

Assessments for nicotine vaping dependence

Measure	Score indication	Link to resource	Notes	Reference
The E-cigarette Fagerström Test of Cigarette Dependence (e-FTCD), 2020	1-3 low dependence, 4-6 moderate dependence, 7-10 high dependence	No direct link to scale and scoring available, we suggest seeking access and permission from the lead author directly aziz@ucsiuniversity.edu.my	A 6-item scale, based on FTND (Heatherton et al, 1991). Phrasing and scoring are different to the e-FTCD (Morean et al, 2019) version and different phrasing.	Rahman, A. U., Mohamed, M. H. N., Jamshed, S., Mahmood, S., & Iftikhar Baig, M. A. (2020). The Development and Assessment of Modified Fagerstrom Test for Nicotine Dependence Scale among Malaysian Single Electronic Cigarette Users. Journal of pharmacy & bioallied sciences, 12(Suppl 2), S671–S675. https://doi.org/10.4103/jpbs.JPBS_245_19
The E-cigarette Fagerström Test of Cigarette Dependence (e-FTCD), 2019	0-2 low dependence, 3-4 low to moderate, 5-7 moderate, 8+ high dependence	Scale can be found in the document here , but we recommend seeking permission from the lead author directly before use Meghan.Morean@oberlin.edu	A 6-item scale, based on FTND (Heatherton et al, 1991). Phrasing and scoring are different to the e-FTCD (Rahman et al 2020) version	Morean, M. E., Krishnan-Sarin, S., Sussman, S., Foulds, J., Fishbein, H., Grana, R., & O'Malley, S. S. (2019). Psychometric evaluation of the e-cigarette dependence scale. Nicotine and Tobacco Research, 21(11), 1556-1564.
E-cigarette Dependence Scale (EDS), 2017	Sum of items. Higher score indicative of higher dependence.	Scale can be found in the document here , but we recommend seeking permission from the lead author directly before use Meghan.Morean@oberlin.edu	Measure based on the PROMIS smoking nicotine dependence for smokers (Edelen et al, 2014; Edelen et al., 2016; Shadel et al., 2014). Three versions available, 4-, 8- and 22-items.	Morean, M. E., Krishnan-Sarin, S., Sussman, S., Foulds, J., Fishbein, H., Grana, R., & O'Malley, S. S. (2019). Psychometric evaluation of the e-cigarette dependence scale. Nicotine and Tobacco Research, 21(11), 1556-1564.

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The Penn State Electronic Cigarette Dependence Index (PSECDI), 2014	0-3 not dependent, 4-8 low, 9-12 medium, 13+ high dependence	https://research.med.psu.edu/smoking/dependence-index/#reference1	A 10-item scale using questions from multiple questionnaires including DTND/HIS, HONC, Bover et al. (2008) & Fiddler et al (2011)	Foulds, J., Veldheer, S., Yingst, J., Hrabovsky, S., Wilson, S. J., Nichols, T. T., & Eissenberg, T. (2015). Development of a questionnaire for assessing dependence on electronic cigarettes among a large sample of ex-smoking E-cigarette users. <i>Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco</i> , 17(2), 186–192. https://doi.org/10.1093/ntr/ntu204
Hooked on Nicotine Checklist (HONC), 2022	Dependence if 1 or more item is endorsed	No direct link to scale and scoring available, we suggest seeking access and permission from the lead author directly bonnie.halpernfelsher@stanford.edu	Developed for adolescents and adults, it is a 10-item scale based on the HONC (DiFranza et al., 2002), measuring the Loss of Autonomy Over Nicotine Use in Adolescents, The DANDY (Development and Assessment of Nicotine Dependence in Youths) Study. It asks about products in a product list: Cigarette, even 1 or 2 puffs; Disposable pod-based vape like Puffbar or FOGG, even 1 or 2 puffs; Pod-based vape like Juul or Phix, even 1 or 2 puffs; Any other vape like mods, even 1 or 2 puffs	Lin, C., Gaiha, S. M., & Halpern-Felsher, B. (2022). Nicotine dependence from different e-cigarette devices and combustible cigarettes among US adolescent and young adult users. <i>International Journal of Environmental Research and Public Health</i> , 19(10), 5846. https://pmc.ncbi.nlm.nih.gov/articles/PMC9140375/#app1-ijerph-19-05846

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Hooked on Nicotine Checklist (HONC), 2017	Dependence if 1 or more item is endorsed	https://downloads.aap.org/AAP/PDF/2D_Assessing_Nicotine_Dependence_in_Adolescents.pdf	Developed for adolescents and adults, it is 10-item scale based on the HONC (DiFranza et al., 2002), measuring the Loss of Autonomy Over Nicotine Use in Adolescents The DANDY (Development and Assessment of Nicotine Dependence in Youths) Study. Language has been changed to be about Vaping .	Carroll, D. M., Wagener, T. L., Thompson, D. M., Stephens, L. D., Peck, J. D., Campbell, J. E., & Beebe, L. A. (2017). Electronic nicotine delivery system use behaviour and loss of autonomy among American Indians: results from an observational study. <i>BMJ open</i> , 7(12).
E-cigarette Wisconsin Inventory of Smoking Dependence Motives (e-WISDM), 2015	Higher score = higher dependence	No direct link to scale and scoring available, we suggest seeking access and permission from the lead author directly mep@ctri.wisc.edu	Based on the WISDM (Smith et al., 2010) consisting of 37 items and 11 subscales measuring different constructs - affiliative attachment, automaticity , loss of control , cognitive enhancement, craving , cue exposure/associative processes, affective enhancement, social/environmental goads, taste and sensory processes, tolerance , weight control (bold = 'primary dependence motives', regular = 'secondary dependence motives')	Piper, M. E., Baker, T. B., Benowitz, N. L., Smith, S. S., & Jorenby, D. E. (2020). E-cigarette Dependence Measures in Dual Users: Reliability and Relations With Dependence Criteria and E-cigarette Cessation. <i>Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco</i> , 22(5), 756–763. https://doi.org/10.1093/ntr/ntz040

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Glover Nilsson Behavioural Questionnaire (GNBQ), 2022	< 12 = mild, 12-22 = moderate, 23-33 = strong, > 33 = very strong dependence	Can be accessed here https://psycnet.apa.org/doiL but requires a subscription.	An 11-item scale based on the GNBQ (Glover et al., 2005)	Milstred, A. R., Douglas, A. E., Romm, K. F., & Blank, M. D. (2023). Evaluation of the Psychometric Properties of Dependence Measures for Exclusive Electronic Cigarette Users. <i>Nicotine and Tobacco Research</i> , 25(3), 563-570. https://academic.oup.com/ntr/article/25/3/563/6827679
Diagnostic and Statistical Manual for tobacco use disorder (DSM-5), 2022	At least 2 symptoms present in last year indicates 'tobacco use disorder'. 2-3 symptoms = mild, 4-5 = moderate, 6+ = severe	Requires purchasing APA - DSM - Diagnostic and Statistical Manual of Mental Disorders	DSM-5 criteria for tobacco use disorder, language adjusted to be about vaping, consisting of 11 items	Milstred, A. R., Douglas, A. E., Romm, K. F., & Blank, M. D. (2023). Evaluation of the Psychometric Properties of Dependence Measures for Exclusive Electronic Cigarette Users. <i>Nicotine and Tobacco Research</i> , 25(3), 563-570. https://pmc.ncbi.nlm.nih.gov/articles/PMC9910153/

Table adapted from information supplied by Nikki Rowston (PhD Student; LSBU)