ToxTidbits

Maryland Poison Center
UNIVERSITY OF MARYLAND SCHOOL OF PHARMACY

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The Maryland Poison Center's Monthly Update: News, Advances, Information

The Nutmeg Challenge

A teen calls the poison center concerned about her 16 year old friend. The friend saw a Tik Tok video describing a "Nutmeg Challenge" to get high. She mixed 6 tablespoons of nutmeg in milk and drank it.

Nutmeg comes from the Myristica fragrans tree, cultivated in Guatemala, Indonesia, Grenada, Malaysia, and southern India. Grinding the nutmeg seed produces the spice most of us have in our kitchens to be used in pumpkin pie, egg nog, and other dishes. However, ground nutmeg and nutmeg seeds are also ingested (and rarely insufflated or smoked) in large amounts to produce hallucinogenic effects. It is considered a natural, legal "drug" of abuse primarily used by teens. The Maryland Poison Center has received several calls in the past few weeks about teens who ingested nutmeg after watching social media videos describing the "Nutmeg Challenge". These videos show teens stirring a few teaspoons or tablespoons of nutmeg powder into water or other beverages, then ingesting the concoction to get high.

Nutmeg

Nutmeg contains volatile oils that are complex mixes of allylbenzene derivatives and terpines. Myristicin, elemicin and safrole make up 80% of the allylbenzene derivatives. Myristicin is the main component responsible for nutmeg's psychoactive effects. It is theorized to be metabolized to 3-methoxy-4,5-methylenedioxyamphetamine (MMDA), a sympathomimetic with hallucinogenic properties similar to lysergic acid diethylamide (LSD). Myristicin is a weak inhibitor of monoamine oxidase as well as a serotonin antagonist. Elemicin is also partially responsible for nutmeg's clinical effects. One to 3 nutmeg seeds, or 5 to 30 g of the ground nut are ingested for inducing psychogenic effects. One tablespoonful of ground nutmeg is approximately equal to 7 grams of nutmeg *(NCMJ 1982; 43:439).*

Symptoms begin 2-8 hours after ingestion and usually resolve within 24 hours but could last up to 2 days. Toxic effects predominantly involve the central nervous and cardiovascular systems. Analyses of cases reported to the Illinois Poison Center and the California Poison Control System indicated that the most common reported clinical effects were tachycardia, vomiting, agitation, hallucinations, dizziness, abdominal pain and nausea *(J Med Toxicol 2014;10:148–151. Clinical Toxicology 2011;49:177-180).* CNS depression, hypotension, and seizures have occurred infrequently; fatalities are rare. Because users often experience untoward effects such as gastrointestinal symptoms, anxiety, fear, and a sense of doom, nutmeg abuse has generally not been widespread in the past. It's important to note that many who use nutmeg for psychoactive effects also use other psychoactive drugs concomitantly *(J Med Toxicol 2014;10:148–151).*

Treatment consists of symptomatic and supportive care, including sedation (e.g., benzodiazepines), antiemetics and intravenous fluids. Patients with profound agitation, hallucinations, central nervous system depression, vomiting or hypotension should be admitted for observation until symptoms resolve.

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Did you know?

The "Cinnamon Challenge" was another popular social media challenge among teens that caused serious health effects.

The cinnamon challenge first appeared on YouTube in 2006. It's popularity peaked in the 2010's when videos of people attempting the challenge became an internet sensation. The challenge is a dare to swallow a spoonful of ground cinnamon within 60 seconds without drinking water. Cinnamon is composed of cellulose fibers that dry out the mouth and throat. Trying to swallow it triggers a severe gag reflex, and aspiration of the powder may follow. Common symptoms include vomiting, coughing, choking, throat irritation, and chest tightness. Some teens have required ventilator support for pulmonary inflammation and aspiration pneumonia.

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