Public Health Fact Sheet
Home Ventilation and Moisture Control

What are the benefits of ventilation?

Ventilation supplies fresh air to your home, dilutes indoor air, and removes stale air in order to maintain good air quality. It is also important for reducing excess moisture to prevent dampness in the home.

It helps prevent the growth of mould and mildew, which can cause or aggravate allergic reactions and lung problems such as asthma, chronic bronchitis or emphysema.

Additionally, ventilation protects you, your family, and your guests from irritating pollutants, unpleasant odours, and potentially dangerous gases like carbon monoxide from some heaters.

Furthermore, ventilation can help protect your home from damage by eliminating excess moisture from internal air. Drier homes are easier to heat since dry air requires less energy to heat to the same temperature than moist air.

When excess moisture is present, it condenses out on the nearest cold surface – usually the window glass, or surfaces of exterior walls.

Too much moisture rots woodwork and other porous materials, peels paint and encourages insect infestation. Damp insulation in walls and ceilings means lost heat, higher fuel bills, and destructive mould growth. Carpeting, wallpaper, clothes, electronic equipment, and furniture can all be damaged by excess moisture.

How would I know if I have an excess moisture problem in my home?

You may already know if you have an excess moisture problem. When you're at home:

- Do you notice a musty smell, or mould or mildew on ceilings or walls; especially when the house has been closed up for a while?
- Have you found mould growing on items such as curtains, clothes and shoes?
- Is there condensation on the inside of your windows or on the walls of the bathroom or kitchen?

These may be signs of poor ventilation.

How can I improve ventilation in my home?

There are many ways you can do this:

- Open windows or doors to allow fresh outdoor air to displace indoor air; it is preferable that windows on both sides of the home are opened to enable good air movement through the building.

- During winter when outside temperatures are lower, aim to ventilate the home daily, even for at least five minutes.

- Where possible, consider leaving windows in the bathroom, kitchen and bedrooms slightly ajar to allow fresh outdoor air to circulate throughout the home day and night. Where necessary, install security devices to ensure your home is secure. Alternatively you might consider installing ventilation strips above windows.

- Inside your home, it is also a good idea to ensure that there is at least a ten centimetre (4") gap between any furniture and exterior-facing walls to allow ventilation of these areas. Likewise, any mattresses should not be placed directly on the floor; instead place them on a mattress base to allow air movement.

- Similarly, outside the home, do not place items against the walls, instead allow a gap to keep that area ventilated.

In addition to good ventilation in my home, how else can I reduce excessive moisture?

A good place to start is to identify and eliminate / reduce sources of moisture.

A common problem with older houses, and even some new ones, is a roof that leaks. Water enters through joins or cracks, sits on top of insulation and soaks into the ceiling boards. Often the only evidence of a leak is slightly discoloured paintwork. More often than not, by the time you notice the problem, there will likely be an unwanted growth of mould spores and perhaps structural damage.

This is why it is important to check if your home has any leaks, such as from plumbing, window and door joinery or a leaky roof. Also check underneath a house with a timber floor for any damp or wet soil, mould, or mildew. If you are unsure how to identify these issues or require information about fixing them; consult your local building specialist for further advice. If you are renting, contact your landlord. It is important that these issues are identified and rectified as any other methods of removing excessive moisture from the home will not solve structural problems.

Remember that even without using kitchen or bathroom facilities, people and animals constantly breathe out water vapour into the air.

Unflued gas space heaters are notorious for producing large volumes of water vapour (and combustion fumes) and are therefore not recommended for home heating.

What are the key areas around my home I should pay attention to?

The Kitchen

With cooking, steam is generated and condenses on cold surfaces. You can reduce moisture by:

- Opening a nearby window when cooking, or washing / air drying dishes.
- Use a range hood or extractor fan discharging to outside air to remove steam. Ensure this is regularly cleaned to ensure best performance.
- Placing lids on pots when cooking to contain steam.
- Close any doors from the kitchen to prevent moisture escaping to other areas of your home.
- If any condensation occurs, wipe off the moisture with a cloth and dry that outside.

The Bathroom

A large percentage of moisture in your home comes from your bathroom - if not properly vented. Steam from your shower or bath quickly migrates into your home when you open the bathroom door. You can reduce moisture by:

- Opening bathroom windows and closing the bathroom door when having a shower or bath.
- Installing an extractor fan to remove steam, and duct it outside. Allow it to run after you have finished using the shower to ensure all moisture has been removed. Some fans are able to run after being switched off as they have a timer function. Consult your local electrician for further information.
- Additionally, if you are using an extractor fan, ensure that it is cleaned regularly to assure best performance.
- If any condensation still occurs, wipe off the moisture with a cloth and dry that outside.
- Consider fitting a commercially-available plastic dome over the shower to contain steam within the shower cubicle.

The Laundry

The laundry is another high moisture area, particularly with drying of washing.

- If you use a dryer, ensure that you have an extractor system that ducts outside.
- Avoid drying washing inside the home; always dry laundry items outside.
- If any condensation occurs, wipe off the moisture with a cloth and dry that outside.

The Bedrooms

- Consider leaving bedroom windows slightly ajar at night-time, as this may help reduce the amount of condensation on bedroom windows or walls.
- If any condensation occurs, wipe off the moisture with a cloth and dry that outside.
- Leave wardrobe doors slightly open to allow ventilation.
- Mattresses should not be placed directly on the floor; instead place them on a mattress base to allow air movement
- If you have an en-suite, make sure that the door is closed while showering or bathing.

Are there any other methods of ventilation / moisture removal?

The best way to remove moisture from your home is the simplest. During the warmest part of the day open at least two windows. This encourages the air to circulate. In addition, you might consider:

- Installing ventilation strips above windows.
- Installing a mechanical heating / ventilation system that displaces internal air with fresh air from outside.
- Using a portable dehumidifier.

Further information

Please contact Auckland Regional Public Health Service on (09) 623 4600 and ask for the AMT Health Protection Officer if you require further advice or have concerns about ventilation in your home.

See Also:

Public Health Fact Sheet - Mould

Public Health Fact Sheet: Indoor Air Quality and Pollutants

Public Health Factsheet – Unflued Gas Heaters