

The truth, the whole truth, and nothing but the truth about Toxic Mould / Black Mould etc.

We believe the best starting point for a healthy home is knowledge! And one topic where many people think they know the facts, and most marketing supports their belief, is about mould. But the reality is that a lot of the “facts” you think you know about mould are really myths and one of the most common myths is that there is such a ‘thing’ as toxic black mould!

The truth is, there really is black mould – over 20,000 species in fact. However, *Stachybotrys*, the “toxic black mould” of most concern, is not always toxic. The truth is none of the million-plus mould species are always toxic. Another truth is that mycotoxins, while real, are one of the lesser of the several evils of mould.

We can't say this often enough. The only two things you know for sure when you see “black mould” is you have mould and that it is black in colour. That's all. Scientifically, there is no mould genera or species that is called “black mould” or “toxic black mould.” Of the million-plus species of mould, about 20,000 species are indeed black.

Most species appear green, brown, orange, white, or even pink. *Stachybotrys*, a common type of mould thought to be the most toxic, is actually a greenish-black in colour but can be white or a slight pink colour depending on the environment it is growing in and the food it “eats.” Mould of any colour can be “toxic” under the right conditions, so using colour as a red flag is a bad idea.

The story about “toxic mould” whether black, white, or orange is more complex than most people know. First, although all “mould growth” is capable of producing mycotoxins (which are harmful to human health), none produce mycotoxins all the time. Not even *Stachybotrys*.

First, Mycotoxins are produced only when two conditions occur at the same time:

- ✓ When mould is “eating” and producing secondary metabolites; and,
- ✓ In the presence of competing bacteria or mould. If both conditions are not present then mycotoxins will not be produced.

Second, mycotoxins are not some mysterious substance with properties like radiation that can penetrate through walls. They don't “stick” to contents creating cross-contamination days or weeks later. They also can't be “killed,” because they aren't alive.

Third, mycotoxins are not even the most prevalent component of mould that can cause reactions. Mould growth can also generate gas (mVOC) which are more common than the particles containing the mycotoxins.

Spores: Now that is a whole new other issue.

The overriding message here is: avoid mould and if you have it - deal with it safely.

When you notice or suspect mould somewhere in your home it isn't uncommon to want to test your home and get some concrete answers or proof about what is happening. This feeling is completely understandable as mould in your home can be a cause for concern, especially if someone in the home is experiencing health symptoms that may be related.

Often the most accessible and affordable option is a DIY mould test kit available online where you can get "results" in about 48 hours if you live in the USA or normally a couple of weeks in UK as they are often sent to USA.

However, the DIY mould test kit option comes with more than a few drawbacks including: no accredited lab certification or chain of custody for legal verification, inconsistent lab results from location choice, expired collection plates, and uncontrolled shipping/handling.

But the biggest issue is that it can't answer your most important questions – is the mould I have (or suspect) a problem and where is it located?

Petri dishes (also called settling plates) are designed to grow mould spores and since there are mould spores in the air everywhere all the time, you should expect to get mould spores growing on the plates. But since plates can only capture a limited group of spores (i.e., the ones closest to the plate and the heaviest ones that are more likely to settle), most spores will go undetected. You won't get enough of the whole story to be able to determine if the sample is or isn't representative of what is going on in your home.

So, what does growth on the plates actually mean? It means you have mould spores in your air.

Which everyone does.

The volume of growth on the plate is not indicative of anything beyond how fast that particular spore grows in the type of culture plate provided. The colour of the mould on your plate is also irrelevant, as mould colour alone cannot be used to determine type or toxicity.

What else your mould test kit won't tell you:

- > What spores are responsible for either the visible mould you are seeing and/or the symptoms you are experiencing. You don't know if it is the spores that were detected or the ones that were undetected that are causing issues e.g. from foods or other areas.
- > If you have spores that don't grow on plates. They can still trigger reactions, won't be detected by settling plates, and can outnumber spores that do grow by as much as 50x.
- > If you have fragments of spores and of growth, which can also trigger reactions and can be as much as 1000x more plentiful than what grows on a plate.
- > If the mould is producing mycotoxins or other mould toxins.
- > The location of the mould growth that is producing the spores. Without that information you can't know where to remediate.

Notwithstanding the remediation processes (and where our expertise lies) there are differences between asbestos and mould which may 'dampen' the progress of mould litigation v arbitration.

6 key differences that distinguish mould from asbestos litigation:

- 1) there is no signature disease associated with mould.
- 2) there are no guidelines for permissible mould exposure limits, (which will be impossible).
- 3) there are no "mould" manufacturers.
- 4) there are insurance coverage exclusions for mould.
- 5) there is potential for contamination to appear where previously there was none.
- 6) there is however the potential for causation or tort.

A curious aspect of mould litigation is that it started before scientific research had firmly established a causal link between mould and disease. In contrast to mould litigation, the bulk of asbestos litigation started after asbestosis was discovered, not before.

By the 1930s, medical studies had firmly established a link between asbestos exposure and disease with the surge of asbestos litigation beginning in the 1970s.

The lack of a signature disease associated with mould exposure does create difficulty in establishing causation in mould cases.

The biggest litigation battles will be / are between parties over the admissibility of scientific evidence through expert testimony, which can be critical to the case.

However very much like 'a hole in the ground' you can:

- a) ignore and wait for someone to fall
- b) put signs around
- c) cover
- d) look to blame someone
- e) repair



The main differences between mould and asbestos are that one is an environmental fungus that can grow on any surface, whereas asbestos is a carcinogenic material that was used for construction in the past. Both mould and asbestos are dangerous to human health and should be appropriately removed as soon as they are identified. However, once asbestos is removed, there is no danger of it coming back, whereas mould can continue to grow if it is not thoroughly removed and source/s aren't identified and fixed.

First, let's discuss the unique characteristics of mould. As a fungus, any mould is found naturally in the environment, but can thrive in moist areas of properties and release spores that are dangerous to human health. Some of the symptoms associated with mould exposure include:

- respiratory problems
- headaches
- dizziness
- itchy and runny eyes.

Mould may be growing in your property if you notice these symptoms worsen inside and improve whenever you leave the building. These symptoms can also be exacerbated during cold months, when most people spend extended periods of time inside without any air flow. If you suspect you are suffering from any of these symptoms, it is important to engage an expert to inspect and organize subsequent removal of any identified contamination.

Always remember that even if you cannot see visible mould, it may still be growing in difficult to reach corners of your property including attics, basements, crawl spaces, below floorboards or behind plasterboard.

In contrast to mould asbestos is a naturally occurring mineral fibre that was used in a wide variety of building materials prior to 1980. This included insulation products, ceiling tiles, wallboards, some paints and plaster.

If you suspect you have asbestos in your property, it is important that you do not try to remove it on your own. Inhaling asbestos fibres poses a serious threat to your health and can cause long-term complications. Removal of asbestos is regulated and a certified professional should be hired to assist with the elimination of any materials identified to contain asbestos.

It is the job of these professionals to inspect your property and remove materials that could be releasing fibres into the air to be inhaled by occupants.

Mould and asbestos are both dangerous if inhaled, posing significant health risks to anyone who is exposed. Professional help should be sought to help you deal with either substance in your property.

Be very careful if Bleach or Vinegar is the recommended solution. This should be a sign that they either doesn't fully understand the problem or wish to make it appear as just a nuisance and just plain soapy water would be a safer action than any caustic chemical.

BLEACH is the generic name for any chemical product used industrially and domestically to whiten clothes, lighten hair colour and remove stains.

Extract:



DAMP AND MOULD

Health risks, prevention and remedial actions

2. Removing the mould

Key message: After identifying and reducing/removing the moisture sources, the next step is to decide whether removing the mould from the affected areas is something that can be managed without professional help.

When the cause of the mould is related to building faults (leakages etc.) and/or the mould is also present in the building structure and material, it is recommended to get professional help. In this case, it may be useful to consult a national or local source of information to guide you in your selection of a suitable contractor.

If mould growth is due to condensation and the mould area is less than 1 m² (i.e., 1 metre high by 1 metre wide or roughly 3 feet high by 3 feet wide) and is not caused by sewage or other contaminated water, you can probably manage the job yourself following these guidelines or some of those listed in the references, such as the guidelines of the US Environment Protection Agency (EPA). Many national institutes have also published guidance documents in national languages (see examples in French, German and Spanish under "Further reading").

Whether the job is undertaken by a contractor or yourself, care has to be taken to avoid personal exposure to microscopic mould spores and the spread of spores within the building. If you yourself are undertaking the task of the mould removal, use a protective mask which covers your nose and mouth, wear goggles (without ventilation holes) to avoid getting mould or mould spores in your eyes, and protect your hands by wearing rubber gloves, preferably long ones.

Chemical disinfection and the use of biocides are not recommended as a routine practice for mould control as it may be toxic for the occupants. The application of disinfecting substances also does not solve the cause of the problem, and therefore may provide more health risks than benefits.

