in youth, High blood pressure, Risk factors, Lifestyle, Obesity, Sedentary lifestyle, Unhealthy diet, Stress, Genetics, Family history, Early detection, Screening, Prevention, Diagnosis, Treatment

Arterial hypertension, also known as high blood pressure, has long been considered a disease of the elderly. However, in recent years, there has been an alarming increase in the incidence of hypertension in young people. This trend is worrying as high blood pressure is a major risk factor for the development of serious cardiovascular diseases. Therefore, it is important to understand why this trend exists and what can be done to prevent and manage hypertension in young people. However, in recent years, there has been an alarming increase in the incidence of arterial hypertension in young people. The prevalence of hypertension in youths aged 18-39 years has increased from 11.8% in 1999-2000 to 19.0% in 2017-2018, according to a report by the National Health and Nutrition Examination Survey (NHANES). The rise of hypertension among young individuals is a concern as it can significantly impact their long-term health and lifespan. This article will discuss the causes, risks, prevention, and management of arterial hypertension in young individuals in detail. What is arterial hypertension? Blood pressure is the force that blood exerts against the walls of the arteries as it flows through the circulatory system. Normal blood pressure ranges between 90/60 mmHg and 120/80 mmHg. Hypertension is defined as a blood pressure reading of 140/90 mmHg or higher. This condition is usually diagnosed after a series of blood pressure readings taken over a period of time.

What are the causes of arterial hypertension in young people? Arterial hypertension is a multifactorial disease, and it is caused by the complex interaction of genetic and

environmental factors. In most cases, arterial hypertension in young people is secondary hypertension, which means that it is caused by other underlying medical conditions or habits. The following are some of the most common causes and risk factors of arterial hypertension in young people. Unhealthy lifestyle habits such as a sedentary lifestyle, smoking, excessive alcohol consumption, and a high sodium diet are also significant risk factors for hypertension in young people. Studies have shown that young people who consume high amounts of sodium are at an increased risk of developing hypertension, and reducing sodium intake can help lower blood pressure. The most common causes of hypertension in young people are lifestyle-related factors. These include:

1. Sedentary lifestyle - Lack of physical activity is a major contributor to the development of hypertension in young people. The modern lifestyle of many young people does not involve much physical activity, leading to weight gain and higher blood pressure.
2. Unhealthy diet - A diet that is high in salt, sugar, and unhealthy fats can lead to weight gain and hypertension. Many young people consume a lot of processed foods, which are known to be unhealthy and potentially contribute to hypertension.
3. Obesity - Being overweight or obese is a risk factor for hypertension. Many young people are overweight or obese, which may be a factor contributing to the trend of hypertension in young people. Obesity is one of the most significant risk factors for arterial hypertension. Studies have shown that overweight and obese young people are at an increased risk of developing hypertension, and this risk increases with higher levels of body mass index (BMI). Obesity is associated with

increased insulin resistance, inflammatory markers, and activation of the sympathetic nervous system, which may contribute to the development of hypertension.

4. Smoking and alcohol - Smoking and excessive alcohol consumption can contribute to hypertension in young people.
5. Genetics - Hypertension can also be caused by genetic factors. Some people may be predisposed to hypertension due to their family history. Family history is an essential risk factor for hypertension. Studies have shown that young people with a family history of hypertension are more likely to develop hypertension themselves. Genetic factors are thought to play a significant role in the regulation of blood pressure, and genetic mutations in genes related to the renin-angiotensin system, aldosterone metabolism, and sodium handling have been associated with hypertension.
6. Chronic stress - Chronic stress is associated with the development of hypertension. Stress activates the sympathetic nervous system, which causes blood pressure to rise. Young people who have high levels of stress at home, work, or school are at an increased risk of developing hypertension.

What are the risks of arterial hypertension in young people? Hypertension can have serious consequences for young people if left untreated. Some of these risks include:

1. Cardiovascular diseases - High blood pressure can lead to the development of a number of cardiovascular diseases, including heart attack, stroke, and heart failure.
2. Kidney damage - Hypertension can damage the kidneys, leading to kidney failure.
3. Eye damage - Hypertension can damage the blood vessels in the retina, leading to vision problems and even blindness.
4. Cognitive problems - High blood pressure can also affect cognitive function, leading to memory problems and difficulty concentrating.

How can arterial hypertension in young people be prevented and managed? Prevention and management of hypertension in young people involve lifestyle changes and medical interventions.

1. Lifestyle changes - Young people with hypertension can make lifestyle changes to reduce their blood pressure. This includes engaging in regular physical activity, maintaining a healthy diet, reducing salt intake, quitting smoking, and limiting alcohol consumption.
2. Medications - Hypertension can be treated with medications, which may include diuretics,

beta-blockers, ACE inhibitors, and calcium channel blockers. These medications work to lower blood pressure and reduce the risk of complications associated with hypertension.

3. Regular check-ups - Young people should undergo regular check-ups to monitor their blood pressure and identify any changes in their condition to be proactive in addressing the issue.
4. Continuous education - It is essential that young people continue to educate themselves about hypertension and its risks. Understanding the condition can help young people take control of their health and reduce their risk of developing serious cardiovascular diseases.

In conclusion, arterial hypertension in young people is a growing trend that is largely avoidable by adopting healthy lifestyle habits. Young people should be aware of the risks associated with hypertension and take steps to prevent and manage it early. With lifestyle modifications, medical intervention, and continuous education on the condition, young people can minimize the risk of developing serious cardiovascular diseases later in life. The alarming increase in its incidence among young people has led to serious concerns about public health and calls for action to address the issue. Prevention and management of hypertension should be a priority, especially in young people, since effective strategies in reducing hypertension could lead to secondary prevention of cardiovascular disease, which is the leading cause of morbidity and mortality worldwide. Education on lifestyle modifications such as diet and exercise, routine blood pressure screening, and appropriate management of hypertension should be emphasized to improve the health and lifespan of young individuals.

REFERENCES

- [1] Kayumovna, A. S. (2022). Arterial Hypertension in Youth. *Central Asian Journal of Medical and Natural Science*, 3(6), 163-165.
- [2] Dashieva, E. B., Petrova, M. M., & Kaskaeva, D. S. (2020). Arterial hypertension in young people: the basic factors of its development risks. *Siberian Medical Review*, 4, 12-19.
- [3] Stoicescu, M., Csepento, C., Mutiu, G., & Bungau, S. (2011). The role of increased plasmatic renin level in the pathogenesis of arterial hypertension in young adults. *Rom J Morphol Embryol*, 52(1 Suppl), 419-423.
- [4] Erkinovna, T. D., & Halimovich, M. N. (2022). Characteristics of the Main Indicators of the System, Hemostasis in Individuals with Arterial Hypertension. *International Journal of Formal Education*, 1(1), 33-39.