American Lung Association®

Asthma Basics and Programming

Virtual Presentation

May 14,2026



Today's Presenter



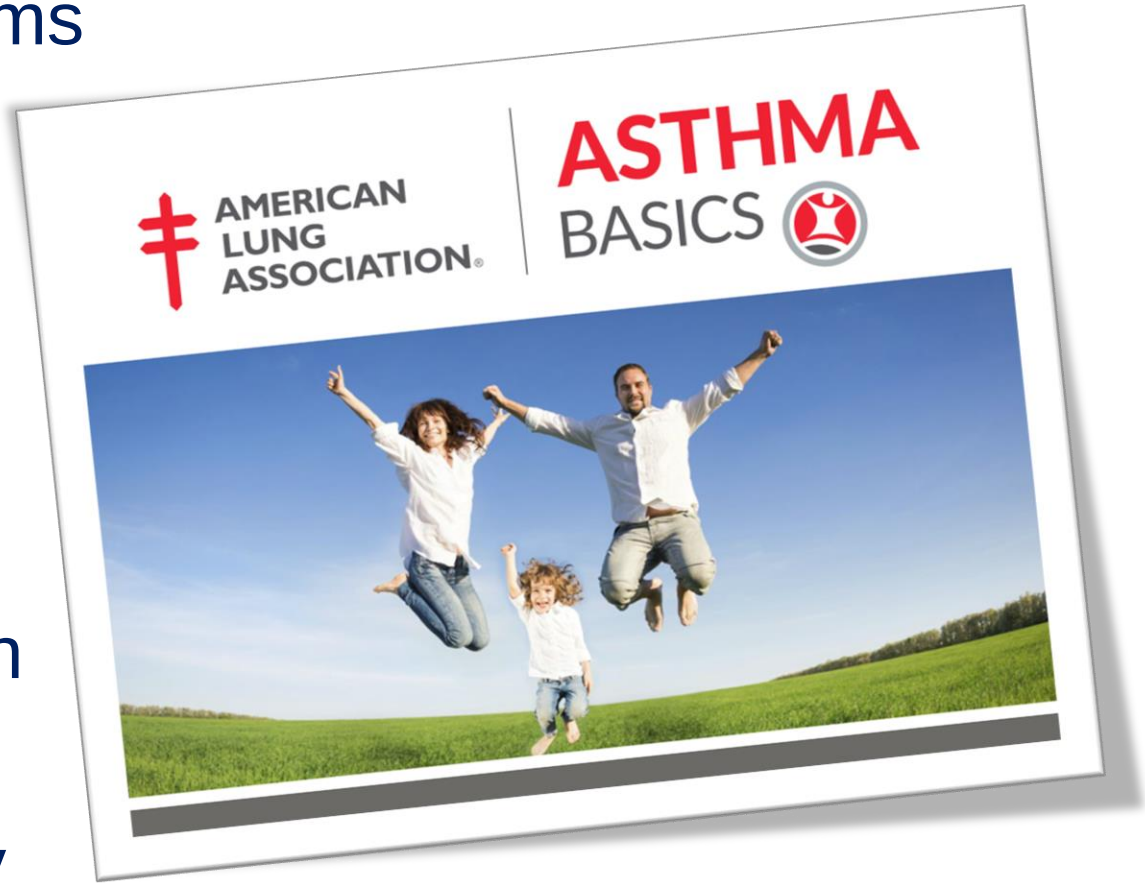
Tanya Haley MS, CHES, AE-C

Specialist, Health Promotion
American Lung Association

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Goals & Learning Objectives

- Identify characteristics and symptoms of asthma
- Recognize asthma triggers and control strategies
- Explain asthma medicines and devices
- Understand the value and use of an Asthma Action Plan
- Respond to a breathing emergency



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History of the American Lung Association

First Voluntary Health Organization

- Founded in 1904
- Crusade against tuberculosis

First tobacco control work in 1964

- American Lung Association and partners prompted the first Surgeon General's Report
- Helped over a million smokers quit
- Major backer of smoke-free air laws
- Working to improve tobacco cessation coverage

Other lung health priorities

- Asthma prevention and control
- Lung cancer and COPD
- Defend and enforce Clean Air Act





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What is asthma?

Asthma is a chronic inflammatory disease of the airways.

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What is asthma?

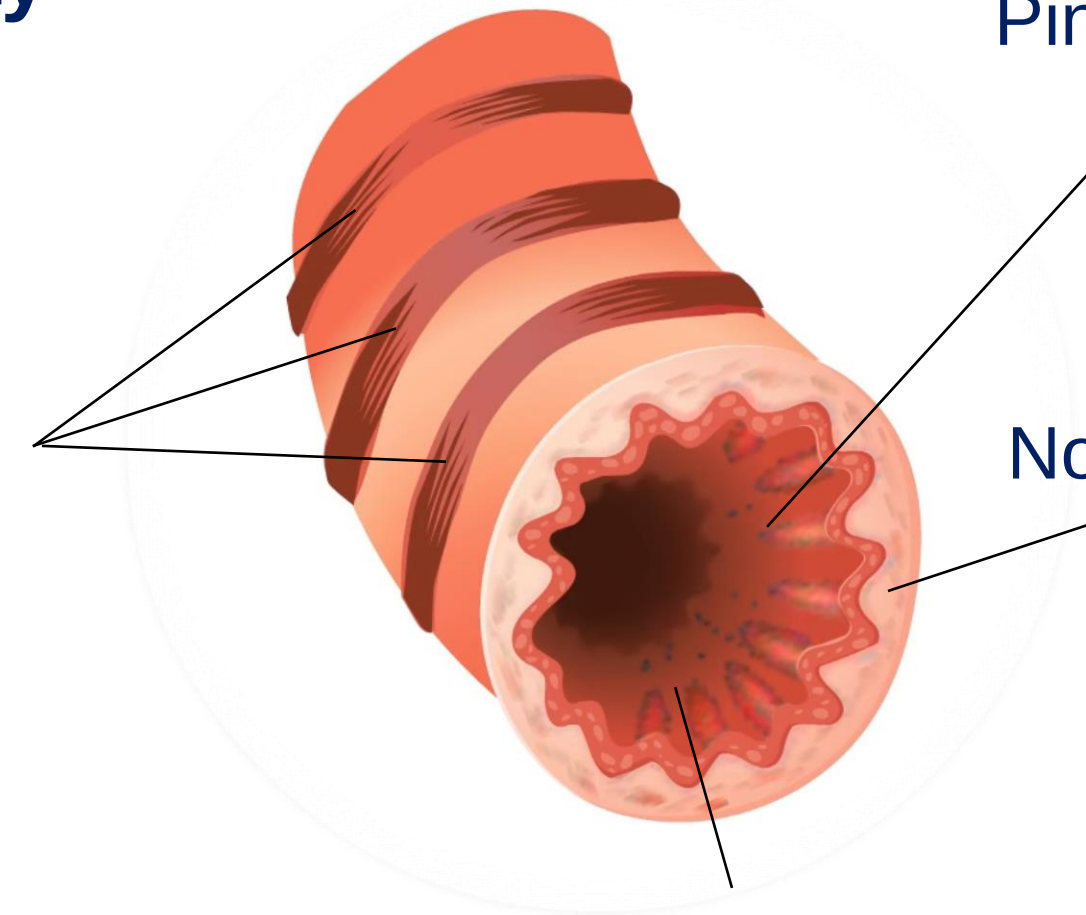
Three changes occur in the airways

1. **S**welling in the airway, called inflammation
2. **E**xtra mucus clogging the airway
3. **T**ightening of the muscles around the airway, called bronchoconstriction

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What is asthma?

Healthy Airway



Pink and clear

Muscle bands are not tight

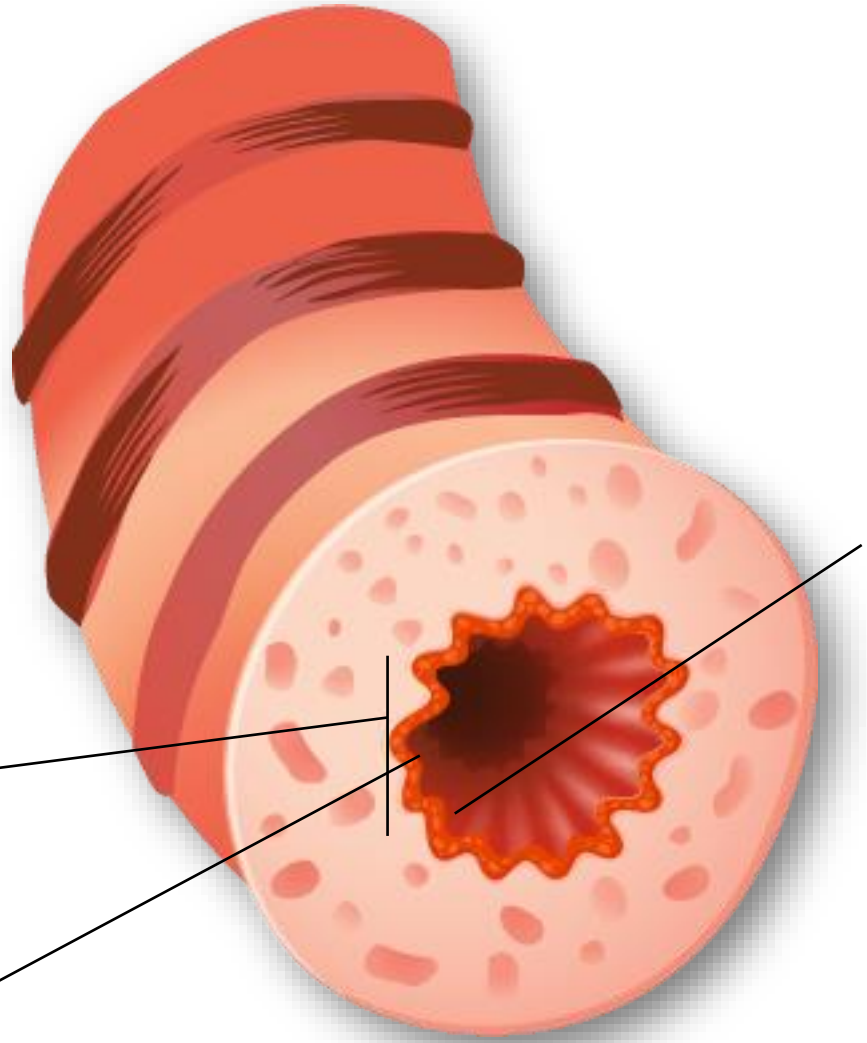
No interior swelling

No extra mucus

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What is asthma?

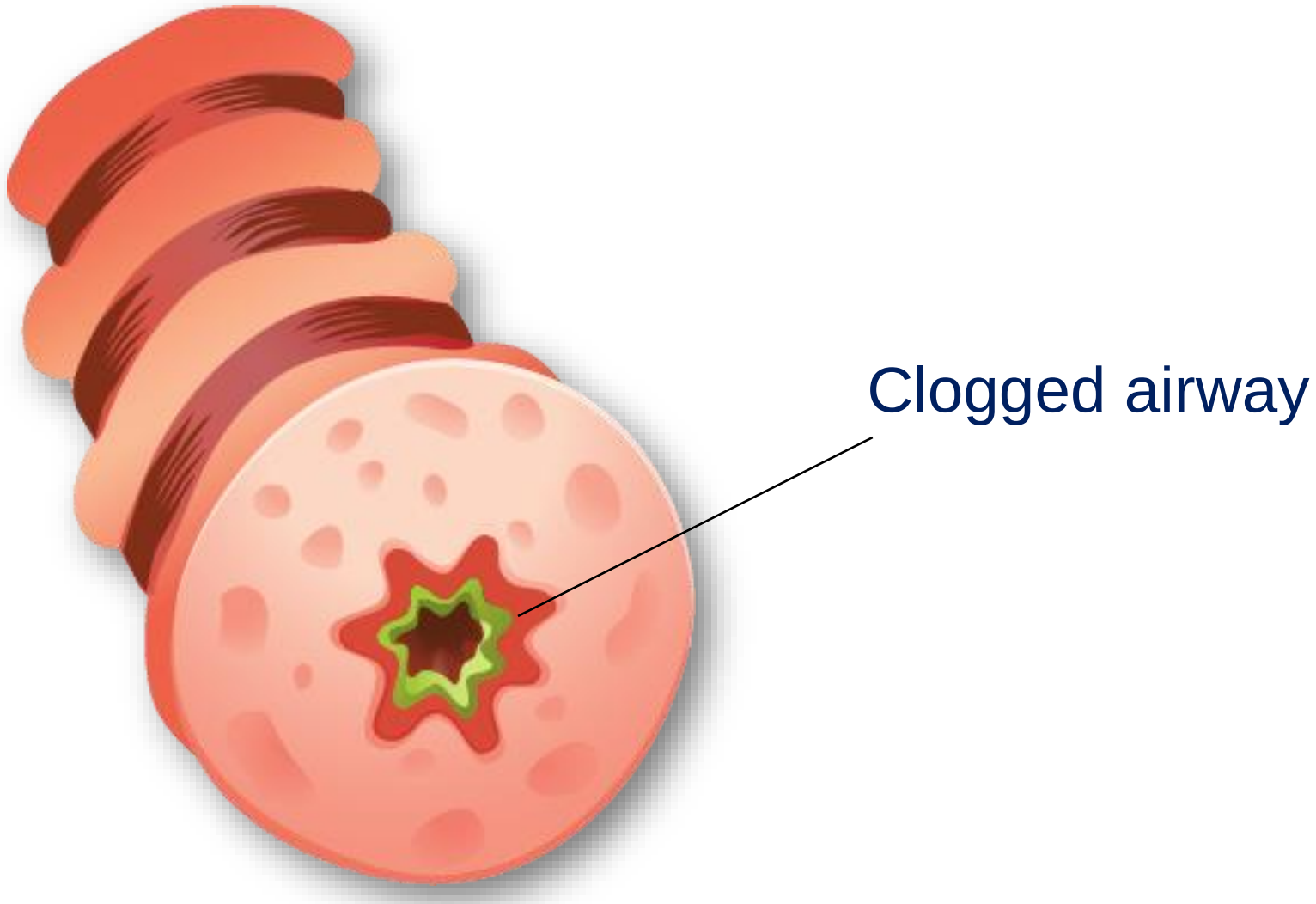
Swelling



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What is asthma?

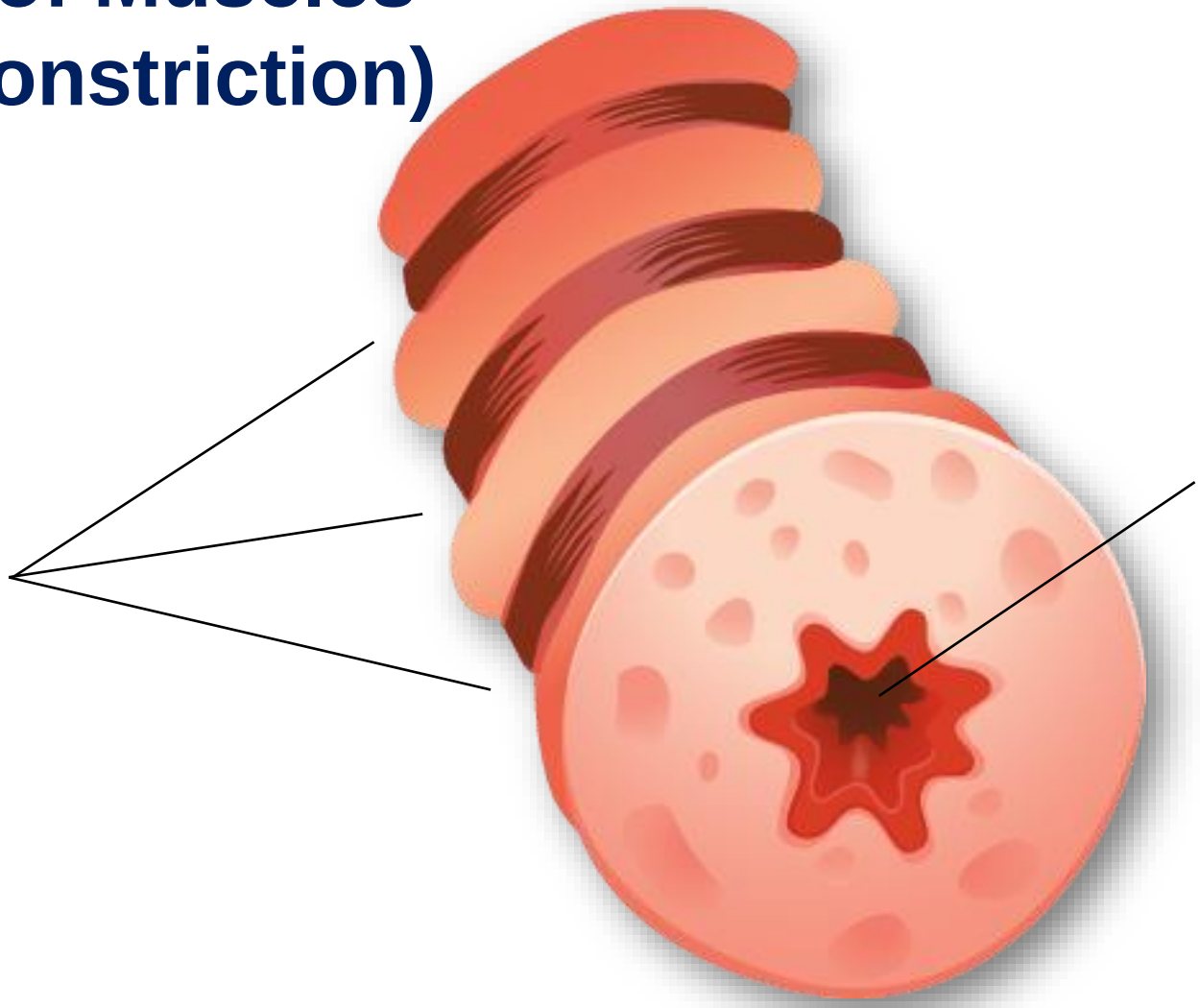
Extra Mucus



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What is asthma?

Tightening of Muscles (Bronchoconstriction)



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Asthma Impact

Asthma costs the nation a total of $62.8 billion dollars annually in health care cost[1]

2.2 million children aged 5-17 years **missed more than 7.9 million school days**[2]





10.9 million missed workdays among employed adults[2]

1. Nurmagambetov, T., Kuwahara, R., & Garbe, P. (2018). The economic burden of asthma in the United States, 2008–2013. *Annals of the American Thoracic Society*, *15*(3), 348-356.
2. American Lung Association. Asthma Trends and Burden. Available at: Asthma Trends and Burden | American Lung Association.

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Asthma Prevalence in the U.S.

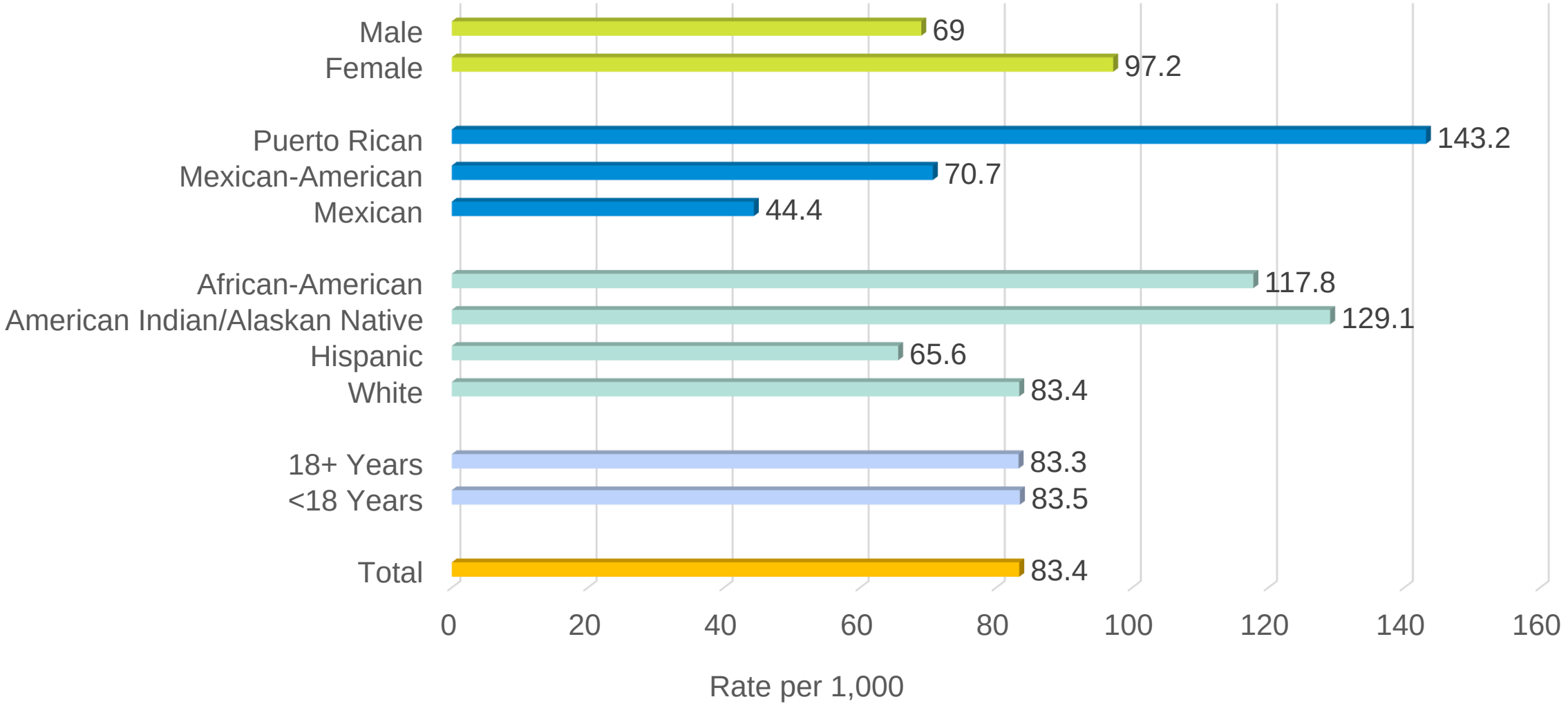


- Over 25 million Americans, including 4.2 million children, have asthma
- An estimated 12.1 million Americans (including 3.1 million children <18) had an asthma episode or attack

https://www.cdc.gov/asthma/most_recent_national_asthma_data.htm last accessed 3/20/23

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Asthma Prevalence in the U.S.



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Why do people get asthma

Experts are still unsure of the exact causes of asthma

Factors may include:

- Environment
- Genetics
- Obesity
- Exposure to childhood diseases
- Inactivity
- Smoking during pregnancy
- Secondhand smoke



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Myths vs Fact about Asthma

Fact

Asthma is a chronic disease and you do not outgrow it

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Myths vs Facts About Asthma

Myth

Asthma always limits normal activities

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Myths vs Facts About Asthma

Myth

Asthma medication and inhalers are addictive

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Myths vs Facts About Asthma

Fact

Controller medicines work best when used daily

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Myths vs Fact About Asthma

Myth

Asthma is a psychological or emotional illness

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Myths vs Fact About Asthma

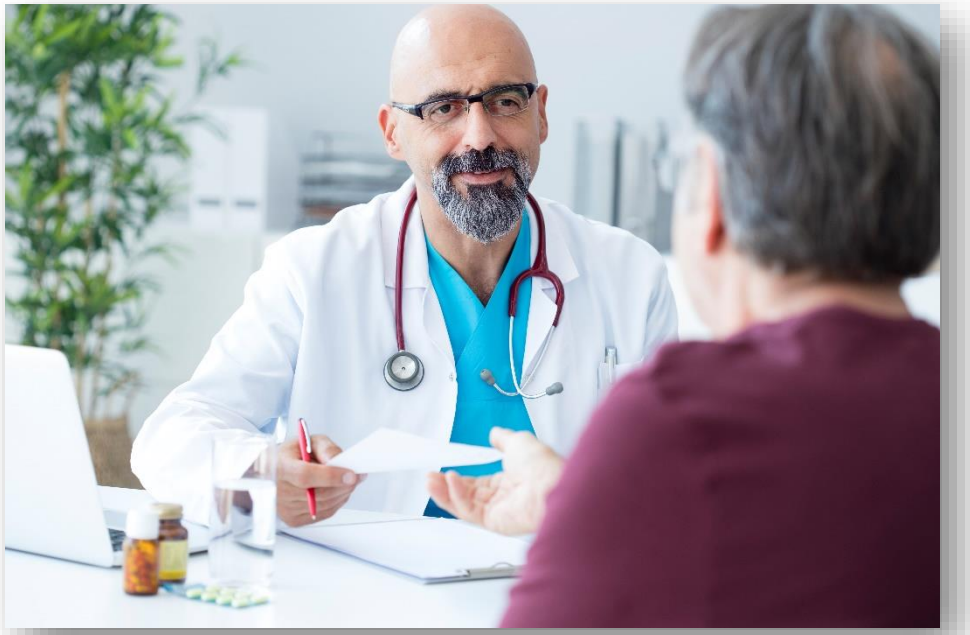
Fact

Asthma cannot be cured,
but can be controlled

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Asthma Diagnosis

Asthma can only be diagnosed by a health care professional



What happens at the initial visit?

- Detailed medical history
  - Such as airway sensitivity and recurrence of symptoms
- Physical exam
- Spirometry
- Additional studies as necessary to exclude other diseases

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Asthma and Allergy Connection

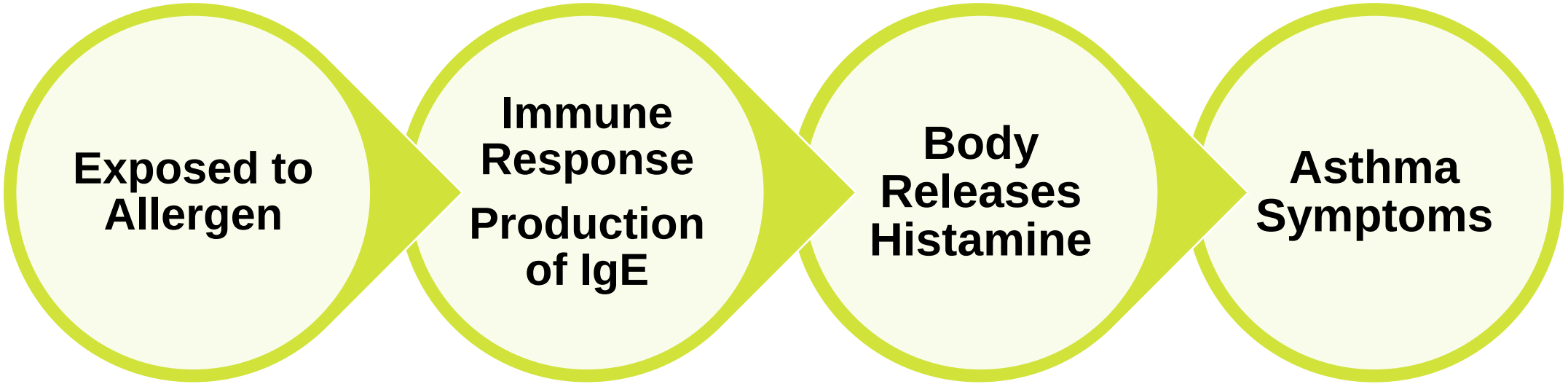
All asthma is not allergy related and not all allergies will cause an asthma episode

- Strong link between asthma and allergies
- Some allergies affect the upper airway but can trigger an asthma episode in the lower airway
- Allergens are identified and exposure is minimized to improve quality of life



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Allergic Asthma

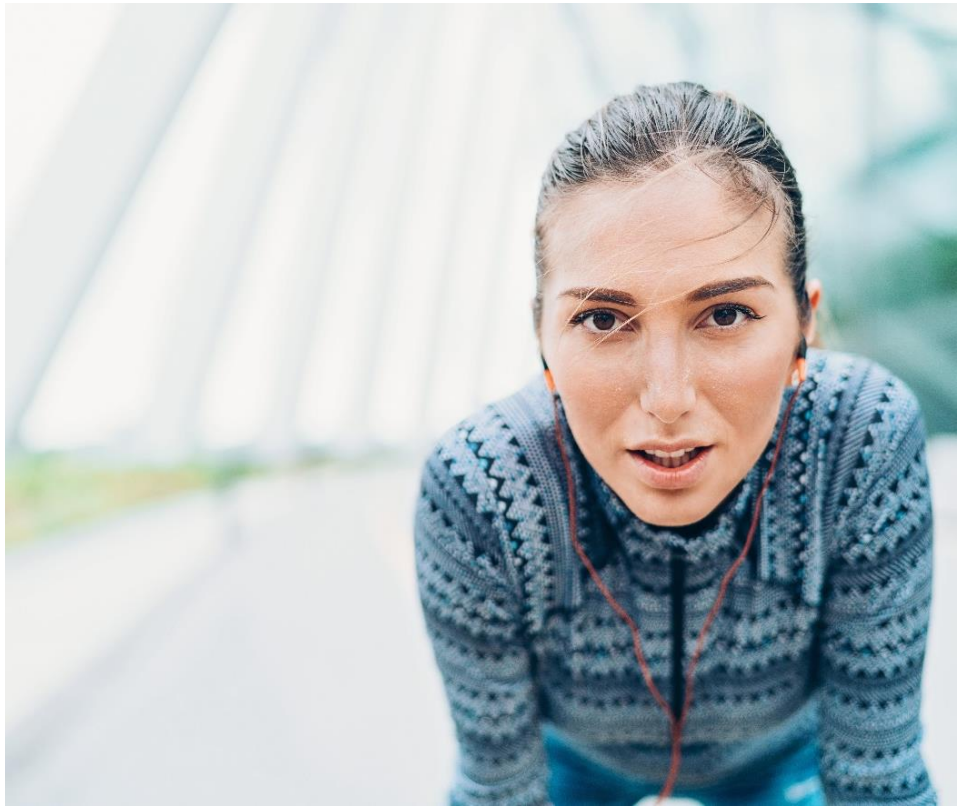


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Exercising with Asthma

Quick tips when exercising with asthma

- Take quick-relief medicine 15 minutes before exercise to help avoid symptoms
- Start slowly, doing a good warm-up
- Reduce heart and breathing rate by doing a good cool-down
- Stop activity if symptoms occur, such as chest tightness, coughing or shortness of breath
- Always have quick-relief medication available



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Exercise Induced Bronchospasm

Exercise induced asthma may occur:

- Within 3 to 8 minutes of starting activity
- Within 5 to 10 minutes of stopping activity

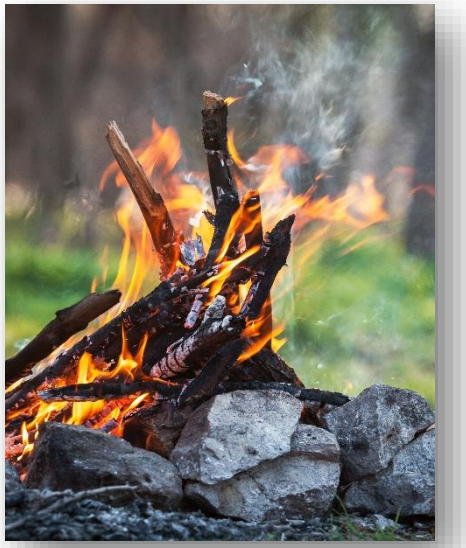


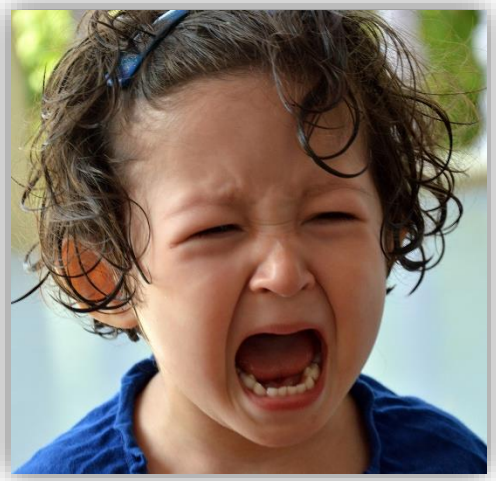
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Asthma Triggers

Asthma symptoms are caused by a substance, environmental factor or physical condition often called an asthma trigger

- Allergens
- Irritants
- Infections
- Exercise
- Strong emotions
- Weather







Recognizing asthma symptoms and understanding what causes them are key to unlocking asthma control

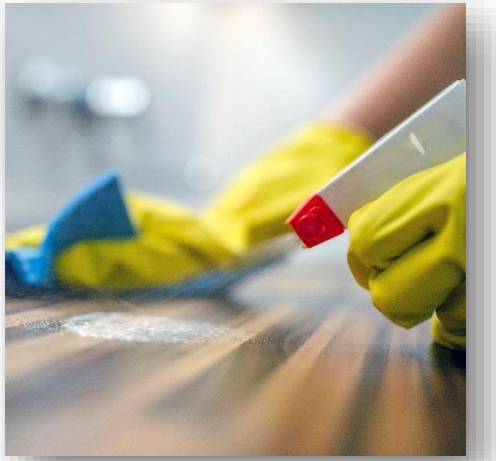
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Environmental Control

- Smoke
- Pets (e.g., cats, dogs)
- Dust Mites
- Cockroaches
- Chemicals, Strong Odors and Fragrances
- Mold
- Pollen (e.g., grass, weeds, trees)
- Viral Infections







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Asthma Signs and Symptoms

Signs

Itchy or scratchy throat

Dark circles under the eyes

Restless sleep or waking up coughing

A drop in peak flow meter readings

Symptoms

Breathing becomes a struggle

Whistling or wheezing sounds may start

Coughing may occur

Chest feels tight

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Asthma Management

Keys to asthma management | Assessing asthma control | Monitoring symptoms | Taking medicines | Avoiding or removing known asthma triggers

Goals of asthma management

- Prevent symptoms
- Reduce use of quick relief medicines (no more than 2x per week)
- Maintain near-normal breathing ability
- Maintain normal activity levels
- Prevent asthma episodes
- Prevent progressive loss of lung function

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Monitoring Your Asthma

When monitoring asthma symptoms patients should:

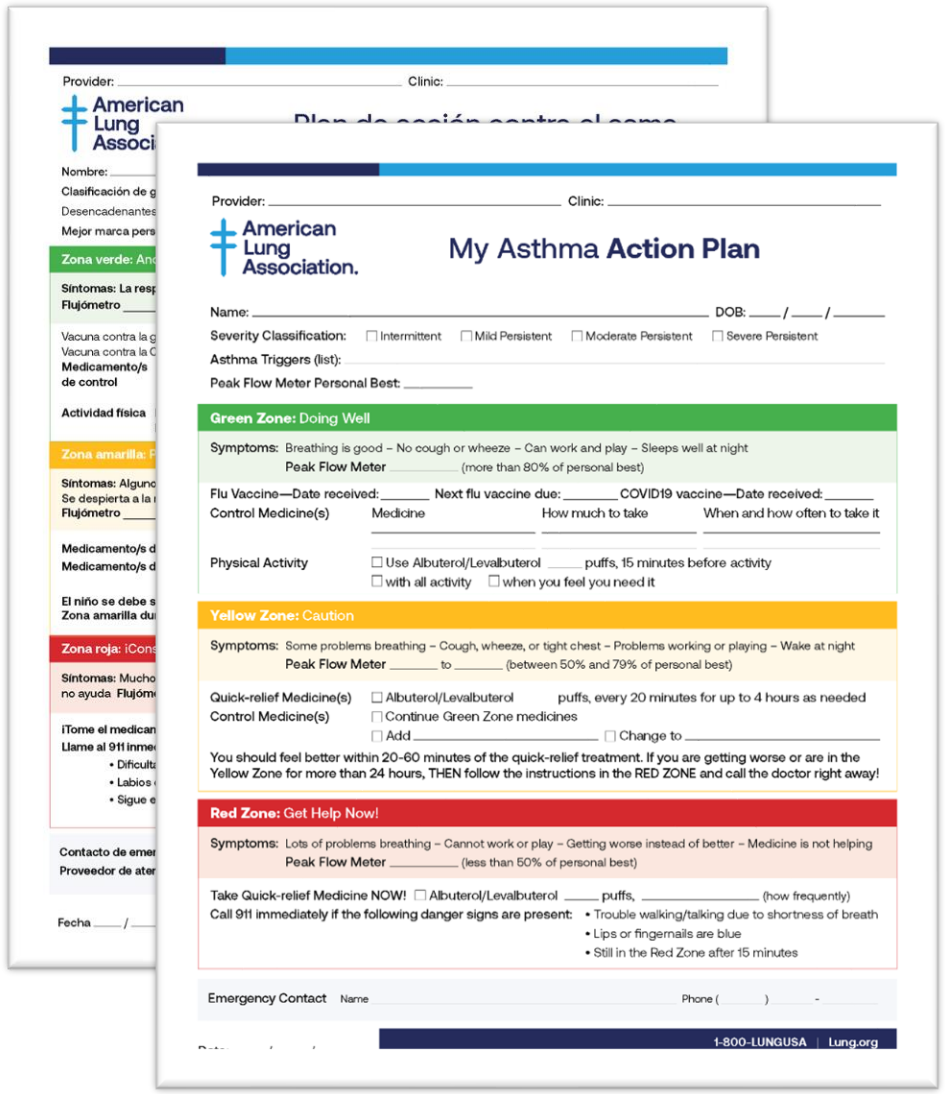
- See a health care provider at least every six months
- Use a peak flow meter if prescribed and record readings
- Use an asthma diary, record symptoms and triggers
- Refer to the Asthma Action Plan for treating symptoms
- If you use a quick relief medicine more than 2x per week, call your doctor



Monitoring asthma symptoms are key to unlocking asthma control

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Asthma Action Plans



- Can be written per symptom, peak flow reading or both
- Identify severity classification and triggers
- Detail when and how to use medications
- Provides steps on how to treat symptoms
- Guidance on when to call a health care provider and when to seek emergency care

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Peak Flow Meter

What are peak flow meters?

- Handheld devices that measure how much air flows from your lungs in one quick breath

Who uses Peak Flow Meters?

- Individuals with moderate to severe persistent asthma
- Poor perceivers of asthma symptoms

When to Use Peak Flow Meters

If indicated by health care provider:

- Every morning
- During an asthma episode



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Recognizing When Asthma is Not in Control



Follow the Rules of 2

Do you take your quick-relief inhaler more than TWO times per week?

Do you awaken at night with asthma symptoms more than TWO times per month?

Do you refill your quick-relief inhaler more than TWO times per year?

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How to Handle an Asthma Episode



1. Sit down and use breathing techniques to relax
2. Refer to the asthma action plan and take medicines as directed
3. If a peak flow meter is used, compare the reading to the asthma zones on the asthma action plan and take medicines as directed

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After an Asthma Episode

Activity can continue when:

- ✓ There is no more chest tightness or shortness of breath
- ✓ Individual can walk and talk easily
- ✓ Peak flow reading is 80% or higher of personal best

People with asthma are at greater risk of having another episode for several days after the episode. Continue to monitor symptoms.

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How to Handle a Breathing Emergency



Call 911 immediately if:

- Person is visibly struggling to breathe
- Person has trouble walking or talking, stops playing and cannot start again
- Person is experiencing retractions, where the chest and neck are pulled or sucked in with each breath
- Lips or fingernails are gray or blue.
- Peak flow rate gets lower (drops to 50% or less) or does not improve 15 minutes after treatment with quick-relief medicine

Asthma episodes can quickly turn into breathing emergencies

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Stress Management

Strong emotions can trigger an asthma episode. This includes crying, laughing hard, or stress.

Help to manage stress by:

1. Keeping to a routine
2. Eating a healthy diet and exercising regularly
3. Practice belly breathing



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Asthma Medications

THERE ARE TWO TYPES OF MEDICINES USED TO TREAT ASTHMA

Long-term Control Medicines

- Work slowly over time to prevent episodes from occurring
- Inhaled corticosteroids
- Long-acting bronchodilators
- Combination of corticosteroids and long-acting beta-agonists
- **Used daily even when you are feeling well**

Quick Relief Medicines

- Also known as a short acting bronchodilator
- Relieve wheezing, chest tightness and coughing
- Help keep an asthma episode from getting worse
- **If you need it more than 2x per week, call your doctor**

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Long-term Control Medicines

Long-term control medicine help avoid asthma episodes by:

- Reducing the inflammation in the airways
- Relieving bronchoconstriction for up to 12 hours



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Quick-relief Medicines

When asthma symptoms start, taking your quick-relief medicine will:

- Loosen the muscles that tighten around the airways
- Relieve asthma symptoms once they begin



Quick-relief medicine:

- Lasts for up to four hours
- Can be used before exercise to avoid symptoms
- If you need it more than 2x per week, call your doctor

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Asthma Medication Devices – Valved Holding Chambers

Attaching a valved holding chamber or spacer to a metered-dose inhaler can:

- Help the medicine move past your mouth and throat and get deep into your lungs
- Avoid problems with spraying and breathing at the same time
- Keep you from breathing the medicine in too fast
- Make it easier to take your medicine when you are having asthma symptoms



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Proper Use of Inhaled Asthma Medicines

Remember: Use the correct inhalation technique when taking your asthma medicine.







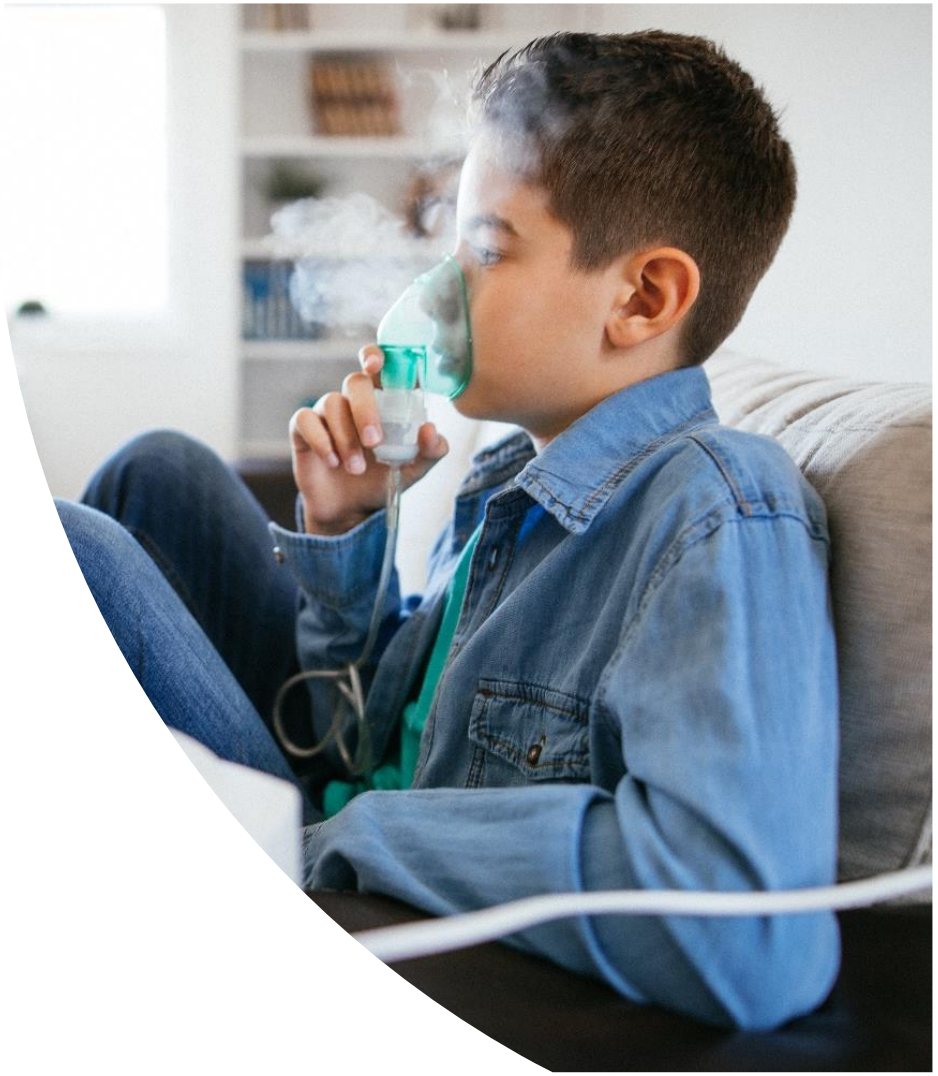


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Asthma Medication Devices - Nebulizers

A nebulizer has four basic parts:

1. a medicine cup;
2. a mouthpiece that is attached to a mask or top piece;
3. thin plastic tube that connects the mask to the machine;
4. and a compressed air machine.



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Proper Use of Asthma Medication Devices

Remember: It is important that when using a valved holding chamber, spacer or nebulizer that you use proper technique.



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What have we learned?

Four areas essential to achieve optimal control

- Assessing asthma control
- Monitoring symptoms
- Taking medicines
- Avoiding or removing known asthma triggers

Goals of asthma management

- Prevent symptoms
- Reduce use of quick relief medicines (no more than 2x per week)
- Maintain near normal breathing ability
- Maintain normal activity levels
- Prevent asthma episodes
- Prevent damage to your lungs

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American Lung Association Resources

QUESTIONS?

LUNG HELPLINE

Talk for free with our lung health experts such as respiratory therapists, nurses, and tobacco cessation counselors about asthma, COVID-19 or any other lung health questions.



Lung HelpLine
1-800-LUNG-USA

Bilingual Spanish speaking staff along with a live language interpretation service for over 250 languages.

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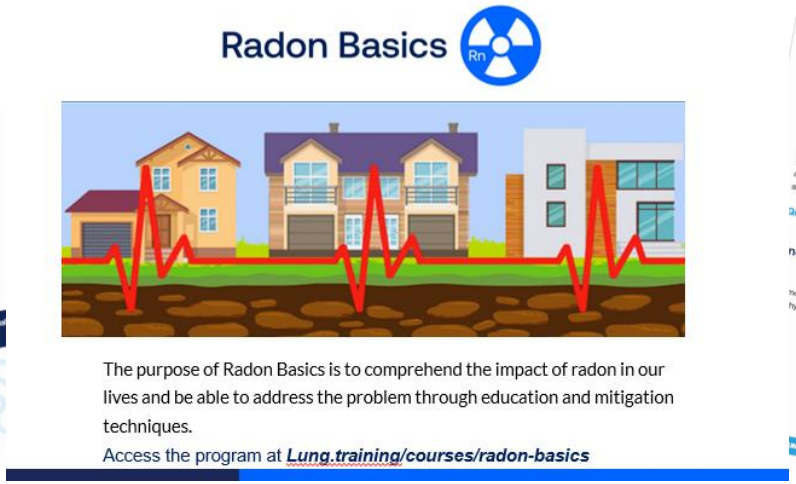
The Basics

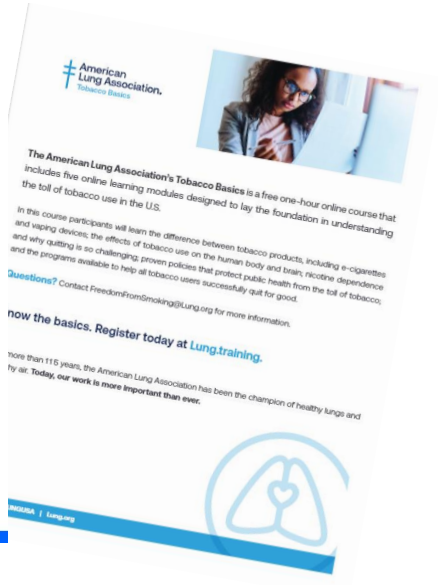
The American Lung Association is committed to supporting those affected by asthma. We offer a variety of resources and information about the disease

Asthma Basics, Radon Basics, COPD, Tobacco & Infectious Disease Basics

- Free online self-paced program
- Virtual or in-person group learning opportunities
- Those with asthma and their caregivers
- School nurses, community health workers, frontline healthcare providers







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Patient and Caregiver Network

Patient & Caregiver Network | American Lung Association

The Patient & Caregiver Network is a nationwide, online support program providing direct access to lung disease management tools, education, and connection to other patients and caregivers.

- Disease specific online communities
- On-Demand Webcasts
- Live Webcasts
- Lung Disease Management tools
- Regularly Scheduled E-Newsletters



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Better Breathers Club

Better Breathers Club | American Lung Association

The American Lung Association's Better Breathers Club program has connected people living with lung disease to education, support, and each other in communities around the country for over 50 years

- In Person or Virtual Meetings
  - Asthma
  - COPD
  - Pulmonary Fibrosis



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Freedom From Smoking®

Join Freedom From Smoking | American Lung Association

Freedom From Smoking® can help you quit all tobacco products, including e-cigarettes and vaping devices.

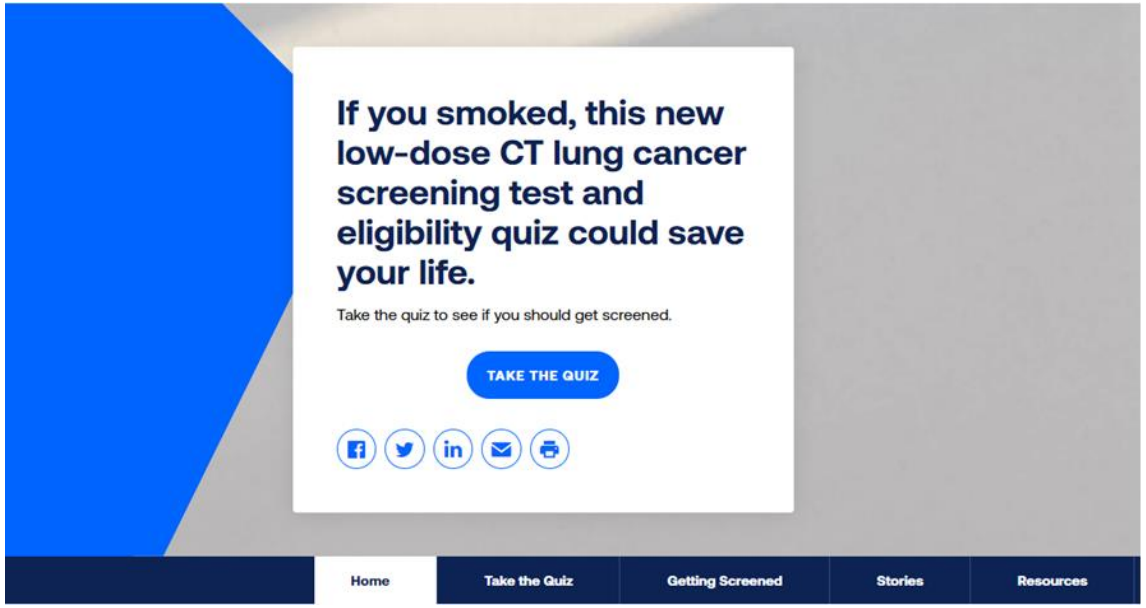
- We help you develop a personalized plan of action to prepare you for your quit day and offer the support you need to remain tobacco-free for life!
  - Group Program
  - Online Program
  - Self-Help Guide

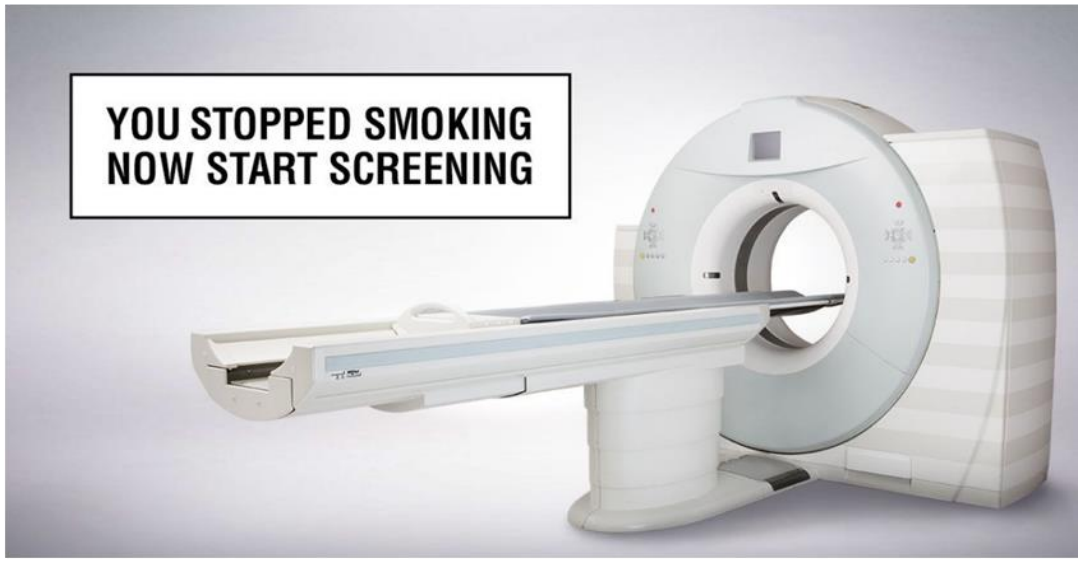


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Saved by the Scan

Take Our Lung Cancer Risk Quiz and Determine Your Eligibility For Screening





Take the quiz or share with your loved ones:

- [Lung Cancer Risk Quiz | Saved By The Scan | American Lung Association]

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Asthma Resources

- Lung.org
- Asthma Action Plan
- What is Asthma
- Asthma Medication Chart
- Identifying Trigger Worksheet
- Preparing for Doctor Visit Worksheet
- How to use a Metered Doses Inhaler (without spacer/valve holding chamber) Asthma Educator Institute
- Breathe Well, Live Well
- INDEPTH
- Not On Tobacco (NOT)
- Freedom From Smoking
- Better Breather's Clubs
- Radon Basics
- Lung Helpline

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We would like to hear from you



https://survey.alchemer.com/s3/6956114/Asthma-Basics-Post-Skills-Assessment-Evaluation

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Thank you for Participating

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Asthma Basics

Asthma Basics |
Lung.org/asthma-basics

Lung HelpLine |
1-800-LUNGUSA

Contact Information:

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