

HEADACHE IN ADOLESCENTS: THE ROLE OF LIFESTYLE, PSYCHOLOGICAL FACTORS, AND PREVENTIVE STRATEGIES

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Abstract

Headache is a frequent health complaint among adolescents and may negatively affect their academic performance, social activities, emotional well-being, and overall quality of life. The adolescent period is characterized by significant physical, psychological, and social changes, which can increase susceptibility to recurrent headaches. In addition to primary headache disorders such as migraine and tension-type headache, lifestyle-related factors, including inadequate sleep, dehydration, irregular meals, prolonged screen exposure, physical inactivity, and academic stress, may contribute to the development and persistence of headache symptoms. Psychological factors such as anxiety, emotional tension, and difficulties in coping with stress may also influence headache frequency and severity. This article examines the major lifestyle and psychosocial factors associated with headaches in adolescents and discusses practical approaches to prevention and management. Particular attention is given to healthy sleep, regular nutrition, adequate hydration, physical activity, appropriate screen-time habits, stress management, and early identification of recurrent symptoms. A comprehensive preventive approach involving adolescents, parents, teachers, and healthcare professionals may help reduce the frequency of headaches and improve adolescents' health and quality of life.

Keywords: adolescents, headache, migraine, tension-type headache, lifestyle factors, psychological stress, sleep, screen time, prevention, health management.

Introduction

Adolescence is an important stage of human development characterized by rapid physical growth, hormonal changes, emotional development, and increasing academic and social responsibilities. During this period, adolescents may experience various health problems, among which recurrent headache is relatively common. Although headache is often temporary and benign, frequent or severe episodes can

interfere with concentration, learning, sleep, school attendance, and social relationships.

Headaches in adolescents can have different causes. Primary headache disorders, particularly migraine and tension-type headache, represent important causes of recurrent symptoms. Secondary headaches may occur as a consequence of another underlying condition and therefore require appropriate clinical assessment. The International Classification of Headache Disorders distinguishes different headache disorders according to their clinical characteristics, duration, associated symptoms, and underlying mechanisms.

Modern adolescent lifestyles may also contribute to headache occurrence. Many adolescents spend considerable amounts of time using smartphones, computers, and other digital devices. At the same time, academic pressure, insufficient sleep, irregular eating patterns, inadequate water consumption, and limited physical activity can negatively influence general health. Therefore, understanding the relationship between lifestyle and headache is important for developing effective preventive strategies.

Main Factors Associated with Headache in Adolescents

One of the most significant factors associated with recurrent headaches is **insufficient sleep**. Adolescents may experience irregular sleep schedules because of school responsibilities, extracurricular activities, entertainment, and prolonged use of electronic devices. Lack of adequate sleep can contribute to fatigue and may increase susceptibility to headache attacks.

Academic and psychological stress is another important factor. Examinations, homework, high expectations, interpersonal difficulties, and emotional changes may increase psychological tension. In some adolescents, prolonged stress can contribute to tension-type headaches or aggravate existing migraine symptoms.

Irregular nutrition and dehydration may also play an important role. Skipping breakfast, delaying meals, or consuming an inadequate amount of fluids can negatively affect physical well-being. Maintaining regular meals and sufficient hydration is therefore an important component of headache prevention.

Another relevant factor is **prolonged screen exposure**. Continuous use of smartphones, tablets, and computers may contribute to visual fatigue, poor posture, reduced physical activity, and delayed sleep. Regular breaks and appropriate ergonomic habits may help reduce these problems.

Clinical Features of Common Headache Disorders

Migraine is generally characterized by recurrent attacks of moderate or severe headache. It may be accompanied by nausea, vomiting, sensitivity to light or sound, and worsening of symptoms during physical activity. Some adolescents may also experience an aura consisting of temporary visual, sensory, or other neurological symptoms before or during a migraine attack.

Tension-type headache is commonly described as a pressing or tightening sensation rather than a pulsating pain. It may occur on both sides of the head and is frequently associated with stress, fatigue, prolonged concentration, or muscular tension.

Because headache symptoms can vary considerably between individuals, adolescents with recurrent or severe headaches should receive appropriate professional assessment. A detailed history of headache frequency, duration, intensity, associated symptoms, possible triggers, sleep patterns, nutrition, and medication use can help healthcare professionals determine an appropriate management strategy.

Prevention and Management Strategies

Prevention should begin with the identification of individual headache triggers. A **headache diary** can be useful for recording the timing, duration, intensity, possible triggers, associated symptoms, and measures that provide relief. Healthy lifestyle habits are an important part of prevention. Adolescents should be encouraged to maintain a regular sleep schedule, consume adequate amounts of water, eat balanced meals at regular intervals, and participate in appropriate physical activity.

Screen use should also be managed responsibly. Adolescents who spend extended periods working with computers or smartphones should take regular breaks,

maintain an appropriate viewing distance, and pay attention to posture and lighting conditions.

Stress-management techniques can also be beneficial. Relaxation exercises, adequate rest, physical activity, effective time management, and supportive communication with parents and teachers may help adolescents cope with academic and emotional stress.

Medication may be necessary in some cases, particularly when headaches are severe or recurrent. However, medications should be used appropriately and preferably under the guidance of a healthcare professional. Frequent or inappropriate use of acute headache medications may itself contribute to medication-overuse headache.

Importance of Early Recognition

Although most headaches in adolescents are not associated with serious disease, certain symptoms require prompt medical evaluation. These may include a sudden and extremely severe headache, a progressively worsening pattern, headache accompanied by significant neurological symptoms, repeated vomiting without another clear explanation, loss of consciousness, severe fever or neck stiffness, or headache following significant head trauma.

Early recognition of unusual or persistent symptoms is particularly important because appropriate evaluation can help distinguish primary headache disorders from headaches caused by other medical conditions.

Conclusion

Headache among adolescents is a multifactorial problem influenced by neurological, lifestyle, psychological, and environmental factors. Migraine and tension-type headache are important causes of recurrent symptoms, while insufficient sleep, academic stress, dehydration, irregular meals, prolonged screen exposure, and physical inactivity may contribute to their frequency and severity.

Effective prevention requires more than simply treating the pain after it occurs. Establishing healthy daily routines, maintaining adequate sleep and hydration, eating regular meals, engaging in physical activity, controlling excessive screen exposure, and developing effective stress-management skills can play an important role in

reducing recurrent headaches. Parents, teachers, and healthcare professionals should work together to recognize persistent symptoms and support adolescents in developing healthy habits. A comprehensive and individualized approach can contribute to better headache control, improved academic performance, and a higher quality of life among adolescents.

REFERENCES

1. Tukhtamishev M. et al. Significance of mpMRI and prostate biopsy. Accuracy, necessity of combining these procedures //European Urology Open Science. – 2025. – T. 81. – C. S314.
2. Tukhtamishev M. et al. Approaches of obstructive pyelonephritis in septic, obese patients //European Urology Open Science. – 2025. – T. 81. – C. S7.