## County Organizations E-ducate About a New "E-diction"

Youths tend to embrace new technologies quicker than parents, and electronic cigarettes have been no exception. "Our high schools and middle schools are flooded with e-cigarettes, while a lot of parents haven't figured out what they are or if they're a good or bad thing," says Sgt. Mike Pixomatis of the Orange County Sheriff's Department (OCSD). "Our purpose is to give them the facts they need to make an informed decision."

To that end, the Sheriff's Department recently partnered with the OC Department of Education, OC Health Care Agency (HCA) and other organizations to present a series of talks around the County titled "Electronic Cigarettes, the New 'E-diction'."

E-cigs, also called vapes, range from the size and shape of a cigarette to larger, hookah-like devices. All use a heating element to turn a liquid into an inhalable vapor. They are most typically used as a nicotine delivery system, providing a chemical rush without combustion smoke, leading some to claim it is a safer alternative.

Other e-cigs uses range from the seemingly innocuous practice of vaporizing liquid flavor mixtures—such as "bubble gum" or "lemon meringue pie"—to using the devices with hash oil or other drugs. Since the vapor doesn't carry the way smoke does, their use can be hard to detect. Some are even shaped like asthma inhalers to further disguise their use.

"One of the appeals of e-cigs is that kids like to feel they're putting one over on their teachers and parents. We've had tips about kids using them in the back of classrooms, and recharging them via school computer USB ports," drug liaison officer Deputy Clay Cranford told the audience at a Lake Forest "E-diction" event.

While actual cigarette use has long been on the wane on campuses, e-cigs have "become a huge issue for all of the 27 school districts we support," says Stacy Deeble-Reynolds, prevention coordinator for the OC Department of Education. "Nationally, e-cig use by minors doubled between 2011 and 2012, and it's continuing to trend that way." Orange County in particular is a hub for the vaping industry, with shops locally averaging 11% higher sales than other parts of the state.

Deeble-Reynolds said e-cigs' popularity raises numerous concerns. Regardless of the delivery system, nicotine raises the heart rate and blood pressure, and it remains one of the most addictive substances. Concentrated, as it is in the cartridges that feed e-cigs, it is a potent neurotoxin. The New York Times recently reported 355 cases of e-cig mishaps resulting in hospitalization, with many of those being infants poisoned by exposure to the cartridges.

HCA's deputy health officer, Dr. Helene Calvet, addressed other concerns about e-cigs during the Lake Forest presentation. The industry is presently unregulated, she said, so there is no control over the concentration or purity of the nicotine. Lead and other metals have turned up in the vapor. The liquids used to suspend the nicotine or flavor agents are typically propylene glycol or glycerol, both approved for eating but unstudied as inhalants.

It is a misdemeanor to sell e-cigs to minors, but that hasn't proved much of an impediment, OCSD's Cranford said. Kids buy e-cigs off the street, online using a parent's credit card, and some parents even buy them for their teens, assuming the devices to be harmless because celebrities tout them as safe.

Parents aren't the only ones in the dark. Another "E-diction" participant, Sheriff's Deputy Brian Gunsolley, said law enforcement has been given little direction regarding e-cigs because laws are directed toward tobacco products.

"We're not saying that electronic cigarettes are bad or that they shouldn't be out there, because that hasn't been proven yet," Gunsolley said. "But there are a lot of safety issues with them, particularly for children. It's still nicotine, still nicotine addiction, and it's still training kids' minds to smoke. There are things parents and kids need to know. That's what we're here for."