

About Molds, General Information

Molds are a group of fungi, which have moldy colonies and can grow everywhere on almost any organic materials as long as moisture, temperature, and oxygen are suitable. Humans do not live in a mold-free environment and molds are part of our nature. However, elevated and prolonged exposure to molds could pose serious threat to public and individual health, sometimes fatal.

Molds are also very common in buildings and homes. Mold needs moisture to grow. Indoors, mold growth can be found where humidity levels are high, like basements and showers. Molds produce microscopic cells called "spores" that are usually so-called "air-borne", spreading easily through the air. Spores can also be spread by water and insects. Live spores act like seeds, forming new mold colonies when they find the right conditions.

Health Risk

There are four kinds of health problems that come from exposure to mold: allergic illness, irritant effects, infection, and toxic effects. For people that are sensitive to molds, symptoms such as nasal and sinus irritation or congestion, dry hacking cough, wheezing, skin rashes or burning, watery or reddened eyes may occur. People with severe allergies to molds may have more serious reactions, such as hay-fever-like symptoms or shortness of breath. People with chronic illnesses or people with immune system problems may be more likely to get infections from certain molds, viruses and bacteria. Molds can also trigger asthma attacks in persons with asthma. Headaches, memory problems, mood swings, nosebleeds and body aches and pains are sometimes reported in mold complaints, but the causes of these physical symptoms are not yet understood. The toxic effects of certain molds are not well understood, and are currently a controversial topic in the medical and scientific community. There is evidence of specific long-term toxic effects from eating foods with mold toxins. Unfortunately, very little is known regarding the actual health risks from breathing in or skin contact with mold toxins. Allergic disease is now considered the most likely health problem related to mold exposures. Research into the possible health effects related to mold exposure continues today.

The risk of mold exposure is dependent

Risk population:

It depends on the situation and the person. The risk varies from person to person. What one person can tolerate with little or no effect may cause symptoms in another individual. However, the long-term presence of indoor mold may eventually become unhealthy for anyone. Those with special health concerns should consult a medical doctor if they feel their health is affected by indoor mold. The following types of people may be affected sooner and more severely than others and need to pay more attention on the molds:

- Babies and children
- Elderly persons
- Individuals with chronic respiratory conditions or allergies or asthma
- Persons having weakened immune systems (for example, people with HIV or AIDS, chemotherapy patients, or organ transplant recipients)

Type of mold

Some types of molds are posing more serious threats to human health than the others. These molds include those well-defined human pathogens or opportunistic pathogens, such as *Histoplasma* spp., *Blastomyces* spp., *Aspergillus fumigatus*. Some types of molds can produce chemicals called "mycotoxins". These molds are common, and are sometimes referred to as "toxic mold". All molds should be treated the same when it comes to health risks and removal. All indoor mold growth should be removed promptly, no matter what type(s) of mold is present, or whether or not it can produce mycotoxins.

Quantity of molds

It depends on the situation and the person. This question is difficult to answer, and there have no widely acceptable mold quantity standards to tell the exposure level that posts risk to people. The amount varies from person to person. What one person can tolerate with little or no effect may cause symptoms in another individual, but one thing is certain: The long-term presence of elevated indoor mold will eventually become unhealthy for anyone.

Testing for mold

Do I need to test my home or building for mold? Because mold is everywhere in our environment, both indoors and out, testing for mold is not for the presence of mold, but for the species of molds, the quantity of molds, and locations of mold growth that present at the point when the test is taking.

Additional Information

U.S. Environmental Protection Agency (EPA)

<http://www.epa.gov/iaq/molds/>

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention (CDC)

<http://www.cdc.gov/mold/default.htm>

California Department of Health Services

<http://www.cal-iaq.org/mold0107.htm> or

<http://www.cal-iaq.org/mold0107.pdf>

Florida Cooperative Extension, University of Florida

http://edis.ifas.ufl.edu/TOPIC_Moisture_Mold_and_Mildew

Florida Solar Energy Center, University of Central Florida

<http://www.fsec.ucf.edu/en/consumer/buildings/basics/moldgrowth.htm>

Minnesota Department of Health

<http://www.health.state.mn.us/divs/eh/indoorair/mold/index.html>

New York City Department of Health

<http://www.nyc.gov/html/doh/html/epi/moldrpt1.shtml>

North Carolina Department of Health and Human Services

<http://www.epi.state.nc.us/epi/oii/mold/>

Texas Department of Health

<http://www.dshs.state.tx.us/mold/default.shtm>

Washington State Department of Health

http://www.doh.wa.gov/ehp/ts/IAQ/Got_Mold.html

American College of Occupational and Occupational Medicine (ACOEM)

<http://www.acoem.org/guidelines.aspx?id=850>

American Industrial Hygiene Association (AIHA)

<http://www.aiha.org/thesynergist/html/bg/mold.htm>

Building Science Corporation

<http://www.buildingscience.com/resources/mold/default.htm>