

Nitrous oxide: From trivialization to alert

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Introduction: The misuse of nitrous oxide has been known for many years. Reserved for industrial or culinary use, in particular for the preparation of whipped cream, this so-called "laughing gas" has long been perceived as harmless, in particular because of its fleeting effect. Unrestricted sales, at low cost and widely promoted by rappers and other social network influencers, "balloons" have quickly become the must-have at young people's parties. However, the Addictovigilance network has issued an alert: nitrous oxide is not a harmless drug.

Material and methods: An analysis of data from the Paris addictovigilance centre on nitrous oxide was carried out from 1st January 2018 to 30th June 2021 in order to provide an overview of the risks associated with this misuse.

Results: A total of 57 notifications were collected over the study period with an exponential increase in cases in 2020 (n=33 vs n=2 in 2018) that seems to continue in 2021 (n=22). Users are predominantly male with a sex ratio of 1.39 and an average age of 22.3 ± 4.7 years. Nitrous oxide is the only drug used in 82.5% of cases, with one out of two users using it chronically, at an average dose of 115 cartridges/day (up to 500). The complications observed are essentially neurological (54.4%), with paraesthesia, muscular weakness and walking disorders, but also psychiatric (n=3). There were also 5 mentions of the use of nitrous oxide in the context of a sexual assault.

Conclusions: The use of nitrous oxide continues to increase, despite the warnings issued and the knowledge of the disabling problems it generates. As the only cure is the cessation of consumption, addictology is at the centre of the treatment. With the advent of criminal use, awareness raising among the youngest seems more necessary than ever.

Link of interest: None

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