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## Electronic smoking as dangerous as the real thing

If you think using an electronic smoking device is safer than cigarettes, think again.

Researchers at the University of Tasmania have shown that the latest device on the international market, heat-not-burn (HNB) cigarettes, may be as dangerous to your health as e-cigarettes and smoking cigarettes.

The study, published in the [European Respiratory Journal of Open Research](#), is the first to compare HNB cigarettes with e-cigarettes and traditional tobacco cigarettes. It demonstrated that all three damaged human lung cells.

Lead author Dr Sukhwinder Sohal, from the University's School of Health Sciences, said the research painted a concerning picture.

"Our research showed that HNB cigarettes, like traditional cigarettes, can lead to structural changes in the airways potentially through a process known in medical terms as epithelial-mesenchymal transition (EMT), which I proved to have adverse consequences, including lung cancer and other lung diseases such as chronic obstructive pulmonary disease (COPD).

Dr Sohal said the findings were significant globally and particularly concerning for Tasmania.

"In Tasmania, we have high smoking rates, particularly in lower socio-economic areas," he said.

"We also have high rates of obese smokers in Tasmania, who are quickly shifting from traditional tobacco cigarettes on to these new devices and unaware of the equally damaging effects.

"These new electronic devices are promoted as less toxic and safer compared to traditional tobacco smoke, but they are equally damaging."

E-cigarettes or vaping relies on heating 'e-liquids,' many of which Dr Sohal said had already been proved to contain dangerous toxins.

The new HNB cigarettes are based on heating solid tobacco.

Dr Sohal said the popularity of such devices had grown at an alarming rate, particularly among younger smokers, with these devices being cited as 'next-generation products.'

"The latest addition in this emerging trend is the planned and vigorous introduction of HNB devices," Dr Sohal said.

"These devices are available for purchase in 42 countries, predominantly in Europe, and even though it is currently illegal to sell the device here in Australia, the acquirement of such a device may be a simple process.

"Smoking is one of the leading causes of death and disability globally, and with the introduction of e-cigarettes in the last decade, the trend of nicotine uptake is not going to slow down in the near future."

The project was supported by the Clifford Craig Foundation, Launceston General Hospital respiratory physicians and North West Burnie Hospital.

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