



# Health Effects of Nicotine and Protecting Our Youth

Dr. Jennifer Vines – Deputy Health Officer  
Multnomah County Health Department

February 9, 2015

# Key Points

- Nicotine itself has negative health effects
- Nicotine is particularly dangerous for young people
- Including electronic cigarettes in the Oregon Indoor Clean Air Act is an important way to protect kids and those adults who choose not to use these products



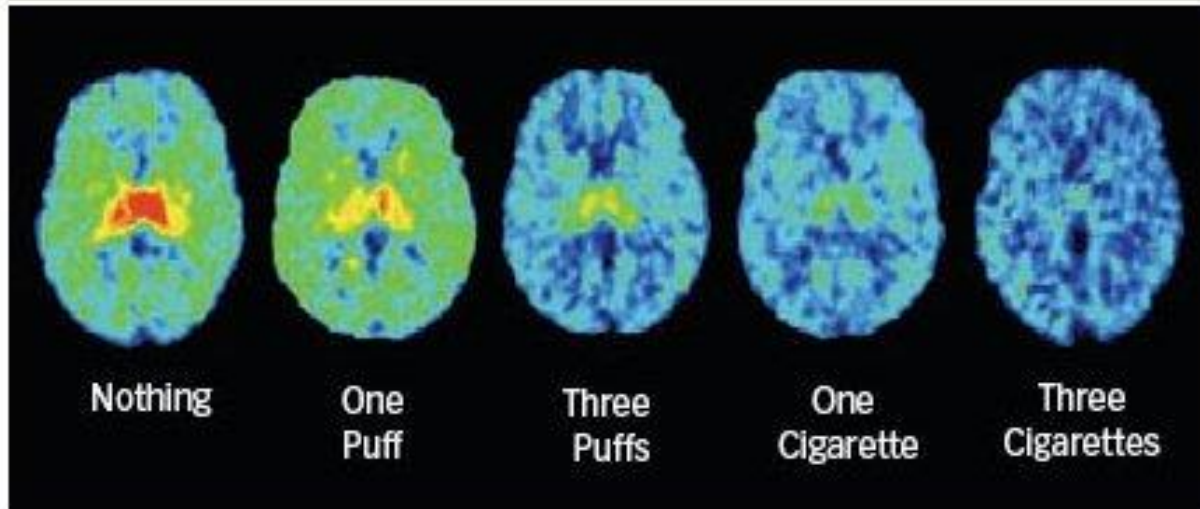


**NICOTINE**



# The Brain and Nicotine Addiction

**SMOKING SATURATES RECEPTORS** As nicotine from a cigarette attaches to the  $\alpha 4\beta 2^*$ -nACh nicotinic receptors in the brain, it displaces a radiolabeled tracer (red and yellow indicate high levels of the tracer, green indicates intermediate levels, and blue indicates low levels). The nicotine from three puffs displaced 75 percent of the tracer from study participants' receptors, and the nicotine from three cigarettes, nearly all.



# E-Cigarettes and the Growing Concern of Health Effects



<http://www.ecigologist.com/news/ecigs-attracting-younger-students-get-high-class/>



<http://ehp.niehs.nih.gov/122-a244/>

Current use of e-cigarettes among Oregon 11<sup>th</sup> graders has increased from 1.8% in 2011 to 5.2% in 2013

Oregon Public Health Division. CD Summary: E-cigarettes: Smokless does not mean harmless. December 31, 2013 Vol.62, No 27. Available at <http://www.salemhealth.org/chec/pdfs/E-cigarette-summary.pdf>



# E-Cigarette Product Design & Marketing



Image from Mult Co Tobacco Retail Assessment



Image from [New York Times](#)



Image from Mult Co Tobacco Retail Assessment

Anyone under age 18 can legally purchase these products in Multnomah County.



# Oregon Indoor Clean Air Act



# Thank You for Protecting Our Youth

