

# E-cigarettes safer than smoking says long-term study

Category: Press release

6 February 2017

Cancer Research UK



E-cigarettes are less toxic and safer to use compared to conventional cigarettes, according to research\* published in *Annals of Internal Medicine* today (Monday).

Cancer Research UK-funded scientists found that people who swapped smoking regular cigarettes for e-cigarettes or nicotine replacement therapy (NRT) for at least six months, had much lower levels of toxic and cancer causing substances in their body than people who continued to use conventional cigarettes.

For the first time, researchers analysed the saliva and urine of long-term e-cigarette and NRT users, as well as smokers, and compared body-level exposure to key chemicals.\*\*

Ex-smokers who switched to e-cigarettes or NRT had significantly lower levels of toxic chemicals and carcinogens\*\*\* in their body compared to people who continued to smoke tobacco cigarettes. But, those who used e-cigarettes or

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*Alison Cox,  
Cancer  
Research UK*

NRT while continuing to smoke, did not show the same marked differences, highlighting that a complete switch is needed to reduce exposure to toxins.

Dr Lion Shahab, senior lecturer in the department of epidemiology and public health at UCL, and lead author of the publication, said: “Our study adds to existing evidence showing that e-cigarettes and NRT are far safer than smoking, and suggests that there is a very low risk associated with their long-term use.

“We’ve shown that the levels of toxic chemicals in the body from e-cigarettes are considerably lower than suggested in previous studies using simulated experiments. This means some doubts about the safety of e-cigarettes may be wrong.

“Our results also suggest that while e-cigarettes are not only safer, the amount of nicotine they provide is not noticeably different to conventional cigarettes. This can help people to stop smoking altogether by dealing with their cravings in a safer way.”

Alison Cox, Cancer Research UK’s director of cancer prevention, said: “Around a third of tobacco-caused deaths are due to cancer, so we want to see many more of the UK’s 10 million smokers break their addiction.”

“This study adds to growing evidence that e-cigarettes are a much safer alternative to tobacco, and suggests the long term effects of these products will be minimal.

“Understanding and communicating the benefits of nicotine replacements, such as e-cigarettes, is an important step towards reducing the number of tobacco-related deaths here in the UK.”

## **ENDS**

For media enquiries please contact the Cancer Research UK press office on +44 203 469 8300 or, out-of-hours, the duty press officer on +44 7050 264 059.

## **References**

\*Lion Shahab, L., Goniewicz, M, L., PhD; Blount, B, C., Brown, J., McNeill, A., Alwis, K, U., Feng, J., Wang, L., & West, R. Nicotine, carcinogen, and toxin exposure in long-term e-cigarette and nicotine replacement therapy users: a cross-sectional study. *Annals of Internal Medicine*. doi:10.7326/M16-1107

## **Notes to Editor**

**\*\***Previous research into the toxicity of e-cigarettes has focused on assessing concentrations of potentially harmful chemicals within the products themselves, or the vapor they produce.

**\*\*\***Levels of TSNAs (tobacco-specific nitrosamines) and VOCs (volatile organic compounds) metabolites were examined – these compounds have well-established smoking-related toxicological and carcinogenic risks.

## Tags

Quitting smoking

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