

Numerous scientific studies from Australia and around the world clearly state that unflued gas heating is harmful to health, particularly to the health of children.

“There is data available all over the world to say that unflued heaters don't mix very well with good air quality.”

~ **Len Ferrari,**
independent air quality expert

- A 2004 Adelaide University study published in the International Journal of Epidemiology recommended unflued gas heaters be banned in classrooms as a public health priority.
- A 2005 Hunter New England Area Health Service study in private schools found so-called low-emission (low-NOx) unflued gas heaters produce high levels of nitrogen dioxide, carbon monoxide and formaldehyde known to cause respiratory problems, headaches, drowsiness and induce asthma attacks.
- Following a 2008 DET study conducted at Blackheath Public School, Len Ferrari — a recognised expert on air quality — found one quarter of the test results were well outside of WHO guidelines, and claimed this 25 per cent non-compliance figure would be conservative.

Facts about Un-flued Gas Heating

For more detailed information concerning Un-flued Gas Heating and its adverse health effects please browse the following [links](#).

- [NSW Public Health Unflued gas heaters in schools](#)
- [WA Department of Health Unflued gas heaters and your health](#)
- [Scientific reports on un-flued gas heating](#)
- [The flawed DET directive](#)

- [The _____ problem of exhaust fans](#)
- [Warning _____ statements from gas suppliers and others.](#)

Gases

Carbon monoxide: binds with haemoglobin to reduce the blood's oxygen-carrying capacity. At high concentrations this can be fatal; at lower concentrations **symptoms include headache or loss of concentration**

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Nitrogen dioxide: an oxidising gas that irritates the lungs. There is evidence that it **suppresses the body's immune system**

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At very high levels, nitrogen dioxide can cause fatal swelling of the lungs. At lower levels, symptoms include

exacerbated asthma and more frequent and more severe respiratory illness

Australian epidemiological research confirms overseas findings that there is a significant correlation between exposure to nitrogen dioxide and adverse health outcomes, including increased hospital admissions for sufferers of childhood asthma and heart disease.

Carbon dioxide: at elevated levels can cause **headaches and may cause changes in respiratory patterns**

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Formaldehyde: an irritant gas that potentially **affects the skin, eyes and lungs**. Some people can become hypersensitive to its effects, resulting in symptoms at very low concentrations. There is evidence that it is a **nasal carcinogen**

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(Source: Federation of Australian Scientific and Technological Societies Occasional Paper Series Number 5, October 2002, Indoor Air Quality in Australia: a Strategy for Action, pp 9-28.)

Scientific Reports

- [Pilotto et al Randomized controlled trial of un-flued gas heater replacement on respiratory health of asthmatic schoolchildren.](#)
- [National Heritage Trust - Unflued Gas Appliances and Air Quality in Australian Homes](#)
- [Brown et al Room chamber assessment of the pollutant emission properties of \(nominally\) low-emission unflued gas heaters.](#)