

## TOBACCO SMOKE IS TOXIC



**Front of Cigarette Pack  
(representation only)**



**Back of Cigarette Pack  
(representation only)**

Cigarette smoke is a mixture of over 4000 chemicals, many of which are harmful to the human body.<sup>1</sup> All currently available tobacco products that are smoked deliver substantial amounts of toxic chemicals to their users and those who breathe their smoke.

Cigarette smoke is a combination of:

- mainstream smoke - the smoke inhaled by a smoker;
- sidestream smoke - the smoke from the end of a lit cigarette; and
- secondhand smoke - the smoke exhaled by a smoker plus sidestream smoke.

Of the more than 4000 chemicals present in cigarette smoke, more than 60 have been identified as cancer causing chemicals, 11 of which are known to cause cancer in humans and 8 that probably cause cancer in humans.<sup>1</sup>

Cancer causing chemicals in tobacco smoke include:

- Benzene;
- 2-naphthylamine;
- 4-aminobiphenyl;
- Chromium;
- Cadmium;
- Vinyl chloride;
- Ethylene oxide;
- Arsenic;
- Beryllium;
- Nickel; and
- Polonium-210.<sup>1,2</sup>

Toxic chemicals in tobacco smoke include:

- Nicotine – the addictive agent in tobacco smoke;
- Formaldehyde – used in preservation of laboratory specimens;
- Ammonia – used in toilet cleaner;

- Hydrogen Cyanide – used in rat poison;
- Acetone – used in nail polish remover;
- Carbon monoxide - found in car exhaust;
- Tar - particulate matter in cigarette smoke;
- Toluene - found in paint thinners;
- Phenol – used in fertilisers.<sup>1,2</sup>

These chemicals are considered toxic because they have serious health impacts on the human body. For example:

- Hydrogen cyanide, carbon monoxide and tar cause, or are associated with, cardiovascular disease and chronic obstructive lung disease;<sup>1</sup> and
- Ammonia and formaldehyde cause eye, nose and throat irritations and other breathing problems.<sup>4</sup>

The chemicals present in mainstream, sidestream and secondhand smoke are similar; however the *quantities* of the various chemicals present differ. Sidestream smoke is generated at lower temperatures and under different conditions than mainstream smoke, and consequently it contains higher concentrations of many of the toxins found in mainstream smoke.<sup>5</sup>

With approximately one non-smoker dying due to secondhand smoke exposure for every eight smokers dying of smoking-related disease<sup>6</sup> it is no surprise that secondhand smoke has been designated a known human carcinogen (cancer-causing agent).<sup>5</sup> Further, about half of regular smokers will die of a smoking-related disease and have a reduced life expectancy of about 13 to 16 years as compared with non-smokers.<sup>7,8</sup>

Decided to quit? For help, talk to your doctor or pharmacist, call the Quitline on 131 848 or visit the Quitline web site at [www.quitnow.info.au](http://www.quitnow.info.au).

### Sources

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