

Liquid nicotine exposures up sharply among kids

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SALT LAKE CITY (AP) — Poison control workers say that as the e-cigarette industry has boomed, the number of children exposed to the liquid nicotine that gives hand-held vaporizing gadgets their kick also has spiked.

More than 2,700 people have called poison control this year to report an exposure to liquid nicotine, over half of those cases in children younger than 6, according to national statistics. The number shows a sharp rise from only a few hundred total cases just three years ago.

The battery-powered electronic vaporizers often resemble traditional cigarettes and work by heating liquid nicotine into an inhalable mist. **The drug comes in brightly colored refill packages and an array of candy flavors that can make it attractive to young children**, heightening the exposure risk and highlighting the need for users to keep it away from youngsters.

"With kids, the exposure we're seeing is usually parents or family members leave out refill bottles that they try and open," said Ashley Webb, director of the Kentucky Regional Poison Control Center.

Poison control workers often see a spike in calls with new and growing products, Webb said. The number of e-cigarette users has climbed to several million worldwide, and the devices have become the center of an industry that has grown in the last four years from about \$82 million to \$2.5 billion in annual sales, at least \$500 million of which comes from liquid nicotine.

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—Robert Bassett, medical toxicologist

Despite the recent increase, liquid nicotine exposures are still less than half of traditional cigarettes, but e-juice is potentially more toxic, said Robert Bassett, a medical toxicologist in Philadelphia.

"It would be really hard for a child to eat a whole pack of cigarettes, but now we're dealing with these very, very concentrated forms you get more than a pack of cigarettes in a small, ingestible amount," Bassett said.

Bassett consulted on the case of a 10-month-old boy who drank from a refill bottle while his mother's back was turned. The toddler recovered within hours, but he had vomited, and his heart was pounding when he was brought to the emergency room.

"Unfortunately with little kids it's hard," Bassett said. "They simply can't tell you what they're feeling."

Liquid nicotine also stands out because it doesn't have to be swallowed to be harmful. Skin

exposure can be toxic. Officials are calling for child-resistant caps, which many manufacturers have already begun using, but there is no uniform protocol.

The e-cigarette industry doesn't face the strict government regulations on traditional smokes that aim to keep them away from children, including prohibitions on candy or fruit flavors. The U.S. Food and Drug Administration has proposed issuing regulations, but no rules have been drafted.

Gregory Conley, president of the industry group American Vaping Association, says parents should take similar precautions they use for hair products, bleach or other toxic substances.

"You might consider doing the same thing you do with your liquor or your household chemicals, and keep them locked up or up high so no one can get them."

—Gregory Conley, president of American Vaping Association

Mike Sorenson, a cable company contractor, recently purchased grape- and Smarties candy-flavored liquid nicotine in Salt Lake City. He says e-cigarettes helped him and his wife quit tobacco when nothing else worked and that he's talked to his children, ages 8 and 13, to make sure they stay away from his refills.

"I've explained to them that's it full of nicotine. They don't want anything to do with it," he said. And besides, "they taste nasty."

The number of people exposed to liquid nicotine is still a fraction of the number exposed to other substances. Over-the-counter pain medications trigger the most calls, with the American Association of Poison Control Centers reporting about 311,000 in 2012.

For skin exposure to vape juice, Webb recommends washing it off with soap and water, then calling poison control. If it's swallowed, call poison control center, and don't try to induce vomiting, she said.

"Use caution," Webb said. "We just want you to be careful. Use caution like any dangerous chemical or medication in the home."