



Position Statement on Water Damaged Buildings

The ASBB holds firm a position and belief that it is an essential right for the public who occupy water damaged buildings to have access to evidence-based information, resources and professional assessment on the buildings effect on their health. This document provides referenced information for the public to begin to understand the implications of dampness, mould and microbial growth that can occur in water damaged buildings.

What is Mould?

Fungi are nature's greatest decomposers, they are part of our natural environment and are present everywhere. Excess moisture on almost all indoor materials can lead to the growth of microbes, such as mould, fungi and bacteria. These can subsequently emit spores, cells, fragments and volatile organic compounds into our indoor air (WHO 2009).

Adverse Health Effects

It is well established that some of the recorded symptoms from mould exposure are asthma, bronchitis, cold and flu like symptoms, hayfever and allergies (ASHRAE 2016; IICRC S520; WHO 2012). There is now emerging evidence that in a water damaged building it's the exposure to the chemical stew, not just the fungi, which can have adverse health effects (WHO 2009). According to Dr Shoemaker (2016), 24% of our population is genetically susceptible to a multi system and symptom diseases.

Why is mould more of an issue now?

Modern buildings are made air tight for energy efficiency. This coupled with inadequate ventilation in building design, poor quality building materials and current building practices, can lead to exacerbated indoor air quality issues (AHURI 2010; BRANZ 2010). The World Health Organisation (WHO) estimates that in Australia 10 to 50% of buildings may be affected by damp (Anderson *et al* 2011).

In a media statement by Archicentre Australia (2016) it was indicated that mould is commonly found in pre-purchase house assessments particularly in older houses, as well as new apartments that lacked adequate ventilation in wet areas. Sources of moisture, water intrusion and dampness are not only harmful to the occupants of a building but can have a negative effect on the buildings structure, and directly affect the indoor air quality.

Additionally excessive dampness in building materials can initiate chemical or biological degradation of materials, which contributes to airborne pollutants (WHO, 2009; ASHRAE 2012). It is the presence of consistently moist or wet materials such as carpet, ceiling tiles and gypsum board, biofilms and cellulose based building materials that provide an ideal environment for microbial

proliferation, house dust mite, insects and other pests. This is why response time to leaks and accidents is so critical (US EPA 2016; WHO 2009).

Addressing Mould

Preventative Measures:

1. **Adequate ventilation and insulation** in a building, plus the use of appropriately rated high volume exhaust fans, extracting air externally in wet areas, are essential aspects in preventing condensation.
2. **Building water catchment and landscape drainage** should be maintained to ensure all water flows *away* from the building.
3. **Ensure vegetation is not allowed to grow up against a building.** This reduces natural ventilation, one aspect of evaporation, which is important for maintaining a dryer building envelope.

Mould Removal:

1. First and foremost is to **address and rectify the source of moisture.**
2. Building materials that are wet for more than 48 hours are likely to be contaminated with mould (US EPA 2001; CDC 2016).
3. **The microbial situation should be assessed** in accordance with the IICRC S500 and IICRCS520 (2015) to map out the appropriate protocols.
4. **Determination of salvageability of various items** should be referenced against the “Contents Remediation” section 14, of the IICRC S520 (2015) and the appropriate measures and protocol taken for each item.
5. **The mould needs to be physically removed (not killed)** using the specific protocols outlined in the IICRC S520 guidelines (2015) and depending on the “Condition” may need to be carried out by an adequately trained professional carrying the IICRC certification for professional microbial remediation.
6. **A post remediation verification procedure may need to be carried out** to confirm successful remediation has been achieved.

What NOT To Do:

1. It is stated in the IICRC S520 Reference Guide for Professional Mould Remediation (2015, section 5.8.1), **“Source removal of mould contamination should always be the primary means of remediation.** Indiscriminate use of antimicrobials, coatings, sealants and cleaning chemicals is not recommended.”
2. **Biocides such as Bleach are NOT an effective** treatment for mould as not only do they provide an additional food source but doesn’t deal with the microbes and therefore the health threat (Dept of Health WA n.d; Kemp 2002)
3. **Ozone is toxic and is not a safe and effective treatment** by nature of the fact that it does not remove the mould or its toxins and that Ozone can bring on and exacerbate asthmatic illnesses. (US EPA 2008)

This statement reflects current scientific and peer reviewed research and best practice documents such as IICRC S520 Reference Guide for Professional Mould Remediation (2015).

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