

# HEALTH ISSUES

Mould isn't just an unsightly problem – it's a serious health risk. It can affect the respiratory system, causing sneezing, coughing, headache, fatigue and wheezing, as well as respiratory infections. In particular, young children, the elderly, people with asthma and allergies, or people with compromised immune systems are at risk of developing mould-related health complications.

## DEADLY MOULD

With more than 30% of buildings affected by mould, it is now belatedly being recognised as a serious health risk, says Dr Peter Dingle PhD.

Moulds are perhaps the most opportunistic of the microorganisms, and are found virtually everywhere, indoors and outdoors. They thrive wherever there is the least bit of moisture and nutrition - in fact, they are tiny, enzyme producing and cellulose eating factories. There is a mould for every occasion and almost every material. They work continually on organic materials, breaking them down. Moulds are vital in the process of decomposition and recycling of organic material, and are essential and beneficial for life. Indoors, however, where their populations can concentrate, moulds become a problem.

Fungi are the most frequent cause of biodegradation of building materials. This "biocorrosion" happens to building materials, such wood, chipboard and plaster, as organic and inorganic acids are released from the fungi. This is not surprising as fungi are capable of breaking down rock in nature. Ideal conditions for fungi growth are damp, humid conditions. In recent years, the opportunity for growth of fungi and hence mycotoxin release has increased with increased flooding and thermal modernisation of residential buildings. Allergies and mycotoxicosis can be caused by extended periods of mould exposure.

Mould growths can often be seen in the form of discolouration, ranging from white to orange and from green to black, and present many textures, including slimy, powdery and hairy.

Moulds have diverse effects on our health due primarily to their production of spores and toxins, some of which are Volatile Organic Compounds (VOCs). Symptoms caused by moulds range from allergies to liver cancer. Mould can also cause conditions such as Sick Building Syndrome (SBS) and skin infections. It is inadvisable for anyone to live or work in a mouldy indoor environment.

## The Daily Telegraph

### 'Our mouldy house was killing us'

FIONA BAKER NATIONAL FEATURES FEBRUARY 18, 2012 7:00PM



Robyn Bell and Mathew Willmore had severe health problems caused by their mouldy home in Brisbane. Picture: Hughes Simon. Source: Supplied

#### WET weather is causing a spread of mould that is damaging to our health.

The list of infections, symptoms and conditions Robyn Bell, her partner Mathew Willmore and even their two cats suffered during the three years they lived in a mould-infested Brisbane home reads like the index of a medical journal.

Sinus, skin and respiratory infections, yeast infections, headaches, aching joints, asthma, fatigue, loss of libido, depression and anxiety were some of the problems they suffered. Their cats suffered fungal infections and constant vomiting.

"That house was killing us," Bell says. "It just took a long time for us to connect the dots about why we were so sick all the time."

She and Willmore have since moved out - 'almost immediately we felt better' - but without most of their belongings, which they have locked up in containers because they were unable to control the mould.

'Mould has tainted everything in our lives,' she says. 'Along with our health, many of our belongings, our keepsakes that were sacred to us, have been or will need to be destroyed.'

'Mould is toxic, dangerous and consumes everything around it. Unless you treat the source and kill it, it will take hold of your life.'

**B+S**  
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## HEALTHY HOME HINTS

WITH NICOLE BIJLSMA



**You may not see it or even smell it, however, its effects can have devastating health consequences**

**W**hen I interviewed a couple in my office, the husband's body language suggested his wife – who had been diagnosed with chronic fatigue syndrome – was neurotic as she never stopped complaining about her aches and pains. However, the air samples from their home told a different story. The mould count was four times higher in the master bedroom (where she had the worst symptoms) than outdoor levels and the type of fungi were pathogenic.

I've spent the past five years lecturing and studying mould, and have come to

respect what can only be described as the most resilient species on Earth – fungi. There are more than 1.5 million species of fungi on this planet thanks to their capacity to adapt to almost any environment.

Up to 50 per cent of indoor environments in Australia are affected by dampness, which is the prime condition for mould growth. New homes with poor natural ventilation see many mould-related issues. The use of cheap timbers such as MDF and particle board creates the perfect "fast food" for mould. In contrast, many hard timbers contain mould-resistant resins.



**The key to treating mould is to locate the moisture source, such as:**

- Plumbing, gutter or roof issues
- **Inadequate ventilation, insulation, waterproofing or drainage**
- Building on a flood zone or hill
- **Humidifiers that are left on**
- Housekeeping – long showers or drying wet clothes inside
- **Climate (humidity above 70 per cent is ideal for mould growth)**



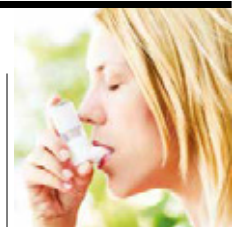
### THE EYE TEST FOR MOULD ILLNESS

**A deficiency in visual contrast sensitivity (VCS) can be an indication of a mould-related illness. A test for VCS can be performed by an optometrist or at [vcstest.com](http://vcstest.com)**

### THE SILENT HEALTH HAZARD

It's well known that the adverse health effects of mould are lung problems such as asthma, bronchitis, cold and flu-like symptoms, hay fever and, less commonly, pneumonia and eczema. Emerging evidence suggests it's the chemical stew of microbes found in water-damaged buildings that's doing the damage.

In healthy individuals, these microbes are identified by the body's immune system, then broken down and removed by the liver and excreted via the bowels. However, studies have identified that 24 per cent of the population can't produce antibodies to fungi. Every time

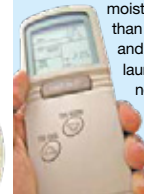


these people walk into a water-damaged building, an inflammatory response occurs that doesn't switch off.

Symptoms begin with fatigue and headaches, and over time, result in brain fog (mood swings, poor concentration, memory loss), aches in the joints, sleep disturbances and an inability to thermoregulate. These symptoms are often misdiagnosed as chronic fatigue syndrome.

### PREVENTATIVE MEASURES

Water-damaged materials like plaster walls, carpets, furnishings and underlay that have been exposed to moisture for more than 48 hours and can't be laundered may need to be discarded, otherwise they can become



a continual source of mould. If you live in a hot humid area like far north Queensland, an air conditioner (which is a dehumidifier) may need to remain on to keep the relative humidity below 70 per cent. In cooler humid climates like Sydney and the NSW central coast, a dehumidifier is recommended, along with adequate insulation and the replacement of single-paned windows with energy-efficient glass.

### FORGET THE BLEACH

Don't use chemicals like bleach to kill mould. Why? Many fungi will use them as a food source. And even if it kills the mould, dead mould spores are still



hazardous as they contain mycotoxins. To remove mould from nonporous surfaces, soak a microfibre cloth in a solution of 20 per cent water to 80 per cent naturally fermented white vinegar. Rinse each time and repeat. On porous surfaces such as unsealed timbers, use a 70 per cent alcoholic solution, such as ethanol. If visible mould exceeds one square metre or you experience any of the above symptoms which don't ease following treatment by your GP, see an accredited mould remediator (visit [iicr.org](http://iicr.org)).