



Diesel Engine Exhaust

Occupational Exposure Fact Sheet



What is diesel engine exhaust?

The combustion of diesel fuel in engines produces diesel engine exhaust, a **complex mixture of gases and particulates** that can contain other known and suspected carcinogens such as benzene, polycyclic aromatic hydrocarbons (PAHs), metals, and particulate matter.

The composition of the mixture depends on a number of factors including the type of engine (heavy or light duty), the type of fuel and oil, sulphur levels, speed and load of operation, and emission control systems.

The International Agency for Research on Cancer classifies diesel engine exhaust as a **known carcinogen** (IARC 1).

Occupational exposure to diesel engine exhaust

Inhalation is the most common route of occupational exposure to diesel engine exhaust.

Approximately 897,000 Canadians are exposed to diesel engine exhaust at work.

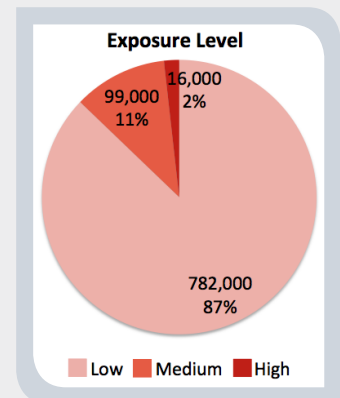
Industries with the largest number of exposed workers in Canada include:

- **Truck transportation** (206,000 people exposed)
- **Transit and ground passenger transportation** (110,000 exposed)
- **Public administration** (42,000 exposed)

Occupations with the largest number of exposed workers include:

- **Truck drivers** (305,000 exposed)
- **Heavy equipment operators** (83,000 exposed)
- **Transit operators** (79,000 exposed).

Results show the majority of workers exposed to diesel engine exhaust are in the low exposure level category, with a significant number at risk for moderate to high exposure.



What are its health effects?

- **Lung cancer**
- Irritation to eyes, throat, and bronchi
- Light-headedness, nausea, cough, and phlegm
- Allergic reactions

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