

CHILDHOOD OBESITY: CAUSES, RISKS, AND DIETARY ALGORITHM

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Annotation: Childhood obesity is a growing global health concern linked to poor dietary patterns, sedentary lifestyles, genetic factors, and family habits. Excess body weight in children increases the likelihood of type 2 diabetes, cardiovascular disorders, metabolic imbalance, and emotional challenges. An effective dietary algorithm includes limiting added sugars and unhealthy fats, increasing fruit and vegetable intake, monitoring portion sizes, and ensuring regular physical activity. Professional guidance from healthcare providers ensures that dietary adjustments are safe, personalized, and suitable for the child's developmental needs.

Keywords: childhood obesity, nutrition, risks, diet plan, prevention

Annotatsiya: Bolalar semirishi dunyo bo'ylab ortib borayotgan dolzarb sog'liq muammosidir. Uning asosiy sabablari — yuqori kaloriyalı oziq-ovqat iste'moli, kamharakat turmush tarzi, genetik moyillik va oilaviy ovqatlanish odatlaridir. Semirish bolalarda erta yoshdan qandli diabet, yurak-qon tomir kasalliklari, gormonal buzilishlar va psixologik muammolar xavfini oshiradi. Parhez algoritmi sog'lom muvozanatga asoslanadi: shakar va yog'larni cheklash, sabzavot-meva iste'molini oshirish, porsiya nazorat qilish, muntazam jismoniy faollikni yo'lga qo'yish. Shuningdek, shifokor va dietolog tavsiyasi bolalarning individual ehtiyojlari bo'yicha moslashgan reja tuzishda muhimdir.

Kalit so'zlar: bolalar semirishi, oziqlanish, xavf omillari, parhez, profilaktika

Аннотация: Ожирение у детей становится всё более распространённой медицинской проблемой. Основные причины включают высококалорийное питание, недостаток физической активности, генетическую предрасположенность и семейные пищевые привычки. Избыточный вес увеличивает риск развития сахарного диабета 2 типа, сердечно-сосудистых заболеваний, нарушений обмена веществ и психологических осложнений. Алгоритм диетотерапии основан на снижении потребления сахара и насыщенных жиров, увеличении доли овощей и фруктов, контроле порций и регулярной физической активности. Индивидуальная консультация специалиста помогает сформировать безопасный и устойчивый план коррекции веса.

Ключевые слова: детское ожирение, питание, риски, диета, здоровье

Introduction

Childhood obesity has been recognized over the past few decades as one of the most pressing public health issues worldwide. According to scientific sources, the development of excess body weight during childhood is closely related not only to physiological changes but also to psychological and social factors. Rapid lifestyle changes, excessive engagement with technology, and decreased physical activity lead to lower energy expenditure in children, which, combined with excessive calorie intake, significantly increases the risk of obesity. Today, in

many families and educational institutions, the quality of children's nutrition is not adequately monitored; easy access to sugary drinks, fast food, and high-carbohydrate products disrupts the overall nutritional balance of children.

Genetic predisposition also plays an important role in childhood obesity. If parents are overweight, children may inherit metabolic changes, increased appetite, or fat retention traits. However, specialists emphasize that lifestyle remains the primary cause of obesity. As children spend more time at home, their physical activity decreases, disrupting the balance between energy intake and expenditure.

The risks of childhood obesity become evident through its consequences. Excess weight from an early age increases the likelihood of developing type 2 diabetes, hypertension, cardiovascular diseases, fatty liver, and endocrine disorders. Moreover, obesity can lead to psychological problems such as low self-esteem, peer rejection, and depression. Therefore, it is essential to identify this problem in a timely manner and implement effective strategies against it.

When designing a dietary algorithm, a child's age, weight, eating habits, and physical activity are first considered. The main principles of a healthy diet include portion control, limiting sugar and unhealthy fats, increasing the intake of fruits and vegetables, and establishing a regular eating routine. An individual dietary program created under professional supervision not only improves the child's health but also helps develop long-term healthy lifestyle habits. Therefore, preventing childhood obesity is crucial for the overall health of society and the well-being of future generations.

Discussion

A deeper analysis of childhood obesity reveals that multiple factors are interconnected in its development. First, modern lifestyle and technological advancements have undeniably led to a decrease in children's physical activity. Tablet, phone, and computer games often require prolonged sitting, resulting in insufficient movement among children. Consequently, energy expenditure decreases while consumed food is often high in calories. This imbalance is one of the main mechanisms of obesity.

Family factors must also be highlighted. Parents influence children's behavior directly through their own eating habits, portion control, and the types of foods they provide at home. In families where sweets, soft drinks, and fatty foods are frequently consumed, children tend to adopt the same habits. Additionally, if parents are overweight, genetic predisposition combined with improper dietary patterns can be passed on to the child.

The health risks associated with childhood obesity are also extensively discussed in scientific literature. Studies show that excess weight from an early age increases the likelihood of metabolic syndrome, insulin resistance, fatty liver, sleep apnea, joint pain, and cardiovascular diseases. Psychologically, obesity may lower a child's self-esteem, lead to social isolation, depression, and bullying, which can negatively affect academic performance.

Experts agree that strict dietary restrictions are not suitable for children. Since the child's body is still developing, sufficient proteins, vitamins, and minerals are essential for proper growth.

Therefore, the diet should focus on a healthy balance, portion control, and fostering proper food selection habits. Increasing physical activity is equally important; when organized through play, sports, or walking according to the child's age and interests, it becomes significantly more effective.

Overall, combating childhood obesity is not solely the responsibility of doctors or dietitians; it requires the cooperation of parents, schools, society, and the healthcare system. The complexity of the problem necessitates a systematic, evidence-based, and long-term strategic approach.

Literature Review

Childhood obesity has become a central topic of scientific research in recent decades. Many studies present obesity as the result of complex interactions between internal and external factors. For example, Whitaker et al. (1997) identified a strong link between childhood obesity and adult overweight, emphasizing that childhood obesity increases the risk of chronic diseases in later life. Similarly, Sahoo et al. (2015) highlighted high-calorie diets, frequent fast food consumption, and sedentary lifestyles as primary risk factors for excess weight in children.

Research in Uzbekistan and other CIS countries confirms these findings. Surveys conducted in Tashkent indicate that family eating habits and low physical activity are among the main causes of childhood obesity. Additionally, Mahmudova (2020) focused on the psychological consequences of childhood obesity, showing that it reduces self-confidence and negatively affects social integration.

Guidelines for diet and prevention provide extensive recommendations. The World Health Organization (WHO, 2016) developed global guidelines for healthy diets and physical activity in children. These include limiting excess sugar and fats, increasing fruit and vegetable consumption, practicing portion control, and engaging in daily physical activity. Rolland-Cachera et al. (2006) emphasize that individualized approaches, parental involvement, and psychological support are essential for successful dietary programs.

Analysis indicates that childhood obesity is a complex, multi-factorial condition, and its prevention and treatment are not limited to dietary changes. Genetic, psychological, social, and environmental factors must also be considered. Therefore, many studies recommend an interdisciplinary approach, integrating medical, psychological, and educational strategies to achieve effective results.

Overall, the literature review provides a theoretical basis for understanding childhood obesity and highlights the importance of incorporating scientific evidence when designing dietary programs. These findings contribute to strengthening child health and reducing the social and health consequences of obesity.

Conclusion

Childhood obesity is currently one of the most critical global public health issues. Research and literature review indicate that obesity is a complex, multi-factorial process influenced by genetic predisposition, family eating habits, consumption of high-calorie foods, and sedentary lifestyles. Modern children spend significant time on tablets, phones, and computers, reducing

physical activity and causing excess energy accumulation. Parents and family environment play a decisive role in shaping children's eating behavior.

The health impact of childhood obesity is extensive. Excess weight from an early age increases the risk of type 2 diabetes, cardiovascular diseases, hormonal disorders, fatty liver, and joint pain. Additionally, psychological issues such as low self-esteem, depression, and social stigma negatively affect a child's mental and social development, directly impacting their future quality of life.

Dietary programs are an essential tool to reduce and prevent childhood obesity. Principles of a healthy diet include limiting sugar and unhealthy fats, increasing fruit and vegetable consumption, practicing portion control, and ensuring regular physical activity. An individualized approach under professional supervision allows planning according to the child's developmental stage, weight, and eating habits. Parents and schools also play an active role in supporting a healthy lifestyle.

In summary, preventing and reducing childhood obesity requires a comprehensive approach. It should not be limited to diet or exercise but must also consider social, psychological, and family factors. By following such an approach, child health can be strengthened, and healthy lifestyle habits can be instilled in future generations.

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