Emerging Hazards

Liquid Nicotine in E-Cigarettes and Refills

The nicotine in cigarettes, cigars and chewing tobacco has always been hazardous to children as little as one cigarette can require a trip to the local emergency department. Poison centers have always received calls about small children who have eaten a cigarette or cigarette butt, or sipped from a spit cup from someone using chewing tobacco. These calls often required hospital treatment if the child ate too much. Now, poison centers nationwide are dealing with new products that pose a risk to kids and teens e-cigarettes and the liquid nicotine used to refill them.

E-cigarettes vaporize concentrated nicotine (and other ingredients) that users inhale through small devices that can resemble cigarettes, a pack of cards, or an ink pen. Poison control centers across the U.S. have seen a marked increase in kids and teens ingesting the e-liquid used to refill the devices. These liquids are available with fruity or candy-like flavors and can contain many cigarettes worth of nicotine in a bottle that may not be child-resistant. Nicotine overdose can be fatal and several Florida children have visited hospitals with severe vomiting and seizures as a result of sipping the concentrated syrup. These days there are many products containing nicotine available in pharmacies, online and through retail outlets. These include patches, lozenges, gum, and, of course, the vials or squeeze bottles of concentrated liquid. All of these products are potentially dangerous.

Nicotine Amounts:
- Cigarette: 15-30 mg
- Cigarette butts: 5-7 mg each
- Cigar: 15-40 mg
- Snuff: 13-16 mg (1 gm of wet snuff)
- Chewing tobacco: 6-8 mg
- Nicotine gum: 2 or 4 mg
- Transdermal patches: 8.3 mg
- Nasal spray: 1 mg (1 spray each nostril)
- Nicotine inhaler systems (e-cigs): 10 mg
- E-cig refills are variable amounts

Florida’s Poison Control Centers urge parents to keep these products out of the reach of children and teens and to call for any exposure to unusual levels of nicotine. Nicotine poisoning is treatable and poison specialists can walk callers through the necessary steps for their situation.

For more updates on national current poison trends, visit American Association of Poison Control Centers.