

- Smoking / Coffee

Not like the other

Comparing nicotine with caffeine is an age-old tobacco industry ruse, but is there an element of truth in it?

New Zealand Listener · 19 Feb 2024 · 90 · BY ANDREA GRAVES

‘Nicotine is as harmful as caffeine.’ In the kerfuffle over the new government’s axing of the smokefree legislation, it was revealed that notes sent from the office of Associate Health Minister Casey Costello to the Ministry of Health included this statement. How does the health harm of the two compounds really compare?



Neal Benowitz, emeritus professor of medicine at the University of California San Francisco, is a leading authority on the pharmacology of nicotine and nicotine addiction. “Most people regularly use caffeine in coffee or tea, but if your doctor tells you to switch to decaf, most people can. You have a headache for a day then withdrawal symptoms are gone,” he says. “That’s not the case with nicotine. It has a much longer withdrawal period. And whereas most people have one or two cups of coffee a day, most people who use nicotine do so throughout the day. The withdrawal symptoms are distressing and often disrupt one’s life.”

But the health effects? “Caffeine is pretty benign except for people with anxiety or panic disorders, and they tend to avoid it. There’s very little evidence of serious adverse effects.” Nicotine is not harmless, he says, but in a pure form it’s not associated with terrible adverse health effects (overdoses are, though). Its major direct harm is the delivery method. “Cigarette smoking is devastating to health because of the smoke. There’s little evidence of harm from nicotine gums, sprays and patches. Cannabis is more harmful.”

Nicotine without smoke might harm brain development in unborn babies and children, but he cautions that this research is mostly animal-based; conclusive human studies aren't yet complete.

Inhaling nicotine without smoke mostly means vaping. "There's no question that nicotine from vaping is much less harmful than smoking," says Benowitz. "I support the idea of getting people off smoking to vaping. Anything to stop smoking."

But he says vaping isn't safe, either. "You're inhaling oxidising chemicals and flavourants that can be toxic. You're inhaling the breakdown products of propylene glycol and glycerol, which can be harmful.

Vaping often makes people cough and can aggravate asthma. It increases inflammatory markers, but not as much as smoking." Nicotine alone suppresses inflammation.

Chris Bullen, professor of public health at the University of Auckland, agrees that nicotine by itself has not been found to cause heart disease or cancer. But he's clear that addiction is a real harm. "New vaping products can now match nicotine delivery in dose and speed, so the potential for addiction to nicotine delivered by vaping is high when people have such effective products readily available and use them frequently," he told the Listener.

Janet Hoek, a professor of public health at the University of Otago says addiction "imposes a huge burden on people." The practice they thought would relieve stress and anxiety and provide access to social groups instead creates stress and anxiety from issues such as guilt and isolation from social groups, she says. Then there's the expense of daily use – upwards of \$35 for a pack of cigarettes; less than a tenth of that for vapes.

Falsely claiming equivalence between nicotine and caffeine is a tobacco industry ploy to downplay their products' harms. For example, a 1993 document from tobacco company RJ Reynolds stated, "Make more use of caffeine analogies. Caffeine is socially accepted – might enhance social use of nicotine ... Compare to more socially accepted habits, ie, coffee-drinking."

Benowitz, speaking from California, laments the axing of the smokefree law amendment that would have made it illegal for anyone born after 2008 to buy cigarettes. "New Zealand would have been the world leader in reducing tobacco use. It's really a shame. You have some of the best tobacco control and policy people in the world. They really know what they're doing." ■

It's really a shame. You have some of the best tobacco control and policy people in the world.