Nitrous oxide

What is nitrous oxide?

Nitrous oxide (N₂O) or ‘laughing gas’, as it is often called, is a colourless gas which is described as sweet smelling.

When used alone nitrous oxide is incapable of inducing anesthesia. However, when mixed with oxygen it has proven to be useful in a range of surgical procedures, particularly dental surgery and obstetrics. It is also used in the food industry as a gas in bottled whipped cream, and in the automotive industry to enhance engine performance.

Nitrous oxide is most frequently used in the form of whipped cream charges (sometimes called ‘bulbs’). These small metal cartridges are either ‘cracked’ into a whipped cream canister or with a special ‘cracker’ into a balloon for inhalation.

Nitrous oxide is also known as laughing gas, whippets, hippy crack, N₂O. The cartridges are often referred to as bulbs.

How many people use nitrous oxide?

In Australia no information is collected specifically on the use of nitrous oxide. Nitrous oxide is classified as an inhalant and according to the 2013 National Drug Household Survey, close to 4% of the Australian population reported using an inhalant at some time, with less than 1% having used them in the last 12 months.

What are the effects?

The short-term effects of using nitrous oxide may include:

- euphoria
- numbness of the body
- giddiness
- light headedness
- distorted perceptions
- anxiety

What are the risks?

Nitrous oxide use is usually experimental and, as a result, long-term use is rare. Heavy use can lead to a depletion of vitamin B12, which can result in numbness, and if B12 deficiency is left untreated long-term nerve damage can result.

When inhaled by inexperienced users, nitrous oxide often leads to unconsciousness resulting from hypoxia due to the displacement of oxygen from the lungs of the user. Releasing a whipping gas cartridge into a balloon and then inhaling it leads to the inhalation of 100% nitrous oxide – fatalities have occurred as a result.