Get the Facts on ecigarettes...are they safer than smoking?

In 2004, a Chinese company started making a refillable "cigarette" with a battery and an electronic chip in it. It is designed to look like a cigarette, right down to the glowing tip. When the smoker puffs on it, the system delivers a mist of liquid, flavorings, and nicotine that looks something like smoke. The smoker inhales it like cigarette smoke, and the nicotine is absorbed into the lungs.

The electronic cigarette, or e-cigarette, is sold with cartridges of nicotine and flavorings. Several brands and varieties of the e-cigarette are now sold in the U.S. Here, the e-cigarette is usually sold as a way to get nicotine in places where smoking is not allowed, although some may sell it as a way to quit smoking. The cartridges are sold as having different doses of nicotine, from high doses to no nicotine at all.

The e-cigarette has no published clinical trials that suggest it might work as a way to help smokers quit. No clinical trials have been submitted to the FDA. As of 2009, the FDA has not ruled as to whether e-cigarettes are medical devices but it is investigating. There are also questions about how safe it is to inhale some substances in the nicotine mists into the lungs. E-cigarettes are not labeled with their ingredients, so the consumer doesn't know what's in them. And even substances that are safe to eat can harm delicate tissues inside the lungs.

Newer information from the FDA suggests that e-cigarettes are not safe. A 2009 analysis of 18 samples of cartridges from 2 leading e-cigarette brands found cancer-causing substances in half the samples. There were other impurities noted as well. For example, diethylene glycol, a toxic ingredient found in antifreeze, was found in one sample.

Information from the same testing suggests that there may be manufacturing problems with e-cigarettes. Nicotine levels from each puff varied a great deal, even between cartridges labeled as having the same nicotine amounts. Testing also found small amounts of nicotine in most of the cartridges labeled nicotine-free.

Like other forms of nicotine, the e-cigarettes and nicotine cartridges can be toxic to children or pets. They can also pose a choking hazard. –medlineplus.gov, 11/23/09