Vapers and non-smokers have the same flourishing gut flora

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Newcastle University who published the findings today in PeerJ. He explains: "The bacterial cells in our body outnumber our own human cells and our microbiome weighs more than our brain, yet we are only just beginning to understand its importance on our health.

"More investigation is needed but to find that vaping is less-damaging than smoking on our gut bacteria adds to the incentive to change to e-cigarettes and for people to use them as a tool to quit smoking completely."

Comparing microbiota

This pilot study is the first to compare microbiota in tobacco smokers and electronic cigarette users.

Samples were taken from 10 e-cigarette users, 10 tobacco smokers and 10 controls who didn't smoke. Faecal, mouth (buccal) and saliva samples underwent targeted gene sequencing to identify the bacteria present.

This revealed significant changes in the gut bacteria of the faecal samples.

In the mouth and saliva samples, which are sites directly exposed to the smoke or vapour, the researchers also found that the bacteria in smokers was different to those of the non-smokers. However, like in the gut, the bacteria in the mouth and saliva samples were similar in e-cigarette users and non-smokers.

Dr Stewart adds: "This research comes as we see a huge increase in the numbers of people using electronic cigarettes and it becomes increasingly important that we understand the effect on the human body."

As more people take up vaping, the team call for further research to be carried out and to follow up on this pilot study, they are aiming to study a much
larger group over a longer period. They also suggest that further investigation into sex-specific microbiota profiles is carried out, as this study involved only two women.


Provided by Newcastle University

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