

7 Minute Briefing

Nitrous Oxide (N2O)

a.k.a 'hippy crack', 'laughing gas', 'balloons'

RNOH Safeguarding

Introduction

Nitrous oxide (N2O for short) is a colourless, slightly sweet smelling, non-flammable gas, first discovered in 1772. N2O became a popular recreational drug because of its euphoric effects and much later came to be widely used in dentistry and during childbirth for its mild anaesthetic and analgesic effects

News Update

8 November 2023

Possession of 'laughing gas' is now illegal with repeat serious users facing up to 2 years in prison and dealers up to 14



Concerns

Recent UK recreational use has been dominated by 8g cannisters. Larger 640g sized tanks and even larger tanks containing 2,000 grams are now also being advertised.

N2O use by young adults in England in Wales was first recorded in 2013-14 when 7.6% of those aged 16-24 reported using the drug in the past year. Prevalence peaked at 9.0% in 2016-2017

Estimated use of N2O by 16-24-year-olds was 8.7% in the year ending March 2020/1, making it the second most prevalent drug after cannabis.



7

Further information

[N2O-briefing-for-professionals-v1.0-DrugWatch-version.pdf](#)
(michaellinnell.org.uk)

Possession of nitrous oxide is now illegal - GOV.UK (www.gov.uk)

<https://www.standard.co.uk/news/london/london-students-campaign-awareness-dangers-nos-balloons-b1026936.html>

<https://www.frontiersin.org/articles/10.3389/fneur.2021.627183/full>



Effects

A single inhalation will result in effects peaking about 10-30 seconds after inhalation and then rapidly diminishing.

It produces a euphoric, pleasant, joyful, empathogenic and sometimes hallucinogenic effect, and causes a deep 'silly' voice.

Short term temporary side effects include pins and needles, numbness, dizziness, dissociation, disorientation, loss of balance, impaired memory and cognition and weakness in the legs

3

The Dangers of N2O

- **Burns:** Ice burns
- **Asphyxiation:** (suffocation)
- **Accidents:** Driving under the influence
Falls and trips
- People with **heart conditions** or abnormal blood pressure may be at higher risk.
- Use of N2O may induce **psychotic symptoms** in people with underlying mental ill health.
- Pregnant, breast-feeding or planning on becoming pregnant then you should avoid nitrous oxide as this can harm the baby

4

Nerve Damage

The earliest symptoms of B12 deficiency are usually the persistence of tingling, skin crawling or itching, numbness in hands and legs and later a staggering uncoordinated walk, lower limb weakness, muscle stiffness or twitching.

When B12 is inactivated by nitrous oxide, the myelin is no longer kept in good repair, which can cause spinal cord damage, resulting in some people being unable to walk. In some cases, this can last for months or years, or may even be permanent.



5

6

BBC

Nitrous oxide:

'Daily use of laughing gas left me in a wheelchair'

Kerry-Anne Donaldson, 26 and from east London, first started using nitrous oxide, also known as NOS, when she was 18, taking almost 100 canisters daily.

Five years later, she was taken to hospital after waking up with no sensation in her legs and arms. She now uses a wheelchair.



This is not an isolated case.

The RNOH Spinal Cord Injury Centre has seen a rise in spinal injuries related to nitrous oxide use.

