New method measures nicotine delivery from e-cigarettes

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The effectiveness of e-cigarettes as a smoking substitute will likely rely on whether they can consistently provide the amount of nicotine a smoker needs to resist the desire to return to traditional cigarettes.

A recent study that evaluated a new method for measuring nicotine delivery from e-cigarettes found that 'first-generation' e-cigarettes, which use 'cartomizers', deliver nicotine less consistently than later-generation e-cigarettes, which use 'atomizers' that vaporize liquid contained in a refillable tank.

The consistency of nicotine delivery from the atomizers was similar to nicotine inhalers and tobacco cigarettes and within the acceptable limits for medicinal nebulizers.

"Since consistency in nicotine delivery from e-cigarettes is a requirement of the EU Tobacco Products Directive, I believe the protocol proposed in this study is feasible and reliable, and can be used for regulatory purposes," said Dr. Konstantinos Farsalinos, lead author of the Addiction study. "Moreover, this study provides evidence that newer-generation e-cigarette products perform better and are likely to be more effective as smoking substitutes."
