



# Mold Allergy

**Molds live both indoors and outdoors.**

Disturbing a mold source can lead to dispersal of mold spores into the air, triggering an allergic response in some individuals. Mold spore release can occur in dry, windy conditions or in high humidity conditions, making mold spore exposure year-round in many geographical areas.

## MOLDS

Mold is another term for fungus. There are many kinds of mold; some form colonies, which can be seen with the unaided eye, while other types are only visible when viewed under a microscope.

Many molds grow on decomposing logs and leaves, in compost piles, or on grasses and grains. Outdoor mold growth peaks during the summer months and declines following the first frost in colder climates. Spores from these outdoor molds are commonly found indoors.

Additional molds grow exclusively indoors in moist areas like bathrooms, kitchens and basements. Although there are many types of molds, only a few dozen have been implicated with allergies.

## SYMPTOMS OF MOLD ALLERGY

When mold spores are released into the environment, they can deposit on the inside lining of the nose, causing hay fever symptoms. The spores can also reach the lungs, triggering asthma symptoms in sensitive individuals. In rare cases, a serious illness called allergic bronchopulmonary aspergillosis develops.

In general, the symptoms of mold allergy are very similar to the symptoms of other allergies. If you have an allergy to mold, you may experience some of the following symptoms:

- Sneezing
- Runny or stuffy nose
- Itching of the throat or inside the ears
- Hives
- Swollen eyelids, itchy eyes
- Cough, wheezing, or difficulty breathing

Mold allergy symptoms typically coincide with heightened mold exposure; therefore mold allergy symptoms can be seasonal or year-round, depending on geographical location and exposure. For some individuals, mold-mediated allergic reactions are immediate, while others experience delayed reactions.

Molds most likely to trigger an allergic response:

- Alternaria
- Aspergillus
- Aureobasidium
- Cladosporium
- Epicoccum
- Fusarium
- Mucor
- Penicillium
- Rhizopus

Mold counts  
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## MOLD LEVELS AND ALLERGY

Mold levels fluctuate throughout the year and vary by geographical location. The presence of mold spores can be tracked through local mold counts, a process that identifies the number of mold spores present in a specific volume of air over a 24 hour period. These counts typically range from 50 spores/m<sup>3</sup> in cold winters to upwards of 50,000 spores/m<sup>3</sup> during the summer.<sup>1</sup> Unlike environmental pollens, mold counts peak after rain or during times of heightened humidity, often leading to worsening of mold allergy related symptoms.

## DIAGNOSING MOLD ALLERGY

If a mold allergy is suspected, the doctor will often perform a skin test to determine the identity of the molds causing the reaction. In a skin test, small droplets of various mold extracts will be applied to or under the skin. If positive, a red, raised area will develop around the site where the mold extract was applied. If there is no reaction, allergy is not suspected. Your medical history and a physical exam, in combination with an allergy diagnostic test (skin or serum) will help your physician identify a mold allergy.

## AVOIDANCE

The best treatment for mold allergy is to avoid the source of allergy. Reducing mold exposure and limiting mold spore growth is crucial when a mold allergy is identified. Some common avoidance strategies:

- **Avoid contact.** Keep away from areas known to harbor mold spores. Minimize contact with mold-prone household items (e.g., houseplant soil).
- **Reduce indoor humidity.** The risk of mold growth rises steeply if indoor humidity levels are above 50%. Hygrometers can be used to measure the humidity accurately and conveniently. The goal is to keep household humidity below 45%, however, levels lower than 35% humidity are ideal. An electric dehumidifier can be used to remove moisture from basements. If a dehumidifier is used, be sure to regularly drain and clean the condensation coils and collection bucket to prevent additional mold growth.
- **Use central air conditioning with a HEPA (High Efficiency Particulate Air) filter.** These filters help trap spores before they reach you. Air conditioning with a HEPA filter attached works better than electrostatic air-cleaning devices and much better than freestanding air cleaners.

## TREATING MOLD ALLERGY WITH IMMUNOTHERAPY

Allergy immunotherapy is a treatment that reduces or completely alleviates your allergy symptoms<sup>3</sup>. With this treatment, your body builds up a resistance to the allergens that currently impact your day-to-day living. After six months on treatment, symptoms should start to decrease, as will your need for symptomatic medications that control the allergy-associated sneeze, runny nose, cough, wheeze or hives. As an additional benefit, immunotherapy may prevent the onset of other allergies or the development of asthma in children<sup>3</sup>. Scientific studies have shown that the results of immunotherapy are maintained for a minimum of 5-10 years after the course of treatment has been completed.<sup>2</sup> Among the wide variety of treatment possibilities available today, allergy immunotherapy is the only treatment that targets the underlying cause of allergy and alters the natural course of the disease<sup>3</sup>. Immunotherapy is not without risks. Possible side effects may include: itching, redness and swelling at the injection site and sometimes soreness hours after an injection. These local reactions are not considered serious. Although rare, a full body allergic reaction, called anaphylaxis, can occur following an injection. To reduce the risk associated with allergy immunotherapy, it is recommended to wait in your physician's office for 30 minutes following an immunotherapy injection.

If you experience allergic symptoms, it is important to talk to a doctor who specializes in the diagnosis and treatment of allergic diseases. Based on your past history and specific testing, your Allergy Specialist will be able to determine if you are a candidate for immunotherapy treatment.

### References:

1. Portnoy, J.M. and D. Jara, Mold allergy revisited. *Ann Allergy Asthma Immunol*, 2015. 114(2): p. 83-89.
2. Cox, L., et al., Allergen immunotherapy: a practice parameter third update. *J Allergy Clin Immunol*, 2011. 127(1 Suppl): p. S1-S5.
3. J Bousquet, et al, Allergen immunotherapy: therapeutic vaccines for allergic diseases. *Annals of Allergy, Asthma, & Immunology*; Nov 1998, Volume 81, p. 401-405.

