



# Alternaria Allergen Fact Sheet

## About alternaria

The most prevalent mold in dry, warm climates, *Alternaria alternata* has air spores that peak in the afternoon and typically disseminate in warm, dry air.<sup>1,2</sup> Therefore, in temperate climates, *Alternaria alternata* spore counts are usually highest in the summer.<sup>2</sup> Those allergic to this mold may experience symptoms after inhaling its spores.<sup>3</sup> *Alternaria alternata* mainly an outdoor fungus that typically grows on vegetation.<sup>4</sup> However, the species can also be found indoors, where it prefers humid locations such as bathrooms and often produces large brown spores that are a well-known cause of allergy and asthma.<sup>4,5</sup> That said, indoor *Alternaria alternata* concentrations are typically impacted by the current amount of outdoor concentrations. That is, if there are considerable spores in the outdoor air, indoor levels may be high as well.<sup>4</sup>

*Alternaria* thrives at temps of 20 to 25 C (68 to 77 F), but it can survive temperatures between 1 and 35 C (roughly 34 and 95 F).<sup>6</sup> Mold sensitization rates vary according to different studies, but allergy to *Alternaria alternata* seems to affect roughly 5 percent of people and is strongly associated with allergic rhinitis (aka hay fever) and asthma.<sup>7</sup> In children, the prevalence of reported sensitization varies dramatically, from less than 1 percent in Austria to 50 percent in the U.S. state of Arizona. And according to a large study of children with asthma living in inner cities in the United States, *Alternaria* was the most common mold allergy, with 38 percent of study participants incurring a positive skin test to this allergen.<sup>2</sup> *Alternaria* allergy paired with *Alternaria* exposure is a risk factor for the development and worsening of allergic diseases such as allergic rhinitis and asthma, and it can cause severe asthma exacerbations.<sup>4</sup>



## HOW DO I KNOW IF I'M ALLERGIC?\*

Together with your symptom history, skin-prick testing or specific IgE blood testing can help determine if you are allergic to a particular allergen. If you are diagnosed with an allergy, your healthcare provider will work with you to create a management plan.

## COMMON SYMPTOMS

Mold allergy symptoms can range from mild to severe and vary person to person.<sup>3</sup> Reactions can happen almost immediately after exposure, or they can be delayed. Symptoms are most common in mid-summer to early fall, but since molds grow both indoors and out, allergic reactions can occur all year.<sup>8</sup>

Symptoms typically include one or more of the following:<sup>3,9</sup>

- **Nasal congestion**
- **Runny nose**
- **Sneezing**
- **Irritated, watery eyes**
- **Coughing**
- **Wheezing**
- **Itchy eyes, nose, and throat**
- **Dry, scaly skin**

Mold sensitization is also a major risk factor for developing upper and lower respiratory diseases such as asthma.<sup>2</sup> In fact, exposure to *Alternaria* mold is related to potentially life-threatening asthma.<sup>4</sup> Other reactions to *Alternaria* can include allergic rhinitis (aka hay fever), allergic sinusitis, and fungal ball production in the sinuses.<sup>10</sup>

A small percentage of asthmatics with inhaled mold allergy can also develop allergic urticaria (aka hives) when they eat or drink anything containing yeast or mold.<sup>11</sup> In addition to causing allergic reactions, molds can also lead to infections along with toxic reactions.<sup>12</sup>



## IS THERE A RISK FOR A SEVERE EVENT?

Some people with an *Alternaria alternata* allergy may also experience symptoms when exposed to other types of mold. This is called cross reactivity and occurs when your body's immune system identifies the proteins, or components, in different substances as being structurally similar or biologically related, thus triggering a response.<sup>4</sup>

Knowing the proteins, or components, within each allergen that are triggering your symptoms can help guide your management plan. With that in mind, and based on your symptom history, your healthcare provider may suggest something called a specific IgE component test, which can help reveal your potential risk profile.<sup>4</sup> Results from this test can also help your healthcare provider decide if allergen immunotherapy may reduce your symptoms.<sup>16</sup>

### Where is alternaria found?

*Alternaria* is often found in soil and on mediums such as plants, cereal grains, grass, corn silage, rotten wood, bricks, canvas, iron, compost, and bird nests.<sup>2,6</sup> Plus, *Alternaria* is a plant pathogen and can infect more than 4,000 plant species, causing significant damage to grains, fruits, and vegetables—making it responsible for 20 percent of agricultural yield losses.<sup>6</sup> In fact, *Alternaria* molds grow on a host of foods such as tomatoes, cucumbers, cauliflowers, peppers, apples, melons, tangerines, oranges, lemons, and sunflower seeds.<sup>13</sup> That said, mold reproduces via spores, which can be transported by air, water, and insects.<sup>8,14</sup> So even if a fungus originates outdoors, it often can enter a dwelling through a variety of means, including doorways, windows, vents, and heating and air conditioning systems.<sup>15</sup> Therefore, *Alternaria alternata* can be found indoors on surfaces such as drywall, ceiling tiles, wood, carpet, wallpaper, textiles, window frames, and materials within heating and air conditioning systems.<sup>5,6</sup>

### Already have your specific IgE component test results?

Your component test results will include the name of the components (a series of letters and numbers). Your healthcare provider will likely review the results with you, but here you'll find an at-a-glance breakdown you can use as a reference for the Alt a 1 component.<sup>4,16</sup>

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- Your symptoms may be caused specifically by *Alternaria*.
- Strong association with the presence of allergic rhinitis and asthma, along with asthma severity.
- Allergen immunotherapy may be an option to help stop allergic disease development.

### How do I manage my allergy?

If you are allergic to molds, your healthcare provider may recommend a plan that includes the following.<sup>3,8,16,17,18</sup>

#### Exposure reduction

- Limit your outdoor time during seasons when mold is most active.
- Wear a mask when disturbing or moving plant materials, and avoid raking and burning dry leaves.
- Avoid barns, silos, hay, straw, and peat moss.
- Use a certified asthma and allergy friendly filter attachment on your heating and air conditioning unit, and change filters regularly.
- Employ dehumidifiers to lower indoor humidity levels to less than 45 percent to create an environment where mold is less likely to thrive.
- Improve air flow through rooms by opening doors between spaces, moving furniture away from the walls, and operating fans.
- Use exhaust fans in bathrooms and kitchens to pull moisture out of the rooms.
- Fix any plumbing leaks, check windows for condensation, and remove sources of dampness.
- Repair roof leaks, clean gutters, and ensure rainwater drains away from your dwelling.
- Clean thoroughly and regularly, including sinks and tubs, refrigerator door gaskets, and garbage cans.
- Remove clothes from washing machines promptly and clean rubber seals regularly.
- Eliminate sources of dampness in basements, such as pipe leaks and groundwater seepage.

## How do I manage my allergy? (continued)

- Run ventilation fans during and after showers and baths.
- Remove any carpet from bathrooms and basements.

### Symptom relief

Your health care provider may direct you to take one of the following medications to improve your allergy symptoms:

- Antihistamines are commonly used to reduce symptoms such as sneezing, itching, and runny nose.
- Nasal corticosteroids are used to reduce swelling in the nose and block allergic reactions.
- Oral and nasal spray decongestants can be employed to relieve stuffiness.
- Anti-inflammatory such as montelukast, which can be effective in treating mold allergy.
- Daily nasal lavage using a squeeze bottle filled with salt water can help clean out irritants and alleviate nasal symptoms.
- Commence allergen immunotherapy as directed by your healthcare provider, with the objective to develop tolerance to mold exposure (*Alternaria*).<sup>16</sup>

View all references at the bottom of the online allergen fact sheets at [AllergyInsider.com](https://www.allergyinsider.com) >

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