

Younger Smokers Continue to Smoke as Adults: Implications for Raising the Smoking Age to 21

A review article published in *Pediatrics* assesses the evidence that smoking is particularly harmful the younger a smoker begins (1). Not only do youths tend to accumulate more pack-years but they have more difficulty quitting. The recent shift in smoking trends from tobacco cigarettes to e-cigarettes may not be helpful since both contain the addictive component, nicotine. Although e-cigarettes are marketed as a smoking cessation tool, there is no strong evidence to support these claims, the authors report.

"I think most people realize nicotine is addictive, but I don't know if there's an understanding of just how addictive it is – particularly for youths," said Lorena M. Siqueira, MD, MSPH, lead author of the report (2).

Evidence shows that the earlier in life a person is exposed to nicotine, the more likely they will consume greater quantities and the less likely they will be able to quit (1,2). The vast majority of tobacco-dependent adults (>99%) started smoking before age 26 years. Approximately two thirds of children who smoke in sixth grade, become regular smokers as adults. In comparison, 46% of youth who begin smoking in the eleventh grade go on to become regular smokers as adults. Youths require more attempts to quit smoking before being successful compared to adults. Only about 4% of smokers aged 12 to 19 years have been shown to successfully quit each year.

"There are now seven published longitudinal studies showing that youths who initiate smoking with e-cigarettes are about three times more likely to be smoking conventional cigarettes a year later," said Stanton A. Glantz, PhD, of the Center for Tobacco Research and Education at the University of California and a coauthor of the review (2). Instead of making quitting easier, e-cigarettes make it harder, Dr. Glantz added.

An Institute of Medicine report notes that the age of initiation of smoking is critical (3). The report estimates that that raising the minimum age for the sale of tobacco products to 21 will, over time, reduce the smoking rate by about 12 percent. This reduction is estimated to result in reducing smoking-related deaths by 10 percent, which translates into 223,000 fewer premature deaths, 50,000 fewer deaths from lung cancer, and 4.2 million fewer years of life lost (3).

These data may prove valuable in evaluating the potential health impact of this legislation. California became the second state to raise the tobacco sale age to 21 in 2016, joining Hawaii (3). At least 210 localities have raised the tobacco age to 21, including New York City, Chicago, Boston, Cleveland, Kansas City and Cottonwood, Arizona. Statewide legislation to do so is being considered in several other states and will probably be introduced in Arizona during this legislative session.

Richard A. Robbins, MD
Editor, SWJPCC

References

1. Siqueira LM; Committee on Substance Use and Prevention. Nicotine and tobacco as substances of abuse in children and adolescents. *Pediatrics*. 2017 Jan;139(1):e20163436. [\[CrossRef\]](#) [\[PubMed\]](#)
2. Melville NA. Nicotine's highly addictive impact on youth underestimated. *Medscape*. January 3, 2017. Available at: http://www.medscape.com/viewarticle/873955?nlid=111769_2863&src=wnl_dne_170104_mscpedit&uac=9273DT&impID=1266832&faf=1 (accessed 1/5/17).
3. Campaign for Tobacco Free Kids. Increasing the minimum legal sale age for
4. tobacco products to 21. Available at: <https://www.tobaccofreekids.org/research/factsheets/pdf/0376.pdf> (accessed 1/5/17).