Today’s piece was prepared by Lauren Hawkins, MD, based on an NPR story [How Vaping Nicotine Can Affect the Teenage Brain](https://www.npr.org/sections/health-shots/2019/10/10/768588170/how-vaping-nicotine-can-affect-a-teenage-brain)

This article reviews current concerns and evidence about effects of nicotine vaping products on adolescent brain development. The article begins by highlighting how vaping has recently been getting a lot of press related to lung disease but pushes the reader to recognize that there are also concerns about how vaping affects developing brains. The primary scientific finding presented in this article is that mouse models have shown that nicotine can lead to deficits in memory, learning, focus, impulse control, and brain development, as well as increase the rewarding properties of other drugs such as alcohol, cocaine, and methamphetamine. Additionally, studies in mice have shown that flavored nicotine products lead to increased nicotine consumption. The author does not explicitly call out the limitations of these studies in animal models, which could be misleading to the general public, who might assume that risks in humans directly correlate with those seen in mice. These data are used as evidence that we should have concern for the neurodevelopmental impacts of vaping nicotine in teenagers. Two researchers in the areas of pharmaceutical sciences and psychology are quoted throughout the article, which provides some direct opinions from the scientific community. Importantly, these scientists and their research are the only direct sources cited, so the article does not provide a particularly broad overview of the evidence to date. However, the author does a good job of highlighting that there simply is not much evidence on the neurodevelopmental impacts of vaping in adolescents. Thus, while there are some gaps in this reporting, it is also transparent in the limits to our current understanding on this topic. Finally, the article offers some examples of interventions that may help reduce the rates of teen vaping, including increased cost and more strict online age verification.

**RESOURCES ON VAPING FOR FAMILIES/PATIENTS:**

[E-cigarettes: Talk to Youth About the Risks](https://www.cdc.gov/tobacco/features/back-to-school/e-cigarettes-talk-to-youth-about-risks/index.html) *US Centers for Disease Control & Prevention*

[SmokeFree Teen Resource](https://teen.smokefree.gov/) *US government source supported by the NIH & the US Department of Health & Human Services*

And that’s today’s Developmental & Behavioral Pediatrics: IN THE NEWS!