

Comments on E-Cigarettes by Richard Hurt, M.D., founder and director of Mayo Clinic's Nicotine Dependence Center (NDC)

INTERVIEWER: What do you think about this new trend, if that's fair, e-cigarettes as a substitute?

00:01 DR. RICHARD HURT: "Yeah, the electronic cigarettes are here. Unfortunately, they've never been tested for either safety or efficacy. One of the solutions that the nicotine and the e-cigarette is dissolved into is called propylene glycol which is a cousin of antifreeze and why anybody would want to puff on something and put that in their mouth is amazing."

00:25 "But they're -- they're perceived as being, you know, a potential magic bullet and I would tell everyone that's listening there is no magic bullet that's ever going to be out there for this very difficult dependence. And until these are tested for safety and efficacy, we will not use them here because we use evidence-based medicine for the medications we use."

00:49 DR. RICHARD HURT: *[Continuing]* "And the tobacco companies, the cigarette manufacturers are getting into this. They all -- all the major cigarette manufacturers in the United States have bought an e-cigarette company, and so it'll be interesting to see that. The Food and Drug Administration proposed to regulate the e-cigarette as a drug delivery device and the e-cigarette companies took them to court ruled that, no, this is not a drug delivery device. This is actually a tobacco product, which it isn't. So the regulation of this is still up in the air and no one knows how that's going to come down as yet."

00:01:23 DR. RICHARD HURT: *[Continuing]* "But there's need for clinical trials on safety and efficacy if we're going to use these to help people stop smoking and right now we don't have any evidence at all that they help people stop smoking."

INTERVIEWER: And I've seen that propylene glycol argument and some people saying, no, that's silly, it's not the same threat as antifreeze and -- is that part of the publicity machinery?

00:01:45 DR. RICHARD HURT: "Well, we don't -- we don't know. You know, propylene glycol is approved as a food. You can use it in foods, but no one knows what happens if you get it into your upper airways. Now, the other thing about e-cigarettes is they do not deliver nicotine to the lungs like cigarettes do, so they don't produce the spike of nicotine that we see with cigarettes. And so there was a misconception that that actually occurs. When the blood tests have been done in e-cigarette smokers versus the nicotine inhaler, which is a medicinal device, the venous levels are basically the same, so it does not produce an arterial spike like cigarettes."

00:02:20 DR. RICHARD HURT: *[Continuing]* "So it's -- it's an amazing thing to watch a new product like that just kind of appear. There's no quality control. Many of them are manufactured in China under no -- no control conditions and -- and so the story is yet to be completely told."