

# B.R.E.A.T.H.E.

Bringing Reduction and Education of  
Asthma Triggers to the Home Environment



# A collaborative project of HDHHS and the EPA



**Bureau of Community and  
Children's Environmental Health**



# Acknowledgements



## Bureau of Health Promotion

Houston Independent School District



Creating a College-Bound Culture

## Asthma Program

# Why talk about asthma?



- Asthma can be deadly.
- Most common childhood chronic disease in the U.S
- #1 reason why *HISD* children miss school
- #1 cause of pediatric visits to the ER in *Houston*

# What Happens During an Asthma Attack?



- During an asthma attack the breathing tubes in your lungs, called *bronchi* and *bronchioles*, swell up.
- The muscles around these tubes tighten.
- The tubes make large amounts of a thick fluid called mucus.

Asthma cannot be cured, but it can be managed by avoiding exposures to environmental triggers.

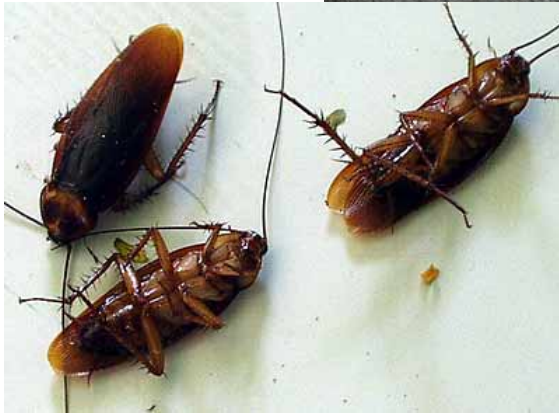


Most asthma episodes can be prevented.

An **asthma trigger** is anything that brings on coughing, wheezing, trouble breathing, and other symptoms in a person with asthma. Triggers can vary from person to person and from season to season. They can also change as a person grows older.



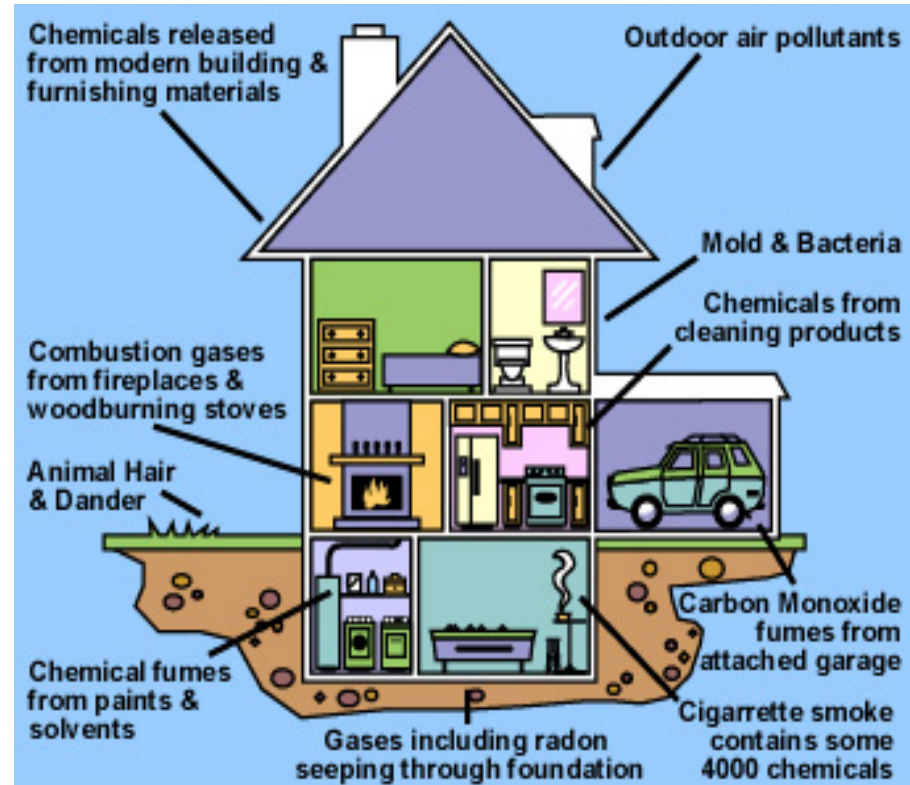
# Major asthma triggers. . .

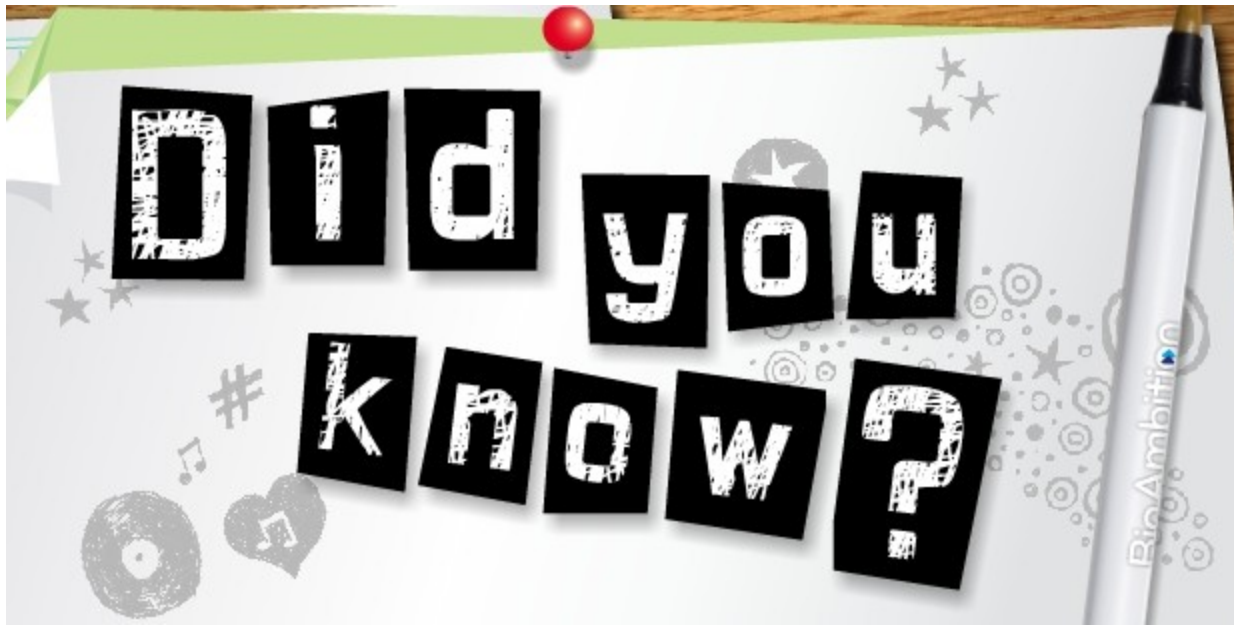




# IAQ – Asthma Connection

- Indoor Air Quality (IAQ)
- Americans spend approximately 90% of time indoors
- Reducing asthma triggers can reduce asthma symptoms





Some asthma triggers can **CAUSE** the development of asthma in young children.

- Tobacco Smoke
- Dust Mites
- Roaches

# Second Hand Tobacco Smoke



# Second Hand Tobacco Smoke



Also known as Environmental Tobacco Smoke (ETS)

- Direct link to asthma
- ***Also. . . .***
- Ear infections
- Poor performance in school
- Childhood cancer (leukemia & brain tumors)
- SIDS

# Keep it Smoke Free

- Don't smoke in the house.
- Wear a smoking jacket if you smoke outside.
- Don't smoke in the car.
- Don't let others smoke around you or your children
- If you want to quit, get help.



# For Help to Quit Smoking



Environmental Protection Agency

Smoke Free Pledge

1-866-smoke-free

[www.epa.gov/smokefree](http://www.epa.gov/smokefree)



American Lung Association

1-800-586-4872

Freedom from Smoking

[www.ffsonline.org](http://www.ffsonline.org)



# Mold



# The Problem With Mold

- Mold is alive and can grow on virtually any substance, providing moisture is present.
- Mildew is another name for mold.
- Molds produce spores to reproduce.
- When you breathe in mold spores, they get in your lungs and cause health problems, including allergic reactions and asthma attacks.



# Keep It Moist Free

- Mold needs moisture to grow.
- Inspect buildings for mold, water stains, standing water and moldy odors.
- Fix the source of water problem or leak to prevent mold growth.
- Vent showers and dryers to the outside.
- Provide adequate ventilation to maintain indoor humidity levels between 30-60%.
- Control dampness by using air conditioners and de-humidifiers.
- Move furniture away from outside walls.

# How Do I Clean Up Mold?

- Clean hard surfaces with a mix of laundry detergent and water.
- Spray or sponge diluted bleach mixture (1:10) on moldy area. Leave it for 15 minutes, then rinse and dry quickly.
- After cleaning up mold, using a HEPA vacuum may help you get rid of spores.
- Throw away things like carpet and cardboard that have been wet for more than 2 days.
- If you find an area of mold greater than 15 square feet, it's best to hire a professional.

# Go Green

The following natural products have been shown to kill mold:

- Vinegar
- Hydrogen Peroxide
- Oxygen Bleach Powder
- Borax
- Tea Tree Oil



# Dust Mites



# The Problem With Dust Mites

- No. 1 reason for asthma attacks
- Too small to be seen
- Feed off of dead skin cells
- A person loses 2 lbs of skin per year
- Dust mites live in carpet, mattresses, pillows, clothes and stuffed toys.



# Keep It Clean

- Cover pillows and mattress in dust-proof (allergen-impermeable), zipped covers.
- Wash bedding and stuffed toys in hot water.
- Temperatures above 130°F kill dust mites.
- Remove dust from hard surfaces often with a damp cloth.
- Vacuum carpeting twice a week with a HEPA filter if possible.
- Control moisture. Dust mites need water to live.

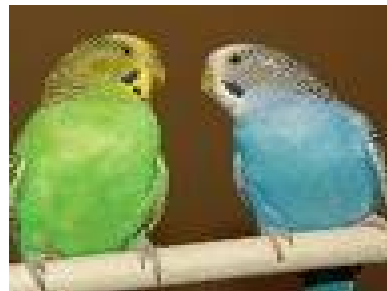


# Go Green



Use non-toxic, fragrance free laundry and cleaning products.

# Pets





# The Problem With Pets

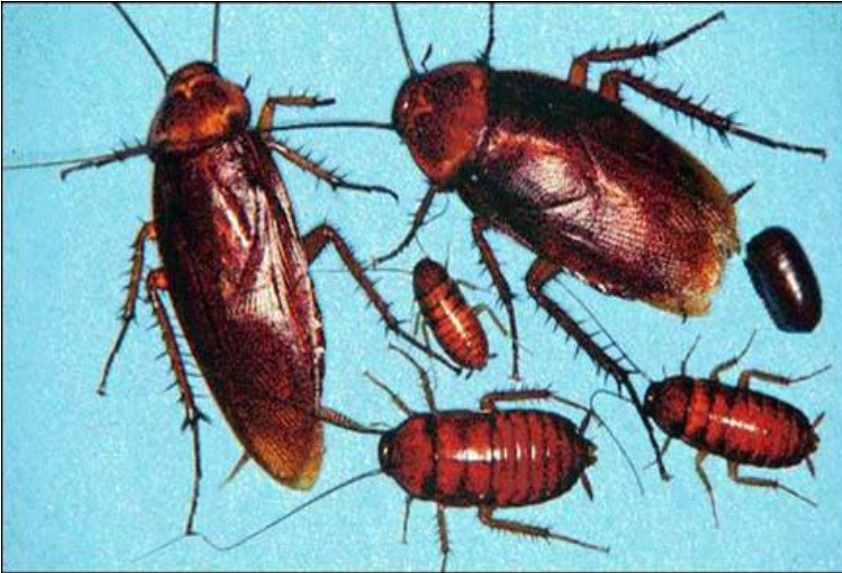


Our furry and feathered friends can cause asthma and allergy attacks due to their saliva and skin flakes - known as dander.

# Control Pet Dander

- Keep pets out of sleeping areas.
- Keep pets outside as much as possible.
- Shampoo pets regularly using **non-toxic** products.
- Wash pet bedding and toys once a week in hot water.
- Keep them out of the classroom.

# Pests



# Cockroaches

- Roaches, dead or alive, and their droppings (frass) are a health hazard.
- Cause or aggravate allergies
- Cause asthma in pre-school children
- Live in areas where humans provide food and water
- Active at night



# Mice and Rats



- Rodents, their frass and dander can cause asthma attacks
- Carry infectious diseases
- Start fires by chewing on wires
- Most active at night
- Travel along the same paths

# Pesticides and Poisoning



- Pests can become tolerant of pesticides
- The methods used to treat pests may create human health hazards
- 80% of human exposure to pesticides occur indoors
- Children are especially at risk for poisoning because they crawl and play on floors and lawn



# Dangers of Pesticides

- Eye, nose, throat irritation
- Skin rashes, stomach cramps, nausea
- Central nervous system damage
- Kidney damage
- Increased risk of cancer



# The Problem With Pesticides



Pesticides alone do not work and can be dangerous.



And, these pesticides are illegal.



# Keep It Pest Free

- Keep them out – seal holes and cracks with caulk
- Give them no place to hide – decrease clutter around the house
- Reduce availability to food and water
- Knock down population with traps, gels and/or dusts

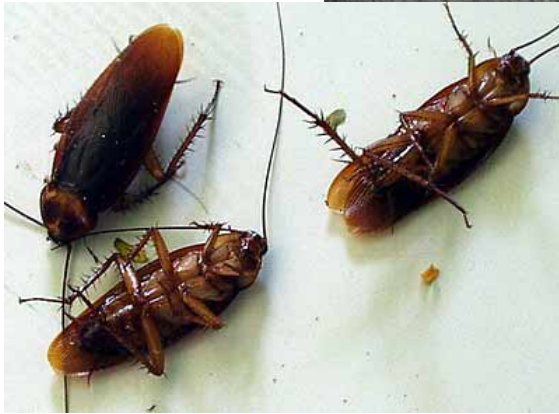


- Wash children's hands, bottles, pacifiers, and toys often with soap and water.

# Integrated Pest Management (IPM)

- Integrated: Uses multiple approaches that work together.
- Pest: What we are trying to get rid of
- Management: Use of the most economical means with the least possible hazard to people, property, and the environment.

# Major asthma triggers. . .



QUESTIONS?



# CONTACT

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