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## STACHYBOTRYS

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### What is Stachybotrys?

Stachybotrys is a type of slow growing saprophytic fungus that grows well on materials that have a high cellulose concentration, such as straw, grass, saw dust and lumber. Wet drywall (plaster board) and ceiling tiles can also support the growth of Stachybotrys.

### Where is Stachybotrys found?

There are about 15 species of Stachybotrys, with a world wide distribution. Stachybotrys are common in the western states. They grow in areas where the relative humidity is above 55%.

### What does Stachybotrys look like?

Stachybotrys mycelial mats are generally pigmented dark olive-gray and appear to be a slimy mass, with smooth margins and may have either a smooth or ridged surface. The spores are more brownish in color. When the growth sporulates, the colony may appear to have a powdery surface. (Note: fungi cannot be identified by their visual appearance of the mycelial mat. Identification requires examination of the fungal spores under a microscope.)

### How does Stachybotrys cause disease?

Some strains are thought to produce trichothecene mycotoxins known as Satratoxin F, Satratoxin G, Satratoxin H. They may also produce Verrucarin J and Roridin E. The toxin is present in the fungal spores, which are released into the air. Very low levels of airborne spores usually do not cause any harm.

Persons with chronic exposure to the toxin report cold or flu like symptoms with sore throat, diarrhea, headaches, fatigue, dermatitis, intermittent local hair loss and general malaise. The toxins may also suppress the immune system. In the January 17 issue of the MMWR, Stachybotrys was implicated in a cluster of fatal pulmonary hemorrhage/hemosiderosis among infants. However, the report concluded that further investigation needed to be done to determine the relationship of Stachybotrys to those deaths.

### How is Stachybotrys controlled?

Good preventive maintenance can reduce the risk of a problem with molds growing inside the home and other buildings. Homes and buildings with water damage should be repaired and all moldy material should be removed. Avoiding or diminishing other contributors of humidity may help. Some causes and

contributors of high humidity may include leaking pipes, water damaged dry walls and ceiling tile (due to leaking pipes, leaking roof or flooding), faulty or obstructed dryer vent connections, use of steaming hot water in washing machines, many showers, faulty or obstructed bathroom/kitchen ventilation fans, boiling water for long periods of time, canning or pressure cooking, hand washing and rack drying knit and delicate laundry, use of humidifiers and excessive sealing of the home so that there is inadequate air exchange.

Some molds can be killed by cleaning the moldy surface with chlorine, however, *Stachybotrys* often has a germ mycelium that is buried inside the water damaged surface that may be inaccessible to chlorine. Changing the humidity may lead to death of the *Stachybotrys* colony. However, changing the humidity may also induce heavy sporulation. While the spores may die quickly, they may remain toxic and may continue to cause allergic reactions. Therefore, it is best to remove all of the water damaged material.

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