

## How safe are e-cigarettes?

## September 22 2009, By Courtney Perkes

Tonya Moraffah takes a deep drag on her cigarette, feels the soothing surge of nicotine and explains what extinguished her 30-year, pack-a-day smoking habit.

Every evening, she plugs her battery-operated electronic cigarette into a charger. She no longer carries a lighter or sucks breath mints all day in the office.

"I call myself a non-smoker," says Moraffah, a 54-year-old executive assistant from Tustin, Calif. "I thank God this came into my life. I'm healthier than I was smoking tobacco. There are other advantages. I don't want to smell like a cigarette."

E-cigarettes contain cartridges of nicotine that release an inhalable vapor. There's no odor or smoke. They're marketed as a safe alternative to tobacco's lung-choking tar and cancer-causing carcinogens.

But those claims are disputed by the <u>Food and Drug Administration</u>. In July, the agency warned that the smokeless cigarettes are harmful. A government analysis of the made-in-China product found carcinogens and <u>toxic chemicals</u>. In a pending case, the FDA has been sued over its jurisdiction to regulate the e-cigarettes.

"Because these products have not been submitted to the FDA for evaluation or approval, at this time the agency has no way of knowing, except for the limited testing it has performed, the levels of nicotine or the amounts or kinds of other chemicals that the various brands of these



products deliver to the user," the FDA said.

Craig Youngblood, founder of In Life, an Irvine distributor of ecigarettes, disputes the lab findings and said his products contain ingredients that are safe and non-toxic.

"We're an alternative to tobacco," Youngblood says. "We're not saying we're going to give you big muscles or you'll live to 130 ... Caffeine and nicotine are not that dissimilar. What's next? Telling you how many cups of coffee you can have?"

The models vary. Moraffah prefers a device that looks like a fancy ink pen. Another resembles a regular cigarette except the bright end is blue, not the color of a flame. E-cigarettes cost about \$100, plus the cost of nicotine cartridges in various strengths. The devices carry a warning label saying they have not been approved by the FDA for smoking cessation and should be kept out of reach of children.

"We don't want to look like a cigarette," Youngblood says. "We're in reality, an anti-cigarette."

Youngblood talks like he's on a crusade against cigarettes. He cites forest fire statistics, the pounds of discarded butts littering beaches. Not to mention the federal government's calculation that more than 430,000 premature deaths each year are caused by tobacco or secondhand smoke.

But that's where he and many other anti-smoking advocates depart.

Dr. Ira Jeffry Strumpf, a pulmonologist who teaches at UCLA and is a spokesman for the American Lung Association, said e-cigarettes have not been independently proven as a safe alternative to tobacco.

"The vapor that you inhale is not without risk," Strumpf says. "It's not



pure nicotine. It has with it some contaminants. When the FDA looked at 19 of these cartridges, they found half the samples contain impurities that are known to be toxic to humans. At least one cartridge contained diethylene glycol, one of the toxic compounds of antifreeze."

Strumpf said he's concerned that e-cigarettes are marketed to people who want to quit smoking but also to those who have never smoked before.

"The fact they present them in the shape of a cigarette, they're trying to capitalize on the social aspect of smoking and trying to promote the social appeal of smoking."

Brad Rodu, a tobacco researcher at the University of Kentucky in Louisville, considers e-cigarettes a better alternative for smokers who absolutely can't break their addiction.

"We can't say these are perfectly safe, but with everything we know about them we can certainly say they are vastly safer than continuing to light cigarette tobacco on fire and inhaling the 3,000 or 4,000 chemicals that cigarette smokers are doing right now," Rodu said.

Peter French, 52, has become such a fan of the e-cigarette that he's started selling them with In Life. He puffs his in restaurants, the bank and even in church. He said he enjoys the novelty and the curious looks and questions.

"This has literally saved my life," says the Laguna Beach resident, exhaling puffs of vapor that quickly disappear. "My sense of smell is definitely back, taste. I can enjoy things."

French said he tried quitting smoking with the patch, gum and medication designed to reduce cravings. But he missed the oral



satisfaction of a cigarette, which he said e-cigarettes replicate.

"You get the hand to mouth, you get the vapor. Inhaling that vapor is almost exactly the same as what it feels like to smoke," he says. "We just want the nicotine. We don't want the other stuff in the tobacco."

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