

When a cigarette burns it releases about 4,000 chemicals. At least 69 of these are known to cause cancer, including:

- **acrolein** - cigarette smoke contains up to 1,000 times more acrolein than other DNA-damaging chemicals; acrolein could be a major cause of lung cancer
  - **arsenic** - a pesticide, a preservative and a poison
  - **benzene** - an industrial solvent, refined from crude oil
  - **cadmium** - a key component in batteries, electroplating, and nuclear fission
  - **formaldehyde** - commonly used as an industrial fungicide, germicide, and disinfectant, and as a preservative in mortuaries and medical laboratories
  - **polonium-210** - a highly radioactive element. Polonium-210 can be absorbed into tobacco leaves directly from the soil and the air, and when inhaled from cigarettes creates 'hot spots' of damage
  - **chromium** - used to manufacture dye, paints and alloys
  - **1,3-butadiene** - used in rubber manufacturing
  - **polycyclic aromatic hydrocarbons** - a group of dangerous DNA-damaging chemicals
  - **nitrosamines** - another group of DNA-damaging chemicals
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Some other poisons found in tobacco smoke are:

- **lead** - the use of which has been banned in petrol due to the health risks
- **hydrogen cyanide** - used as an industrial pesticide
- **carbon monoxide** - found in car exhausts and used in chemicals manufacturing. Carbon monoxide is so dangerous that landlords are legally obliged to install carbon monoxide detectors.
- **nitrogen oxides** - a major component of smog
- **ammonia** - used to make fertilisers and explosives
- **nicotine** - delivered through tobacco not only comes with a variety of toxins but is more addictive than nicotine in a pure form