



The World Foundation for Natural Science

The New World Franciscan Scientific Endeavour of The New World Church

Restoring and Healing the World through Responsibility and Commitment in accord with Natural and Divine Law!

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Electronic cigarettes damage brain stem cells

Electronic cigarettes are very popular among the younger generation and have been promoted by producers and some governments as safer than tobacco. Indeed, some governments claim e-cigarettes are almost harmless. However, the weight of evidence is now stacked up showing this is not true. Study after study continue to show that e-cigarette vapour is harmful and is not much different from the harm caused by tobacco smoke!

A newly published study has found that electronic cigarettes can damage stem cells in the brain. The study shows that mitochondria in neural stem cells are put under stress from the chemicals in the vapour of e-cigarettes. The mitochondria reaction is the same when cells come under oxidative stress. The long-term effect of such mitochondrial damage is premature aging (not just in skin looks but in normal functioning of internal organs) and diseases. The study authors report that any nicotine product is likely to cause such cellular damage. Nicotine binds itself to receptors in neural stem cell membranes and causes their voltage gate calcium channel to open, leading to an overflowing of calcium ions into the cell. This leads to the oxidative stress and potentially to the creation of free radicals. This is exactly the same effect on cells as EMFs!

Despite the overwhelming weight of evidence showing that e-cigarettes are highly toxic, there has been an incredible increase in the numbers of youths and young adults vaping. E-cigarette producers have been accused of deliberately marketing

their products to youth in almost the same manner as tobacco companies used to. Juul is particularly of concern because of its high nicotine content, which is extremely addictive. Those who vape are also much more likely to try tobacco cigarettes.

As more and more evidence emerges about the harm that e-cigarettes cause it is important that cities and nations take a similar stance to that of the city of San Francisco in banning the sale of e-cigarettes entirely!

Sources:

E-cigarettes cause of biological harm:

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Study showing brain stem cells are damaged by e-cigarettes:

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E-cigarette marketing:

<https://www.ibtimes.com/juul-ceo-apologizes-youth-vaping-epidemic-2806468>

High levels of nicotine in Juul:

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EMFs and voltage gate calcium channel:

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<https://www.naturalscience.org/news/2019/07/electronic-cigarettes-damage-brain-stem-cells/>