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
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

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

Also known as Environmental Tobacco Smoke (ETS)
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

American Lung Association
1-800-586-4872
Freedom from Smoking
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 fury 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?
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