




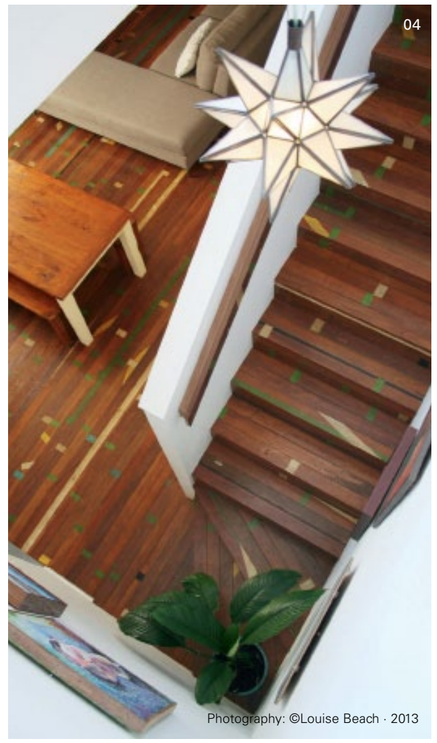


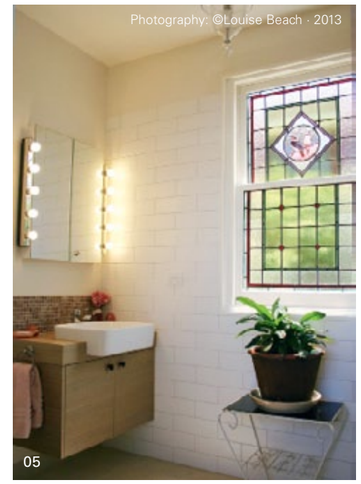



**HEALTHY HOME TIPS**

- Turn WiFi off at night.
- Fix water leaks in and around the home.
- Use energy-efficient equipment to reduce electrical loads that could lead to potentially harmful magnetic fields. Instead try to power your home on 12 volts.
- Add natural insulation such as rugs and furnishings.
- Install exhaust fans in wet areas that vent vapours outside, not into roof cavities, to reduce excess moisture and smells.
- Create physical barriers to pests, to avoid using pesticides around the home.
- Use natural cleaners, micro-fibre, steam mops and HEPA-grade vacuums.
- Don't use toxic spray cans inside the home.
- Keep indoor plants at a minimum as too many of them, and over-watering, could encourage bacteria and mould growth.

**01** Building a healthy home benefits everyone.
**02** Location is an important element of creating a healthy home deisgn.
**03** Include furnishings that avoid damaging the environment.
**04** The floorplan should be highly functional.
**05** Proper insulation is vital to improve air quality.
**06** Common rooms should maximise the natural light.

# BUILDING BIOLOGY

## The elements of building a healthy home

When building a new home there is so much to consider, from the colour palette to the floor plan, the landscaping to the kitchen sink. However, building a new home that is both durable and healthy for you and your family should be at the top of the to do list.

**WHAT IS A HEALTHY BUILDING DESIGN?**
Building Biologist and Environmental Educator, Tiffany Richardson from Healthy Buildings Australia, says, "Building a healthy home benefits everyone; it provides its occupants with a sense of physical and mental wellbeing and aids those with multiple chemical sensitivities, asthma and allergy sufferers."

In order to create a healthy home, five important elements should be carefully assessed; the floor plan, the materials used, insulation, roofing and location. "Once completed, a healthy building design benefits its occupants by providing a harmonious and breathable living climate — it should feel alive, be a part of the landscape and a part of us," says Richardson.

The difference between a sustainable home and a healthy home is that extra consideration is given, not only to the materials and practises used, but also through the assessment of sustainable living habits.

According to Narelle McDonald, Building Biologist and Feng Shui Consultant from Healthy Living Spaces, a sustainable home traditionally focuses on three pillars of sustainable development to be socially, environmentally and economically responsible. McDonald says sustainable homes are usually defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs".

Building Biology, in generating a healthy home, is focused on creating designs through a holistic approach. "The health of the occupants is our first priority, so anything that may have detrimental effects to their health is considered and the precautionary principle is applied," says McDonald. Practical control measures are put into place to help reduce or eliminate any risks by choosing alternative products and materials.

Approaching a building biologist or healthy building designer at the very start of a project is an ideal time to gain insights into land testing, home design and structural relationships with the surroundings. A healthy home specialist can help you decide on orientation, privacy, views, noise, location, layout, exterior materials and how to live in your new home. Australia takes on new, innovative, green and sustainable building measures every day but, by making your home healthy, it is meeting physical, biological, and spiritual living needs as a whole, not just conquering sustainability.

"The objective of a healthy building design is that it benefits the environment by being durable, long lasting, efficient and sustainable thus having minimal impact on the planet and its inhabitants in the long term," says Richardson.

**DESIGN CHARACTERISTICS**

LOCATION

"Good design principles are the first step on the journey towards a healthy home," says McDonald. "Given that we spend 90 per cent of our time indoors it is incredibly important that we invest our time at design stage to plan, think and create buildings that support and nourish us on all levels."

Location is an important element to consider. Whether you are in a flood plain, a flight path, close to arterial traffic, industry or high-voltage power lines are factors to be taken into consideration as these can cause disturbance and stress.

"If someone is an asthmatic, wind-pollinating plants such as rye grass, couch grass, plantain, wattles, oak and silver birch can be a problem so these factors will also need to be taken into consideration," says McDonald.

MATERIALS

The materials and products used in the home can have great effect on the interior air quality. According to the Department of Health & Ageing, poor air can cause a range of symptoms from headaches to fatigue and asthma, so it is important to consider what you are using when building.

For the best results, use breathable materials from sustainable and local sources where available. Try to incorporate solar-powered hydronic heating, natural timber flooring and bamboo or cork furniture for the interior of the home as the natural materials will have lower embodied energy and contain fewer toxins.

Great exterior materials include straw bale, rammed-earth stone, mud bricks or even recycled bricks and untreated timber. Water tanks made from galvanised steel are also a great inclusion, especially for Victorian homes.

FLOORPLANS

The floorplan should be highly functional. Consider which rooms will be used most frequently and adjust the sizing and location of these to best accommodate everyone. Also consider the location of windows and doors as this can have an effect on the wellbeing of the individuals as well as the overall green footprint. "A thought-out design helps to increase energy efficiency, making a home more comfortable to live in," says Richardson.

Common rooms such as the kitchen and living room should aim to maximise the natural daylight with windows at either side to create a dynamic air flow.

Once this has been adjusted it is important to consider elements such as the bed placement. Avoid having this type of element close to appliances, meter boxes or wiring as this can disturb the sleeper.

INSULATION AND ROOFING

In order to maximise the air quality and the use of your heating/cooling systems, proper insulation is vital says McDonald. "Insulation works most effectively when local climate and good, passive-design principles are considered." Ensure proper draught-proof sealers are used to avoid unintentional heat loss and control air movement by the correct placement of windows and glazing.

For roofing materials, try to use products made from clay, slate tiles, timber shingles or Colorbond steel.

**CAN YOU MAKE AN EXISTING HOME A HEALTHY HOME?**

Converting an existing home into a healthy home can be done when renovating or purchasing new furniture and everyday products. Make sure you are considering what's in the products you are buying and how they could be damaging to the environment and your health. Many modern materials such as plastics, paints, and glues release Volatile Organic Compounds (VOC's) which release greenhouse gases into the atmosphere, contributing to global warming and potentially leading to health problems such as headaches and allergies.

Companies such as Healthy Living Spaces specialise in renovating older homes where restrictions can apply and be tricky. If you are not renovating, then simply reassessing how you clean your home, what personal care products you use, installing water filters and switching your WiFi to a router or converting to a cable option are all ways you can make your home a healthy and happy one.

Words: Stephanie Dunbar and Georgia Westgarth Images: 1, 6, 7, 8 Built by DM Urban projects