

Co-use of Nicotine Products and Cannabis and Its Association with ENDS Dependence Among U.S. Adults Who Frequently Use ENDS

Background

People who use electronic nicotine delivery systems (ENDS) often use other nicotine products and cannabis. This study explores co-use of these substances among adults who frequently use ENDS and the association of co-use with ENDS dependence.

Methods

- Study of U.S. adults (21+) who use ENDS 5+ days per week and completed VAPER Study Wave 5, February–April 2023 (n=1,290)
- Participants reported their most-used ENDS device and liquid, use of nicotine products and cannabis, number of days per week using these substances, and ENDS dependence
- Use groups:
 1. Exclusive ENDS use
 2. Co-use of ENDS and other nicotine product(s)
 3. Co-use of ENDS and cannabis
 4. Co-use of ENDS, other nicotine product(s), and cannabis
- ENDS dependence: validated 4-item scale (range 0–4; 4=most dependent)
- ANCOVAs conducted

Co-use of ENDS and cannabis is associated with higher ENDS dependence among U.S. adults who frequently use ENDS



◀ Learn more about the Vaping and Patterns of E-cigarette Use Research (VAPER) Study

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Results

ENDS dependence by co-use group:

		Mean (SE)
ENDS + cannabis* (27%, n=354)		2.6 (0.1)
ENDS only (57%, n=729)		2.4 (0.0)
ENDS + cannabis + oth. nicotine product(s) (6%, n=81)		2.3 (0.1)
ENDS + oth. nicotine product(s) (10%, n=126)		2.2 (0.1)

Notes:
ANCOVA: $F(8,1118)=596.22, p<0.001$.
*Post-hoc comparisons with other patterns significant at $p<0.05$.

Conclusions

- Among adults frequently using ENDS, almost half co-used other nicotine product(s) and/or cannabis
- Co-use of ENDS and cannabis was associated with higher ENDS dependence compared to co-use with other products ($p<0.05$)
- Further research could explore the impacts of co-use beyond dependence, to inform prevention efforts

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