

Asthma- chronic respiratory disease

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Introduction

Asthma is a condition that causes your airways to narrow and swell, as well as create excess mucus. This can cause trouble in breathing resulting in coughing, whistling (wheezing) on exhalation, and shortness of breath. Asthma is a mild annoying discomfort for some people. For others, it can be a severe problem that restricts them from going about their everyday lives and can even develop into a life-threatening asthma attack. Asthma symptoms can be managed if not cured completely. Because asthma symptoms might change over time, it's critical to keep track of your signs and symptoms with your doctor and adjust your therapy as needed. An asthma symptom differs from person to person. Asthma attacks can be infrequent and occasional symptoms such as while exercising or may have symptoms all the time.

Asthma signs and symptoms include:

- Shortness of breath
- Tightness in chest or pain
- Wheezing while exhaling, a common sign of asthma in children
- Shortness of breath causing trouble sleeping,
- Coughing
- Severe coughing or wheezing attacks due to respiratory virus (cold or flu)

Signs indicating the possible worsening of asthma include:

- Often and bothersome symptoms
- Increase in troubled breathing
- Often instinct to use more of a quick-relief inhaler

It's unclear why some people develop asthma and others do not, but it's most likely due to a combination of environmental and genetic factors. Asthma symptoms can be triggered by exposure to numerous irritants and chemicals that trigger allergies (allergens). Triggers causing asthma may differ in each individual;

- Airborne allergens such as pollen, dust mites, pet dander or particles of cockroach waste
- Respiratory infections like common cold

- Physical activity
- Air pollutants and irritants like smoke
- Certain medications, including beta blockers, aspirin, and nonsteroidal anti-inflammatory drugs (NSAIDs).
- Strong emotions and extreme stress
- Sulfites and preservatives in foods and beverages.
- Gastroesophageal reflux disease (GERD).

Asthma can strike in a variety of ways and for a variety of causes, but the triggers are frequently the same. In Children's, asthma is the most frequently observed chronic illness. It can strike at any age, but it strikes children more frequently than adults. Common triggers of childhood asthma include;

- Respiratory infections and cold
- Second hand tobacco smoke
- Air pollutants such as ozone and particle pollution, both indoors and outside
- Exposure to cold air

Asthma in children can sometimes improve as they get older. However, for many people, it is a lifelong condition and asthma can occur at any age, even during adulthood. Persistent symptoms are more common in adults than in children.

Complications

- Signs and symptoms that disrupt sleep, work and other activities
- A permanent narrowed airways passages (bronchial tubes) effecting breath capacity.
- Side effects from long-term use of medications to stabilize severe asthma

Proper therapy makes a significant impact in preventing both short- and long-term asthma problems. While there is no way to prevent asthma attacks, a step-by-step strategy can be designed to manage your illness and avoid attacks.

- Following prescribed asthma plan

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- Vaccination for influenza and pneumonia
- Identify and avoid triggers
- Monitor your breathing Identify and treat asthma attacks early
- Taking prescribed medication
- Pay attention to increased use of quick relief inhaler

Asthma symptoms, family history, personal medical history along with physical examination and tests are performed to determine the disease and is classified as mild, intermittent, moderate, or severe.

Treatment is planned based on type of asthma, age and triggers. There are three primary categories of asthma treatment:

- Breathing exercise (increases lung capacity and reduces severe asthma symptoms)
- Quick acting treatments (These medications should

only be taken at the time of asthma symptoms or an attack. They provide immediate relief, allowing you to regain control of your breathing.)

- **Bronchodilators:** they loosen the constricted muscles around your airways in minutes. They can be used as a rescue inhaler or a nebulizer.
- **Anti-inflammatories:** Corticosteroids and other anti-inflammatory drugs are inhaled and help reduce swelling and mucus formation in the airways, making breathing easier.
- Long-acting bronchodilators. These should only be used in combination with anti-inflammatory asthma medications.
- **Bronchial thermoplasty:** An electrode is used to heat the airways inside the lungs, which helps to shrink the muscle and prevent it from tightening.