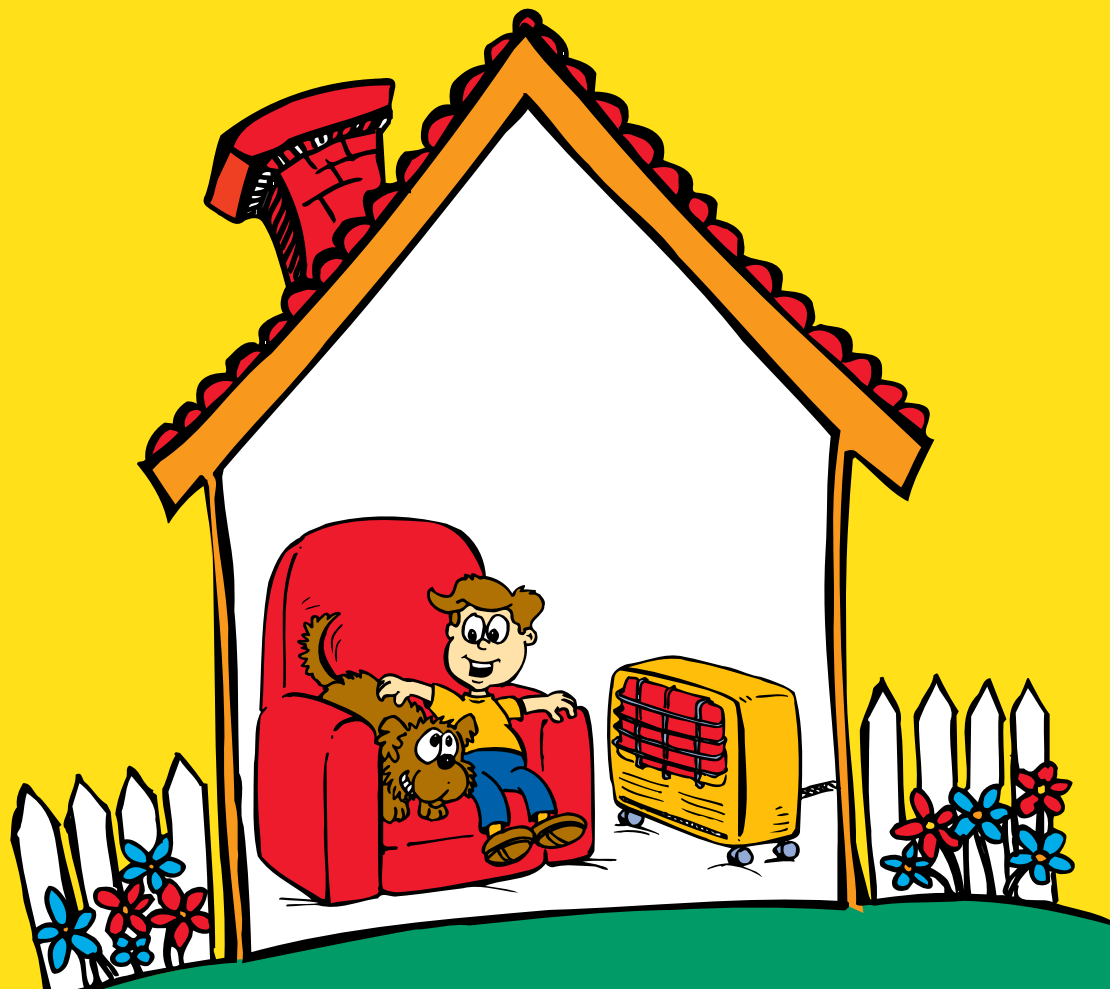


**Do you have an unflued gas heater?**

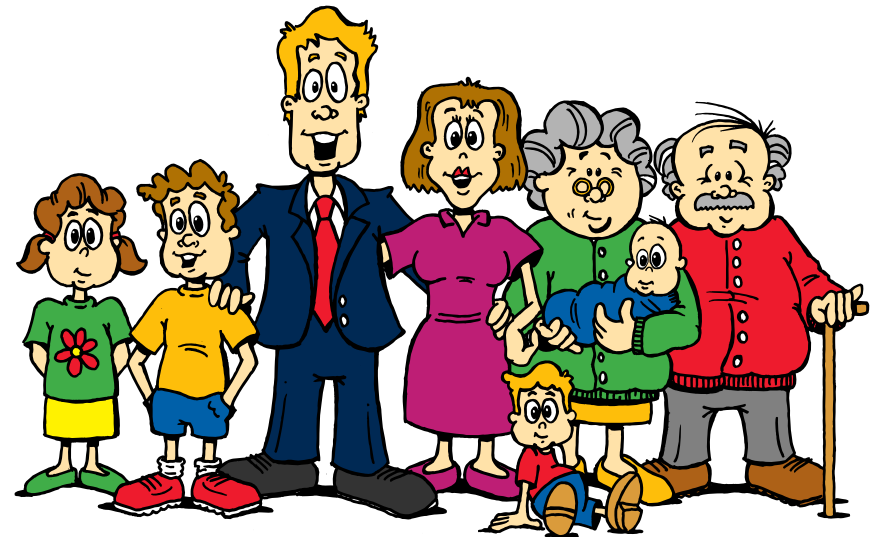


## Did you know?

- When unflued gas heaters burn gas to make heat, they release combustion pollutants into the room.
- If combustion pollutants build up in the room, they may affect your health.
- People with asthma or heart disease, children, unborn babies and elderly people are most likely to be affected.
- Extremely high levels of combustion pollutants can be dangerous for everyone.
- When you use an unflued gas heater, you should always:
  - Check that plenty of fresh air is coming into the room.
  - Have it serviced at least every two years.
  - Follow the manufacturer's instructions.

Unflued gas heaters can provide useful, extra heat for your home in Victoria's cold climate. However, they may be a risk to health when they are not used properly or not serviced regularly.

This booklet gives information on what you need to know and what actions you can take to reduce any risk to your family's health.



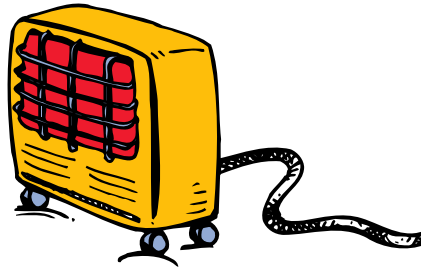
## What is an unflued gas heater?

Gas heaters burn gas to produce heat. This is called combustion. When they burn gas, they make some combustion pollutants and water vapour.

- A **flued gas heater** has a flue or chimney to carry the combustion pollutants and water vapour to the air outside the home.
- An **unflued gas heater** has no flue and releases the combustion pollutants and water vapour directly into the room.

Some unflued gas heaters can be moved around and these have a flexible hose to plug them into a wall or floor socket. Other unflued gas heaters may be fixed to the wall.

You can see the flame in some unflued gas heaters. In other unflued gas heaters it may be out of sight.



## What are combustion pollutants?

**Combustion pollutants** are pollutants made by burning substances such as gas, oil, kerosene, wood and tobacco.

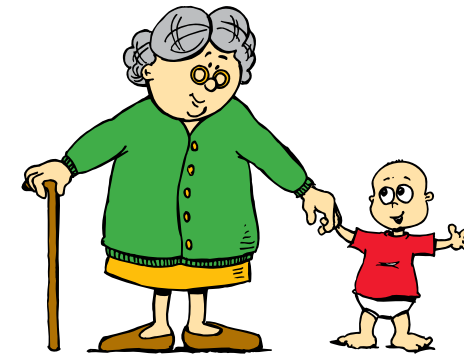
The combustion pollutants produced by burning gas include two harmful gases called **carbon monoxide** and **nitrogen dioxide**. When unflued gas heaters are in good condition and used properly, they make only very small amounts of these pollutants.

The levels of combustion pollutants made by unflued gas heaters can vary with the type and age of the heater. The levels also depend on how well the heater is installed and how often it is serviced.

## Can combustion pollutants affect your health?

Very low levels of combustion pollutants in air are not likely to affect your health. But there may be some health effects if the level of combustion pollutants in a room gets too high.

- People with asthma or heart disease are most likely to be affected.
- Children, elderly people and unborn babies are more likely to be affected than other people.
- If levels are high enough, anyone can be affected.



## Are there safe levels for combustion pollutants?

The World Health Organization has set '**safe levels**' for the combustion pollutants. People are unlikely to get health effects if the levels of combustion pollutants are **below these 'safe levels'**.

- If an unflued gas heater is not used properly or not serviced regularly, combustion pollutants in the room may go **above the 'safe levels'**.
- If there is no fresh air coming into the room or if the heater is faulty, pollutants in the room may reach **dangerous levels**.

# How can combustion pollutants affect your health?

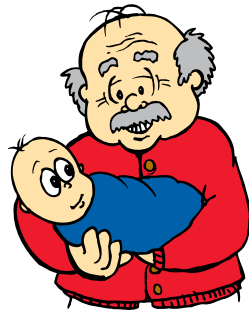
Different combustion pollutants affect people in different ways.

## Carbon Monoxide

The combustion pollutant known as carbon monoxide is difficult to detect. It is invisible and has no smell or taste.

■ If the level of **carbon monoxide** in a room goes **above the 'safe levels'**,

- People with heart disease may get chest pain or angina. If levels are high enough, they may even get a heart attack. Smokers with heart disease are particularly at risk.



- Young children, unborn babies and elderly people may also be affected. Unborn babies of mothers who smoke are particularly at risk.

■ If the level of carbon monoxide gets **very high**, anyone can be affected. They may get **carbon monoxide poisoning**.

- People may first become tired or short of breath. They may then get headaches, dizziness, nausea or weakness. They may even become sleepy and confused.

■ **Extremely high levels** of carbon monoxide are **very dangerous**.

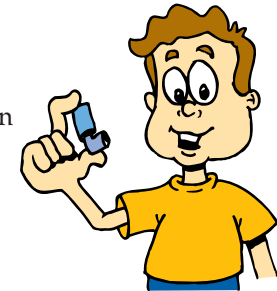
- They may cause people to **pass out and even die**.

## Nitrogen Dioxide

Nitrogen dioxide is another combustion pollutant that is difficult to detect in the home.

■ If the level of **nitrogen dioxide** in a room goes **above the 'safe levels'**,

- People with asthma may react more easily to those things that give them asthma. They may then get asthma attacks more often.



- Children may have more chest complaints such as coughing, wheezing and shortness of breath. They may also get colds and flu more often.

## Water Vapour

Burning gas always produces water vapour. If there is not enough fresh air circulating in the room, water vapour can cause high humidity and wet surfaces. These conditions encourage the growth of house dust mites and moulds.

House dust mites and moulds in the home can sometimes cause health problems and may trigger asthma.

## What do you need to know?

### Fresh Air

Whenever you use an unflued gas heater, you need to have fresh air from outdoors coming into the room.

- The flow of fresh air into the room pushes some of the combustion pollutants out of the room.
- Fresh air is needed to replace the oxygen used by the gas heater.

If there is not enough fresh air coming into the room,

- Pollutants may build up **above the 'safe levels'**.
- In some situations, they may even reach **dangerous levels**.



## What actions can you take?

### When you use an unflued gas heater,

- ✓ Always keep the inside doors to the rest of the house open.
- ✓ Check that the room has air vents (openings in the wall) that allow fresh air to come into the room from outdoors. Make sure these vents are not blocked.
- ✓ If there are no vents in the wall, open a window slightly—at least a few centimetres.



### Heating in Victoria's Cold Weather

When an unflued gas heater burns gas to produce heat, it releases combustion pollutants into the room. The level of pollutants in the room is related to how much heat is needed to heat the room.

If an unflued gas heater is the only heater used to heat a room during Victoria's colder conditions, combustion pollutants in the room may go **above the 'safe levels'**.



- ✓ Whenever possible, use your unflued gas heater only as a 'top-up' or extra heater. This means use it with another type of heating (such as a flued heater or central heating). This is particularly important
  - When you heat up a cold room.
  - When keeping a room warm in colder weather—especially if you have no insulation in your home.

### Cooking

Gas ovens and cook-tops also make combustion pollutants.

If an unflued gas heater and a gas cooker are used in a room at the same time, combustion pollutants may build up to **well above the 'safe levels'**.

To stop a build up of pollutants in the room, you need to remove pollutants with a good flow of fresh air or an exhaust fan.



- If you are using a gas cook-top or gas oven in a room at the same time as an unflued gas heater,
- ✓ Switch on an exhaust fan or range-hood that carries pollutants outside.
  - ✓ If you don't have a range-hood, open a window—wide open, or
  - ✓ Turn off the unflued gas heater while you are cooking.

Turn to the next page for more actions to take.

## What do you need to know?

### Having Your Heater Serviced

The gas burners in unflued gas heaters can get dusty over time. Dusty gas burners may produce higher than normal levels of combustion pollutants. Pollutants in the room may then go **above the 'safe levels'**.

Gas heaters that are not working properly or damaged may produce **dangerous levels** of carbon monoxide.

People have died from using faulty gas heaters. This has happened in Victoria, in other parts of Australia and in countries overseas.



### Be very careful about using an unflued gas heater in your home

- If anyone has **heart disease** or **asthma**.
- If anyone is **pregnant** or **elderly**.
- If you have **children**.



## What actions can you take?

- ✓ Have your unflued gas heater serviced at least every two years.

### ✗ Never use any gas heater in these situations

- If there is a smell of gas or a strange smell coming from the heater.
- If it is damaged or not working properly.
- If it gives you headaches, or makes you very tired or feel sick.

➔ Get it serviced straight away.

### ✗ Never use an unflued gas heater in these places

- In a room where there is no fresh air coming in from outside.
- In a bedroom, bathroom or caravan.
- In a room where people are sleeping.

### ✗ Never use a gas oven or gas cooker to heat a room.

- ✓ Always follow the manufacturer's instructions.

### What else should you know about combustion pollutants?

Combustion pollutants can also get inside your home from smoking, fireplaces, kerosene heaters, wood and coal burning stoves, outdoor air, exhaust from cars in garages and hobbies such as welding and soldering.

Combustion pollutants from different sources can add together and may build up to levels that could affect your health.

Other booklets in this series deal with other sources of combustion pollutants in the home. For further information on the Health and Safety in the Home series, contact the Environmental Health Unit, Department of Human Services—see over the page for contact details.

## Where can I get more information?

### About your personal health

Contact your family doctor.

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### About asthma

Contact Asthma Victoria on 1800 645 130.

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### About air pollution

Contact the Environment Protection Authority on (03) 9695 2700.

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### About the correct installation and operation of gas heaters

Contact the Office of Gas Safety on 1800 069 588.

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### About servicing your heater

Contact the manufacturer of your heater or a gas service centre.

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### About the health effects from the incorrect use of unflued gas heaters and air pollution in the home

Contact the Environmental Health Unit of the Department of Human Services on (03) 9637 4156 or the nearest Department of Human Services office in your region.

This publication is also available at Internet address [www.dhs.vic.gov.au/phd/environmental/](http://www.dhs.vic.gov.au/phd/environmental/)

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**The advice in this booklet applies to the use of unflued gas heaters in the state of Victoria.**

This booklet was prepared by the  
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Victorian Government Department of Human Services.

April 2001

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