

Inside

Winter is coming

As the days get shorter we spend more time inside turning our focus to the interior comfort of our homes. Warm dry homes and workplaces that have plenty of fresh air and natural light help make the colder months pass quickly by keeping the winter blues and lurgies at bay. Indoor health and thermal efficiency are particularly important during the winter months.

The notion of "hunkering down for the winter" immediately conjures up visions of wrapping oneself in a blanket in front of a roaring fire. This is also a good time to wrap your home in a blanket by ensuring the insulation, draught-proofing and window coverings are up to the job. A home with gaps in it is like a person standing in the snow wearing no shoes or hat. A home without insulation is like a person standing naked in the snow.

Batten down the hatches

Draught-proofing is one of the most effective and easiest ways to significantly reduce heat loss and can be undertaken by renters and homeowners alike. Gaps like to appear around doors, windows, pipe penetrations, vents and anywhere walls, floors and ceilings join. Look for gaps between the floorboards and skirting when carpets have been removed. Arm yourself with beading, gap-filler and weather-stripping and go gap hunting in your home. Interior wall vents that are commonly found in older homes are no longer part of the building code and can be filled in. The only exception to this is if there is a un-flued gas heater or open fireplace in the room. Otherwise you can plaster and paint over the vents or simply use foam stripping, silicon gap filler or expanding foam in the holes. Other big offenders for air leaks are old air conditioners and down-lights (remove or fit covers on them), extraction fans (fit draught stoppers or replace with self closing ones). Closing the blades on evaporative cooling vents does not create an effective seal. You can purchase magnetic covers to place over them for the duration of the winter months. Ducted heating vents and ducts also leak large quantities of heat – you can minimise this by checking your ducting for holes and use insulated ducting where possible.

heatsaver.com.au
raven.com.au

acdraftshields.com
drafftstoppa.com.au

Getting cosy

A radiant space heater is a real asset – it provides an ambient focal point to the home and generates a source of heat that your body can readily absorb, allowing you to warm up quickly even if the rest of the house is cool. However, the traditional open fireplace is neither efficient nor healthy. Smoke from wood burners and open fireplaces causes indoor and outdoor air pollution. It releases fine particle pollution (ash), hazardous air pollution (HAPS) and volatile organic compounds (VOCS) that have a negative impact on human health, especially in children, the elderly and people with respiratory or heart conditions.

Up the chimney

Open fireplaces are at best 20 per cent efficient, which means at least 80 per cent of the heat they generate is wasted. They also draw large amounts of interior air up the chimney meaning they can lose more heat than they generate. Open fires are up to five times more polluting than a wood-burner that meets the Australian standard (AS/NZS 4013:1999). Open fireplaces can be permanently sealed or retrofitted with an efficiently flued gas heater or slow combustion wood-burner. Wood pellet heaters that burn compressed wood waste use excess combustion air to make the fire burn hot, are very clean and up to 90 per cent efficient.

ecochoicefires.com.au
cannonappliances.com.au

artepelleheaters.com.au

The better burn

In many regional areas burning wood is the most practical form of heating and coppice and ground fuel timber are in good supply. You can use your slow combustion wood-burner in a way that ensures it burns as efficiently and cleanly as possible. This means only ever burning very dry, well-seasoned and untreated hardwood, never leaving your fire to smoulder, and burning the fuel very hot and bright. Also have your flue professionally cleaned seasonally, and ideally never burn on windless days in built-up areas.

Condensation

Indoor air quality can suffer in winter as we seal our homes up and open doors and windows less. Condensation occurs when water vapour comes into contact with a cold surface and turns into liquid droplets. Condensation appearing on your windows in winter is a sign that the home is either inadequately ventilated, has excess humidity or inefficient windows. Very well sealed homes need a mechanical ventilation system such as a heat recovery ventilator to ensure that the air inside the home is constantly replaced. Most existing homes continuously leak air and can be actively ventilated during the day when the sun comes out. Ensuring kitchen and bathroom vapours are extracted to the exterior of the building is important, and drying clothes inside can exacerbate humidity. Conversely, if you have convective heating making your home excessively dry then drying washing or placing bowls of water out can help. Indoor plants can help regulate humidity levels by acting to raise or lower them to keep an optimum interior humidity level of 30–50 per cent.

