



Allergens, Allergies, and Asthma

Taking a Good Breath

Allergens are substances such as pollen, dust, mold, pet dander, or certain foods that can trigger allergic reactions.

Allergies occur when the immune system overreacts to these substances, causing symptoms like wheezing, itching, swelling, or hives. In people with asthma, exposure to allergens can irritate the airways, leading to coughing, wheezing, chest tightness, and difficulty breathing. Avoid known allergens and following prescribed treatment plans can help reduce symptoms and prevent asthma attacks.

Breathe Easy

ASTHMA





EVERY DAY



An **asthma trigger** is something that makes symptoms worse. Allergens can worsen symptoms for people who are sensitive to them. Not every allergen is a trigger for everyone with asthma. Understanding what worsens your asthma is a part of getting it under control.



In the home, common asthma triggers include:




-  Pet dander
-  Dust mites
-  Cigarette smoke, which can irritate the lungs
-  Pests like rodents and cockroaches

More than 90% of homes have 3 or more allergens.




Schools, like other enclosed spaces, can attract lots of allergens like dust mites, pests, and mold.



Work with a healthcare provider to make an **asthma action plan**. Share it with your child's:

-  Teacher
-  School nurse
-  Other trusted adults at school

In the workplace, hundreds of things can trigger asthma, like:

-  Metal dust
-  Bleaches
-  Hair dyes



Asthma triggers can change over time. Your body may react differently after repeated exposures, such as at your workplace. Talk to your healthcare provider if your asthma worsens after being at work.

Outdoors, pollen, air pollution, and everyday weather like cold, dry air can set off asthma.





Pollen counts tend to be high in the morning. You may want to avoid being outside from **5 to 10 a.m.**



Managing triggers is just one part of controlling asthma. Work with a healthcare provider to:


Make an asthma action plan


Keep track of your symptoms and where you are when they occur


Learn how to take medicines as prescribed

Allergies and Allergens

A Simple Guide for Patients and Families

What Are Allergies?

Allergies occur when the immune system overreacts to substances that are usually harmless. These substances are called allergens. When exposed to an allergen, the body may release chemicals that cause allergy symptoms.

What Are Allergens?

Allergens are substances that trigger allergic reactions. They can be inhaled, eaten, touched, or injected and may cause mild to severe symptoms depending on the person.

Common Types of Allergens

- Environmental: pollen, dust mites, mold, pet dander
- Food: milk, eggs, peanuts, tree nuts, wheat, soy, fish, shellfish
- Insect: bee stings, wasp stings, fire ants
- Medications: antibiotics such as penicillin, aspirin, NSAIDs
- Contact allergens: latex, nickel, fragrances, soaps

Common Allergy Symptoms

- Sneezing, runny or stuffy nose
- Itchy or watery eyes
- Skin rash, hives, or itching
- Swelling of the lips, face, or tongue
- Nausea, vomiting, or stomach pain

Severe Allergic Reactions (Anaphylaxis)

Anaphylaxis is a life-threatening allergic reaction that requires immediate medical attention.

- Trouble breathing or wheezing
- Swelling of the throat
- Fast heartbeat, dizziness, or fainting
- Drop in blood pressure

How to Reduce Exposure to Allergens

- Avoid known allergens whenever possible
- Read food and medication labels carefully
- Keep living areas clean and well ventilated
- Use allergy-proof covers on pillows and mattresses
- Wash hands after contact with animals

Managing Allergies

- Take allergy medications as prescribed
- Carry emergency medication such as an epinephrine auto-injector if ordered
- Follow an Allergy Action Plan
- See an allergy specialist if symptoms are frequent or severe

When to Seek Medical Help

Seek medical care if allergy symptoms are severe, worsening, or interfering with daily life. Call 911 immediately for signs of anaphylaxis.

Allergens and Asthma

Quick Guide for Patients and Families

What Is Asthma?

Asthma is a chronic condition that affects the airways in the lungs. It causes swelling and narrowing of the airways, making breathing difficult. Common symptoms include coughing, wheezing, chest tightness, and shortness of breath.

What Are Allergens?

Allergens are substances that trigger an allergic reaction. For many people with asthma, allergens can cause or worsen asthma symptoms and may lead to asthma attacks.

Common Asthma-Related Allergens

- Dust mites – Found in bedding, carpets, and upholstered furniture
- Pet dander – Skin flakes, saliva, or urine from cats, dogs, and other animals
- Pollen – Trees, grasses, and weeds (often seasonal)
- Mold – Grows in damp areas such as bathrooms, basements, and kitchens
- Cockroaches and pests – Droppings and body parts can trigger symptoms

How Allergens Affect Asthma

When allergens are inhaled, the airways may become inflamed and swollen, the muscles around the airways may tighten, and extra mucus may be produced. This can result in coughing, wheezing, and difficulty breathing.

Ways to Reduce Allergen Exposure

- Use allergy-proof covers on pillows and mattresses
- Wash bedding weekly in hot water
- Keep pets out of bedrooms
- Vacuum regularly using a HEPA filter
- Control moisture to prevent mold
- Keep windows closed during high-pollen days
- Avoid smoking and secondhand smoke

Managing Asthma and Allergies

- Take asthma and allergy medications as prescribed
- Use a daily controller inhaler if ordered
- Carry a rescue inhaler at all times
- Follow your Asthma Action Plan
- See a healthcare provider for allergy testing if symptoms persist

When to Seek Medical Help

Seek medical care if symptoms worsen, become more frequent, or if a rescue inhaler is needed more often than usual. Call 911 for severe breathing difficulty or trouble speaking due to shortness of breath.

Environmental Wellness Checklist

What surrounds you each day in your home, work, or neighborhood can affect your health. Here are some tips to make your environments safer:



MAKE YOUR HOME HEALTHIER

Take a look around your home. Do you know what's in your household goods and products? Some chemicals can harm your health if too much gets into your body. Becoming aware of potentially harmful substances and clearing them out can help keep you and your family healthy.

To reduce toxic substances in your home:

- Clean with non-toxic products.
- Dust using a damp rag.
- Use a wet mop to clean floors.
- Vacuum with a HEPA filter.
- Open a window or use a fan to improve air circulation when you're cleaning.
- Have a good ventilation system.
- Wash your & your children's hands often.



REDUCE YOUR ALLERGIES

A change in season can brighten your days with vibrant new colors. But blooming flowers and falling leaves can usher in more than beautiful backdrops. Airborne substances that irritate your nose can blow in with the weather. When sneezing, itchy eyes, or a runny nose suddenly appears, allergies may be to blame. Take steps to reduce your exposure to allergens.

To reduce allergies:

- Avoid going outdoors when you're having allergies.
- If you go outside, wash your hair and clothing when you come inside.
- Keep humidity levels low in the home.
- Avoid upholstered furniture and carpets.
- Wash your bedding in hot water once a week.
- Vacuum the floors once a week.
- Talk with your doctor about medications and allergy shots.



STAY SAFE DURING HOT WEATHER

Heat is the biggest danger in the summer months. Being hot for too long can cause many illnesses, some of which can be deadly. But the warmer weather also brings lots of new opportunities to improve your health. Here's how to make the most of the summer months.

To create healthy summer habits:

- Do outdoor activities in the early morning or evening.
- Wear protective clothing.
- Use sunscreen that blocks UVA and UVB.
- Use sunglasses that block UVA and UVB.
- Try to stay in the shade when outdoors.
- Exercise in an air-conditioned space if possible. Or do water workouts.
- Drink plenty of liquids, especially water.



GUARD AGAINST COLD WEATHER

The frosty air of winter can be invigorating. But cold air can also pose threats to your health, whether you're indoors or outside. Learn to recognize the signs of your body temperature dropping too low, and take steps to keep yourself and your family warm and safe during the chilly season.

To guard against the cold:

- At home, wear socks, slippers, and a hat. Or stay covered up with a blanket.
- Keep your heat set to at least 68°F or higher during cold weather. For help paying your heating bills, see if you qualify for the HHS energy assistance program.
- Wear a windproof and water-proof jacket when going out in the cold. Dress in layers.
- If you see signs of hypothermia, get out of the cold. Warm up gradually with blankets. Avoid hot baths or heating pads. Get medical help if your temperature is below 95°F.



AIR QUALITY AND YOUR HEALTH

The combination of high temperatures, pollution, and airborne particles can brew up an unhealthy mixture in the air, just waiting to enter your lungs. This can make it hard to breathe and sap your energy. But air pollution can also occur inside—in homes, offices, or even schools. If you're regularly exposed to high levels of unhealthy air, the health consequences can linger for months or even years.

To reduce the effects of poor quality air on your health:

- Avoid outdoor activities in the afternoons on warmer days, when the risk of air pollution is highest.
- Avoid strenuous outdoor activities if the air is polluted. Check your region's air quality index at www.airnow.gov.
- Reduce pollutants in your home. Don't let anyone smoke in your home. Avoid burning candles, incense, or wood fires. Run fans or open a window when cooking. Use a vacuum with a HEPA filter.



CLEAR OUT TOXINS IN YOUR HOME

Some hazards in the home are easy to see. Like a loose electrical socket. Or torn carpet on the stairs. But others are harder to spot. And some are invisible, in the very air you breathe. These include lead, mold, and radon. But there are ways you can find and fix these unseen hazards. Learn how to reduce your exposure to these health hazards.

To reduce health hazards in your home:

- If your home was built before 1978, test exposed paint for lead.
- Have children tested for lead exposure regularly, from at least birth to age six.
- Use vent fans in rooms with moisture.
- If you have a leak or flood in your home, quickly dispose of damaged items.
- Clean small areas of mold on walls or fabric with hot, soapy water.
- Test your home for radon. Call 1-800-SOS-RADON (1-800-767-7236).



STAY SAFE IN THE WATER

Summer is a great time to go out and have fun in the water. But recreational waters—including swimming pools, lakes, and oceans—can sometimes get contaminated with bacteria and viruses. Swimming in contaminated water can make you and your family sick. But you can take steps to stay safer while playing in the water.

To stay safer while playing in the water:

- Shower before and after going swimming.
- Try not to swallow the water.
- Never go to the bathroom in the water.
Take kids for bathroom breaks and check diapers every hour. Change diapers away from the water.
- Stay out of the water if you've had diarrhea recently to help protect others from germs.
- Always wash your hands before you eat or drink.
- Cover open wounds with waterproof bandages.
- Don't swim in water that looks murky or has an odor.
- Stay out of the ocean for at least 24 hours after a storm. Avoid places where storm water is released on the beach.
- Check for warning signs posted around the area. Ask lifeguards about the water conditions.
- Check local alert systems. Visit go.usa.gov/subNw for information on U.S. beaches.

Asthma in Women



Asthma is a chronic condition that affects breathing. Anyone can develop asthma, but almost twice as many women as men have asthma. In the United States, 1 in 10 women have asthma. Here's what to know—and what to do to manage it.

WHY IS THE ASTHMA BURDEN GREATER FOR WOMEN?

Scientists are studying why women are more impacted by asthma. Some of the reasons include:

BIOLOGY

Changes in hormone levels, such as in menstruation, pregnancy, and menopause, can make asthma symptoms more severe. If you have asthma and it worsens during certain parts of your menstrual cycle, keep track of your symptoms on a calendar. This may help you avoid asthma triggers during times when you tend to have flare-ups. If you are pregnant or thinking of becoming pregnant, talk to your healthcare provider about how to monitor and treat your asthma during pregnancy.

BY THE NUMBERS

43% of women with asthma have had an asthma attack in last year.

Black women are nearly **40% more likely** to have asthma than Black men.



National Heart, Lung,
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Asthma in Women



WHY IS THE ASTHMA BURDEN GREATER FOR WOMEN? (continued)

BODY WEIGHT

Women are at higher risk of having obesity. This can make asthma symptoms harder to manage. Losing just 5% to 10% of extra weight can help you control your asthma better.

WORKPLACE EXPOSURES

Women often have jobs that expose them to indoor pollutants (such as cleaning products, cigarette smoke, dust mites, and mold) that can make asthma worse. If you have such exposures, report any new or worsening breathing problems to your healthcare provider and your workplace.

FAMILY HISTORY

Women (and men, too) who have a parent with asthma have a higher risk of developing the condition.

WHAT CAN I DO TO BETTER MANAGE MY ASTHMA?

Here's where to start:

KNOW THE SYMPTOMS

Problems like coughing, wheezing, chest tightness, and shortness of breath are all signs of asthma.

TALK TO A HEALTHCARE PROVIDER

Together you can create an asthma action plan that works for you. This plan will help you:

- Think about the situations when your asthma seems worse. What seems to trigger your symptoms? Talk to a doctor about ways to try to avoid those situations.
- Understand what medications to take and when to take them. The plan should also explain what to do in an emergency.
- Learn to keep track of your symptoms between visits to know if your plan is working.

THE GOOD NEWS?

With the right treatment plan, most people with asthma can lead full and active lives.

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and Blood Institute

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REDUCING ALLERGENS IN YOUR HOME

ASTHMA

Avoiding asthma triggers may help reduce the inflammation in your lungs, reduce symptoms, and reduce your need for emergency relief medication. Indoor allergy triggers, such as dust or animal dander, could affect your asthma if you are sensitive to them, and using a strategy that removes or minimizes these allergens may be helpful.

Your health care provider can help you identify your sensitivities by looking at your medical history or through allergy testing.

Keep in mind that controlling any allergen usually requires a combination of approaches, and reducing allergens is just one part of a comprehensive asthma management plan.

Here are some tips to get started. These tips tend to work better when you use several of them together. Your health care provider can help you decide which ones may be right for you.

ALLERGENS

Animal Dander: Some people are allergic to the flakes of skin or dried saliva from animals with fur or hair. If you are sensitive and decide to have a pet:

- Consider keeping the pet outdoors.
- Try limiting your pet to commonly used areas indoors.

Dust Mites: These tiny bugs, too small to see, can be found in every home—in dust, mattresses, pillows, carpets, cloth furniture, sheets and blankets, clothes, stuffed toys, and other cloth-covered items. If you are sensitive:

- Mattress and pillow covers that prevent dust mites from going through them should be used along with high efficiency particulate air (HEPA) filtration vacuum cleaners.
- Consider reducing indoor humidity to below 60 percent. Dehumidifiers or central air conditioning systems can do this.



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For more information and resources on asthma, visit nhlbi.nih.gov/BreatheBetter.

Cockroaches and Other Rodents: Pests like these leave droppings that may trigger your asthma. If you are sensitive:

- Consider an integrated pest management plan.
- Keep food and garbage in closed containers to decrease the chances for attracting roaches and other rodents.
- Use poison baits, powders, gels, or paste (for example, boric acid), or traps to catch and kill the pests. If you use a spray to kill roaches, stay out of the room until the odor goes away.

Indoor Mold: If mold is a trigger for you, you may want to:

- Explore professional mold removal or cleaning to support complete removal.
- Wear gloves to avoid touching mold with your bare hands if you must remove it yourself.
- Always ventilate the area if you use a cleaner with bleach or a strong smell.

Pollen and Outdoor Mold: When pollen or mold spore counts are high you should try to:

- Keep your windows closed.
- If you can, stay indoors with the windows closed from late morning to afternoon, when pollen and some mold spore counts are at their highest.
- If you do go outside, change your clothes as soon as you get inside, and put dirty clothes in a covered hamper or container to avoid spreading allergens inside your home.
- Ask your health care provider if you need to take or increase your anti-inflammatory medicine before the allergy season starts.

IRRITANTS

Tobacco Smoke:

- If you smoke, visit smokefree.gov or ask your health care provider for ways to help you quit.
- Ask family members to quit smoking.
- Do not allow smoking in your home or car.

Smoke, Strong Odors, Sprays, and Fumes:

- Avoid using a wood-burning stove, kerosene heater, or fireplace, if possible. Vent gas stoves to outside the house.
- Try to stay away from strong odors and sprays, such as perfume, talcum powder, hair spray, and paints.

Vacuum Cleaning:

- Try to get someone to vacuum for you once or twice a week if vacuum cleaning makes your asthma worse. Stay out of rooms while they are being vacuumed and for a short while afterward.
- If you must vacuum yourself, using HEPA filtration vacuum cleaners may be helpful.

