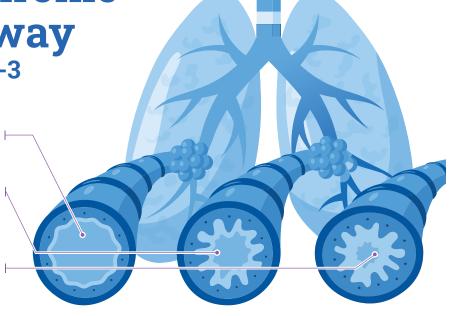
Asthma Is a Chronic Disease of Airway Inflammation¹⁻³

Normal airway

In patients with asthma, airways may become overly reactive to irritants, leading to inflammation that can make it hard to breathe³

During an asthma attack or "exacerbation," certain irritants can cause increased inflammation, tightening of the airways, and mucus production that further narrow the airways^{2,3}



Severe and Uncontrolled Asthma



Severe asthma is asthma that requires medium- to high-dose inhaled corticosteroids plus another asthma controller medication, and may require the addition of oral corticosteroids⁴



Uncontrolled asthma

occurs when asthma symptoms persist despite following an asthma treatment plan and reducing exposure to triggers⁴



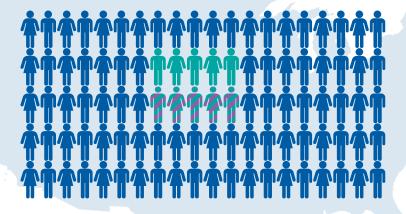
Indicators of uncontrolled asthma might include⁴:

- Daytime symptoms more than 2x per week
- Night waking due to asthma
- Use of acute asthma reliever more than 2x per week
- Activity limitation due to asthma

Up to 2.5 Million People in the US Have Severe Asthma

Asthma affects almost

25million
people in the
United States^{5,6}



5% to **10%** of them have severe asthma^{4,7}

up to 50% of those with severe asthma are uncontrolled8

Airway Irritants Cause Immune Responses and Exacerbations in People Living With Asthma

Exposure to asthma triggers²









In asthma, inhaled irritants and triggers can interact with the surface of the lung (called "epithelium") to activate immune cells⁹

Different triggers may activate different types of immune cells; the **immune response depends on which cells are activated**⁹

Immune responses cause the signs and symptoms of asthma,^{1,2} which may require urgent medical attention including emergency room visits and/or hospitalizations^{2,8,10,11}

Immune cells activate⁹

Airway effects1,2,9

(signs, symptoms)

- £\$
 - Coughing
 - Chest tightness
 - Wheezing
- Shortness of breath
- Asthma attacks
- Hospitalizations

Get to Know Medicines that May Be Part of a Treatment Plan

Short Acting/Rescue

For increased symptoms including shortness of breath or wheezing^{2,4}

Long-Acting Controllers

For daily asthma control; includes inhaled steroids and/or oral anti-leukotriene drugs^{2,4}

Oral Steroids

For additional asthma control when needed^{2,4}



Allergy Medicines

To help control allergies that may be contributing to asthma^{2,4}

Biologic Medicines

Targeted therapies for moderate-tosevere uncontrolled asthma^{2,4}

All treatment plans are unique, and can vary from person to person. All components of this diagram might not be included in your patient-specific medication treatment plan.



Communicate With Your Healthcare Provider; Seek Immediate Care When Necessary

Develop a written asthma action plan with your healthcare provider. Understand the **specific actions** to take

- When doing well
- When asthma is getting worse
- During an exacerbation

Seek care immediately during an asthma exacerbation

For additional resources, please visit:

- American Lung Association at www.lung.org
- Asthma and Allergy Network at www.allergyasthmanetwork.org

Asthma Journal



For additional information please visit: luma-edu.com

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Lifestyle Changes

