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## Definition

If you have a respiratory mold allergy, your immune system overreacts when you breathe in mold spores. This reaction triggers a cascade of reactions that lead to allergy symptoms. Like other respiratory allergies, mold allergy can make you cough, make your eyes itch and cause other symptoms that make you miserable. In some people, mold allergy is linked to asthma and exposure causes restricted breathing and other airway symptoms.

If you have a mold allergy, the best defense is to reduce your exposure to the types of mold that cause your reaction. While it isn't always possible to avoid mold allergy triggers, medications can help keep mold allergy reactions under control.

## Symptoms

Mold allergy causes the same signs and symptoms that occur in other types of upper respiratory allergies. Mold allergy symptoms can include:

- Sneezing
- Runny or stuffy nose
- Cough and postnasal drip
- Itchy eyes, nose and throat
- Watery eyes
- Sinusitis, an inflammation of the sinuses

Mold allergy symptoms vary from person to person, and range from mild to severe. You may have year-round symptoms or symptoms that flare up only during certain times of the year. You may notice symptoms when the weather is damp, or you're in indoor or outdoor spaces that have high concentrations of mold.

If you have a mold allergy and asthma, your asthma symptoms may be triggered by exposure to mold spores. In some people, exposure to certain molds can cause a severe asthma attack. Signs and symptoms of asthma include:

- Coughing
- Wheezing
- Shortness of breath

### When to see a doctor

If you have a stuffy nose, sneezing, watery eyes or other bothersome symptoms for longer than two weeks, see your doctor.

Your doctor will consider your symptoms and may order tests to try to determine if you have allergies or whether your symptoms are caused by something else.

If you have asthma or your doctor suspects you have asthma, you may need to see a doctor who specializes in allergies (allergist). Asthma symptoms include shortness of breath, coughing and wheezing.

## Causes

Like any allergy, mold allergy symptoms are triggered by an overly sensitive immune system response. When you inhale tiny, airborne mold spores, your body recognizes them as foreign invaders and develops allergy-causing antibodies to fight them.

After the exposure has passed, you still produce antibodies that "remember" this invader, so that any later contact with the mold causes your immune system to react. This reaction triggers the release of substances such as histamine, which cause itchy, watery eyes, runny nose, sneezing and other mold allergy symptoms.

Molds are very common both inside and outside. There are many different types, but only certain kinds of mold cause allergies. Being allergic to one type of mold doesn't necessarily mean you'll be allergic to another. Some of the most common molds that cause allergies include alternaria, aspergillus, cladosporium and penicillium.

## Risk factors

You may be more likely to develop a mold allergy if you have a family history of allergies.

If you are allergic to molds, your symptoms may be worse if you:

- **Work in an occupation that exposes you to mold.** Occupations where mold exposure may be high include farming, dairy work, logging, baking, millwork, carpentry, greenhouse work, winemaking and furniture repair.
- **Live in a house with high humidity.** If your indoor humidity is higher than 50 percent, you may have increased exposure to mold in your home. Mold can grow virtually anywhere if the conditions are right — in basements, behind walls in framing, on soap-coated grout and other damp surfaces, in carpet pad and in the carpet itself. Exposure to high levels of household mold may trigger mold allergy symptoms.
- **Work or live in a building that's been exposed to excess moisture.** Leaky pipes, water seepage during rainstorms, flood damage: At some point, nearly every building has some kind of excessive moisture. This moisture can allow mold to flourish, along with other common allergens, including dust mites and cockroaches.
- **Live in a house with poor ventilation.** Tight window and door seals may trap moisture indoors and prevent proper ventilation, creating ideal conditions for mold growth. Damp areas, such as bathrooms, kitchens and basements, are most vulnerable.

## Complications

Most allergic responses to mold involve hay fever-type symptoms that can make you miserable, but aren't serious. However, certain allergic conditions caused by mold are more severe. These include:

- **Mold induced asthma.** In people allergic to mold, breathing in spores can trigger an asthma flare-up. If you have a mold allergy and asthma, be sure you have an emergency plan in place in case of a severe asthma attack.
- **Allergic fungal sinusitis.** This occurs when fungus lodges and grows in the sinuses. Surgery may be necessary to remove a tightly packed infection ("fungal ball").
- **Allergic bronchopulmonary aspergillosis.** This fungal infection of the lungs can occur in people with asthma or cystic fibrosis.
- **Hypersensitivity pneumonitis.** This rare condition occurs when exposure to airborne particles such as mold spores cause the lungs to become inflamed. It's often triggered by exposure to allergy-causing dust at work.

## Other problems caused by mold

Recent news coverage has focused on the possibility that certain molds (such as so-called "black mold") may cause a host of symptoms such as fatigue, headache, nausea, fever, rashes and coughing — and even a condition that causes bleeding lungs in infants (acute idiopathic pulmonary hemorrhage). While some molds contain toxins that are poisonous when eaten, more research is needed to determine whether molds inside buildings release airborne toxins that cause problems in otherwise healthy people.

While it isn't clear mold is the culprit, it is clear that living or working in a damp building can cause respiratory symptoms including nasal congestion, sneezing, runny nose, throat irritation and cough. While there's some speculation that certain molds may cause these and other ill effects, it could be something else. Damp buildings are prime environments for other health hazards, including harmful bacteria, rodents, and the irritating chemicals released from building materials and furnishings.

Exposure to high levels of mold can cause nonallergic complications in people who have weakened immune systems. If you're healthy, you can handle mold exposure, but if you're on chemotherapy or immune-suppressing drugs, you may be at risk of a mold infection.

## Preparing for your appointment

To determine whether allergies or other possible causes are responsible for your symptoms, your doctor will do a thorough physical examination and ask a number of questions. Your doctor will want to know:

- Exactly what symptoms you have
- What seems to trigger symptoms or make them worse
- Whether your symptoms are worse during certain times of the year or certain times of the day
- Whether your symptoms flare up when you're in certain locations, such as outdoors or in your basement
- What medications you take, including herbal remedies
- Any health problems you have
- Whether you have a family history of allergies

## Tests and diagnosis



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*A small area of swelling with surrounding redness is typical of a positive allergic skin test.*

Your doctor will want to know your signs and symptoms and may want to conduct a physical examination to identify or exclude other medical problems. Your doctor may also recommend one or more skin or blood tests to see if you have an allergy that can be identified. These include:

- **Skin prick test.** This test uses diluted amounts of common or suspected allergens, such as molds found in the local area. During the test, these substances are applied to the skin in your arm or back with tiny punctures. If you're allergic, you develop a raised bump (hive) at the test location on your skin. Allergy specialists usually are best equipped to perform allergy skin tests.

- **Blood test.** A blood test (sometimes called the radioallergosorbent test, or RAST) can measure your immune system's response to mold by measuring the amount of

certain antibodies in your bloodstream, known as immunoglobulin E (IgE) antibodies. A blood sample is sent to a medical laboratory, where it can be tested for evidence of sensitivity to specific types of mold.

## Treatments and drugs

The best treatment for any allergy is to take steps to avoid exposure to your triggers. However, molds are common and you can't completely avoid them. While there's no sure way to cure a mold allergy, a number of medications can ease your symptoms. These include:

- **Nasal corticosteroids.** These nasal sprays help prevent and treat the inflammation caused by an upper respiratory mold allergy. For many people they're the most effective allergy medications, and they're often the first medication prescribed. Examples include fluticasone propionate (Flonase Veramyst), mometasone (Nasonex) and beclomethasone (Beconase). Although these medications can start to work after a few days of treatment, you may not notice any improvement until after you've used them for a week or so. These medications are generally safe for long-term use.
- **Antihistamines.** These medications can help with itching, sneezing and runny nose. They work by blocking histamine, an inflammatory chemical released by your immune system during an allergic reaction. Over-the-counter (OTC) antihistamines include loratadine (Claritin, Alavert) and cetirizine (Zyrtec). Older antihistamines such as diphenhydramine (Benadryl) and clemastine (Tavist) work as well, but can make you drowsy. Fexofenadine (Allegra) and the nasal spray azelastine (Astelin) are available by prescription.
- **Decongestants.** These medications are available in over-the-counter (OTC) and prescription liquids, tablets and nasal sprays. OTC oral decongestants include Sudafed, Actifed and Drixoral. Nasal sprays include phenylephrine (Neo-Synephrine) and oxymetazoline (Afrin). Because oral decongestants can raise blood pressure, avoid them if you have high blood pressure (hypertension). Don't use a decongestant nasal spray for more than two or three days at a time because it can cause rebound congestion when used over longer periods.
- **Cromolyn sodium (NasalCrom).** This medication is available as an over-the-counter nasal spray that must be used several times a day. It helps relieve mold allergy symptoms by preventing the release of histamine. Cromolyn sodium is most effective when you start taking it before signs and symptoms develop.
- **Montelukast.** Montelukast (Singulair) is a prescription tablet taken to block the action of leukotrienes — immune system chemicals that cause allergy symptoms such as excess mucus. It has proved effective in treating allergic asthma, and it's also effective in treating mold allergy. Like antihistamines, this medication is not as effective as inhaled corticosteroids. It's often used when nasal sprays cannot be tolerated, or when mild asthma is present.

#### Other treatments for mold allergy include:

- **Immunotherapy.** This treatment — a series of allergy shots — virtually eliminates some allergies, such as hay fever. Unfortunately, however, allergy shots are only moderately effective against mold allergy.
- **Nasal lavage.** To help with irritating nasal symptoms, your doctor may recommend that you rinse your nose with salt water. Use an over-the-counter nasal saline spray or prepare your own saltwater solution using 1/4 teaspoon (1 ml) of salt mixed with 2 cups (474 ml) of warm water. Nasal lavage can be quite effective at relieving congestion.

## Lifestyle and home remedies

To keep mold allergy symptoms at bay, take these measures:

- Sleep with your windows closed to keep out outdoor mold. The concentration of airborne mold spores is greatest at night, when the weather is cool and damp.
- If you must rake leaves, mow your lawn or work around compost, consider wearing a dust mask over your nose and mouth to keep mold spores out.
- Don't go outdoors immediately after a rainstorm, or in foggy or damp weather, or when the published mold count is high.

# Prevention

You can take steps to reduce mold growth in your home. Consider these tips:

- Eliminate sources of dampness in basements, such as pipe leaks or groundwater seepage.
- Use a dehumidifier in any area of your home that smells musty or damp. Remember to clean the collection bucket and condensation coils regularly.
- Use an air conditioner, and consider installing central air conditioning with a high-efficiency particulate air (HEPA) filter attachment. The HEPA filter can trap mold spores from outdoor air before they're circulated inside your home.
- Keep humidity levels below 50 percent.
- Change furnace and air conditioning filters regularly.
- Be sure all bathrooms are properly ventilated, and run the ventilation fan for 30 minutes following a shower or bath to dry the air.
- Clean bathroom and basement wall surfaces regularly with a bleach solution.
- Promote groundwater drainage away from your house by removing leaves and vegetation from around the foundation and cleaning out rain gutters frequently.
- Keep organic plant containers, such as those made of straw, wicker or hemp, clean and dry.

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