

E-Cigarette Poisonings Skyrocket, Mostly in Kids

By JoNel Aleccia

Calls to U.S. poison control centers about people sickened by e-cigarettes containing liquid nicotine have soared in the past four years, climbing from just one a month in 2010 to at least 215 per month this year, federal health officials said Thursday.

More than half of the poisoning reports involved children younger than 5, including many kids drawn to the nicotine-laced liquids flavored like fruit, bubble gum and soda pop, which come in containers ranging from small vials to multi-gallon jugs that are not required to be childproof.

E-cigarettes — battery-powered devices that let users inhale nicotine-infused vapors — now account for more than 40 percent of all poison center calls about cigarette-type products, according to a report published Thursday by the Centers for Disease Control and Prevention.

“This report raises another red flag about e-cigarettes — the liquid nicotine used in e-cigarettes can be hazardous,” CDC Director Dr. Tom Frieden said in a statement. “Use of these products is skyrocketing and these poisonings will continue.”

Between September 2010 and February 2014, there were 2,405 calls about e-cigarettes to the nation’s 55 poison control centers, and about 16,248 calls about conventional cigarettes, the study found.

E-cigarettes — and the liquids used to refill them — are not regulated by the federal Food and Drug Administration, though stakeholders in the growing \$1.5 billion industry are anxiously awaiting a proposed rule that could give the agency new authority.

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Until then, experts at poison centers across the country say they want to warn users of e-cigarettes to store them out of reach of kids and to be careful with the highly toxic refills that allow continued “vaping.”

Kids are the biggest worry — as little as a teaspoon of highly concentrated liquid nicotine could cause serious harm, said Lee Cantrell, director of the San Diego division of the California poison control system. Reports of poisonings in kids jumped 10-fold at his site in the past 14 months.

“I went online and found some retailers selling concentrations of 7.2 percent nicotine in 100-milliliter bottles,” Cantrell said. “A teaspoon of that solution could potentially kill a child, there’s no doubt.”

Concentrations of nicotine used in e-cigarettes vary widely, from none in flavored liquids aimed at helping people quit smoking to as little as 6 milligrams per milliliter up to 36 milligrams per

milliliter, online ads show.

But even adults are reporting harm from the e-cigarette liquid, experts said. Some mistook nicotine in small vials for eye drops and put them in their eyes. Others got the fluid in their mouths when the vials broke or intentionally ingested the liquid nicotine. Others spilled the fluid on their hands and didn't wash it off, becoming ill when the nicotine was absorbed into their skin.

"They'll call and say they have spilled a large amount on their hands and they say, 'My heart's racing, I'm anxious, I feel like I'm going to throw up,'" Cantrell said.

The worry is shared by poison center experts from California and Colorado to Kentucky and beyond, said Dr. Al Bronstein, medical director of the Rocky Mountain Poison and Drug Center in Denver.

"The concern is eventually we're going to have a really bad outcome," he said. "Nobody that we know of has died yet, but that's what we want to prevent."

(In fact, the new CDC report detected one person who committed suicide by injecting liquid nicotine into his or her veins.)

"I think the thing that worries us the most is the rate of the rise," said Dr. George Rodgers, associate medical director of the Kentucky Regional Poison Center in Louisville.

"The concern is eventually we're going to have a really bad outcome. Nobody that we know of has died yet, but that's what we want to prevent."

The poison center experts want the FDA to regulate the products, which have been available in the U.S. since 2007. Recent studies have shown that the popularity of e-cigarettes is growing, not only among adults, but among kids as young as middle-schoolers.

But some e-cigarette makers say they've already designed products with safety in mind. R.J. Reynolds Vapor Company's product, Vuse, is a self-contained, tamperproof system designed to prevent harm, said company spokeswoman Maura Payne.

There's no good data about the safety of substituting e-cigarettes for conventional cigarettes or the harms of inhaling vaporized nicotine, experts say.

"We've sounded the bell, now it's a question of whether there will be a response," said Bronstein, the Colorado expert. "It looks like nobody's minding the store for regulation. That's what it looks like."