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I've heard a lot about mould in the media lately. I've also heard that it can be toxic and that some people have become ill due to exposure to mould in certain areas. Just what is mould, and is it really a health concern?



Moulds are forms of fungus (mildew, yeast and mushrooms are some of the types of fungus) that grow indoors and outdoors. People are exposed to mould spores (i.e. airborne "seeds") daily in the air that they breathe. However, sometimes moulds can grow excessively in certain areas called "amplification sites," and can cause different types of illnesses. Some moulds are more hazardous than others, and different people have different responses to mould exposure. Those with allergies, existing respiratory conditions or

suppressed immune systems are especially susceptible to health problems from mould exposure. Additionally, infants and children, pregnant women, and the elderly can be sensitive to the effects of mould exposure. Some people that have been exposed to mould experience symptoms that can last longer than their usual time periods, such as allergic reactions with symptoms similar to hay fever and the common cold, while others can experience aggravation to asthma. Researchers have identified that some fungi in indoor

environments can induce allergic and irritant responses, infectious diseases, respiratory problems, hypersensitivity reactions, and organ toxicity. In addition, some moulds produce chemicals called mycotoxins, which can cause flu-like symptoms. It should be noted that the causes and effects of mould exposure on people are not very well understood. In some cases, health problems that are attributable to mould are temporary and can be controlled by limiting exposure to moulds.

## What factors affect mould growth?

Several factors affect mould growth, including:

- **Nutrient Availability** – Nutrients absorb moisture to maintain a favourable environment for mould growth. They can be found on many surfaces, including soil, dirt, wood, cellulose (paper, ceiling tile, jute carpet backing, cork, pipe, wrap), and some forms of insulation, such as fabric, oil, etc.
- **Moisture Content** – The amount of moisture in a material influences how an organism can support growth. Moisture sources include condensation in humid rooms, on windows, walls, unheated closets, dampness under carpets, shower curtains, and periodic wet sections in ductwork of air-conditioned ventilation.
- **Temperature** – Temperature is also a factor that affects mould growth. Moulds typically require temperatures between 5°C and 38°C to grow.

## What is an amplification site?

As mentioned above, buildings are not often sterile, which means the presence of mould spores is very common in most buildings. It is interesting to note that the mere presence of mould spores in a building is not a concern. The concern arises when mould areas have grown in a building. When areas in a building have suitable nutrient and moisture content that fosters mould growth, the area is called an amplification site.



## Can mould be easily identified in homes by a visual inspection?

Mould cannot be easily identified in homes by a visual inspection. Past studies have indicated that up to 90% of mould growth is not visible on the surface. Certain school boards have found a very poor correlation between the results of visual (surface) inspections and subsequent invasive inspections in portables located within Ontario. Certain guidelines state that an invasive inspection is necessary to make a complete assessment of the extent of mould contamination in a building.

## Helpful Tips

Moisture is one of the key factors that affect mould growth. There is very little time after a flood to prevent the development of an amplification site. Buildings are not sterile and pre-existing mould spores will begin to develop rapidly with the proper nutrient, moisture, and temperature combinations. It is considered good practice to remove water very quickly (within 24 to 48 hours) after flooding. Also, surface moisture should be reduced to below 70% relative humidity as soon as possible to reduce the potential for mould growth.

To speak with a certified and trained AmeriSpec home inspector, contact us today.

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