

NITROUS OXIDE : THE FACTS

WHAT IS NITROUS OXIDE?

Commonly known as 'laughing gas' nitrous oxide is a colourless non-flammable gas that is used in food catering and for sedation and pain relief in clinical settings.

It is also sometimes referred to as an inhalant or a volatile substance.

Inhalants are central nervous system (CNS) depressants. This means they slow down the workings of the brain, particularly breathing and heart.

Nitrous oxide is also known as laughing gas, nitro, N2O, NOS, nangs, whippet, hippy crack, buzz bomb, balloons.

HOW IS NITROUS OXIDE USED?

The gas is typically inhaled through balloons filled from canisters of the gas. Serious damage can be done to the lungs if the gas is inhaled directly from capsules or larger volume cylinders.

When inhaled, the fumes enter the bloodstream very quickly and the effects are felt after just a few seconds.

Regular and excessive use of nitrous oxide from capsules or cylinders can have serious and harmful effects on the body such as being unable to use vitamin B12 which may cause brain and spinal cord damage. (see box below for more effects)

EFFECTS OF NITROUS OXIDE

The effects of nitrous oxide depend on:

- how much you take
- your height, weight
- your general health (risks increase in people with a B12 deficiency)
- your experience with taking nitrous oxide
- whether it is taken with other drugs.

IMMEDIATE EFFECTS

The effects may start to be felt immediately and can last from 2 – 3 minutes; some effects may last up to 30 – 40 minutes.

Physical Effects may include:

- initial "rush" or "high"
- euphoria
- giggling and laughing
- numbness of the body
- sedation

- giddiness
- uncontrolled laughter
- sound distortions
- blurred vision
- confusion
- dizziness and/or light-headedness
- sweating
- feeling unusually tired or weak
- degeneration of spinal cord.

If a large amount of nitrous oxide is inhaled it can produce:

- low blood pressure
- fainting
- unsteady gait, stumbling
- long-term paralysis/paraplegia/quadruplegia
- heart attack
- do not get enough oxygen (hypoxia)
- sudden death.

Effects of regular or excessive use may include:

- memory impairment
- vitamin B12 inactivation (the body is unable to use B12 which may cause brain and spinal cord damage. Taking a B12 supplement will not prevent this.)
- anaemia
- incontinence
- numbness in the hands or feet
- limb spasms
- potential birth defects (if consumed during pregnancy)
- weakened immune system
- disruption to reproductive systems.

Psychological effects may include:

- depression
- psychosis
- psychological dependence.

OVERDOSE

Whilst the risk of overdose from nitrous oxide is low, people with heart conditions, abnormal blood pressure or lung conditions may be at higher risk as to the drop in oxygen levels caused by inhaling the gas raises the heart rate, which could cause problems.

When inhaling directly from bulbs or cylinders, the gas is intensely cold (-40C degrees) and can cause frostbite to the nose, lips and throat (including vocal cords). As the gas is also under constant pressure, it can cause ruptures in lung tissue when inhaled directly from these containers. Releasing the nitrous oxide into a balloon helps to warm the gas and normalise the pressure before inhaling.

People can also harm themselves if they use faulty gas dispensers on larger cylinders, which may explode. Dispensing multiple gas canisters with one cracker (a handheld device used to 'crack' a nitrous oxide bulb/whippet) can also cause cold burns to the hands.

To reduce the risks associated with misusing nitrous oxide **DON'T**:

- use it alone or in dangerous or isolated places
- put plastic bags over your head or restrict breathing
- spray near flammable substances, such as naked flames or cigarettes
- drink alcohol or take other drugs
- stand or dance while inhaling, as you may pass out
- use large volume cylinders due to the higher risks of overdose

MIXING WITH OTHER DRUGS

Mixing nitrous oxide with alcohol can increase the risks associated with both substances and can lead to an increased risk of accidents or death.

Mixing nitrous oxide and alcohol can cause:

- confusion
- feeling heavy or sluggish
- reduced concentration
- loss of body control.

The chances of an overdose are increased if taken with other depressant drugs such as benzodiazepines or opiates. Using nitrous oxide with other depressants can affect breathing rate and the heart and blood vessels. Mixing drugs can also increase the risk of passing out and suffocating or choking on vomit.

EMERGENCY

If you can't wake someone up or you are concerned that they may have sustained a head injury from a drug related fall – call an ambulance immediately.

Always phone 000 (triple zero) for an ambulance and tell the operator that the person has overdosed (the police will usually not come unless the person dies or becomes violent).

You should also:

- if the person is unconscious, put them on their side, in the recovery position;
- try not to panic;
- check their breathing, clear their airway;
- do mouth-to-mouth resuscitation if they stop breathing;
- stay with the person.

If the person has been mixing nitrous oxide with other drugs, tell the NSW Ambulance paramedic exactly what they have taken. Paramedics are there to help. Generally paramedics don't involve the police unless there is danger to themselves or other people/children, someone dies, or a crime (such as violence or theft) has been committed.

RECOVERY POSITION

Figure 1: Kneel by the person. Raise the arm closest to you and place the arm out at a 90 degree angle to the body.

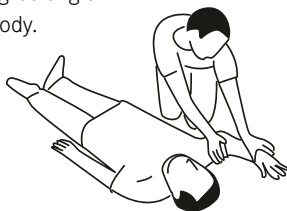


Figure 2: Place the other hand under their head against their cheek, to support their head.

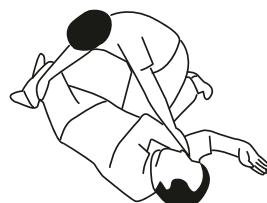
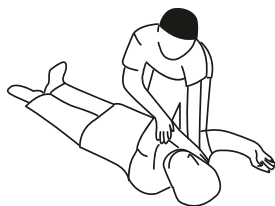
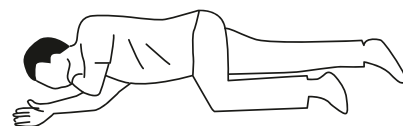


Figure 3: Lift the leg furthest away from you and place their foot on the floor.

Figure 4: Using their knee as a lever gently pull the person onto their side, towards you.

Tilt the head back and ensure airway is open and clear



INFORMATION AND ADVICE

For free and confidential advice about alcohol and other drugs 24 hours, 7 days a week, call the National Alcohol and Other Drugs Hotline 1800 250 015.

It will automatically direct you to the Alcohol and Drug Service in the state or territory you are calling from.

Call ADIS for the nearest needle and syringe program (NSP) outlet.

Your room provides drug and alcohol information and advice, campaigns and resources. Visit yourroom.health.nsw.gov.au

Aboriginal Health and Medical Research Council provides links to Aboriginal community controlled health services across NSW. Visit www.ahmrc.org.au/members for information about AHMRC members including a regional map, information and links to member websites.

Drug and Alcohol Multicultural Education Centre (DAMEC) provides services for people from culturally and linguistically diverse communities. Contact DAMEC on (02) 8113 1301 or for counselling and support services for CALD communities call (02) 8706 0150.

Drug Info provides facts and resources on alcohol and other drugs and the prevention of related harm. Visit www.druginfo.adf.org.au

State Library of New South Wales Drug Info provides up to date information on alcohol and other drugs in public libraries throughout NSW. Visit www.druginfo.sl.nsw.gov.au

eheadspace provides mental health and wellbeing support, information and services for young people (12-25 years) and their family and friends. Visit www.eheadspace.org.au

Family Drug Support provides 24-7 telephone support to families in crisis due to drug and alcohol issues. Call the Helpline on 1300 368 186 or visit the website at www.fds.org.au

Kids Helpline is a free, 24 hour counselling service for young people aged 5 to 25 years. Counselling is offered via the Kids Helpline website www.kidshelp.com.au or email, or call 1800 55 1800.

Nepean Youth Drug and Alcohol Service (NYDAS) works within a holistic model of care to address a range of issues for young people (12 –20 years of age) related to their alcohol and other drug use. Call 02 4734 2129 or 02 4734 1333.

NSW Users and AIDS Association (NUAA) is a peak drug user organisation in NSW providing harm reduction information and blood borne virus prevention peer education. Visit www.nuaa.org.au

Poisons Information Hotline is a 24/7 call centre service available across Australia. Call 13 11 26.

ReachOut is an Australian online youth mental health service with a mobile-friendly site and forums where you can access help, information and support. Visit www.au.reachout.com

Sexual Health Info Link provides free and confidential sexual health support and information. Visit www.shil.nsw.gov.au

Smart Recovery is a voluntary self-help group that assists people in recovering from alcohol, drug use and other addictive behaviours. Visit www.smartrecoveryaustralia.com.au

Youth Action is the peak organisation for young people in NSW. Visit www.youthaction.org.au and use the search option to access a directory of NSW youth services.

NSW Health aims to reduce drug-related harm for individuals and the community by providing the facts, including the possible health, social and economic consequences of using alcohol and other drugs.

PREGNANCY

The use of any drug during pregnancy is potentially harmful to both the mother and unborn child.

Inform antenatal staff, or your local doctor, of any drug use and attend regular antenatal check-ups.

SELF-HELP ASSOCIATIONS

na.org.au for **Narcotics Anonymous Australia**, a non-profit fellowship or society of recovering addicts who meet regularly to help each other stay clean via a program of complete abstinence from all drugs.



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