

Special Populations: ENDS Use in Pregnant Women & Older Adults



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How prevalent is ENDS use in pregnant women?

- Prevalence estimates of ENDS use in pregnant women range from 0.6 to 15%.
- Most pregnant women who endorse ENDS use report doing so to aid in smoking cessation.
- One study asked separately about ENDS use and dual use, 6.5% of pregnant women reported using ENDS only and 8.5% reported dual use.



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Special Populations:
ENDS Use in Pregnant
Women & Older Adults

Learning Objectives:

1. Cite prevalence of ENDS use in pregnant women.
2. Describe impact of ENDS use during pregnancy on fetal health.
3. Cite prevalence of ENDS use in older adults.
4. Describe the health considerations of ENDS use in older adults.

What are the health effects of ENDS on the developing fetus?

- Nicotine molecules can pass through the placental barrier and accumulate in the placental tissue, amniotic fluid, and fetal serum. This means that if a pregnant woman uses ENDS devices, her fetus is exposed to nicotine.
- Newborns of ENDS-only users were found to be 2-3 times more likely to have lower birth weight for gestational age compared to newborns of mothers not using any nicotine products.
- There is *no* evidence that ENDS use alone increases risk of preterm birth. However, maternal smoking and dual use result in worse outcomes.

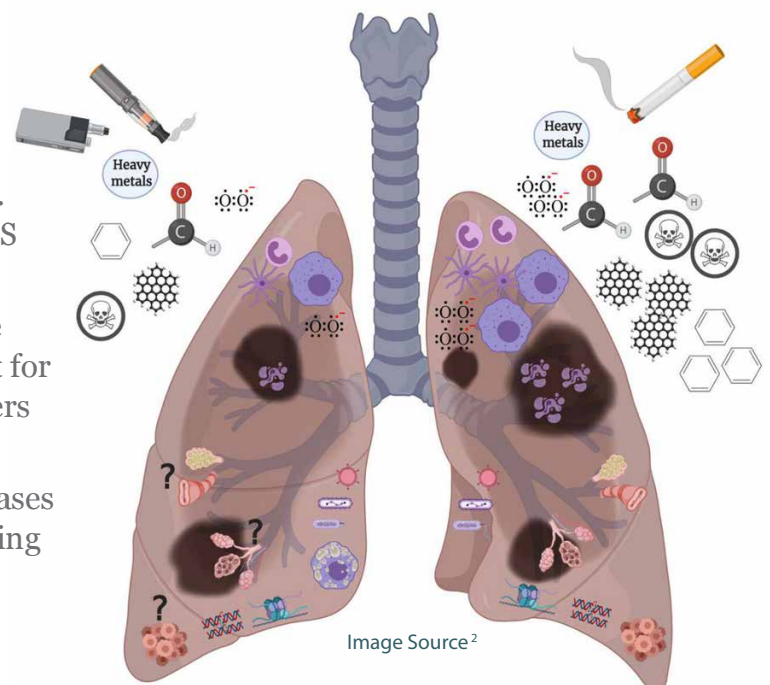


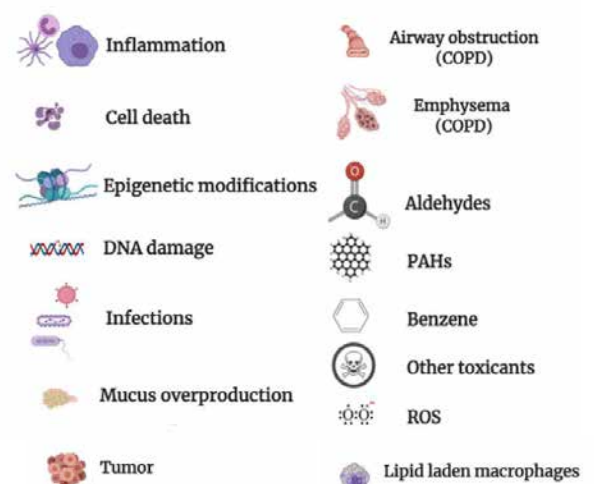
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How prevalent is ENDS use in older adults?

Research from 2009-2010 found that about 6% of adults aged 55-64 and 8% of adults aged 65 and older reported ever trying ENDS.

- The same study found that about 3% of adults aged 55-64 and 5% of adults 65+ endorsed past month ENDS use.

Compared to younger adults who use ENDS, older ENDS users are more likely to report using ENDS as an alternative to conventional cigarettes.



1. <https://www.storyblocks.com/images/stock/pregnant-woman-bw8zjob7obj6goift0>

2. <https://www.mdpi.com/1422-0067/21/10/3495>

In a series of focus groups, older adult cigarette smokers:

- Perceived ENDS to be less risky than conventional cigarettes & viewed the lack of government warnings about ENDS as an endorsement of the advertising claims that they are a healthier alternative to cigarettes.
- Believed that e-cigarettes could be used anywhere even in settings that advertise no smoking.

Health effects of ENDS use in older adults:

ENDS use may be associated with some worse pulmonary outcomes (e.g., asthma), but results are mixed on the link between ENDS & COPD.

- Data are conflicting for the relationship between ENDS use and development of COPD as well as COPD exacerbations.
- In former cigarette smokers diagnosed with COPD, substituting e-cigarettes for conventional cigarettes was associated with a 50% decline in annual respiratory exacerbations, improved health status, and higher physical activity.
- ENDS use does not reduce negative cardiovascular outcomes (e.g., stroke, myocardial infarction, and coronary heart disease).

In current older adult smokers, transitioning to ENDS could reduce the risk of negative respiratory, but not cardiovascular outcomes.

Up Next...

Episode 7
Special Populations:
ENDS Use and Substance
Use Disorders and Mental
Health Diagnoses

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