# Asthma Is a Chronic Disease of Airway Inflammation<sup>1-3</sup>

#### Normal airway

In patients with asthma, airways may become overly reactive to irritants, leading to inflammation that can make it hard to breathe<sup>3</sup>

**During an asthma attack** or "exacerbation," certain irritants can cause increased inflammation, tightening of the airways, and mucus production that further narrow the airways<sup>2,3</sup>

### Severe and Uncontrolled Asthma



**Severe asthma** is asthma that requires medium- to highdose inhaled corticosteroids plus another asthma controller medication, and may require the addition of oral corticosteroids<sup>4</sup>

Uncontrolled asthma occurs when asthma symptoms persist despite following an asthma

treatment plan and reducing

exposure to triggers<sup>4</sup>



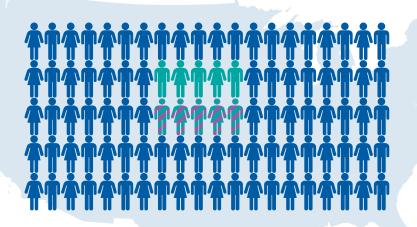
**Indicators** of uncontrolled asthma might include<sup>4</sup>:

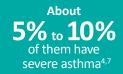
- Daytime symptoms more than 2x per week
- Night waking due to asthma
- Use of acute asthma reliever more than 2x per week
- Activity limitation due to asthma

### Up to 2.5 Million People in the US Have Severe Asthma

Asthma affects almost

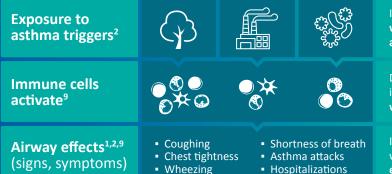






up to 50% of those with severe asthma are uncontrolled<sup>8</sup>

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



In asthma, inhaled irritants and triggers can interact with the surface of the lung (called "epithelium") to activate immune cells<sup>9</sup>

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

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

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

#### **Short Acting/Rescue**

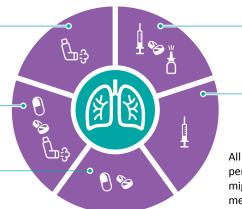
For increased symptoms including shortness of breath or wheezing<sup>2,4</sup>

#### Long-Acting Controllers

For daily asthma control; includes inhaled steroids and/or oral anti-leukotriene drugs<sup>2,4</sup>

#### **Oral Steroids**

For additional asthma control when needed<sup>2,4</sup>



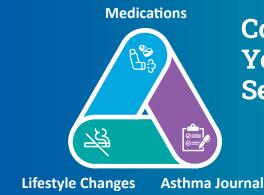
### **Allergy Medicines**

To help control allergies that may be contributing to asthma<sup>2,4</sup>

### **Biologic Medicines**

Targeted therapies for moderate-to-severe uncontrolled asthma<sup>2,4</sup>

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

Seek care immediately during an asthma exacerbation

• During an exacerbation

For additional resources, please visit:

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

References 1. National Institute of Environmental Health Sciences. www.niehs.nih.gov/health/topics/conditions/asthma/index.cfm. Accessed October 28, 2024. 2. National Heart, Lung, and Blood Institute. www.nhlbi.nih.gov/health-topics/asthma. Accessed October 28, 2024. 3. American Lung Association. www.lung.org/lung-health-diseases/ lung-disease-lookup/asthma/learn-about-asthma/what-is-asthma. Accessed October 28, 2024. 4. Global Initiative for Asthma (GINA). https://ginasthma.org/wp-content/ uploads/2024/05/GINA-2024-Strategy-Report-24\_05\_22\_WMS.pdf. 2024. 5. Centers for Disease Control and Prevention. ftp.cdc.gov/pub/Health\_Statistics/NCHS/NHIS/SHS/ 2018\_SHS\_Table\_C-1.pdf. 2018. 6. Centers for Disease Control and Prevention. ftp.cdc.gov/pub/Health\_Statistics/NCHS/NHIS/SHS/ 2018\_SHS\_Table\_C-1.pdf. 2018. 8. Castek B, et al. J Manag Care Spec Pharm. 2016;22:848-861. 9. Gaurveau GM, et al. Expert Opin Ther Targets. 2020;24:777-792. 10. Zeiger RS, et al. J Allergy Clin Immunol Pract. 2015;3:986-990.e2.





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