

Does toxic mold really exist?

You may have seen media reports about “toxic mold” and seen vivid pictures on television news shows of homeowners burning down their houses because they were infested with “toxic mold”. Most of these reports specifically refer to a black mold called *Stachybotrys* (stak-e-bot-ris). You might ask, “Is toxic mold really a problem for the average homeowner?”

Many types of mold besides *Stachybotrys*, even common ones such as *Penicillium* (bread mold), produce mycotoxins, which are chemical toxins or poisons. The mycotoxins serve an important purpose for the mold organism: they help ward off other molds and bacteria so they don’t occupy the mold’s space. Molds derive their nutrients from the substrate upon which they’re located, so the production of mycotoxins is an important survival mechanism for molds. There has been speculation, especially in the media, that these mycotoxins are responsible for causing some severe toxic health effects in humans, such as mucous membrane irritation syndrome, inhalation fevers, skin symptoms, gastrointestinal tract problems, bleeding lungs, and fatigue.

In addition to these more severe symptoms potentially caused by mycotoxins, mold is associated with three other types of adverse health effects:

- 1) Infections, which are primarily experienced by immune compromised individuals, such as those who have undergone cancer treatment, or AIDS patients;
- 2) Irritant effects due to organic compounds and odors off gassing from the molds; and
- 3) Allergic effects, which are experienced by individuals specifically allergic to mold.

However, recent research has shed more light on this issue. The Institute of Medicine, in its 2004 report, *Damp Indoor Spaces and Health*, evaluated the strength of the available scientific evidence concerning possible associations between damp or moldy environments and health outcomes.¹ The review focused on only the allergic and toxic health effects of mold and did not concern itself with the infectious or irritant health effects. The Institute of Medicine committee concluded after an exhaustive literature review that there was not sufficient evidence to determine whether damp or moldy environments are associated with the toxic health effects caused by mycotoxins, such as mucous membrane irritation syndrome, inhalation fevers, skin symptoms, gastrointestinal tract problems, bleeding lungs, or fatigue.

The committee concluded there was sufficient evidence of an association between exposure to damp indoor environments and nasal and throat symptoms, cough, wheeze, and asthma in sensitized asthmatic persons. These symptoms constitute the allergic health effects associated with mold exposure. The committee felt there was limited or suggestive evidence of an association with asthma development.

So, in a nutshell, currently there is no scientific evidence to suggest that mold causes those severe toxic health effects that the media reports have suggested, such as mucous membrane irritation syndrome, inhalation fevers, skin symptoms, gastrointestinal tract problems, bleeding lungs, or fatigue.

¹Institute of Medicine of the National Academies of Science. 2004. Human health effects associated with damp indoor environments. In: *Damp Indoor Spaces and Health*, Washington D.C.: National Academies Press, 183-269.