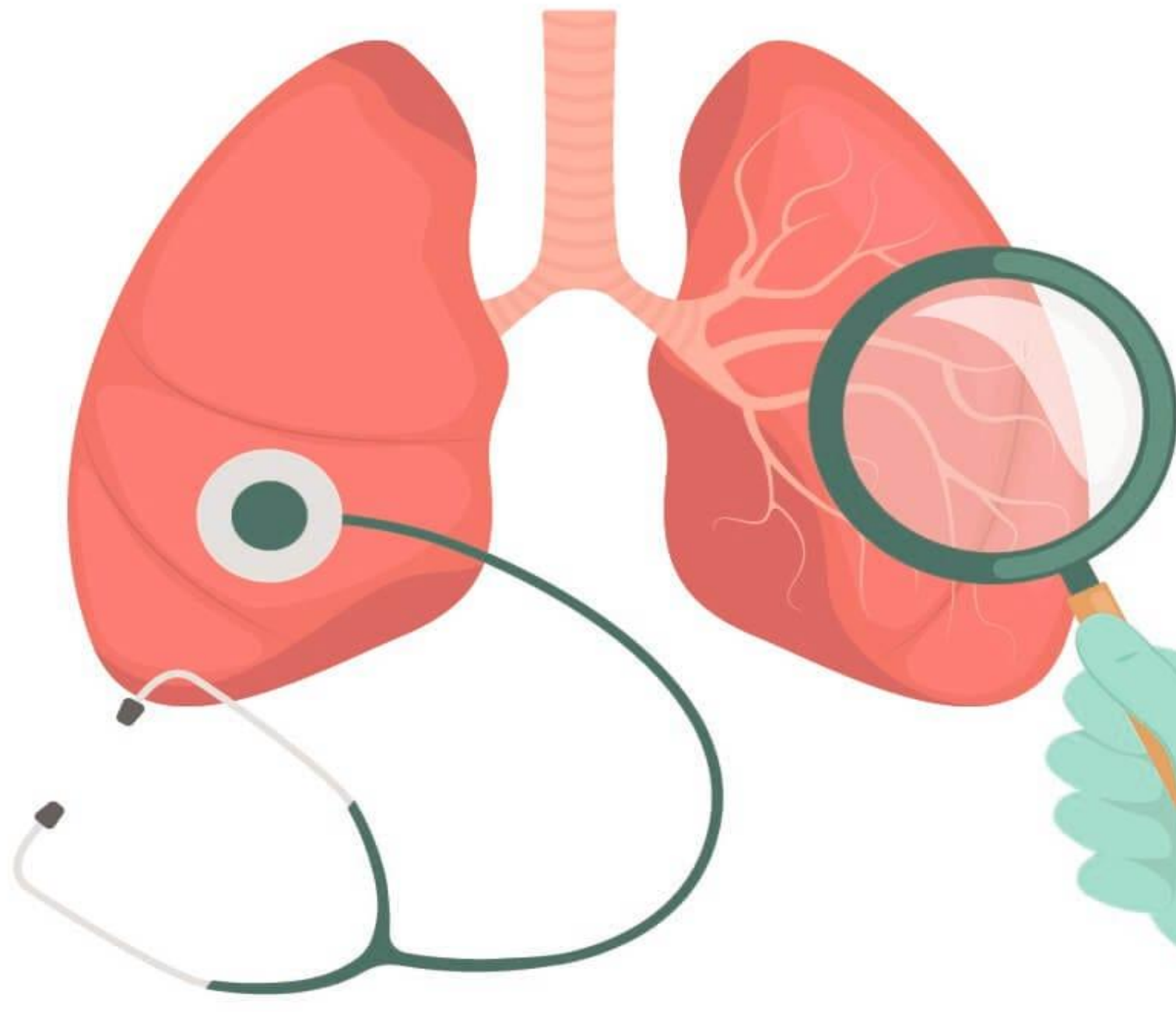


ASTHMA

What is Asthma?

- Asthma is a chronic respiratory condition that causes inflammation and narrowing of the airways, resulting in difficulty breathing, wheezing, coughing, and chest tightness.
- It can be triggered by various factors such as allergens, exercise, cold air, or stress. Treatment usually involves medications like inhalers to manage symptoms and prevent attacks.



ASTHMA



250,000–345,000 PEOPLE DIE PER YEAR FROM THE ASTHMA



NORMAL AIRWAY



ASTHMATIC AIRWAY
DURING ATTACK

Cause of Asthma

- The exact cause of asthma isn't fully understood, but it's believed to be a combination of genetic and environmental factors.
- Some common triggers include allergens (like pollen, dust mites, and pet dander), respiratory infections, air pollution, smoke, exercise, and certain medications.
- People with a family history of asthma or allergies are more likely to develop it.

Site of infection in Asthma

- Asthma is not an infection itself; it's a chronic inflammatory condition of the airways.
- However, respiratory infections, particularly viral infections like colds and the flu, can exacerbate asthma symptoms by causing inflammation and constriction of the airways.
- These infections typically affect the upper respiratory tract, including the nose, throat, and sometimes the lungs.

Mode of transmission of Asthma

- Asthma itself is not contagious and cannot be transmitted from person to person like an infection.
- However, certain respiratory infections, which can exacerbate asthma symptoms, can be transmitted through respiratory droplets when an infected person coughs or sneezes.
- These infections can trigger asthma symptoms in individuals who already have the condition.

Symptoms of Asthma

- Common symptoms of asthma include:
- Shortness of breath
- Wheezing (a whistling sound when breathing)
- Chest tightness
- Coughing, especially at night or early in the morning
- Difficulty breathing during physical activity

Symptoms can vary in severity and frequency from person to person and can be triggered by various factors such as allergens, exercise, cold air, or respiratory infections. It's essential for individuals with asthma to work with healthcare providers to manage their symptoms effectively

TREATMENT

Controller Medications: These are taken regularly to prevent symptoms and control inflammation in the airways. They include inhaled corticosteroids, long-acting beta-agonists, leukotriene modifiers, and others.

Quick-Relief (Rescue) Medications: These are used for immediate relief during asthma attacks or flare-ups. They include short-acting beta-agonists like albuterol.

Inhalers: Both controller and rescue medications are often delivered via inhalers, which allow the medication to reach the lungs directly.

Allergy Management: For individuals whose asthma is triggered by allergies, allergy medications or allergy shots may be prescribed to reduce sensitivity to allergens.

Avoiding Triggers: Identifying and avoiding triggers such as allergens, tobacco smoke, air pollution, and respiratory infections can help manage asthma symptoms.

Regular Monitoring: Asthma management often involves regular check-ups with healthcare providers to monitor lung function, adjust medications as needed, and provide education and support for managing the condition effectively.

Essential Nutrients needed during Asthma:

While specific nutrients do not directly "cure" asthma, maintaining a balanced diet rich in certain nutrients can help support overall lung health and may reduce the severity and frequency of asthma symptoms. Here are some key nutrients essential for individuals with asthma:

- **Vitamin D:** Vitamin D plays a role in immune function and may help reduce airway inflammation. Some studies suggest that vitamin D deficiency may be associated with increased asthma symptoms. Good sources of vitamin D include fatty fish (such as salmon and mackerel), fortified dairy products, eggs, and sunlight exposure.
- **Omega-3 Fatty Acids:** Omega-3 fatty acids have anti-inflammatory properties and may help reduce airway inflammation in people with asthma. Good sources of omega-3 fatty acids include fatty fish (such as salmon, mackerel, and sardines), flaxseeds, chia seeds, and walnuts.
- **Magnesium:** Magnesium plays a role in relaxing the muscles around the airways, which can help alleviate bronchospasm (constriction of the airways) in people with asthma. Good sources of magnesium include leafy green vegetables, nuts, seeds, whole grains, and legumes.
- **Vitamin C:** Vitamin C is an antioxidant that may help reduce inflammation in the airways and support immune function. While research on vitamin C and asthma is mixed, some studies suggest that vitamin C supplementation may help reduce asthma symptoms, particularly in people with exercise-induced asthma. Good sources of vitamin C include citrus fruits, strawberries, kiwi, bell peppers, broccoli, and tomatoes.
- **Vitamin E:** Vitamin E is an antioxidant that may help reduce airway inflammation in people with asthma. Good sources of vitamin E include nuts, seeds, vegetable oils, leafy green vegetables, and whole grains.
- **Antioxidants:** Antioxidants such as vitamins A, C, and E, as well as selenium and zinc, help protect against oxidative stress and may help reduce airway inflammation in people with asthma. Good sources of antioxidants include fruits, vegetables, nuts, seeds, and whole grains.
- **Fruits and Vegetables:** Consuming a diet rich in fruits and vegetables provides a variety of vitamins, minerals, and antioxidants that support overall lung health and may help reduce inflammation in the airways.
- It's important to note that while these nutrients may have beneficial effects on asthma symptoms, they should not replace prescribed asthma medications. Always consult with a healthcare provider before making significant changes to your diet or supplement regimen, especially if you have asthma or any other medical condition.