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Background: Methemoglobinemia can be inherited or acquired though exposure to various substances such as nitrates or nitrites. Commonly recognized methemoglobinemia-inducing nitrate and nitrite sources are industrial compounds, well water, or therapeutic medications. Food can also contain nitrates and nitrites, most commonly through contamination during the manufacturing process or from vegetable degradation due to improper storage.
Case Report: This is a case series of 2 patients: a 49-year-old male and his 14-year-old daughter who sought emergency department treatment 3 hours after eating homemade beef jerky. The father made beef jerky in the past using pre-made kits, but this was the first time he used sodium nitrate purchased at a grocery store rather than pre-made jerky seasoning mixtures. He purchased a 1.52 lb (24.32 oz) container of sodium nitrate and mixed 2 tablespoons (1 oz) into 5 lbs of meat. The meat and nitrate mixture were refrigerated for 3 hours and then prepared as "beef jerky" in his food dehydrator. The father and daughter both consumed the beef jerky and developed symptoms palpitations and dyspnea 1.5 hours later. Both exhibited mucosal cyanosis: the father had cyanosis to his hands and the daughter had nailbed cyanosis. In the ED, the father had a pulse oximetry of 89%, respiratory rate of 22, blood pressure 142/80mmHg and pulse 82 bpm. The daughter had a pulse oximetry of 80%, respiratory rate 18, blood pressure 126/55 mmHg and pulse 90 bpm. Methemoglobin levels were 34.2% in the father and 44.2% in the daughter. Other screening labs for both were unremarkable, both had normal chest x-rays. Each received 1 mg/kg IV methylene blue. Within 2 hours, both showed clinical improvement. They were observed overnight for rebound symptoms given the unknown amount of beef jerky ingested. They remained asymptomatic, repeat methemoglobin levels were 0%, and they were discharged home the following day after counseling.
Case Discussion: With the advent of do-it-yourself projects and the popular opinion that homemade goods are superior to processed ones, people may expose themselves to chemicals or toxins in unintended ways. In this case the father was able to purchase a tub of sodium nitrate salt from a local grocery market but used much more of it than was recommended by the USDA for making beef jerky. No warning labels or instructions for use were affixed to the container of salt. It is not surprising he and his daughter both developed methemoglobinemia after eating the beef jerky.
Conclusion: Clinically significant methemoglobinemia needs to be considered in symptomatic patients processing their own beef jerky.
Keywords: Methemoglobin, Methylene blue, Public health
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242. Probable Green Tobacco Sickness from occupational preparation of e-cigarette products

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Background: The use of liquid nicotine products is widespread and home compounding of liquid nicotine solutions is becoming more popular. Highly concentrated solutions are readily available for preparation of custom flavors and proprietary products. Green Tobacco Sickness (GTS), systemic nicotine poisoning from dermal exposure to nicotine in workers harvesting tobacco, is well documented. A common case definition is nausea or vomiting plus dizziness or headache and occupational dermal exposure to tobacco within the past day, with patients often having repeated episodes. We report a case of systemic nicotine toxicity with presentation similar to GTS associated with occupational preparation of "e-cigarette" solutions.
Case Report: A 35 year-old man was admitted to the hospital on three separate occasions over a two-week period with a diagnosis of nicotine poisoning. His occupation was operation of a home business preparing and distributing liquid nicotine solutions for e-cigarettes. Presenting symptoms on each visit included hypertension, dehydration, profound vomiting, dizziness, restlessness, and diaphoresis. Abraded hands were noted on one admission, and the patient reported relief with hot showers. Onset and duration were consistent with GTS. The patient denied any ingestion or inhalation use of the product and was treated with skin decontamination, antiemetics, intravenous fluids and minimal sedation. No information on use of skin barrier protection was available. A serum cotinine level of 3 ng/mL was obtained on the second visit more than 36 hours after admission, with a negative serum nicotine level.
Case Discussion: We report a patient with signs and symptoms of systemic nicotine toxicity following occupational exposure to concentrated e-cigarette solution. Other diagnoses were felt less likely, including drug withdrawal, anxiety disorder, marijuana hyperemesis syndrome, and akathisia from repeated iatrogenic administration of phenothiazine anti-emetics, although these may have had some contribution to his findings. If extrapolated back two half-lives, his serum cotinine level reflected recent exposure to nicotine. He required only 1-2 doses of morphine and/or lorazepam during hospitalization, had a negative UDS for THC on 1 of 3 visits, and onset of restlessness was more than 2 days after administration of neuroleptics in each case. Conclusion. Preparation of liquid nicotine may result in systemic toxicity from dermal absorption. Counseling patients about effective personal protective equipment and decontamination with tepid, not hot water, should be considered in anyone with repeated dermal exposure to e-cigarette solutions.
Keywords: Nicotine, Electronic cigarettes, e-cigarettes
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243. Use of poison center resources for hospital-based telephone services: follow-up calls for discharged inpatients

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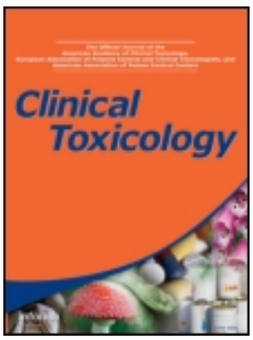
Background: As the number of calls to US Poison Control Centers (PCCs) and their funding sources continue to decrease, PCCs must investigate new roles and services. Our experiences with performing follow-up calls for inpatients discharged from our home institute are described.
Method: Our hospital established a goal to contact all discharged inpatients within 48 hours of leaving the hospital. This process involved phone call interviews to inquire about their overall inpatient experience. This was in response to an independent surveyor (of random patients) asking patients about their hospital stays and also if they "received a phone call at home?" We worked with our



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