

### What is MOLD?

Molds are microscopic fungi (unlike plants), which are unable to produce their own food from the sunlight and air. They are made up of clusters of filaments and live on plant or animal matter, which they dispose their nourishment. Molds are among the most widespread living organisms with thousands of different varieties. Bread mold is a well known example. Some molds produce typical antibiotics that are commonly used today, such as Penicillin. Other types are necessary for agriculture and food production. Most molds reproduce by releasing spores into the air, which then settle on to organic matter and grow into new mold clusters, called colonies. These airborne mold spores are far more numerous than pollen and when they are inhaled, they can produce allergic reactions.

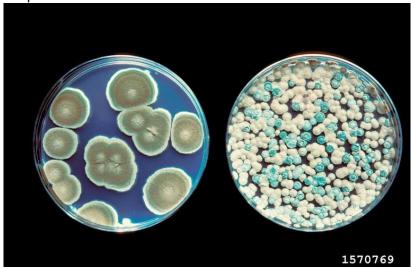
### Where are MOLDS found?



Molds can be found wherever there is moisture, oxygen and a source of a few other chemicals that they need. Molds can be found in moist environments and they do not have a certain growing season. Indoor molds are more prevalent in the winter, and outdoor molds are more common the rest of the year. They are especially common in shady, damp areas and on decaying leaves, grasses and other vegetation. Some molds can attach to grains (such as wheat, oats, barley and corn) making farms, grain bins and silos common places for mold growth. Common areas indoors for mold growth are damp closets, bathrooms, places where fresh food is stored, refrigerator drip

trays, house plants, air conditioners, humidifiers, garbage cans, mattresses, upholstered furniture

and old foam rubber pillows.



# What are MOLD allergies?

The inhalation of mold spores or fragments of the fungus can cause allergic rhinitis. This occurs because the individual's immune system has developed an antibody response to the fungus and its spores. In addition to rhinitis, mold sensitive people can also have a variety of other symptoms including headaches, earaches, nasal congestion, ringing in the ears, balance problems, itching eyes, skin lesions or rashes, shortness of breath, wheezing and coughing. Molds have also been associated with a condition that some call "moldy moods" which is characterized by mood swings, brain fog, hyperactivity, poor memory, indecisiveness, fatigue, weakness, inability to concentrate and "attitude" problems. Mold sensitivity is also associated with cravings of sugar and/or vinegar and is frequently found in individuals with a family history of alcoholism. Mold sensitivity and the severity of symptoms depend on how much mold is present and how long the individual has been exposed. Almost any environmental inhalant can cause mold symptoms to increase as well. Certain foods that are molds or derived from fungi-related plants can also contribute to the mold allergy symptomatic load.

## **Treatment for MOLD allergies**

There are many different methods of treatment for mold sensitivity. Environmental control, immunotherapy treatments, antihistamines, steroid nasal sprays, stress management, and exercise and mold-elimination diet. Supplementing your diet with vitamins, minerals and pro-biotics (such as lactobacillus acidophilus) is also helpful.







Molds are tiny plant-like organisms that become visible as "colonies" growing on various substances. Molds give off spores at various times which are very similar to pollen grains (in size and weight) and are easily inhaled, causing allergy symptoms in allergic people. Once inhaled, mold spores are broken down and the allergy-causing substances are released into your system. If you are allergic to one mold, you have an 85% chance of being allergic to others.

When you see the mold count presented on TV or in the newspaper, this count actually reflects the number of mold spores per unit of air in your local atmosphere. Like pollen grains, mold spores can travel great distances if conditions are favorable. Most mold spores are high in the atmosphere during the day and descend to the ground during the cool of evening. Peak time is from 5:00 to 8:00 PM.

Molds thrive in humid environments (over 45%) and tend to prefer semidarkness and warm temperatures although exceptions to these conditions are not uncommon. Molds are found inside the home growing in bathrooms, under sinks, in basements, on house plants, and on food products. Outside, molds tend to grow on dead vegetable matter such as logs and piles of leaves, and in shaded damp areas. Molds can, however, be found growing on live blades of grass when conditions are favorable. If you have allergic symptoms when mowing your lawn, the cause could be a mold on or underneath the grass, as well as the grass itself.

Any mold can be found growing in any location where conditions are favorable although some molds tend to be found more often indoors, while others are found more often outdoors. Profuse mold growth is found in coastal areas and other high humidity regions on the United States making molds a significant problem for allergic people.

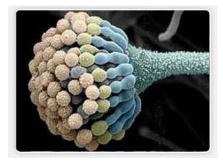


#### WHERE THE MOLDS ARE FOUND

1) ALTERNARIA- This mold is found indoors, outdoors, in the air, and in the soil. Favorite places would include flowers, vegetables, fruits, ornamental plants, and cereal grains. Also, dead, dried, or decayed vegetation. Spores peak during dry windy weather.



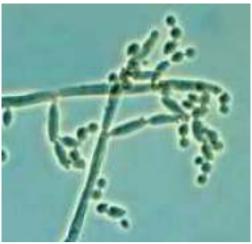
2) ASPERGILLUS-This mold is found indoors, outdoors, in the air, and in the soil. Favorite places would include: stored food, bathrooms(wet surfaces) drip pans(refrigerators, and other appliances), damp hay, leather goods, spoiled foods, and vegetable material.



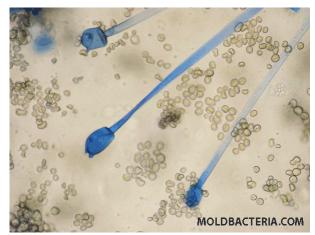
3) BIPOLARIS -This mold is found indoors, outdoors, in the air, and in the soil. Favorite places would include: cereal grain, plants, grasses, wheat, oats, rye, etc. Spores are releases on dry hot days. Causes root rot on wheat & barley



**4) CLADOSPORIUM-**This mold is found indoors, outdoors, in the air, and in soil. Favorite places would include: dead leaves, decomposing paper and wood products, leather, rubber, cloth, foods, unclean refrigerators, and moist window frames. This mold increase 1000x before it rains.



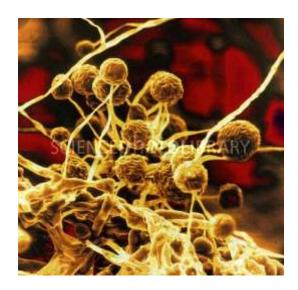
5) MUCOR-This mold is found in outdoors in soils and around barns and barnyards where it grows on animal waste. This is the dominant mold in house dust, old musty houses, old furniture, and furnishings



6) **PENICILLIUM-**This mold is found indoors, outdoors, in the air, and in the soil. Favorite places would include: plant rot, cheese, fruits, bread, leather fabrics, citrus fruits, jams, breads, and apples. Peak concentrations in winter and spring.



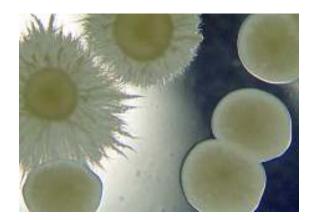
7) PULLULLARIA- This mold is found indoors, outdoors, in the air, and in the soil. Favorite places include plastics, paints, caulking compounds, wet decaying vegetation.



8) TRICOPHYTON- This mold is a genus of fungi, which includes the parasitic varieties that cause tinea, including athlete's foot, ringworm, jock itch, and similar infections of the nail, beard, skin and scalp.



9) CANDIDA-Very simply, is a mold, or fungus, which inhabits the body. There are, in fact, about 20 different types of Candida fungi living in our bodies and in the environment around us, with some residing in our gastrointestinal tract. *Candida albicans* is a yeast the normally resides in the body in the digestive tract, kept in check by the immune system and beneficial bacteria in the body. Excess Candida yeast in the intestines is thought to penetrate the intestinal wall, causing yeast and other unwanted particles to be absorbed into the body.



### T.O.E. Allergy

There are three groups of pathogenic fungi that are responsible for causing allergy symptoms. These are Trichophyton, Oidiomycetes (also known as Monilia or Candida Albicans), and Epidermophyton. These fungi can be responsible for yeast infections in women; "jock itch" rashes, athlete's foot, toenail or fingernail fungus, chronic sinus infections, or an "id reaction".

One of the theories of the "id reaction" is that T.O.E. penetrates the gastrointestinal tract where it enters the circulatory system of the body, thereby setting up an allergic reaction. Some of the characteristics of an "id reaction" are red, blister-like, scaly or crusty appearing rashes with mild to intolerable itching.

The infections caused by these fungi are usually resistant to treatment, recur frequently, and have other complications. The symptoms of these fungal problems vary, and can include many symptoms such as headaches, hives or skin lesions associated with extreme itchiness, cough, scalp lesions, diarrhea, itching, heartburn, flatulence, rash on eyelids, chronic vaginitis, chronic heartburn, finger lesions, halitosis, and external ear infections. Also, cracks or fissures may appear occasionally in the ear canal or on hands and feet.

T.O.E. allergy should also be considered if there are numerous food and chemical sensitivities, chronic respiratory symptoms, chronic itchy welt-like rashes, "mucus" colitis, some asthmatics, chronic dizziness, chronic vascular headaches such as migraines, depression, anxiety, chronic fatigue, history of repeated courses of antibiotics, history of oral contraceptive or corticosteroid use. People with T.O.E. allergy may also react to smoked meat, fireplace smoke, and tobacco harvesting and curing.

Treatment failures are sometimes due to the inadequate treatment of other allergies such as mold, dust mites, pollens, animals as well as concomitant food sensitivities. So to be effective in treatment, these other allergies need to be treated as well. It is particularly crucial to avoid the ingestion of mold or yeast, which can cause flare-ups.

It is important to note that some patients being treated for T.O.E. may get delayed skin reactions with localized redness, which may persist for a week or two.



### **Environmental Controls for Mold Allergies**

Plant soil, concrete, the inside of garbage cans, damp basements, bathrooms, and attics all harbor mold. Molds are considered a year round allergy. They thrive in dark, damp, humid environments, and spores are released into the air on hot, dry, windy days. Individuals who are sensitive to molds should try to avoid exposure as best as they can. For example, you should avoid piles of dead decaying leaves, compost piles, stagnant water areas, or rotting wood piles.

- Reduce the humidity level in your home to below 50% by using a dehumidifier or air conditioner. This will help stop potential mold growth.
- Use a 1:10 part bleach solution to wipe mold off of surfaces. If mold is visible in wood, replace the wood. Using a mold inhibitor after cleaning or replacing the affected area will help eliminate future mold issues.
- Never steam clean your carpeting. Moisture trapped in the carpet padding will harbor mold growth. It is best to remove any carpeting from the bedroom.
- If you are doing yard work, wear an allergen mask to help minimize your exposure to allergens in the environment.
- Do not hang clothes to dry outside.
- Be sure your clothes dryer is well ventilated to the outdoors.
- Potted plants that harbor mold should not be kept inside. Fish aquariums/tanks will also grow mold.
- If you use a humidifier during the dry season, be careful not to overhumidify. This will promote mold growth. Also, be sure to clean your humidifier daily using a 1:10 bleach solution.



#### MOLDS: INDOOR AVOIDANCE

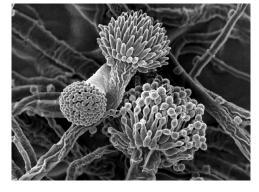
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- \*USE FUNGICIDE SPRAYS SUCH AS LYSOL/AMMONIA/BLEACH TO KILL MOLD SPORES IN DAMP MOLD GROWING AREAS OF THE HOME
- \*WASH WINDOW LEDGES AND SHOWER STALLS WITH A 10% BLEACH SOLUTION OR LYSOL AT LEAST ONCE EVERY 3 MONTHS
- \*USE MOLD INHIBITING PAINTS OR PAINT ADDITIVES ESPECIALLY IN DARK DAMP AREAS SUCH AS THE BASEMENT
- \*REDUCE THE LEVEL OF DAMPNESS IN AREAS SUCH AS THE ATTIC, BASEMENT, OR CRAWL SPACES. CHECK FOR ADEQUATE DRAINAGE, ASSURE ALL DRAINS ARE EFFECTIVE AND IF POSSIBLE COVER GROUND WITH BLACK POLYETHYLENE SHEETS TO REDUCE MOISTURE
- \*CLEAN ALL HOUSE FILTERS, SUCH AS THE FURNACE, AIR CONDITIONER,
  DEHUMIDIFIER, AND AIR TREATMENT SYSTEM. SPECIALTY FURNACE AND AIR
  CONDITIONER FILTERS THAT REMOVE MOLD, POLLEN, AND DUST ARE AVAILABLE
- \*INSERT FILTERS IN AIR DUCTS AND USE VENT COVERS FOR EXTRA FILTRATION
- \*KEEP HOME HUMIDITY LEVEL LESS THAN 40% (A DEHUMIDIFIER WILL HELP)
- \*AVOID USING WALLPAPER AS THIS IS HIGHLY CONDUCTIVE TO MOLD GROWTH
  IF WALLPAPER IS USED ADD BORAX OR BORIC ACID TO WALLPAPER PASTE
  TO SLOW MOLD GROWTH
- \*USE POLYESTER OR DACRON PILLOWS. USE ALLERGY PILLOW COVERS.
- \*AVOID FOAM RUBBER PILLOW AND MATTRESSES THAT ARE LIKELY TO BECOME MOLDY

- \*KEEP HOUSE PLANTS TO A MINIMUM AND COVER SOIL WITH ALUMINUM FOIL MOLD INHIBITING SOLUTIONS ARE AVAILABLE FOR USE WITH POTTIONG SOIL \*AVOID USE OF AQUARIUMS AND TERRARIUMS THAT PROMOTE MOLD GROWTH
- \*DRY WET CLOTHES, TOWELS OR RAGS AS SOON AS POSSIBLE TO PREVENT MOLD GROWTH
- \*CHECK DRYER VENT FOR PROPER OPERATION AND OUTSIDE VENTING
- \*EMPTY REFRIGERATOR WATER PANS FREQUENTLY. KEEP CONTAINERS OUTSIDE

#### MOLDS: OUTDOOR AVOIDANCE

- \*STAY INDOORS WHEN MOLD LEVELS ARE HIGH
- \*WHEN DRIVING, KEEP WINDOWS CLOSED
- \*USE CAR AIR CONDITIONER TO RECIRCULATE AIR INSIDE THE CAR
- \*KEEP LAWN SHORT. MOWING THE LAWN SHOULD BE DONE BY THE NON ALLERGIC FAMILY MEMBER OR LAWN SERVICE
- \*AVOID PILES OF LEAVES, SHADED GARDENS, AND STAGNANT WATER
- \*MOWING SHOULD BE DONE BY A NON-ALLERGIC FAMILY MEMBER OR LAWN SERVICE





## FOODS RELATED TO MOLDS: THESE MAY ACT LIKE AN EXPOSURE FOR A MOLD SENSITIVE PERSON

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- > Cheese of all kinds, especially hard cheeses & blue cheese.
- > Mushrooms.
- > Vinegar and foods containing vinegar. Apple cider vinegar is acceptable.
- Mayonnaise and other salad dressings. Catsup, pickled beets, relishes, mustard.
- Sour cream, sour milk, buttermilk.
- > Alcoholic liquors, especially beer and wine.
- > Soured breads, such as pumpernickel, coffee cakes, and other foods made with large amounts of yeast containing leavening agents.
- > Sauerkraut.
- > Pickled and smoked meats and fish.
- Sausages, frankfurters, corned beef, ham, bacon.
- All dried fruits such as apricots, dates, prunes, figs, raisins.
- Canned tomatoes unless homemade.

- > All canned juices.
- > Eat only fresh fruits.
- > Do not eat meat or fish that is more than 48 hours old.
- > Avoid foods if made from leftovers, such as hash.
- > Sugar.
- > Malt products, cereal, candy, milk shakes.





### MOLD/YEAST FREE DIET INFORMATION

<u>YEAST ADDITIVES</u>: The following foods contain yeast as an additive ingredient in preparation (often called leavening or baker's yeast):

- A. Breads: light bread, hamburger buns, hotdog buns, rolls (homemade or canned), canned icebox biscuits (Borden, Pillsbury and General Mills).
  - B. Pastries: cookies, crackers, pretzels, cakes and cake mixes, and so forth.
  - C. Flour: enriched with vitamins from yeast.
  - D. Milk: Fortified with vitamins from yeast.
  - E. Meat: Fried in cracker crumbs and flour.

**YEAST FORMING**: The following substances contain yeast or yeast-like substances because of their nature or the nature of their manufacture or preparation (including brewer's and distiller's yeast and malt):

- A. Vinegars (pear, grape and distilled): These may be used as such or are used in these foods: catsup, mayonnaise, French dressing, salad dressing, barbeque sauce, tomato sauce, sauerkraut, horseradish, pickles, olives, condiments and spices (pepper, cinnamon), mince pie, Gerber's oatmeal, and barley cereal.
- B. Fermented beverages: whiskey, wine, brandy, gin, rum, vodka, beer, root beer.

C. Fruit juices: citrus fruit (and others), either canned or frozen. Only home squeezed are yeast free!

**YEAST DERIVATIVES:** The following contain substances that are derived from yeast or yeast-like substances:

- A. Vitamins
- B. Flour

**MALT PRODUCTS**: Cereals, candy, and milk drinks that have been malted and some fermented beverages; also some bakery products.

MOLD FOODS: Mushrooms, truffles, morels.

#### **MOLD CONTAINING FOODS:**

- A. Cheeses (of all kinds), including cottage cheese, buttermilk, cream cheese, sour cream and sour cream butter.
- B. Foods which acquire mold growths during the preparation of processing or after exposure to air, even when refrigerated, such as ham, bacon, butter, preserves, jams, jellies, syrups, molasses, canned fruit and vegetables, and breads.