



Carbon monoxide

What does the National Pollutant Inventory do?

Pollution in Australia comes from many different sources. Some is a result of industrial activity but there are also sources of pollution that are not industrial, like cars, woodheaters and even lawn mowers.

The National Pollutant Inventory (*NPI*) is tracking pollution right across Australia by collecting data about 93 different toxic substances emitted into the environment. The NPI can show you the source and location of these substance emissions.

The substances that are studied were chosen because of the problems they can potentially cause for our health and the health of the environment.

Carbon monoxide is one of the substances that the NPI tracks across Australia. Here are some fascinating facts about carbon monoxide and some hints on how you can help minimise any harmful effects of carbon monoxide on our health and on the environment.

You may have heard about carbon monoxide being a dangerous, poisonous substance if people are exposed to it in high quantities. Research shows that it can be harmful, but did you know that carbon monoxide is also found naturally in the environment?

Where does carbon monoxide come from?

What about industry?

The industrial processes in which carbon monoxide may be produced include: metal manufacturing, electricity supply, mining (*metal ore and coal*), food manufacturing, extracting oil and gas from land or sea, production of chemicals, cement lime, plaster and concrete manufacturing and petroleum refining.

Did you know that industrial plants emit carbon monoxide through the combustion (*burning - when fuel reacts with oxygen in the air to produce heat*) of natural gas, coal and coke too?

What about the natural environment?

Carbon monoxide can occur naturally in the environment. It is released into the atmosphere by volcanoes as they erupt, from the smoke of forest fires, from the natural gases in coal mines, and even from lightning!

Other natural sources of carbon monoxide are marsh gases (*also called methane and produced by plants decomposing under water*), marine algae, kelp and seed germination (*or growth*).

What about transport?

Carbon monoxide is present in the exhaust emitted into the atmosphere by cars, trucks, boats and aeroplanes. It is a major component of motor vehicle exhaust fumes.

What about in the products we buy?

Products that we buy do not actually contain carbon monoxide. However, if we burn or operate certain products, carbon monoxide is produced. Some examples are when cigarettes are lit and even when we start the engines of our lawnmowers.



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What are some of the other sources?

Vehicle exhaust fumes and bushfires are reported as the highest emitters of carbon monoxide.

Other sources include the internal combustion engines of chainsaws and leaf blowers, as well as charcoal heaters such as barbecues, wood stoves, gas water heaters, gas stoves, fuel-fired heaters, fireplaces, and gas dryers.

Using equipment that does not work properly can also produce extra carbon monoxide.

What effect does carbon monoxide have on the environment?

When carbon monoxide is emitted into the atmosphere it affects the amount of greenhouse gases, which are linked to climate change and global warming (*land and sea temperature increases causing changes to ecosystems, increased storm activity and other extreme weather events*).

People and other animals can be exposed to high levels of carbon monoxide during bushfires. When people and animals are exposed to high levels of carbon monoxide it can make them ill and make it more difficult for them to have babies.

How might people be exposed to carbon monoxide?

Levels normally present in the atmosphere are unlikely to hurt you, but people can be exposed to carbon monoxide in the following ways:

- by breathing in contaminated air.
- using malfunctioning (*not maintained or working properly*) equipment.
- smoking and breathing in other people's cigarette smoke.
- living near industries that emit carbon monoxide, or near freeways and busy roads.
- using non-electric heaters.
- working in a job where carbon monoxide is produced or used.

Who is taking action?

There are all sorts of things that we can do at home, school, and in our local community to help minimise the harmful effects of pollution on our environment.

Why not investigate ways in which you can take action every day to reduce the problems that polluting substances can cause people, animals and the environment?

Visit: www.npi.gov.au/about/reduce.html

Where can I find out more about NPI substances?

For more information about carbon monoxide see Australia's carbon monoxide emission report on the main NPI web site.

You will also find detailed information about the remaining 92 substances that the NPI tracks across Australia in the fact sheets on the main NPI web site.



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