

# **James L. Holly, M.D.**

## **Black Mold - Part II** **By: James L. Holly, MD**

In our continuing effort to understand the health implications of "black mold," a number of questions occur. The following questions and answers help explain the present level of scientific knowledge available on "black mold."

I heard about toxic molds that grow in homes and other buildings. Should I be concerned about a serious health risk to me and my family?

A. The hazards presented by molds that may contain mycotoxins should be considered the same as other common molds which can grow in your house. There is always a little mold everywhere - in the air and on many surfaces. There are very few case reports that toxic molds (those containing certain mycotoxins) inside homes can cause unique or rare, health conditions such as pulmonary hemorrhage or memory loss. These case reports are rare, and a causal link between the presence of the toxic mold and these conditions has not been proven.

A common-sense approach should be used for any mold contamination existing inside buildings and homes. The common health concerns from molds include hay-fever like allergic symptoms. Certain individuals with chronic respiratory disease (chronic obstructive pulmonary disorder, asthma) may experience difficulty breathing. Individuals with immune suppression may be at increased risk for infection from molds. If you or your family members have these conditions, a qualified medical clinician should be consulted for diagnosis and treatment. For the most part, one should take routine measures to prevent mold growth in the home.

### **How common is mold, including *Stachybotrys chartarum* (also known by its synonym *Stachybotrys atra*) in buildings?**

A. Molds are very common in buildings and homes and will grow anywhere indoors where there is moisture. We do not have accurate information about how often *Stachybotrys chartarum* is found in buildings and homes. While it is less common than other mold species it is not rare.

### **How do molds get in the indoor environment and how do they grow?**

A. Molds naturally grow in the indoor environment. Mold spores may also enter your house through open doorways, windows, heating, ventilation, and air conditioning systems. Spores in the air outside also attach themselves to people and animals, making clothing, shoes, bags, and pets convenient vehicles for carrying mold indoors. When mold spores drop on places where there is excessive moisture, such as where leakage may have occurred in roofs, pipes, walls, plant pots, or where there has been flooding, they will grow. Many building materials provide suitable nutrients that encourage mold to grow. Wet cellulose materials, including paper and paper products, cardboard, ceiling tiles, wood, and wood products, are particularly conducive for the growth of some molds. Other materials such as dust, paints, wallpaper, insulation materials, drywall, carpet, fabric, and upholstery, commonly support mold growth.

### **What is *Stachybotrys chartarum* (*stachybotrys atra*)?**

A. *Stachybotrys chartarum* (also known by its synonym *Stachybotrys atra*) is a greenish-black mold. It can grow on material with a high cellulose and low nitrogen content, such as fiberboard, gypsum board, paper, dust, and lint. Growth occurs when there is moisture from water damage, excessive humidity, water leaks, condensation, water infiltration, or flooding. Constant moisture is required for its growth. It is not necessary, however, to determine what type of mold you may have. All molds should be treated the same with respect to potential health risks and removal.

### **Are there any circumstances where people should vacate a home or other building because of mold?**

A. These decisions have to be made individually. If you believe you are ill because of exposure to mold in a building, you should consult your physician to determine the appropriate action to take.

### **Who are the people who are most at risk for health problems associated with exposure to mold?**

A. People with allergies may be more sensitive to molds. People with immune suppression or underlying lung disease are more susceptible to fungal infections.

### **How do you know if you have a mold problem?**

A. Large mold infestations can usually be seen or smelled.

### **Does *Stachybotrys chartarum* (*Stachybotrys atra*) cause acute idiopathic pulmonary hemorrhage among infants?**

A. To date, a possible association between acute idiopathic pulmonary hemorrhage among infants and *Stachybotrys chartarum* (*Stachybotrys atra*) has not been proved. Further studies are needed to determine what causes acute idiopathic hemorrhage. Q

**What if my child has acute idiopathic pulmonary hemorrhage?**

A. Parents should ensure that their children get proper medical treatment.

**What are the potential health effects of mold in buildings and homes?**

A. Mold exposure does not always present a health problem indoors. However some people are sensitive to molds. These people may experience symptoms such as nasal stuffiness, eye irritation, or wheezing when exposed to molds. Some people may have more severe reactions to molds. Severe reactions may occur among workers exposed to large amounts of molds in occupational settings, such as farmers working around moldy hay. Severe reactions may include fever and shortness of breath. People with chronic illnesses, such as obstructive lung disease, may develop mold infections in their lungs.

**How do you get the molds out of buildings, including homes, schools, and places of employment?**

A. In most cases mold can be removed by a thorough cleaning with bleach and water. If you have an extensive amount of mold and you do not think you can manage the cleanup on your own, you may want to contact a professional who has experience in cleaning mold in buildings and homes.

**What should people do if they determine they have *Stachybotrys chartarum* (*Stachybotrys atra*) in their buildings or homes?**

A. Mold growing in homes and buildings, whether it is *Stachybotrys chartarum* (*Stachybotrys atra*) or other molds, indicates that there is a problem with water or moisture. This is the first problem that needs to be addressed. Mold can be cleaned off surfaces with a weak bleach solution. Mold under carpets typically requires that the carpets be removed. Once mold starts to grow in insulation or wallboard the only way to deal with the problem is by removal and replacement. We do not believe that one needs to take any different precautions with *Stachybotrys chartarum* (*Stachybotrys atra*), than with other molds. In areas where flooding has occurred, prompt cleaning of walls and other flood-damaged items with water mixed with chlorine bleach, diluted 10 parts water to 1 part bleach, is necessary to prevent mold growth. Never mix bleach with ammonia. Moldy items should be discarded.

**How do you keep mold out of buildings and homes?**

A. As part of routine building maintenance, buildings should be inspected for evidence of water damage and visible mold. The conditions causing mold (such as water leaks, condensation, infiltration, or flooding) should be corrected to prevent mold from

growing. Specific Recommendations: Keep humidity level in house below 50%. Use air conditioner or a dehumidifier during humid months. Be sure home has adequate ventilation, including exhaust fans in kitchen and bathrooms. Use mold inhibitors which can be added to paints. Clean bathroom with mold killing products. Do not carpet bathrooms. Remove and replace flooded carpets.

### **Conclusion:**

Stachybotrys chartarum (Stachybotrys atra) and other molds may cause health symptoms that are nonspecific. At present there is no test that proves an association between Stachybotrys chartarum (Stachybotrys atra) and particular health symptoms. Individuals with persistent symptoms should see their physician. However, if Stachybotrys chartarum (stachybotrys atra) or other molds are found in a building, prudent practice recommends that they be removed. Use the simplest and most expedient method that properly and safely removes mold.

### **How Do You Get Rid of "black mold?"**

As part of routine building maintenance, buildings should be inspected for evidence of water damage and visible mold. Conditions causing mold (such as water leaks, condensation, infiltration, or flooding) should be corrected. Visual identification of black mold in a chronically wet area is considered to be a possible indicator of SC or other mold. The New York City Department of Health convened an expert panel on SC in May 1993, which recommended different methods of mold removal depending on the size of the mold problem. Their recommendations are summarized here:

Level I : If the area of mold is 2 square feet or less.

The area can be cleaned by individuals who have received training on proper clean up methods, protection and potential health hazards. These individuals should be free from asthma, allergy and immune disorders. Gloves and a half face respirator should be worn. Contaminated material should be placed in a sealed plastic bag before taking it out of the building. This will prevent contamination of other parts of the building. Surrounding areas should be cleaned with household bleach.

Level II: If the area of mold is more than 2 square feet but less than 30 square feet. The recommendations are the same as Level I, with the added precaution that moldy materials should be covered with plastic sheets and taped before any handling or removal is done. For instance, a moldy panel of gypsum board (measuring 4 feet by 8 feet) wall would need to have plastic sheeting taped over the affected area on the wall before the wallboard is cut to remove the contaminated section. Once cut from the wall, that section should be placed within another layer of plastic before it is carried through the building for disposal.

Level III: If the area of mold is more than 30 square feet. Personnel trained in handling of hazardous materials (such as asbestos) are necessary. Specific recommendations for hazardous materials workers can be found in the New York document.

Level IV: If SC is shown to be present in the heating, ventilation, or air conditioning system. Recommendations are the same as for Level III.

In summary, SC and other molds may cause health symptoms that are nonspecific. At present there is no test that proves an association between SC and particular health symptoms. Individuals with persistent symptoms should see their physician. However, if SC or other molds are found in a building, prudent practice recommends that they be removed. The simplest and most expedient remediation that properly and safely removes mold should be used.

Remember, it's your life and it's your health.