



Got a wood heater or an outdoor wood fired cooking appliance at home? – What are the risks?

Wood smoke is harmful for people who breathe it. This includes yourself, families, friends and neighbours. People who are more at risk include:

- Elderly people
- Pregnant women
- Infants
- Young children
- People with vascular complications from diabetes
- People with respiratory or cardiovascular illness
- People who work or exercise outside regularly

Wood smoke can affect you at your own home, both indoor and outdoor. It can be coming from your very own wood fire appliances. When exposed to it, you could develop health problems such as:

- Nausea
- Headaches
- Dizziness
- Coughing
- Increased asthma and respiratory problems
- Irritation to eyes, throat and nose
- Developing or aggravating chronic heart and lung conditions

Did you know, according to the Department of Water and Environmental Regulation, 'the cost of health impacts attributable to residential wood smoke in Perth is estimated to be upwards of \$18 million per year!'

Burning wood inside a wood fire appliance produces smoke made of many chemical components. This could include substances such as:

- 1,3-Butadiene
- Acetaldehyde
- Benzene
- Carbon monoxide
- Formaldehyde
- Nitrogen oxides
- Sulphur dioxide
- Particles i.e. Particulate Matter (PM₁₀ and PM_{2.5})
- Polycyclic aromatic hydrocarbons (PAHs)
- Volatile organic compounds (VOCs)

PM₁₀ and PM_{2.5}, being two of the key substances in wood smoke, are particulate matters less than 10 and 2.5 micrometers in diameters. These airborne particles can enter the body through the mouth, throat or nose. Once they are breathed into the lungs, they can have direct physical effect and be absorbed into the blood.

Key substances in wood smoke have different exposure levels. Scan the QR code for information by the Department of Agriculture, Water and the Environment.



Your responsibilities

In WA, the making, sale and distribution of wood heaters and firewood is regulated by the state legislation – *Environmental Protection (Solid Fuel Heater and Firewood) Regulations 2018*.

To further ensure that the local community is not negatively impacted by smoke, residents are required by *City of Nedlands Health Local Law 2017*:

- Not to permit the escape of smoke, including smoke from wood heaters or wood fire appliances in a quantity that causes a nuisance, and
- Not to burn any rubbish or refuse in any incinerator or on the ground without the City's approval.
- If you do not comply, an infringement notice up to \$500 may be issued or a prosecution initiated.

Know to generate less smoke from any wood fire appliances

The quality of your firewood and appliances matters.

For firewood

- Check that the wood is dry before you buy
- Split the logs before storing them
- Stockpile your wood in summer for dry and well-seasoned firewood for the winter
- Store your woodpile loosely and cover it to keep dry

For any wood fire appliances

To burn cleanly and efficiently with,

- use plenty of kindling to establish a bright fire quickly;
- add dry, seasoned logs gradually to a bright hot fire;
- make sure air intake is fully open;
- do not overload the fire; and
- never burn;
 - treated or painted wood
 - green garden cuttings
 - plastic
 - rubber
 - food scraps
 - any other material which may become offensive when burnt



Source: DWER – Smoke from backyard barbeques, chimineas and outdoor pizza ovens Burnwise brochure

Did you know, a wood heater that is not operated correctly can produce up to 30 times as much smoke and half as much heat as a wood heater that is burning brightly.

For wood heaters

- Buy only AS/NZS 4012:2014 Domestic solid fuel burning appliances and AS/NZS 4013: 2014 Domestic solid fuel burning appliances compliant wood heaters. Refer to the next image for more information.
- Visit www.homeheat.com.au for a current list of compliant wood heater models.

Know what to do if wood smoke is affecting you

If the smoke is coming from your neighbour:

1. Let your neighbour know and give them useful wood burning information.
2. Contact the City by scanning this QR code and providing with a 7-day log of smoke nuisance



If the smoke is coming elsewhere, visit

1. The Department of Biodiversity, Conservation and Attractions for prescribed burns information – www.dpaw.wa.gov.au
2. Emergency WA for bush fire and planned burning information – www.emergency.wa.gov.au
3. Healthy WA for tips on reducing your smoke exposure – www.healthywa.wa.gov.au/Articles/S_T/Smoke-hazard-from-bushfires

For more information, visit the City of Nedlands website:

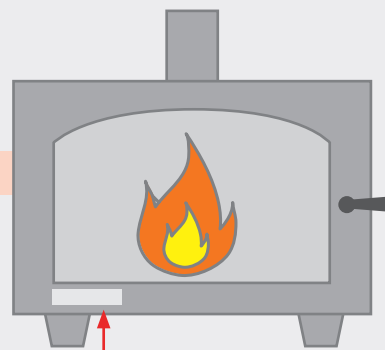
www.nedlands.wa.gov.au and search indoor wood heaters.

Front View

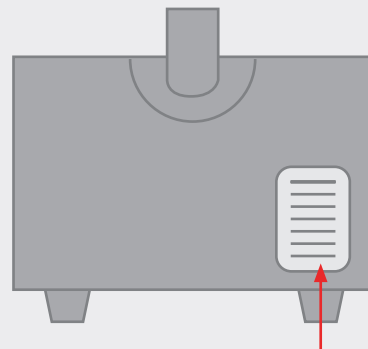
Look for a label stating:

BURN ONLY

followed by the specified fuels or combinations of fuels. This must be marked in letters not less than three mm in height.



Rear View



Or sufficient information to provide adequate information for replacement of parts and servicing.

Must be marked in letters not less than three mm in height.

If YES, catalytic combustor type, model and serial number or sufficient information to provide adequate information for replacement of parts and servicing.

MAKE: (name or trademark of manufacturer)

TYPE: (eg. Freestanding, Freestanding with wetback built-in)

MODEL:

SERIAL NO:
(can also be marked on the appliance on a separate plate)

TESTED BY:
(Laboratory name)
(Address of Testing Authority)

TEST REPORT NO:
(Test report no. & Date)

WHEN TESTED IN ACCORDANCE WITH AS/NZS 4012:2014 & AS/NZS 4013:2014

MAXIMUM AVERAGE HEAT OUTPUT BURNING HARDWOOD -XX kW

OVERALL AVERAGE EFFICIENCY BURNING HARDWOOD- XX %

PARTICULATE EMISSIONS FACTOR -XXg/kg

CATALYTIC COMBUSTOR (YES/NO):

Source:
DWER – Buying and selling
– wood heaters in Western
Australia Burnwise brochure