JAPAN

Dangers found in tobacco substitute

ELECTRONIC CIGARETTES contain carcinogens, sometimes at higher levels than those in conventional cigarettes, Japanese researchers have found.

The devices use a fluid containing any of a variety of flavours or aromas heated inside an aspirator to create a vapour.

An internet survey of 8240 people conducted by Naoki Kunugita, director of Japan's National Institute of Public Health's Environmental Health Department, and his associates found that 6.6 per cent of respondents between the age of 15 and 69 had used e-cigarettes.

Kunugita and his team analysed the vapours of nine different brands of e-cigarettes sold in Japan.

In two brands, the average concentration of the carcinogen formaldehyde contained in 550 millilitres – the equivalent of 10 inhalations – surpassed the average concentration in conventional cigarettes.

Formaldehyde is generated when the chemical substances in the e-cigarette fluid are heated and become oxidised.

Also detected were glyoxal and acrolein, which are thought to inflame bronchial tubes and pulmonary alveoli, leading to a reduction in lung function.

A research group led by Masashi Gamo at the National Institute of Advanced Industrial Science and Technology examined the health impact of e-cigarettes in light of experiments on animals, and concluded that the concentrations of formaldehyde, glyoxal, and acrolein might pose a health hazard.

The survey also showed that threequarters of e-cigarette users also smoke tobacco.

"Sometimes people who wish to give up smoking use e-cigarettes in order to relax in places where conventional smoking would be difficult, yet they nevertheless continue to smoke ordinary cigarettes as well. It has not been confirmed that e-cigarettes help people stop smoking," Kunugita said.

"People nearby also inhale the vapour that contains harmful substances," said Yumiko Mochizuki, head of the National Cancer Centre's Tobacco Policy Division.

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