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Mold

To discuss mold accurately first we must have a basic understanding of what it is and what makes it grow. Only then we will have the knowledge to not only remove the mould but also prevent it from effecting our health and home again

Mold – What Is It?

Mold is a fungi that has been around since time began. It is an organism that helps breakdown decaying materials. In your home these materials an include earth timber, plaster, carpets and underlay's, soft furnishings and even clothing. Mold produces microscopic cells called "spores" which are so small they can easily spread through the air. Live spores act similar to seeds, forming new mold growths (colonies) when they find the right conditions.

Mold – What Makes It Grow?

Mold is a very simple organism and like most fungi it only needs three things to grow and multiply.

- Moisture, dampness
- A food source, any organic material, wood, earth, carpet, curtains, plaster etc
- A suitable place to grow with no or poor ventilation, under floor space, bathrooms, bedrooms with no or closed windows.

Out of these three, if you can control the excess moisture is the key to preventing and stopping indoor mould growth.

What is condensation ?

Mold in a residential property is a direct result of condensation, condensation is a result of too much moisture in the air. Inside air is made up of outside air plus what ever we add to it. The occupants of an average home will add up to 15 litres of water to the air per day from breathing, showering, cooking, drying clothes etc.

When moist air cools down below its 'dew point', such as when it comes in contact with a cold surface the moisture falls out of suspension.

Water pools on surfaces and runs down walls etc.

Glass windows are usually the first place that shows evidence of condensation because they are the coldest surfaces.

What problems can condensation cause?

Condensation left untreated can promote mold, mildew growth and damage wood work, furnishings and clothes. Mold spores are known asthma and allergy triggers. Unpleasant smells are caused by damp conditions. Damp houses take more energy to heat, feel unhealthy and are unpleasant to live in.

There are many areas in a residential property that can easily have the right conditions for mold to grow and thrive, and there are hundreds of different types of mold like; Stachybotrys, Penicillium, Fusarium and Aspergillus is the most common mold found in residential homes and has 150 species that are all allergenic, some toxic and carcinogenic, related to asthma problems. Some other health problems often related to mould in your home are, a suppressed immune system, fatigue, headache, flu-like symptoms, allergies, asthma, low energy, sinus problems, and even depression have all been linked to over-exposure to household mold.



Mold – What Can I Do About It?

First you need to know where it is, what caused it, and what type of mold you have, this will require a trained professional independent inspector to inspect your home thoroughly and take samples for testing. Only then can your inspector recommend the appropriate action to ensure no recurrence of the problem. The test

results will confirm exactly what type of mold we are dealing with and this will determine the method of cleanup and permanent elimination.

Mold – What Can I Do Now?

There are many remedies you can try immediately, however it is important to get your inspection completed before you try any of these because you may be successful in taking away one of the key indicators that will prevent a complete and accurate diagnosis, then you will be at risk of the mold recurring. Start with eliminating each of the three things mold needs.



1. **Ventilate, Ventilate, Ventilate.** This is one of the quickest remedies that will help minimise the growth and spread of the existing mould problem. This is a particular problem in the cold damp winter months because it does result in a loss of heat from the house.
2. However heat is also a major contributing factor to stimulating the mold to spread and thrive. Inadequate ventilation is also a growing problem in new homes due to the quest for increased energy efficiency with increased insulation, draft proofing the home etc, these are all factors that increase the ideal growing conditions for prolific mold growth. It's like you have created an ideal incubator for the mold to thrive in your home. We recommend at every opportunity, open all your windows and doors on a dry day, this will change the warm moist air in your home (laden with mold spores) to clean fresh dry air. This alone can minimise the spread of the mold spores throughout your home.
3. **Remove the moisture source,** this is often as simple as remembering to use the exhaust fans in the bathroom when showering or bathing, in the laundry when washing or using the tumble dryer, using the range hood or fan in the kitchen when cooking, opening the bedroom window slightly at night when

sleeping. All these will help eliminate the build up of excess moisture in the home. The next step is to look for other sources of moisture in the home like leaks or in the under floor space, this may need specialised detection equipment that your inspector will have.

4. **Minimise and clean the food source.** This can be difficult with some materials but airing out the doona, bedding and soft furnishings in bright sunshine is inexpensive and helps stop the spread of mold. There are two types of cleaners that will adequately do the job, The harsh toxic cleaners like Ammonia and bleach cleaners, or you can use the safer natural alternatives like Tea Tree Oil (also known as Melaleuca Oil), Lemon Oil, white vinegar, 5% diluted hydrogen peroxide, a teaspoon of clove oil in a litre of water and sprayed on the mold is also recognised as a useful mold inhibitor. Obviously using the harsh toxic cleaners you should take adequate steps to protect yourself and other surfaces and materials and follow the directions for the use of these products.
5. **Serious mold contamination.** In serious cases and where mould has been a long term problem, simply cleaning and repainting will only be a very short term solution and will reappear within months, sometimes weeks. We often find the mold is established in the fibres of the effected material like wall and ceiling linings, plasterboard, timber and other sheet linings. Unfortunately complete removal and replacement is the only remedy

Simply living generates significant moisture in the home. Bathing, cooking, washing and cleaning all release moisture into the air. Humid summer air infiltrating through and around windows, doors, vents, and other openings also contributes routinely to the total moisture load. Increased insulation and draft proofing for energy efficiency also helps to trap the warm moist air in the living areas and this turns to condensation when it comes into contact with cold surfaces like glass, windows frames, walls and ceiling linings causing perfect conditions for mold to grow and thrive.



It is often difficult to find a balance between adequate ventilation and maintaining a comfortable living temperature throughout the house during the colder winter months. My advice is to ventilate the entire house during the day when you're at work, open the curtains and blinds to let the sunshine in, lock a window partially open in every room and leave the doors open to allow cross flow ventilation throughout the house. Even three or four hours a day will make a significant difference to managing and controlling a mold problem.

Draughty houses don't have condensation problems but are cold and expensive to heat.

The more airtight you make your home, the worse the problem. It is like putting a plastic bag over your head (it steams up).



New building standards in Australia require houses to be more energy efficient usually at the expense of ventilation.

The average family can add over 12 litres of moisture into the home every day. Sleeping alone generates 0.5 litres per person per night.

Heating on its own does NOT solve condensation problems, the warmer the air the more moisture it can hold.

Heat pumps (reverse cycle air-conditioners) only de-humidify when cooling and simply re-circulate the stale moist air when heating in winter.

Mold Spores and Dust Mites are triggers for asthma, allergies, rhinitis and other bronchial conditions. Mold is prevalent in poorly ventilated houses due moisture. Dust mites feed on microscopic fungal growth and dead human skin

The magnified photo below of mold and its spores ready to bloom and contaminate the rest of your home.



Changing Your Habits Will Help

For example; **In the bathroom** after your shower or bath try leaving the exhaust fan for an extra ten minutes after you leave the room, take your wet towels outside and put them on the line to dry, don't leave the water in the bath

In the kitchen when cooking always use the exhaust fans and have the window open, never leave the sink full of water.

In the laundry, never use the washing machine or dryer without first opening the windows or doors

In the bedrooms always open the windows blinds and curtains when you get up, fresh air and sunshine is the quickest fix.

Close off the living areas to keep warm, and ventilate the rest of the house, you should aim to change the air in your house every 24 hours

This free information sheet has been provided by Independent Property Inspections to help you take care of your most valuable asset.

If you would like further information we recommend you call you local Independent Property Inspector on 1800 17 88 22

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