WHAT IS ASTHMA?
Asthma is a chronic disease which causes the airways in the lungs to narrow, inflamed, “twitchy”, and increase mucous production, which can make breathing very difficult. Symptoms include shortness of breath, a dry cough, wheezing and chest tightness.

HOW IS ASTHMA DIAGNOSED?
- Symptoms of asthma improve with a bronchodilator.
- A spirometer, or “blow test” measures the total amount of air blown out of the lungs.

COMMON ASTHMA TRIGGERS
- Illness
- Exercise
- Irritants
  - Smoke/pollutants
  - Fragrances
- Allergens
  - Pollens/molds
  - Animal dander (skin)
  - Dust, dust mites, dust mite excrement
  - Pests (cockroaches, mice)
- Medications (rarely)
  - such as NSAIDs (Motrin/ibuprofen, Aleve/naproxen)
- Other
  - Cold Air
  - Stress

ASTHMA MANAGEMENT
Medication
- For inflammation/excess mucous production: inhaled corticosteroids (long-acting, “maintenance” or “controller” medication)
- For airway “twitchiness”: bronchodilators (short-acting, “quick-relief” or “rescue” medication)
Combination Medications: MART (Maintenance and Reliever Therapy) - both an inhaled corticosteroid (ICS) as a controller medication, and a long-acting beta 2-agonist (LABA) used as a bronchodilator as a quick-relief medication are medicines in one inhaler.

Biologics: Asthma biologics are typically antibodies (proteins) that disrupt specific cells or block specific molecules that trigger inflammation in the lungs causing symptoms of asthma.

Asthma Action Plan
This written plan provides information with instructions to help manage asthma symptoms and prevent and control asthma episodes. **Know Your Asthma Zones: Go - Caution - Danger!**

Stepwise Approach to Asthma
- Personalized asthma management: **Assess, Adjust, Review**
- Asthma medications: Preferred Controller and Reliever medications for:
  - Ages 5 years and younger,
  - Ages 6-11 years,
  - Adolescents 12+ and Adults

Metered Dose Inhaler (MDI):
A handheld device that delivers medication directly to the lungs. Not all inhalers look the same or are used in the same way. **Talk with your healthcare provider to learn how to use your MDI correctly.**

 MANAGEMENT OF ASTHMA TRIGGERS

Illness/Infections
- Get vaccinated! Especially annual influenza and COVID-19 booster
- Wash hands frequently, especially before eating
- Keep your asthma medications and asthma action plan at the ready

Exercise & Cold Air
- Use inhaler 15-20 minutes before exercise
- Exercise indoors when cold and dry outside, if possible
- Warm up properly
- Wear a mask or scarf over your face when outside
- Limited strenuous exercise when cold outside

Outdoor Air Pollution
- Do not exercise or play outside when air pollution levels are elevated
- Use this resource to determine air quality and its impact: [www.airnow.gov](http://www.airnow.gov)

Indoor Air Pollution
- No smoking inside (smoke outside, if not able to quit) the home
- Vent cooking devices, particularly gas stoves
- Use safe cleaning products
  - Vinegar & water, baking soda & water
  - Bleach is a respiratory irritant
    - [https://www.epa.gov/saferchoice](https://www.epa.gov/saferchoice)
    - [https://www.cdc.gov/asthma/triggers.html](https://www.cdc.gov/asthma/triggers.html)
- Eliminate fragrances
  - No air fresheners, scented candles, plug ins
  - Use fragrance-free laundry detergents, soaps, lotions
Pollens (trees, grasses, weeds)
- Keep bedroom windows closed
- Wet dust
- HEPA filter in bedroom
- Wear a hat when outside
- Leave shoes in garage or near front door
- Wash hands and face when returning home
- Use a saline nasal rinse up to 4x/day
  Saline spray, Saline mist or Neti pot
- Rinse hair (or cover) before bed
- Consider immunotherapy (SCIT)

Molds
- Dehumidifier – keep humidity between 30-50% [epa.gov/mold]
- Vent bathrooms/kitchen - Run exhaust fans, Crack windows
- Clean & dry hard surfaces using diluted bleach or vinegar and water
- Reduce clutter
- Check for leaky plumbing

Pets
- Rehome if possible. Or, keep pet out of bedroom and run a HEPA filter in bedroom
- Brush/wash pets frequently
- Reduce clutter
- Wet dust
- Vacuum carpets and furniture frequently using a HEPA filter on the vacuum
- Pre-medicate with Zyrtec, Claritin or Allegra before visiting homes with pets. Be sure to bring your inhaler!

Dust mites
- Reduce clutter in home, particularly bedroom
- Wash bedding in hot water weekly/encase pillows & mattresses
- Vacuum mattress monthly
- Keep pets out of bedroom
- HEPA filter on vacuum
- Remove carpeting, if possible
- Wet dust
- Use saline irrigation in the morning: Saline Spray, Saline Mist or Neti pot
- Consider sub-lingual immunotherapy (SLIT) for dust mite sensitization alone

Pests
- Keep food stored in airtight containers
- Keep kitchen free of food residue/crumbs
- Use bait traps for ants, cockroaches, mice, etc., or have areas treated
- Reduce clutter
- Keep humidity between 30-50%
- Keep trash in closed containers
- Vacuum and mop often
Medications to avoid, if triggering your asthma

- Aspirin/NSAIDs
  - Ibuprofen, such as Motrin® or Advil®
  - naproxen (Aleve® or Naprosyn®)
- Beta blockers
- ACE inhibitors

Food triggers

- Food with sulfites (often added a preservative)

**IMPORTANT CONSIDERATIONS WHEN MANAGING ASTHMA**

Asthma, especially uncontrolled asthma, can negatively impact physical and emotional health, exercise, productiveness at home/school/work, travel plans, social life.

The goal of asthma management is to keep asthma symptoms under control. You can do this by working with your healthcare provider to develop an asthma action plan to follow so that a good quality of life can be achieved!

**Asthma can’t be cured, but it CAN be controlled!**

Discuss with your healthcare provider the following considerations:

- Controlling long-term inflammation
- Cost of treatment
- Ease of treatment

--- REFERENCES ---


www.asthmaandallergies.org

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