

# NITROUS OXIDE

## What is nitrous oxide?

Inhalants refer to substances that are sniffed or 'huffed' to give the user an immediate head rush or high. They include a diverse group of chemicals that are found in consumer products such as aerosols and cleaning solvents. These substances are easily absorbed through the lungs and carried to the brain, where they act to depress the central nervous system.

Nitrous oxide (N<sub>2</sub>O) or 'laughing gas', as it is often called, is a colourless gas which is often described as sweet smelling.

When used alone nitrous oxide is incapable of inducing anesthesia. However, when mixed with oxygen it has proved 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 usually sold over-the-counter in small cartridges that are designed for use in whipped cream dispensers. These provide a cheap and ready supply of nitrous oxide gas for young people and have been closely linked to the rave/nightclub scene for some time.

It is commonly used recreationally by inhaling it in a bolus form. Inhaling the gas for non-medical reasons has existed for almost 200 years. It can be used in a number of different ways with one of the more popular methods of use being to empty several bulbs into a balloon and then inhaling the contents of the balloon into the mouth. Some users inhale the drug direct from the bulb.

## How many people 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 2001 National Drug Household Survey, 3% of the Australian population reported using an inhalant at some time, with less than 1% having used them in the last 12 months.

The average age at first use was 17.6 years.

The 1999 Secondary School Survey indicated that inhalants were one of the more popular drugs with young people attending high school across Australia. Twenty six percent of 12-17 year olds had ever experimented with inhalants.

- **17% of 17 year old males reported ever using inhalants**
- **14% of 17 year old females reported ever using inhalants**
- **32% of 12 year old males reported ever using inhalants**
- **37% of 12 year old females reported ever using inhalants**

## Other names for nitrous oxide

Nitrous oxide is also known as laughing gas or bulbs.



## What are the short-term effects of nitrous oxide?

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

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

## What are the long-term effects of nitrous oxide?

Nitrous oxide use is usually experimental and as a result long-term use is rare. However, there is a wealth of information outlining the risks of regular inhalation of nitrous oxide, particularly dealing with problems around learning and memory.

When inhaled by naïve users, nitrous oxide often results in 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.

