ISSN NO: 2770-2936
February, 2026

Asthma Attack (Bronchial Asthma)

Kokand University, Andijan Branch
Faculty of Medicine, Pediatrics Department
Bekiyeva Khurshida Surovnova
Phone: +998770460290
Email: xurshidabekiyeva1990@gmail.com

Annotation:
Asthma attack is a severe and life-threatening condition of bronchial asthma, manifesting in children as acute difficulty in breathing. The disease primarily occurs due to inflammation of the bronchial mucosa, bronchospasm, and increased mucus production. Symptoms include shortness of breath, coughing, chest tightness, and fainting. Asthma attacks require urgent medical attention because delays can lead to oxygen deficiency and life-threatening complications in children. Prevention involves proper management of bronchial asthma, avoiding allergens, and correct use of inhalers and bronchodilator medications.
Keywords: Asthma attack, bronchial asthma, breathing difficulty in children, bronchospasm, inflammation, cough, chest tightness, allergy, inhaler, bronchodilator, oxygen deficiency, emergency care, prevention

Introduction

Asthma (from the Greek “asthma” – panting, suffocation) is a choking attack caused either by sudden narrowing of the bronchial passages (bronchial asthma) or as a result of heart disease. During an asthma attack, emergency medical assistance is required immediately. Regardless of the cause, the patient should be seated with their legs lowered and the room ventilated with fresh air. Medications should only be given with a doctor’s permission. Bronchial asthma, which leads to narrowing of the bronchial tubes and reduced airflow, is classified as a chronic respiratory disease.

The most common symptoms of asthma include bronchospasm, coughing, and wheezing that lead to difficulty breathing. These attacks occur especially at night and early in the morning. If the patient receives proper anti-asthma treatment, symptoms may disappear completely or partially. Asthma attacks may be triggered by allergens (dust, pollen, animal fur or feathers, certain foods), physical exertion, inhalation of cold air, or respiratory infections. People prone to asthma often complain of chest tightness, excessive saliva production, disturbed sleep, and rapid breathing.

Avoiding asthma triggers (allergens and cold air) is important. Treatment mainly includes anti-inflammatory medications along with bronchodilators (such as steroids). Physiotherapy procedures and breathing exercises should also not be neglected.

Main Part

Bronchial asthma is a chronic inflammatory disease of the human respiratory system. It may develop in childhood (before the age of ten), but with proper treatment methods, full recovery is possible.

Asthma occurs in four stages:

Intermittent – exacerbations and attacks occur once or twice a month;
Mild persistent – exacerbations and attacks occur weekly;
Moderate persistent – symptoms occur daily and attacks may appear several times at night;
Severe persistent – symptoms persist throughout the day with frequent nighttime attacks.

Causes

The disease occurs when inflammation, swelling, or mucus accumulation narrows the bronchial tubes. Asthma may develop for various reasons:

• genetic predisposition;
• allergies (dust, pollen, animal fur, food, and chemicals);
• unfavorable environmental factors (tobacco smoke, irritant gases);
• bacterial and viral infections (bronchitis, influenza);
• medications (anti-inflammatory, antipyretic, pain relievers);
• stress, fear, emotional tension;

ISSN NO: 2770-2936
February, 2026

• excessive physical activity.

Symptoms of Bronchial Asthma

Typical signs include:

• nighttime coughing attacks;
• breathing difficulties and shortness of breath;
• mucus discharge;
• wheezing;
• feeling of chest tightness.

If you experience similar symptoms, consult a doctor immediately. Preventing disease is easier than treating its consequences.

Diagnosis

To diagnose and treat asthma, a pulmonologist may order:

• initial general examination;
• spirometry;
• peak flowmetry;
• allergy testing;
• exercise testing.

Treatment of Bronchial Asthma

Treatment includes:

corticosteroid medications;
inhalation therapy;
bronchodilators;
mucolytic agents;
breathing exercises;
immune-strengthening therapy.

Complications

Frequent asthma attacks may lead to:

• pneumothorax (air accumulation in the pleural cavity);
• emphysematous lung changes;
• acute respiratory failure.

Risk Group

The risk group includes:

• patients frequently suffering from acute respiratory viral infections, bronchitis, or pneumonia;
• patients who have had adenoids or polyps removed;
• people prone to allergies;
• patients with urticaria or neurodermatitis.

Prevention

Doctors recommend the following to prevent bronchial asthma:

• avoid a sedentary lifestyle and spend more time outdoors in fresh air;
• avoid foods that trigger allergies;
• participate in therapeutic exercise programs;
• avoid environmental irritants (such as tobacco smoke).

Conclusion

An asthma attack is a severe and potentially life-threatening manifestation of bronchial asthma that frequently occurs in children. The condition develops as a result of inflammation of the bronchial mucosa, bronchospasm, and increased mucus production. Its symptoms include shortness of breath, coughing, chest tightness, and possible loss of consciousness. Asthma attacks require emergency medical care; if treatment is delayed, oxygen deficiency and life-threatening complications may occur. Prevention and management depend on avoiding allergens, following established bronchial asthma treatment protocols, and the proper use of inhalers and bronchodilators. At the same time, parents and healthcare providers should be prepared to act quickly when signs of asthma appear in children.

Review

ISSN NO: 2770-2936
February, 2026

The article provides a comprehensive discussion of asthma attacks in the pediatric context. The author clearly and systematically explains the origin of the disease, its main pathophysiology, symptoms, and the need for emergency intervention. The strengths of the text include:

1. Clarity and structure — the causes of asthma attacks (inflammation, bronchospasm, increased mucus production) and symptoms (shortness of breath, coughing, chest tightness, loss of consciousness) are described in detail.
2. Practical recommendations — preventive and therapeutic approaches are presented, including allergen avoidance and correct use of inhalers and bronchodilators.
3. Conclusion and references — the topic is supported by scientific sources and relevant literature, increasing the reliability of the work.

Weaknesses and suggestions:

The article would benefit from the inclusion of statistical data, such as the prevalence of asthma attacks in children and their distribution by age and region, which would enhance its scientific value. Supporting the text with visual materials (tables, diagrams, illustrations) would improve clarity. For example, a schematic representation of bronchospasm mechanisms or airway structure. A separate section addressing major risk factors for asthma attacks in children and strategies for their reduction would make the article more practical. Comparison with English and Russian sources and inclusion of international recommendations would align the article more closely with global scientific standards.

References

1. Global Initiative for Asthma (GINA). Global Strategy for Asthma Management and Prevention, 2024.
2. Nelson Textbook of Pediatrics, 22nd Edition, Elsevier, 2021.
3. Bush A., et al. Pediatric Asthma: Diagnosis and Management. The Lancet, 2020; 396: 1275–1286.
4. National Heart, Lung, and Blood Institute (NHLBI). Guidelines for the Diagnosis and Management of Asthma, 2023.
5. Samsonov, V.I. Bronchial Asthma in Children: Clinical Guidelines. Moscow, 2020.
6. GINA Guidelines for Pediatric Asthma, 2024.