WHATS IN RESIDENTIAL WOODSMOKE

Some of the chemicals listed in the 2020/21 National Pollution Inventory and identified in Canberra's residential woodsmoke pollution compared to motor vehicles.

CHEMICALS	HEALTH IMPACT	PERCENTAGE FOUND IN CANBERRA'S WOODSMOKE POLLUTION	PERCENTAGE FOUND IN MOTOR VEHICLE EXHAUST
Cyanide (Inorganic) Compounds	Irritates the eyes, nose and throat, producing headaches, pounding of the heart and shortness of breath. Harms the central nervous system, the respiratory system, and the cardiovascular system. Long term exposure to low levels of cyanide may cause deafness, vision problems, and loss of muscle coordination.	**82%**	**0%**
DEHP	DEHP has been classified as **a potential carcinogen**. A carcinogen is a chemical capable of causing cancer.	**78%**	**0%**
Acetaldehyde	Irritates the skin, eyes, mucous membranes, throat and respiratory tract and may reasonably be **anticipated to be a carcinogen**. A carcinogen is a chemical capable of causing cancer.	**72%**	**10%**
Polycyclic Aromatic Hydrocarbons	Exposure can irritate the eyes, nose, throat and bronchial tubes. Skin contact can cause irritation or a skin allergy. Very high levels may cause headaches, nausea, damage the red blood cells, damage the liver and kidneys, and may even cause death. The International Agency for Research on Cancer has cited a number of polycyclic aromatic hydrocarbons as **'probably carcinogenic to humans.'** A carcinogen is a chemical capable of causing cancer.	**67%**	**30%**

Formaldehyde	Irritates the eyes, nose and throat, and can cause allergies affecting the skin and can cause an asthma-like respiratory allergy. Any further exposure can cause asthma attacks with shortness of breath, wheezing, cough and/or chest tightness. Repeated exposures may cause bronchitis, with coughing and shortness of breath. In 2004, the National Occupational Health and Safety Commission classified formaldehyde as a potential carcinogen (when inhaled). A carcinogen is a chemical capable of causing cancer.	**63%**	**22%**
Acetone	Exposure to moderate or high levels of acetone can irritate the eyes and respiratory system and lead to headaches, light-headedness, confusion, increased pulse rate, nausea, vomiting, drowsiness, unconsciousness and possibly coma, and it may shorten the menstrual cycle in women.	**62%**	**7%**
Arsenic and Compounds	Very high levels of arsenic can result in death. Consumption of lower levels of arsenic can cause digestive tract pain, nausea, vomiting and other stomach disorders, decreased production of red and white blood cells, damage to blood vessels, abnormal heart rhythms, a 'pins and needles' feeling in the hands and feet and liver and kidney damage.	**61%**	**0%**
Particulate Matter	The health effects include: • toxic effects by absorption of the toxic material into the blood, • allergic or hypersensitivity effects, • bacterial and fungal infections, • fibrosis, • cancer, • irritation of mucous membranes, • increased respiratory symptoms, aggravation of asthma and premature death. The risks are highest for sensitive groups such as the elderly and children.	**60%**	**9%**

Beryllium Compounds	Worksafe Australia classifies beryllium as very toxic by inhalation and toxic if swallowed, and as a **'probable human carcinogen'**. It can be irritating to eyes, respiratory system and skin. There is the danger of serious damage to health by prolonged exposure.	**56%**	**0%**
Zinc and compounds	Irritates the eyes, nose, skin and throat resulting in a coughing with phlegm.	**49%**	**26%**
Selenium and Compounds	Can cause headaches, dizziness, fatigue, irritation of the eyes, nose, throat and bronchial tubes, collection of fluid in the lungs, and severe bronchitis.	**47%**	**0%**
Chromium (VI) compounds	Chromium VI compounds are usually highly toxic. Breathing in chromium (VI) compounds can damage and irritate your nose, throat, lungs, stomach and intestines. It may lead to asthma and other allergic reactions.	**30%**	**16%**
Carbon Monoxide	A tasteless, odourless gas poisonous to humans. Long term (chronic) health effects can occur from exposure to low levels of carbon monoxide. These effects may produce heart disease and damage to the nervous system. Exposure of pregnant women to carbon monoxide may result in low birth weights and other defects in babies.	**20%**	**75%**

Volatile Organic Compounds	General effects of exposure to VOCs include: irritation to the eyes, nose and throat; headaches; loss of coordination; nausea; and damage to the liver, kidney and central nervous system. Some VOCs can cause cancer in animals, and some are suspected or are known to cause cancer in humans. Build up of VOCs in indoor environments have been associated with 'sick building syndrome'	**16%**	**45%**
Benzene	Benzene is carcinogenic and long-term exposure at various levels can affect normal blood production and can be harmful to the immune system. It can cause Leukaemia (cancer of the tissues that form white blood cells) and has also been linked with birth defects in animals and humans.	**10%**	**85%**