

# Materials, health and condensation



Sustainable design and build

Poor ventilation and low levels of air movement in a family home can lead to the development of condensation on cool surfaces such as windows, plaster walls and, where buildings are well insulated, actually inside a wall or ceiling space.

Un-vented bathrooms, laundries and, in particular, driers can all add a great deal of water vapour to a poorly ventilated house, but it's the every day business of family life that adds most moisture to the air in our homes.

The source of condensation is almost always inside the building, not outside.

Condensation can damage the fabric of the building as well as furnishings and other belongings, but it is the mould that thrives in the dark and damp corners of our homes that is potentially the most harmful.

Both mould spores and the mould itself may contain toxins that affect our nervous system or in some cases may actually be associated with cancer (Mycotoxins). Mould can lead to severe lung infections in those whose immune system is compromised, but it's as a trigger to asthma and allergies that mould causes the greatest day to day distress for most families.

Good and thoughtful ventilation together with a 'vapour barrier' in walls and ceilings is the best way to overcome the high humidity that mould needs.

Mould may be a major health hazard in an otherwise healthy building but there is also a growing concern in the community regarding the toxicity of some materials, adhesives and finishes used in today's homes.

This is not a new phenomenon as many older buildings contain both lead and asbestos. As people seek to make their



homes more energy efficient by sealing up every gap and crack, however, the concentration of many newer substances has risen to what some regard as dangerous levels.

Whilst we can accept that the total elimination of these substances is impractical, there are some common construction materials that are understood to contribute to high levels of chemicals known to be detrimental to our health.

Prudent avoidance is the starting point wherever there is any suspicion of a negative impact to health from the materials selected and in most cases there is a safer alternative.

The health of the environment should also be a consideration in choosing the materials used in the construction of a new home.

As a general rule, the less processed a product is, and the closer to the site of a new home it originates from, the better.

Materials that are lightweight and can be recycled are often preferred, but durability and longevity also bring environmental benefits, particularly for family homes.

**For free advice about these important issues, call us today on (03) 6227 9633.**