Hand Sanitizers: Potential for Misuse, Abuse and Toxic Effects

(New Jersey) – In the COVID-19 era, alcohol-based hand sanitizers are not just a household staple, they are an everyday necessity. Since becoming part of our daily defense against coronavirus infection, these products are kept just about everywhere — from vehicles to handbags/backpacks to lunchboxes. Although hand sanitizers play an important role in preventing infection and slowing the spread of COVID-19, these products can result in potentially serious health consequences. In fact, hand sanitizers carry a potential for misuse, abuse and accidental exposure which can lead to alcohol overdose (poisoning).

As we saw early on in the pandemic, poison control centers warned of significant dangers of misusing not only hand sanitizers, but also disinfectants and cleaning products. Centers across the country reported a surge in calls related to chemical products used to prevent the spread of coronavirus infection. “As poison center staff know, storing large amounts of hand sanitizer at home can be dangerous,” says Diane Calello, MD, executive and medical director of the New Jersey Poison Control Center at Rutgers New Jersey Medical School, Department of Emergency Medicine. “When you combine easy access to a potentially toxic product, with unsafe storage practices, and more time spent at home, dangerous health outcomes occur. Hand sanitizers have very high alcohol content, much higher than most alcoholic beverages. Swallowing or drinking hand sanitizer is never safe since this product is not meant to be ingested. If you ingest high concentrations of alcohol, you are risking your health and your life; the effects of severe alcohol overdose can be irreversible and deadly.”

Recently, the U.S. Food and Drug Administration (FDA) warned of two new areas of concern for consumers using hand sanitizer products: methanol and 1-propanol contamination of certain products on the market and product packaging that looks similar to common food and drink items. Currently, there are over 190 hand sanitizers listed on the FDA’s “do not use” list with the number continuing to increase. “Methanol in particular is highly toxic when ingested, even more so than the approved ingredient, ethanol. Although absorption through the skin is minimal, you should avoid buying products known to have these contaminants.”

If you suspect you’ve been exposed to a recalled hand sanitizer or have ingested any hand sanitizer product, even those without contamination, it is critical you call your local poison control center at 1-800-222-1222 immediately. New Jersey residents can reach their poison control center 24/7 through the following options: Call (1-800-222-1222), Text (973-339-0702), or Chat via our website. If someone is unconscious, not breathing, hard to wake up, or having a seizure, call 9-1-1 immediately.
Those most at risk for life-threatening effects of alcohol overdose from hand sanitizer products are young children and pets who accidentally swallow more than a lick of the liquid/gel, as well as, youth and adults who intentionally drink these products to get drunk/high. Safe use and storage of these products are key safety practices in preventing poisoning injury.

Below is important information about hand sanitizers.

- Drinking hand sanitizer is never safe; it can be toxic and cause lasting and irreversible health effects. Alcohol affects children differently than it does adults. A small amount can cause devastating health effects.
- Hand sanitizers contaminated with methanol or 1-propanol are more toxic when swallowed than those containing the approved ingredient, ethanol.
- These products are only to be used on your hands, nowhere else on the body.
- There are no hand sanitizers approved by the FDA. Products that claim to be "FDA-approved" are illegal. Do not buy these products.
- Many hand sanitizers have been recalled for contamination and product packaging concerns. Some manufacturers have designed their products to look like children’s food/yogurt pouches, candies, snacks, juice/water bottles, beer cans, and vodka bottles.
- If you have young children or pets at home, keep these products up high, out of sight and reach. Do not leave hand sanitizers in easy to reach places like purses/bags, vehicles, nightstands, counters, etc. Locked up is always best.
- It is not safe for young children to use hand sanitizer by themselves; they must have adult supervision. These products should not be placed in young children’s backpacks, lunchboxes, or luggage.

If you are a New Jersey resident looking for information on COVID-19, there are four credible state public health resources available; the Coronavirus Hotline at the New Jersey Poison Control Center at 1-800-962-1253 for medical-related information; 2-1-1 for general COVID-19 information; text NJCOVID to 898-211 to receive alerts; and visit New Jersey COVID19 Information Hub for FAQs and more.

Help is Just a Phone Call Away!

Stay Connected: Facebook (@NJPIES) and Twitter (@NJPoisonCenter) for breaking news, safety tips, trivia questions, etc.

Real People. Real Answers.

Available for Media Interviews
Diane P. Calello, MD, Executive and Medical Director, New Jersey Poison Control Center, Rutgers NJ Medical School’s Department of Emergency Medicine
Bruce Ruck, Pharm.D., Managing Director, New Jersey Poison Control Center, Rutgers NJ Medical School’s Department of Emergency Medicine
Lewis S. Nelson, MD, Professor and Chair of Emergency Medicine at Rutgers NJ Medical School

About New Jersey Poison Control Center / NJPIES, 1-800-222-1222
Chartered in 1983, the New Jersey Poison Information & Education System (NJPIES), known to the public as the New Jersey Poison
Control Center, is the state’s primary defense against injury and deaths from intentional and unintentional poisonings. It is designated as the state’s regional poison control center by the New Jersey Department of Health and the American Association of Poison Control Centers. It is a division of the Department of Emergency Medicine at Rutgers New Jersey Medical School. NJPIES has a state-of-the-art center located at Rutgers Biomedical and Health Sciences in Newark. NJPIES is funded, in part, by the NJ Department of Health, NJ Hospitals and the United States Department of Health and Human Services.

Hotline staff (physicians, registered nurses, and pharmacists) provide free, telemedicine consultation through hotline services (telephone, text, chat) regarding poison emergencies and provide information on poison prevention practices, drug interactions and overdoses, food poisoning, environmental chemical exposures, animal/insect bites and stings, plant and other outdoor exposures, carbon monoxide and lead poisonings, and more. NJPIES’ services are free, confidential/private, available 24/7, and help is available in any language. Call 1-800-222-1222; Text 973-339-0702; Chat. Stay Connected: FB / Twitter / Website

About Rutgers New Jersey Medical School
Founded in 1954, Rutgers New Jersey Medical School is the oldest school of medicine in the state. Today it is part of Rutgers, The State University of New Jersey and graduates approximately 170 physicians a year. In addition to providing the MD degree, the school offers MD/PhD, MD/MPH and MD/MBA degrees through collaborations with other institutions of higher education. Dedicated to excellence in education, research, clinical care and community outreach, the medical school comprises 20 academic departments and works with several healthcare partners, including its principal teaching hospital, University Hospital. Its faculty consists of numerous world-renowned scientists and many of the region’s “top doctors.” Home to the nation’s oldest student-run clinic, New Jersey Medical School hosts more than 50 centers and institutes, including the Public Health Research Institute Center, the Global Tuberculosis Institute and the Neurological Institute of New Jersey. For more information please visit: njms.rutgers.edu.

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