e-cigarettes

WHAT ADVICE SHOULD YOU GIVE YOUR PATIENTS?

By Gail Luciani

Every year, millions of smokers make New Year's resolutions to kick the habit. But like exercising more or eating better, these good intentions often fail within weeks for a variety of reasons, including the level of difficulty involved in modifying behavior.

STORY SUMMARY

- Electronic cigarettes have altered the landscape for smokers.
- Reaction is mixed in the healthcare community.
- Smoking cessation remains the healthiest option for smokers.

or smokers, the electronic cigarette, also known as an e-cigarette, e-cig or personal vaporizer, is a game changer. These battery-powered nicotinedelivery systems are little more than a cartridge with a reservoir and a mouthpiece. An atomizer helps vaporize a heated liquid solution, which is usually nicotine based. Some even have LED lights at the tip that resemble the glow from a conventional cigarette. While they don't produce smoke, they do emit a mist that quickly disappears.

Aggressively marketed by the tobacco industry, e-cigarettes are promoted as a healthier and cleaner alternative to traditional smoking. The Food and Drug Administration, which has oversight over the cigarette market, is expected to weigh in on the issue soon.

Popular Aid for Quitting

The Centers for Disease Control and Prevention estimate that smoking leads to more than 440,000 deaths each year. The life expectancy of smokers is eight to 10 years less than that of non-smokers, so the incentive to quit is high. Even though "vaping" has not been determined to be safer than smoking, the CDC reports that in 2011, approximately 21 percent of adults who smoke traditional cigarettes had used e-cigarettes, up from about 10 percent the previous year. And the numbers are expected to climb. Supporters argue that e-cigarettes are less harmful than conventional cigarettes, can help smokers cut down or eliminate the habit completely and don't produce secondhand smoke. Because e-cigarettes contain no tobacco, nothing is burned, so there is no tar and carbon dioxide. E-cigarettes give smokers the same "throat hit" they get with conventional cigarettes, and they satisfy the same oral fixation.



"E-cigs are a reasonable alternative because they aren't like a real cigarette," says Sandra Weibel, MD, assistant professor of medicine in the Division of Pulmonary and Critical Care. "They can help patients because for the most part, they are less toxic than traditional cigarettes, which kill their users."

Approximately 20 percent of pulmonary patients at Jefferson are smokers. "It is a critical point for pulmonary disease," she adds. "Sometimes they have lung conditions where smoking cessation is the treatment. Some people need more time to quit, so we bring them back separately just for smoking cessation."

JeffQuit

For smokers concerned about their health, quitting is still the primary goal. "Quitting smoking is the cheapest way of saving a huge amount of money for health care," says Anna Tobia, PhD, a clinical psychologist who is the director of the JeffQuit program at the Jefferson-Myrna Brind Center of Integrative Medicine. "If you don't do it right, it's hard. If you do it right, it can be easy and you can be successful. For less than the average cost of a month of cigarettes, smokers can increase their life expectancy and have a better quality of life."

Darlene Richardson, a billing coordinator in the Department of Family and Community Medicine, completed the program three years ago. "I tried other products and programs, but this worked for me," she says. "By the second week, I could only smoke half a cigarette, and by the third week, I was through."

The program has been successful due to its approach; by encouraging smokers to switch from their regular brand to ones that deliver less nicotine, smoking becomes less satisfying. "It breaks the connection of the look and feel of smoking, and that's where e-cigs fit in," says Tobia. "While we don't use e-cigs in our program, they work in a similar way to gradually diminish nicotine. But it's important to note that we also deal with the emotional component of smoking, which needs to be part of an integrated quitting protocol."

Weibel agrees. "Some people benefit from switching to e-cigs, but the biggest aspect of successful smoking cessation is behavior modification," she says. "The cost of cigarettes is also a major issue for many smokers, so they are often willing to try the e-cig, which is cheaper. Or patients who are not quite ready to quit can make small changes, and at least start cutting down by using e-cigs."

Indoor Use

While many proponents of vaping cite the lack of second-hand smoke as a rationale for indoor use, the impact of vapors on nearby non-smokers is still unknown. "Currently, we don't know about the risk of second-hand vapors," says Weibel. "But if using e-cigs helps the patient quit smoking without significant harm to others, it seems like a reasonable alternative."

At Jefferson, a new campus-wide non-smoking policy went into effect in January. "E-cigarettes are prohibited under our policy," says Pam Teufel, senior vice president and chief human resources officer. "We believe that as leaders in health care, we need to lead the charge with respect to public health. At least for now, we are siding with those in public health who believe the jury is still out on e-cigarettes and second-hand vapors, and consequently indoor smoking bans should apply to their use. We are also monitoring



a bill pending in the Pennsylvania House of Representatives that would ban e-cigarette use in all Pennsylvania workplaces."

Teen Usage and Target Marketing

For the tobacco industry, declining cigarette sales may be offset with a projected increase in the sale of e-cigarettes. Critics fear that these high-tech gadgets will make smoking popular again, especially among teenagers. "This is just the beginning," says Tobia. "E-cigs are the first change in cigarettes since they added the filter, and they will only improve as time goes forward."

Teenage smoking has been declining in the last 10 years, she says. But according to the CDC, the percentage of U.S. middle- and high-school students who use e-cigarettes more than doubled from 2011 to 2012. In addition, data from the National Youth Tobacco Survey says that the percentage of high-school students who

reported using an e-cigarette rose from 4.7 percent in 2011 to 10 percent in 2012 and that almost two million middle- and high-school students nationwide had tried e-cigarettes in the same year.

Nicotine remains an addictive drug. Teens who try e-cigarettes may become hooked and eventually turn to conventional cigarettes. Research shows that more than 75 percent of middle- and high-school students who used e-cigarettes also smoked conventional cigarettes in the same 30-day period. Only one in five middle-school students who reported using e-cigarettes say they have never tried conventional cigarettes, which raises a red flag for a possible connection between the use of the two types of cigarettes

Critics also note that e-cigarette companies are marketing their products with cartoon mascots and flavors that could draw young users. Reminiscent of Joe Camel, eJuiceMonkeys has a smiling,

LEFT: Cigarette advertisement from 1946.

smoking monkey as its mascot. E-cigarette flavors include chocolate, gummy bears and, as a seasonal special last fall, V2 Cigs offered a pumpkin spice e-cigarette. Vype e-cigarettes were advertised — inadvertently, according to its parent company — in a children's iPad game last fall.

More Research Needed

Some tobacco researchers are pressing for restrictions on e-cigarettes, hoping to prevent a new generation from getting addicted to nicotine. Some have found harmful ingredients in certain e-cigarettes, such as ethylene glycol, a primary ingredient in brake fluid and antifreeze. And some say that there is little evidence e-cigarettes actually can help smokers quit.

Although e-cigarettes appear to have few of the toxins found in traditional cigarettes, researchers agree that the effect of e-cigarettes on long-term health must be studied. In addition, research should assess the impact of e-cigarette marketing on smoking initiation, particularly among teenagers.

Many healthcare professionals agree that the best option for smokers is to quit both traditional cigarettes and e-cigarettes by taking advantage of successful cessation programs. "I would recommend JeffQuit to anyone," says Richardson. "Though I will say, to be successful, you have to want to quit." ■

Dr. Tobia is available to answer questions about the JeffQuit program or help physicians provide support for their patients who are trying to quit. She can be reached at 215-955-3402 or aetobia@yahoo.com.

JeffQuit groups start the second Tuesday of every month, run for three sessions over four weeks and are often covered by insurance. For more information, please visit jeffersonhospital.org/jeffquit.