



ENERGY SERIES: What about Mold?

Mold has received a lot of attention of late because of high profile lawsuits and television news broadcasts that have highlighted the potential hazards and liabilities associated with indoor mold. What *is* mold? Molds, along with mildews, yeasts, and mushrooms, all belong to the kingdom fungi. Fungi are unicellular or multicellular organisms that primarily use absorption as a means to obtain energy from their environment, unlike green plants, which use chlorophyll to obtain energy from sunlight. The term “mold” describes unwanted visible fungal growth. “Mildew” is fungi that grows on fabrics or that causes plant disease. The term “yeast” is fungi that are unicellular when cultured.

Molds reproduce by way of tiny spores. The spores are invisible to the naked eye and float through outdoor and indoor air. Indoors, mold may begin growing when the spores land on surfaces that are wet. There are many types of mold, but none of them will grow without water or moisture.

Where are Molds Found?

Molds are part of the natural environment. Outdoors, molds play a large role in nature by breaking down dead organic matter such as fallen leaves and dead trees, but indoors, mold growth should be avoided. Mold can be found everywhere in indoor and outdoor environments. It is not a question of whether or not mold is present; it is a question of active mold growth, amplification conditions, and moisture. The Centers for Disease Control estimates that there are between 50,000 and 250,000 species of fungi, and fewer than 200 have been described as human pathogens that can cause infections. More

than 1,000 different kinds of indoor molds have been found in U.S. homes.

How Do Molds Affect Us?

Fungi can act as allergens, toxicants (toxic agents), irritants or infectious agents. It is believed that all forms of fungi are potential allergens to man. Some fungal species are known to produce specific metabolic products (mycotoxins), which are toxic to humans and animals. Some, if not most, fungal species can produce metabolic products that are irritating to the mucus membranes (eyes and the lining of the nose and throat). Some fungal species are known to be infectious to humans and animals.

How Do You Control Mold?

The key to mold control is moisture control. Managing moisture in the home is a critical first step. Keep the indoor air <65% relative humidity (RH) and ideally between 40-55% (RH). Newer thermostats measure indoor relative humidity. Fix any water leaks promptly. It is important to dry water-damaged areas and items within 24 to 48 hours to prevent mold growth.

Do “Tight” Houses Make Indoor Air Pollution Worse?

There are many, many possible pollutants that can be found in a home and affect the indoor environmental quality. Generally, these pollutants fall into three broad categories: physical (heat, moisture, light); chemical (radon, combustion products, lead, asbestos, organic gases); and biological (viruses, bacteria, mold, mites, insects, pollen, etc.).

Many people incorrectly assume that energy conserving or “energy tight” homes are more susceptible to indoor air pollution than homes

kept deliberately leaky. These people may be surprised to learn that properly designed and maintained energy efficient homes can have better indoor air quality than leaky, drafty homes. This is because in new energy efficient homes, and in older homes that have had energy conservation features correctly installed, many pollutants are less likely to enter the homes. However, those that do can be removed with controlled ventilation.

Remember, in a home that is left intentionally leaky, there is no way to control the air that enters through cracks and other openings. Uncontrolled air flow is affected by wind speed, topography, vegetation, and many other factors. On the other hand, energy efficient homes using properly designed heating, ventilation, and air conditioning systems remove excessive moisture, cooking odors, and ensure that potential toxins do not enter the home.

What is a C.L.U.E. Report?

If you suspect a major water leak has occurred in a home you’re considering buying, ask to see a copy of the homeowner’s C.L.U.E. report. C.L.U.E. stands for Comprehensive Loss Underwriting Exchange, which is a claim history information exchange that enables insurance companies to access prior claim information in the underwriting and rating process. The report contains up to five years of personal property claims, and can include claim information such as date of loss, type of loss, and amounts paid. More than 90% of insurers writing homeowners coverage provide claims data to the C.L.U.E. Personal Property database. As a homeowner, you must know that the *homeowner* has to order the report. Also, when *you* apply for home insurance, your insurer will request a C.L.U.E. report to determine whether you or the home seller have filed any claims during the past five years.

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