

Tobacco in Australia

Facts & Issues

Relevant news and research

18.4 Safety risks and abuse potential of e-cigarettes

Last updated December 2024

Research:.....	2
18.4.1 Safety risks	2
18.4.1.1 Explosions, fires and burns	2
18.4.1.2 Nicotine toxicity and accidental poisoning	8
18.4.2 Abuse potential.....	14
18.4.2.1 Nicotine addiction.....	17
18.4.2.2 Consuming other drugs in e-cigarettes.....	29
18.4.2.3 “Dripping”	34
18.4.3 Environmental impact.....	35
18.4.3.2 Manufacturers’ response to e-cigarette waste	35
18.4.3.3 Policy response	35
News:	36
18.4.1 Safety risks	36
18.4.1.1 Explosions, fires and burns	36
18.4.1.2 Nicotine toxicity and accidental poisoning	41
18.4.2 Abuse potential.....	44
18.4.2.1 Nicotine addiction.....	44
18.4.2.2 Consuming other drugs in e-cigarette devices	46
18.4.2.3 “Dripping”	49
18.4.3 Environmental impact.....	49

18.4.3.2 Manufacturers' response to E-cigarette waste	52
18.4.3.3 Policy response	53

Research:

Churchill, V, Fairman, RT, Brown, D, Massey, ZB, Ashley, DL, & Popova, L. (2023). "I get the flavors and it makes me love vaping more:" How and why youth users modify electronic nicotine delivery systems. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37358211>

18.4.1 Safety risks

Wiener, RC, & Lundstrom, EW. (2024). Injuries from electronic cigarettes, and cigarette/cigar-related paraphernalia, NEISS, 2012-2022. *PLoS One*, 19(5), e0298177. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38787818>

Howard MB and Guse S. Liquid Nicotine, E-Cigarettes, and Vaping: Information for the Pediatric Emergency Medicine Provider. *Pediatric Emergency Care*, 2022; 38(8):399-403. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35904953>

Van Rafelghem B, Covaci A, Anseeuw K, van Nuijs ALN, Neels H, et al. Suicide by vaping the synthetic cannabinoid 4F-MDMB-BINACA: cannabinoid receptors and fluoride at the crossroads of toxicity? *Forensic Sci Med Pathol*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34542803>

Rosshiem ME, McDonald KK, Soule EK, Gimm GW, Livingston MD, et al. Electronic cigarette explosion/burn and poisoning related emergency department visits, 2018-2019. *American Journal of Emergency Medicine*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33041151>

McFaul SR, Do MT, Champagne A, and Bang F. Injuries and poisonings associated with e-cigarettes and vaping substances, electronic Canadian Hospitals Injury Reporting and Prevention Program, 2011-2019. *Health Promot Chronic Dis Prev Can*, 2020; 40(7-8):250-4. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32667882>

Isakov KMM, Legasto AC, Hossain R, Verzosa Weisman S, Toy D, et al. A Case-Based Review of Vaping-Induced Injury-Pulmonary Toxicity and Beyond. *Curr Probl Diagn Radiol*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32703539>

18.4.1.1 Explosions, fires and burns

Sahni, V. (2023). RE: Oral and Maxillofacial Injuries Associated With E-Cigarette Explosions: A Systematic Review and Management Guidelines Proposal. *J Oral Maxillofac Surg*, 81(11), 1328. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37923542>

Sahni, V. (2023). E-cigarette explosion injuries in the oral and maxillofacial region and a protocol for their management. *Evid Based Dent*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37693690>

Kaltenborn, A, Dastagir, K, Bingoel, AS, Vogt, PM, & Krezdorn, N. (2023). E-cigarette explosions: patient profiles, injury patterns, clinical management, and outcome. *JPRAS Open*, 37, 34-41. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37693690>

Banks, E, Yazidjoglou, A, Brown, S, Nguyen, M, Martin, M, Beckwith, K et al. (2023). Electronic cigarettes and health outcomes: umbrella and systematic review of the global evidence. *Med J Aust*, 218(6), 267-275. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36939271>

Montoya, A, Ozhathil, D, Hollowed, K, & Kahn, SA. (2023). Burn Injury From Smoking Electronic Cigarettes While on Supplemental Oxygen. *J Burn Care Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36734524>

Tran, V, Mian, M, Sreedharan, S, Robertson, R, Saha, A, Tadakamadla, SK, & Lee, K. (2023). Oral and Maxillofacial Injuries Associated With E-Cigarette Explosions: A Systematic Review and Management Guidelines Proposal. *J Oral Maxillofac Surg*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36806607>

Kusu-Orkar TE and Shah R. E-Cigarette burns - A rising cause for concern. *Burns*, 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36089542>.

La Valle A, O'Connor R, Brooks A, and Freij R. Maxillofacial injury related to an exploding e-cigarette. *BMJ Case Rep*, 2021; 14(1). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33509889>.

Hagiga A, Shalabi M, and Dheansa B. Letter to the editor: Pragmatic and novel approach to E-cigarette battery related burns. *J Plast Reconstr Aesthet Surg*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34924328>.

Flores CE, Chestovich PJ, Saquib S, Carroll J, Al-Hamad M, et al. Electronic Cigarette-Related Injuries Presenting to Five Large Burn Centers, 2015-2019. *Journal of Burn Care & Research*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34143185>.

Dekhou A, Oska N, Partiali B, Johnson J, Chung MT, et al. E-Cigarette Burns and Explosions: What are the Patterns of Oromaxillofacial Injury? *J Oral Maxillofac Surg*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33974919>.

Welter P, Ryu SM, Pierson T, and Menke H. [Danger in the pocket: explosive e-cigarette]. *Handchir Mikrochir Plast Chir*, 2020; 52(6):490-6. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33291166>.

Wang B, Liu ST, Rostron B, and Hayslett C. Burn injuries related to E-cigarettes reported to poison control centers in the United States, 2010-2019. *Inj Epidemiol*, 2020; 7(1):36. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32684171>.

Serror K, Chaouat M, Mimoun M, and Boccara D. E-cigarettes battery explosions: The place of blast related lesions. *Ann Chir Plast Esthet*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32115286>.

Hagarty S and Luo J. E-cigarette "Vape" Device Explosion Causing C Spine Fracture. *Plast Reconstr Surg Glob Open*, 2020; 8(4):e2745. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32440415>.

Dingle M and Travers A. E-cig explosions. *Br Dent J*, 2020; 228(3):137-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32060431>.

Daniels M. [Where there s smoke - there s no fire? - Burns from E-Cigarette explosions]. Handchir Mikrochir Plast Chir, 2020; 52(6):483-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33291165>.

Claes KEY, Vyncke T, De Wolf E, Hoeksema H, Verbelen J, et al. Enzymatic debridement as an effective treatment for combined flame and chemical burns caused by e-cigarettes. American Journal of Emergency Medicine, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32139205>.

Beining T, Thogmartin JR, and Kurz W. Projectile Wound to Head from Modified Electronic Cigarette Explosion. J Forensic Sci, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32202654>.

Simpson LJ and Lye G. Burns injuries from e-cigarettes kept in pockets. British Medical Journal, 2019; 364:l554. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30733332>.

Serror K, Chaouat M, Depret F, Dutot MC, Chatelain S, et al. Burns caused by electronic vaping devices (e-cigarettes): Discussion about a new classification proposal based on mechanisms. Burns, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31839502>.

Quiroga L, Asif M, Lagziel T, Bhat D, and Caffrey J. E-Cigarette Battery Explosions: Review of the Acute Management of the Burns and the Impact on Our Population. Cureus, 2019; 11(8):e5355. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31608190>.

Nyman AL, Weaver SR, Huang J, Slovic P, Ashley DL, et al. US Adult Smokers' Perceived Risk of Fire or Explosion-Related Injury Caused by Electronic Nicotine Delivery Systems. Public Health Rep, 2019;33354919878433. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31600459>.

Michael R, Ebraheim N, Maier J, Tanios M, and Kouri A. Electronic Cigarette Burns: A Case Report and Review of Current Literature. Case Rep Orthop, 2019; 2019:4231764. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31772801>.

Katz MG and Russell KW. Injury from E-Cigarette Explosion. New England Journal of Medicine, 2019; 380(25):2460. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31216401>.

Ho W, Jones CD, Widdowson D, and Bahia H. Bromelain-based enzymatic debridement of e-cigarette burns: a single unit experience. J Wound Care, 2019; 28(11):758-61. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31721672>.

Dohnalek HM and Harley EH. Analysis of Electronic Cigarette-Related Injury Presenting to U.S. Emergency Departments, 2008-2017. The Journal of Emergency Medicine, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31375369>.

Chu H and Sen S. A proposed further sub-classification of burns caused by electronic vaping devices. Burns, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31839500>.

Boissiere F, Bekara F, Luca-Pozner V, Godillot C, Gandolfi S, et al. Thermal and chemical burns caused by e-cigarette battery explosions. Ann Chir Plast Esthet, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31892442>.

Sanginiti D. The Link Between E-Cigarette Design And Explosions. Law 360, 2018. Available from: <https://www.law360.com/articles/997632/the-link-between-e-cigarette-design-and-explosions>.

Rosshiem ME, Livingston MD, Soule EK, Zeraye HA, and Thombs DL. Electronic cigarette explosion and burn injuries, US Emergency Departments 2015-2017. *Tobacco Control*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30219795>.

McCague Y. Ocular Chemical Burns Secondary to Accidental Administration of e-Cigarette Liquid. *Adv Emerg Nurs J*, 2018; 40(2):104-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29715252>.

Jones CD, Ho W, Gunn E, Widdowson D, and Bahia H. E-cigarette burn injuries: Comprehensive review and management guidelines proposal. *Burns*, 2018. Available from: [https://www.burnsjournal.com/article/S0305-4179\(18\)30279-1/fulltext](https://www.burnsjournal.com/article/S0305-4179(18)30279-1/fulltext).

Hickey S, Goverman J, Friedstat J, Sheridan R, and Schulz J. Thermal injuries from exploding electronic cigarettes. *Burns*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29503045>.

Corey CG, Chang JT, and Rostron BL. Electronic nicotine delivery system (ENDS) battery-related burns presenting to US emergency departments, 2016. *Injury Epidemiology*, 2018; 5(1):4. Available from: <https://doi.org/10.1186/s40621-018-0135-1>.

Carreras-Torres R, Johansson M, Haycock PC, Relton CL, Davey Smith G, et al. Role of obesity in smoking behaviour: Mendelian randomisation study in UK Biobank. *British Medical Journal*, 2018; 361. Available from: <https://www.bmj.com/content/bmj/361/bmj.k1767.full.pdf>.

Andresen NS, Lee DJ, Kowalski CE, and Bayon R. Fall With e-Cigarette in Mouth Resulting in Pharyngeal and Esophageal Burns. *JAMA Otolaryngol Head Neck Surg*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29494719>.

Ackley E, Williams JTB, Kunrath C, Monson M, Ignatiuk A, et al. Too Hot to Handle? When Vaporizers Explode. *J Pediatr*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29395175>.

Vaught B, Spellman J, Shah A, Stewart A, and Mullin D. Facial trauma caused by electronic cigarette explosion. *Ear Nose Throat J*, 2017; 96(3):139-42. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28346645>.

U.S. Fire Administration. Electronic cigarette fires and explosions in the United States 2009 - 2016. Federal Emergency Management Agency, 2017. Available from: https://www.usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf.

Treitl D, Solomon R, Davare DL, Sanchez R, and Kiffin C. Full and partial thickness burns from spontaneous combustion of e-cigarette lithium-ion batteries with review of literature. *The Journal of Emergency Medicine*, 2017. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28501385>.

Toy J, Dong F, Lee C, Zappa D, Le T, et al. Alarming increase in electronic nicotine delivery systems-related burn injuries: A serious unregulated public health issue. *American Journal of Emergency Medicine*, 2017. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28651887>.

Serror K, Chaouat M, Legrand MM, Depret F, Haddad J, et al. Burns caused by electronic vaping devices (e-cigarettes): A new classification proposal based on mechanisms. *Burns*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29056367>.

Serror K, Chaouat M, De Runz A, Mimoun M, and Boccara D. Thigh deep burns caused by electronic vaping devices (e-cigarettes): A new mechanism. *Burns*, 2017; 43(5):1133-5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28274498>.

Satteson ES, Walker NJ, Tuohy CJ, and Molnar JA. Extensive Hand Thermal and Blast Injury From Electronic Cigarette Explosion: A Case Report. *Hand (N Y)*, 2017;1558944717744333. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29192506>.

Ramirez JI, Ridgway CA, Lee JG, Potenza BM, Sen S, et al. The unrecognized epidemic of electronic cigarette burns. *Journal of Burn Care & Research*, 2017; 38(4):220–4. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28644205>.

Norii T and Plate A. Electronic cigarette explosion resulting in a C1 and C2 fracture: A case report. *Journal of Emergency Medicine*, 2017; 52(1):86–8. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27712901>.

Maraqqa T, Mohamed MAT, Salib M, Morris S, Mercer L, et al. Too Hot for Your Pocket! Burns From E-Cigarette Lithium Battery Explosions: A Case Series. *Journal of Burn Care & Research*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29931215>.

Jiwani AZ, Williams JF, Rizzo JA, Chung KK, King BT, et al. Thermal injury patterns associated with electronic cigarettes. *Int J Burns Trauma*, 2017; 7(1):1–5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28123861>.

Harshman J, Vojvodic M, and Rogers AD. Burns associated with e-cigarette batteries: A case series and literature review. *Canadian Journal of Emergency Medicine*, 2017:1–9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28566106>.

Foran I, Oak NR, and Meunier MJ. High-Pressure Injection Injury Caused by Electronic Cigarette Explosion: A Case Report. *JBJS Case Connect*, 2017; 7(2):e36. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29244675>.

Bauman ZM, Roman J, Singer M, and Vercruyse GA. Canary in the coal mine-Initial reports of thermal injury secondary to electronic cigarettes. *Burns*, 2017; 43(3):e38-e42. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28277273>.

Arnaout A, Khashaba H, Dobbs T, Dewi F, Pope-Jones S, et al. The Southwest UK Burns Network (SWUK) experience of electronic cigarette explosions and review of literature. *Burns*, 2017; 43(4):e1-e6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28412133>.

Arnaout A, Dewi F, and Nguyen D. Re: Burn injuries from exploding electronic cigarette batteries: An emerging public health hazard. *J Plast Reconstr Aesthet Surg*, 2017; 70(7):981-2. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28283387>.

Walsh K, Sheikh Z, Johal K, and Khwaja N. Rare case of accidental fire and burns caused by e-cigarette batteries. *BMJ Case Rep*, 2016; 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26961553>.

Sheckter C, Chattopadhyay A, Paro J, and Karanas Y. Burns resulting from spontaneous combustion of electronic cigarettes: a case series. *Burns Trauma*, 2016; 4:35. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27995151>.

Shastry S and Langdorf MI. Electronic Vapor Cigarette Battery Explosion Causing Shotgun-like Superficial Wounds and Contusion. *West J Emerg Med*, 2016; 17(2):177–80. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26973744>.

Rose AM, Nicoll KJ, Quaba O, and Lowrie AG. E-cigarettes-beware of the rocket in your pocket. *British Medical Journal*, 2016; 353:i2712. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27189493>.

Roger JM, Abayon M, Elad S, and Kolokythas A. Oral Trauma and Tooth Avulsion Following Explosion of E-Cigarette. *J Oral Maxillofac Surg*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26850869>.

Patterson SB, Beckett AR, Lintner A, Leahey C, Greer A, et al. A Novel Classification System for Injuries After Electronic Cigarette Explosions. *Journal of Burn Care & Research*, 2016. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/27893577>.

Paley GL, Echalié E, Eck TW, Hong AR, Farooq AV, et al. Corneoscleral laceration and ocular burns caused by electronic cigarette explosions. *Cornea*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27191672>.

Nicoll KJ, Rose AM, Khan MA, Quaba O, and Lowrie AG. Thigh burns from exploding e-cigarette lithium ion batteries: First case series. *Burns*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27118069>.

Moore J, Mihalache G, and Messahel A. "Exploding" electronic cigarette: a case report. *Br J Oral Maxillofac Surg*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27282081>.

Meernik C, Williams FN, Cairns BA, Grant EJ, and Goldstein AO. Burns from e-cigarettes and other electronic nicotine delivery systems. *British Medical Journal*, 2016; 354:i5024. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27664185>.

Kumetz EA, Hurst ND, Cudnik RJ, and Rudinsky SL. Electronic cigarette explosion injuries: A case series. *American Journal of Emergency Medicine*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27133537>.

Hassan S, Anwar MU, Muthayya P, and Jivan S. Burn injuries from exploding electronic cigarette batteries: An emerging public health hazard. *J Plast Reconstr Aesthet Surg*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27692636>.

Harrison R and Hicklin D, Jr. Electronic cigarette explosions involving the oral cavity. *J Am Dent Assoc*, 2016; 147(11):891-6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27158079>.

Goverman J and Schulz JT. Thigh burns from exploding E-cigarette. *Burns*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27554630>.

Colaïanni CA, Tapias LF, Cauley R, Sheridan R, Schulz JT, et al. Injuries Caused by Explosion of Electronic Cigarette Devices. *Eplasty*, 2016; 16:ic9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26966477>.

Cason DE, Morgan DE, and Pietryga JA. Injuries From an Exploding E-Cigarette: A Case Report. *Annals of Internal Medicine*, 2016; 165(9):678-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/27802461>.

Brownson EG, Thompson CM, Goldsberry S, Chong HJ, Friedrich JB, et al. Explosion Injuries from E-Cigarettes. *New England Journal of Medicine*, 2016; 375(14):1400-2. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27705271>.

Brooks JK, Kleinman JW, Brooks JB, and Reynolds MA. Electronic cigarette explosion associated with extensive intraoral injuries. *Dent Traumatol*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27397137>.

Bohr S, Almarzouqi F, and Pallua N. Extensive burn injury caused by fundamental electronic cigarette design flaw. *Ann Burns Fire Disasters*, 2016; 29(3):231-3. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28149256>.

Archambeau BA, Young S, Lee C, Pennington T, Vanderbeek C, et al. E-cigarette Blast Injury: Complex Facial Fractures and Pneumocephalus. *West J Emerg Med*, 2016; 17(6):805-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/27833693>.

Anderson H, Richie C, and Bernard A. A Surprisingly Volatile Smoking Alternative: Explosion and Burns as Risks of E-Cigarette Use. *Journal of Burn Care & Research*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27755252>.

Lacasse Y, Legare M, and Maltais F. E-cigarette use in patients receiving home oxygen therapy. *Can Respir J*, 2015; 22(2):83–5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25848719>.

18.4.1.2 Nicotine toxicity and accidental poisoning

Crosby, LM. (2024). Unravelling the Risk of Poisoning From Nicotine-Containing Tobacco Products in Children Less Than Five Years of Age. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38484179>

Motomura, A, Inoue, H, Ishii, N, Horioka, K, Okaba, K, Moue, C et al. (2024). A suicide case of liquid nicotine intoxication. *Leg Med (Tokyo)*, 68, 102400. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38237272>

Esmaeeli Dehaj, H, Maleki Dehnavi, S, Zahedi Nejad, M, Akbarzadeh Kolahi, S, Abdolghaffari, AH, Khalili, A, & Mazloom, R. (2023). The time interval between injection of nicotine and tremor initiation: a new index for evaluating nicotine efficacy in rodents. *Toxicol Mech Methods*, 1-5. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38092698>

Sansone, L, Milani, F, Fabrizi, R, Belli, M, Cristina, M, Zaga, V et al. (2023). Nicotine: From Discovery to Biological Effects. *Int J Mol Sci*, 24(19). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37834017>

Franchitto, N, Bloch, J, Solal, C, French, PCCRG, & Pelissier, F. (2023). Self-poisoning by e-cigarette and e-liquids: national reports to French Poison Control Centers from July 2019 to December 2020: VIGILANCE and VAPE: the VIGIVAPE Study. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37422917>

Tashakkori, NA, Rostron, BL, Christensen, CH, & Cullen, KA. (2023). Notes from the Field: E-Cigarette-Associated Cases Reported to Poison Centers - United States, April 1, 2022-March 31, 2023. *MMWR Morb Mortal Wkly Rep*, 72(25), 694-695. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37347709>

Becam, J, Martin, E, Pouradier, G, Doudka, N, Solas, C, Guilhaumou, R, & Fabresse, N. (2023). Transdermal Nicotine Poisoning: A Rare Case Report of Occupational Exposure. *Toxics*, 11(5). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37235278>

Banks, E, Yazidjoglou, A, Brown, S, Nguyen, M, Martin, M, Beckwith, K et al. (2023). Electronic cigarettes and health outcomes: umbrella and systematic review of the global evidence. *Med J Aust*, 218(6), 267-275. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36939271>

Sellner J, Hauer L, Rinaldi F, Covi M, Brigo F, et al. Embolic Stroke Following Ingestion of Liquid Nicotine Refill Solution. *Neurohospitalist*, 2022; 12(4):693-6. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36147756>.

Ayesha A. A Review of Electronic Cigarettes and Liquid Nicotine Poisoning Exposure Cases in the United States. *J Pharm Pharm Sci*, 2022; 25:354-68. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36423643>.

Wang B, Liu ST, Johnson MA, and Trigger S. Trends and characteristics of ocular exposures related to e-cigarettes and e-liquids reported to Poison Control Centers in the United States, 2010-2019. *Clin Toxicol (Phila)*, 2021:1-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34328369>.

Driller G, Plasencia E, and Apollonio DE. Retrospective review of nicotine exposures in California from 2012 to 2018 and analysis of the impacts of e-cigarette regulations. *BMJ Open*, 2021; 11(3):e043133. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33653751>.

Dong J, Dong J, Zhang Y, He Z, Shi L, et al. A content analysis of e-cigarette related calls to the Shanghai health hotline, for the period 2014-2019. *Tobacco Induced Diseases*, 2021; 19:13. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33642967>.

Buettner-Schmidt K, Miller DR, Orr M, Balasubramanian N, Rykal K, et al. Electronic cigarette refill liquids: Nicotine content, presence of child-resistant packaging, and in-shop compounding. *Journal of Pediatric Nursing*, 2021; 59:45-54. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33460879>.

Bendel GS, Hiller HM, and Ralston A. Nicotine Toxicity Secondary to Aftermarket Modifications to a Vaping Device. *Military Medicine*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34114039>.

Vardavas CI, Girvalaki C, Odani S, Nikitara K, de Vries I, et al. Profile of incidental exposures to e-cigarette liquids in Europe, 2018-2019. *Hum Exp Toxicol*, 2020:960327120975828. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33272061>.

Talih S, Salman R, El-Hage R, Karam E, Karaoghlanian N, et al. Might limiting liquid nicotine concentration result in more toxic electronic cigarette aerosols? *Tobacco Control*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32522818>.

Scarpino M, Rosso T, Lanzo G, Lolli F, Bonizzoli M, et al. Severe neurological nicotine intoxication by e-cigarette liquids: Systematic literature review. *Acta Neurol Scand*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32866996>.

Scarpino M, Bonizzoli M, Lanzi C, Lanzo G, Lazzeri C, et al. Brain death following ingestion of E-cigarette liquid nicotine refill solution. *Brain Behav*, 2020:e01744. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32722878>.

Quail MT. Nicotine toxicity: Protecting children from e-cigarette exposure. *Nursing*, 2020; 50(1):44-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31855987>.

Osinski K, Ross H, Clarke L, Dear J, and Veiraiah A. A case of ingestion of two vape cartridges. *Clin Toxicol (Phila)*, 2020:1-2. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33156713>.

Obertova N, Navratil T, Zak I, and Zakharov S. Acute exposures to e-cigarettes and heat-not-burn products reported to the Czech Toxicological Information Centre over a 7-year period (2012-2018). *Basic Clin Pharmacol Toxicol*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32012431>.

Jude J, Hiller H, and Miller J. Melon with a Twist: A Case of Nicotine Overdose After Ingestion and Aspiration of Vape Liquid. *Military Medicine*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33038243>.

Wylie C, Heffernan A, Brown JA, Cairns R, Lynch AM, et al. Exposures to e-cigarettes and their refills: calls to Australian Poisons Information Centres, 2009-2016. *The Medical Journal of Australia*, 2019; 210(3):126. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30772937>.

White SL, Grace C, and Scollo MM. Regulating known unknowns: ensuring the safety of e-liquids in Australia. *Medical Journal of Australia*, 2019; 210(3):119-20. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/30697751>.

Wang B, Liu S, and Persoskie A. Poisoning exposure cases involving e-cigarettes and e-liquid in the United States, 2010-2018. *Clin Toxicol (Phila)*, 2019:1-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31496321>.

Omaiye EE, McWhirter KJ, Luo W, Pankow JF, and Talbot P. High Nicotine Electronic Cigarette Products: Toxicity of JUUL Fluids and Aerosols Correlates Strongly with Nicotine and Some Flavor Chemical Concentrations. *Chem Res Toxicol*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30896936>.

Maessen GC, Wijnhoven AM, Neijzen RL, Paulus MC, van Heel DAM, et al. Nicotine intoxication by e-cigarette liquids: a study of case reports and pathophysiology. *Clin Toxicol (Phila)*, 2019:1-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31286797>.

Kirkcaldy A, Fairbrother H, Weiner K, and Curtis P. Young people's perspectives of e-cigarette use in the home. *Health Place*, 2019; 57:157-64. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31054499>.

Choi A, Le M, Rahim T, Rose C, and Kosatsky T. Electronic cigarette exposures reported to the British Columbia Drug and Poison Information Centre: an observational case series. *CMAJ Open*, 2019; 7(3):E462-E71. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31320329>.

Chivers E, Janka M, Franklin P, Mullins B, and Larcombe A. Nicotine and other potentially harmful compounds in "nicotine-free" e-cigarette liquids in Australia. *Medical Journal of Australia*, 2019; 210(3):127-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30636275>.

Cairns R, Brown JA, Wylie CE, Dawson AH, Isbister GK, et al. Paracetamol poisoning-related hospital admissions and deaths in Australia, 2004-2017. *Medical Journal of Australia*, 2019; 211(5):218-23. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/31389025>.

Park EJ and Min YG. The emerging method of suicide by electronic cigarette liquid: a case report. *Journal of Korean Medical Science*, 2018; 33(11):e52. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29495133>.

Lee J, You Y, Park JS, Min JH, Yoo I, et al. Liver Donation After Brain Death Following Intentional Ingestion of 99% E-Cigarette Liquid Nicotine 10 mL. *Exp Clin Transplant*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29911961>.

Hughes A and Hendrickson RG. An epidemiologic and clinical description of e-cigarette toxicity. *Clin Toxicol (Phila)*, 2018:1-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30306801>.

Govindarajan P, Spiller HA, Casavant MJ, Chounthirath T, and Smith GA. E-cigarette and liquid nicotine exposures among young children. *Pediatrics*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29686144>.

Ang E, Tuthill D, and Thompson J. E-cigarette liquid ingestion: a fast growing accidental issue in children. *Arch Dis Child*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29449210>.

Wang B and Rostron B. Tobacco-related Poison Events Involving Young Children in the US, 2001-2016. *Tobacco Regulatory Science*, 2017; 3(4):525-35. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30338270>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6190721/pdf/nihms-990910.pdf>.

van der Meer DH, Pranger AD, Jansen I, Wilms EB, Kieft H, et al. [Fatal intoxication with nicotine for e-cigarette]. *Ned Tijdschr Geneesk*, 2017; 161(0):D1591. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28984212>.

Prevot N, de Oliveira F, Perinel-Ragey S, Basset T, Vergnon JM, et al. Nicotine delivery from the refill liquid to the aerosol via high-power e-cigarette device. *Scientific Reports*, 2017; 7(1):2592. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28572636>.

Noble MJ, Longstreet B, Hendrickson RG, and Gerona R. Unintentional Pediatric Ingestion of Electronic Cigarette Nicotine Refill Liquid Necessitating Intubation. *Annals of Emergency Medicine*, 2017; 69(1):94-7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27988056>.

Noble MJ, Longstreet B, Hendrickson RG, and Gerona R. Unintentional Pediatric Ingestion of Electronic Cigarette Nicotine Refill Liquid Necessitating Intubation. *Annals of Emergency Medicine*, 2017; 69(1):94-7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27988056>.

Lam RPK, Tang MHY, Leung SC, Chong YK, Tsui MSH, et al. Supraventricular tachycardia and acute confusion following ingestion of e-cigarette fluid containing AB-FUBINACA and ADB-FUBINACA: a case report with quantitative analysis of serum drug concentrations. *Clin Toxicol (Phila)*, 2017:1-6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28393558>.

Etter JF and Bugey A. E-cigarette liquids: Constancy of content across batches and accuracy of labeling. *Addictive Behaviors*, 2017; 73:137-43. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28511098>.

Zolot J. Toxic Exposures of Young Children to E-Cigarettes Are on the Rise. *Am J Nurs*, 2016; 116(8):15. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27466908>.

You G, Rhee J, Park Y, and Park S. Determination of Nicotine, Cotinine and Trans-3'-Hydroxycotinine using LC/MS/MS in Forensic Samples of a Nicotine Fatal Case by Oral Ingestion of e-cigarette Liquid. *J Forensic Sci*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27238766>.

Weiss D, Tomasallo CD, Meiman JG, Creswell PD, Melstrom PC, et al. Electronic Cigarette Exposure: Calls to Wisconsin Poison Control Centers, 2010-2015. *WMJ*, 2016; 115(6):306-10. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29094867>.

Seo AD, Kim DC, Yu HJ, and Kang MJ. Accidental ingestion of E-cigarette liquid nicotine in a 15-month-old child: an infant mortality case of nicotine intoxication. *Korean J Pediatr*, 2016; 59(12):490-3. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28194215>.

Ramoa CP, Hiler MM, Spindle TR, Lopez AA, Karaoghlanian N, et al. Electronic cigarette nicotine delivery can exceed that of combustible cigarettes: a preliminary report. *Tobacco Control*, 2016; 25(e1):e6-9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26324250>.

Goney G, Cok I, Tamer U, Burgaz S, and Sengezer T. Urinary cotinine levels of electronic cigarette (e-cigarette) users. *Toxicol Mech Methods*, 2016:1-5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27278718>.

Frasch HF and Barbero AM. In vitro human epidermal permeation of nicotine from electronic cigarette refill liquids and implications for dermal exposure assessment. *J Expo Sci Environ Epidemiol*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27924817>.

Etter JF. A longitudinal study of cotinine in long-term daily users of e-cigarettes. *Drug and Alcohol Dependence*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26804899>.

Eggleston W, Nacca N, Stork CM, and Marraffa JM. Pediatric death after unintentional exposure to liquid nicotine for an electronic cigarette. *Clin Toxicol (Phila)*, 2016:1-2. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27383772>.

Davis B, Razo A, Nothnagel E, Chen M, and Talbot P. Unexpected nicotine in Do-it-Yourself electronic cigarette flavourings. *Tobacco Control*, 2016; 25(e1):e67-e8. Available from: <http://tobaccocontrol.bmj.com/content/25/e1/e67.short>.

Chatham-Stephens K, Law R, Taylor E, Kieszak S, Melstrom P, et al. Exposure Calls to U. S. Poison Centers Involving Electronic Cigarettes and Conventional Cigarettes-September 2010-December 2014. *J Med Toxicol*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27352081>.

Benowitz NL and Burbank AD. Cardiovascular toxicity of nicotine: Implications for electronic cigarette use. *Trends Cardiovasc Med*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27079891>.

Varlet V, Farsalinos K, Augsburger M, Thomas A, and Etter JF. Toxicity assessment of refill liquids for electronic cigarettes. *International Journal of Environmental Research and Public Health*, 2015; 12(5):4796-815. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/25941845>.

St Helen G, Havel C, Dempsey D, Jacob P, 3rd, and Benowitz NL. Nicotine delivery, retention, and pharmacokinetics from various electronic cigarettes. *Addiction*, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26430813>.

Pagano T, Bida MR, and Robinson RJ. Laboratory Activity for the Determination of Nicotine in Electronic Cigarette Liquids using Gas Chromatography-Mass Spectrometry. *J Lab Chem Educ*, 2015; 3(3):37–43. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26478904>.

Normandin PA and Benotti SA. Pediatric Emergency Update: Lethality of Liquid Nicotine in E-Cigarettes. *J Emerg Nurs*, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25913384>.

Morris DS and Fiala SC. Online electronic cigarette retailers can do more to prevent accidental poisonings. *Tobacco Control*, 2015; 24(4):415–6. Available from: <http://tobaccocontrol.bmj.com/content/24/4/415.short>.

Marsot A and Simon N. Nicotine and Cotinine Levels With Electronic Cigarette: A Review. *Int J Toxicol*, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26681385>.

Maina G, Castagnoli C, Passini V, Crosera M, Adami G, et al. Transdermal nicotine absorption handling e-cigarette refill liquids. *Regulatory Toxicology and Pharmacology*, 2015; 74:31–3. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26619784>.

Gill N, Sangha G, Poonai N, and Lim R. E-Cigarette Liquid Nicotine Ingestion in a Child: Case Report and Discussion. *CJEM*, 2015:1–5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25892642>.

Forrester MB. Pediatric Exposures to Electronic Cigarettes Reported to Texas Poison Centers. *The Journal of Emergency Medicine*, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25802158>.

El-Hellani A, El-Hage R, Baalbaki R, Salman R, Talih S, et al. Free-Base and Protonated Nicotine in Electronic Cigarette Liquids and Aerosols. *Chem Res Toxicol*, 2015; 28(8):1532–7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26158618>.

Electronic cigarettes: poisoning in children. *Prescrire Int*, 2015; 24(156):21. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25729833>.

Vakkalanka JP, Hardison LS, Jr., and Holstege CP. Epidemiological trends in electronic cigarette exposures reported to U.S. Poison Centers. *Clin Toxicol (Phila)*, 2014; 52(5):542–8. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24792781>.

Smith JE. Electronic cigarettes: a safer alternative or potential poison? *Home Healthc Nurse*, 2014; 32(9):532–5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25268527>.

Schipper EM, de Graaff LC, Koch BC, Brkic Z, Wilms EB, et al. A New Challenge: Suicide Attempt using Nicotine Fillings for Electronic Cigarettes. *Br J Clin Pharmacol*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25115565>.

Ordonez JE, Kleinschmidt KC, and Forrester MB. Electronic Cigarette Exposures Reported to Texas Poison Centers. *Nicotine & Tobacco Research*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25344956>.

Morris DS and Fiala SC. Online electronic cigarette retailers can do more to prevent accidental poisonings. *Tobacco Control*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25199630>.

Miller A. Nicotine poisoning increase due to e-cigarettes. *CMAJ*, 2014; 186(10):E367. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24914118>.

Lowry JA. Electronic cigarettes: Another pediatric toxic hazard in the home? *Clin Toxicol (Phila)*, 2014; 52(5):449–50. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24825314>.

Kamerow D. The poisonous “juice” in e-cigarettes. *British Medical Journal*, 2014; 348:g2504. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24691068>.

Farsalinos KE, Voudris V, and Le Houezec J. Risks of Attempting to Regulate Nicotine Flux in Electronic Cigarettes. *Nicotine & Tobacco Research*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25332460>.

Eberlein CK, Frieling H, Kohnlein T, Hillemacher T, and Bleich S. Suicide attempt by poisoning using nicotine liquid for use in electronic cigarettes. *American Journal of Psychiatry*, 2014; 171(8):891. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25082494>.

Chatham-Stephens K, Law R, Taylor E, Melstrom P, Bunnell R, et al. Notes from the field: calls to poison centers for exposures to electronic cigarettes—United States, September 2010-February 2014. *Morbidity and Mortality Weekly Report*, 2014; 63(13):292–3. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24699766>.

Centers for Disease Control and Prevention. Press Release: ‘New CDC study finds dramatic increase in e-cigarette-related calls to poison centers’. 2014. Available from: <http://www.cdc.gov/media/releases/2014/p0403-e-cigarette-poison.html>.

Cantrell FL. Adverse effects of e-cigarette exposures. *Journal of Community Health*, 2014; 39(3):614–6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24338077>.

Bartschat S, Mercer-Chalmers-Bender K, Beike J, Rothschild MA, and Jubner M. Not only smoking is deadly: fatal ingestion of e-juice—a case report. *Int J Legal Med*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25239221>.

Christensen LB, van’t Veen T, and Bang J. Three cases of attempted suicide by ingestion of nicotine liquid used in e-cigarettes. XXXIII International Congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), 2013. Available from: <http://www.e-cigarette-research.info/doku.php/research:documents:f87h87fv>.

Cervellin G, Luci M, Bellini C, and Lippi G. Bad news about an old poison. A case of nicotine poisoning due to both ingestion and injection of the content of an electronic cigarette refill. *Emergency Care Journal*, 2013; 9(2):18. Available from: <http://ftp.oncolgyreviews.org/index.php/ecj/article/view/ecj.2013.e18>.

18.4.2 Abuse potential

Prasad, K, Griffiths, A, Agrawal, K, McEwan, M, Macci, F, Ghisoni, M et al. (2024). Modelling the nicotine pharmacokinetic profile for e-cigarettes using real time monitoring of consumers' physiological measurements and mouth level exposure. *BioData Min*, 17(1), 24. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39020394>

Smethells, JR, S, W, P, M, Mg, L, & Ap, H. (2024). The role of beta-Nicotyrine in E-Cigarette abuse liability I: Drug Discrimination. *bioRxiv*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39071347>

Kong, G, Lee, J, Ouellette, RR, & Morean, ME. (2024). Modification of Electronic Nicotine Delivery Systems Among Adolescents and Young Adults. *Pediatrics*, 154(1). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38881359>

Goldenson, NI, Shiffman, S, Sembower, MA, & Black, RA. (2024). Assessment of abuse liability and switching potential of menthol-flavored pod-based electronic nicotine delivery systems among US adults who smoke cigarettes. *Drug Alcohol Depend*, 258, 111279. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38614020>

Kirshenbaum, AP, Kelsey, V, Cooper, M, Richardson, AE, & Hughes, JR. (2023). A novel abuse liability assessment of e-cigarettes in young adults ii: Reinforcement enhancement and follow-up assessment. *Exp Clin Psychopharmacol*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38059929>

Campbell, C, Jin, T, Round, EK, Nelson, PR, & Baxter, S. (2023). Abuse liability of two electronic nicotine delivery systems compared with combustible cigarettes and nicotine gum from an open-label randomized crossover study. *Sci Rep*, 13(1), 18951. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37919490>

Tang, M, Zhang, M, Fu, Y, Chen, L, Li, D, Zhang, H et al. (2023). Terahertz label-free detection of nicotine-induced neural cell changes and the underlying mechanisms. *Biosens Bioelectron*, 241, 115697. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37751650>

Ng G, Attwells S, and Zawertailo L. The development and validation of an electronic nicotine delivery system (ENDS) image cue stimulus set. *Drug and Alcohol Dependence*, 2022; 236:109496. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35605534>.

Harris AC, Muelken P, Alcheva A, Stepanov I, and LeSage MG. Cigarette Smoke Extract, but Not Electronic Cigarette Aerosol Extract, Inhibits Monoamine Oxidase in vitro and Produces Greater Acute Aversive/Anhedonic Effects Than Nicotine Alone on Intracranial Self-Stimulation in Rats. *Front Neurosci*, 2022; 16:868088. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35712461>.

Fearon IM. Human abuse liability assessment of e-cigarettes: Why, what and how? *Drug Test Anal*, 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35302289>.

Campbell C, Jin T, Round EK, Schmidt E, Nelson P, et al. Part one: abuse liability of Vuse Solo (G2) electronic nicotine delivery system relative to combustible cigarettes and nicotine gum. *Scientific Reports*, 2022; 12(1):22080. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36543869>.

Mulder HA, Patterson JL, Halquist MS, Kosmider L, Turner JBM, et al. Author Correction: The Effect of Electronic Cigarette User Modifications and E-liquid Adulteration on the Particle Size Profile of an Aerosolized Product. *Scientific Reports*, 2020; 10(1):4975. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32165715>.

Goldenson NI, Buchhalter AR, Augustson EM, Rubinstein ML, and Henningfield JE. Abuse liability assessment of the JUUL system in four flavors relative to combustible cigarette, nicotine gum and a comparator electronic nicotine delivery system among adult smokers. *Drug and Alcohol Dependence*, 2020:108395. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33176942>.

Pericot-Valverde I, Priest JS, Wagener TL, and Gaalema DE. Examination of a mouthpiece-based topography device for assessing relative reinforcing effects of e-cigarettes: A preliminary study. *Experimental and Clinical Psychopharmacology*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31305091>.

Breland A, Maloney SF, Soule EK, Ramoa C, Barnes A, et al. Abuse liability of electronic cigarettes in men who are experienced electronic cigarette users. *Experimental and Clinical Psychopharmacology*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31259592>.

Stiles MF, Campbell LR, Jin T, Graff DW, Fant RV, et al. Assessment of the abuse liability of three menthol Vuse Solo electronic cigarettes relative to combustible cigarettes and nicotine gum. *Psychopharmacology (Berl)*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29725702>.

Smethells JR, Harris AC, Burroughs D, Hursh SR, and LeSage MG. Substitutability of nicotine alone and an electronic cigarette liquid using a concurrent choice assay in rats: A behavioral economic analysis. *Drug and Alcohol Dependence*, 2018; 185:58-66. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29427916>.

El-Hage R, El-Hellani A, Salman R, Talih S, Shihadeh A, et al. Fate of pyrazines in the flavored liquids of e-cigarettes. *Aerosol Sci Technol*, 2018; 52(4):377-84. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30233107>.

Zainol Abidin N, Zainal Abidin E, Zulkifli A, Karuppiah K, Syed Ismail SN, et al. Electronic cigarettes and indoor air quality: a review of studies using human volunteers. *Reviews on Environmental Health*, 2017; 32(3):235–44. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28107173>.

Stiles MF, Campbell LR, Graff DW, Jones BA, Fant RV, et al. Pharmacodynamic and pharmacokinetic assessment of electronic cigarettes, combustible cigarettes, and nicotine gum: implications for abuse liability. *Psychopharmacology (Berl)*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28634710>.

Park SH, Lee L, Shearston JA, and Weitzman M. Patterns of electronic cigarette use and level of psychological distress. *PLoS One*, 2017; 12(3):e0173625. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28278239>.

Nguyen K, Tong V, Marynak K, and King B. Perceptions of Harm to Children Exposed to Secondhand Aerosol From Electronic Vapor Products, Styles Survey, 2015. *Preventing Chronic Disease (National Center for Chronic Disease Prevention and Health Promotion, CDC)*, 2017; 14:E41. Available from: https://www.cdc.gov/pcd/issues/2017/16_0567.htm
<http://www.ncbi.nlm.nih.gov/pubmed/28541868>.

Liu G, Wasserman E, Kong L, and Foulds J. A comparison of nicotine dependence among exclusive E-cigarette and cigarette users in the PATH study. *Preventive Medicine*, 2017; 104:86–91. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28389330>.

Hobkirk AL, Nichols TT, Foulds J, Yingst JM, Veldheer S, et al. Changes in resting state functional brain connectivity and withdrawal symptoms are associated with acute electronic cigarette use. *Brain Res Bull*, 2017. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28528203>.

Fagan P, Pokhrel P, Herzog TA, Guy MC, Sakuma KK, et al. Warning Statements and Safety Practices among Manufacturers and Distributors of Electronic Cigarette Liquids in the United States. *Nicotine & Tobacco Research*, 2017. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28520985>.

Barnes AJ, Bono RS, Lester RC, Eissenberg TE, and Cobb CO. Effect of Flavors and Modified Risk Messages on E-cigarette Abuse Liability. *Tobacco Regulatory Science*, 2017; 3(4):374-87. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29204463>.

Baldassarri SR, Hillmer AT, Anderson JM, Jatlow P, Nabulsi N, et al. Use of Electronic Cigarettes Leads to Significant Beta2-Nicotinic Acetylcholine Receptor Occupancy: Evidence From a PET Imaging Study. *Nicotine & Tobacco Research*, 2017. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28460123>.

St Helen G, Ross KC, Dempsey DA, Havel CM, Jacob P, 3rd, et al. Nicotine Delivery and Vaping Behavior During ad Libitum E-cigarette Access. *Tobacco Regulatory Science*, 2016; 2(4):363-76. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28393086>.

Talih S, Balhas Z, Eissenberg T, Salman R, Karaoghlanian N, et al. Effects of User Puff Topography, Device Voltage, and Liquid Nicotine Concentration on Electronic Cigarette Nicotine Yield: Measurements and Model Predictions. *Nicotine & Tobacco Research*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25187061>.

Spindle TR, Breland AB, Karaoghlanian NV, Shihadeh AL, and Eissenberg T. Preliminary Results of an Examination of Electronic Cigarette User Puff Topography: The Effect of a Mouthpiece-Based Topography Measurement Device on Plasma Nicotine and Subjective Effects. *Nicotine & Tobacco Research*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25239957>.

Shihadeh A and Eissenberg T. Electronic Cigarette Effectiveness and Abuse Liability: Predicting and Regulating "Nicotine Flux". *Nicotine & Tobacco Research*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25180079>.

Foulds J, Veldheer S, Yingst J, Hrabovsky S, Wilson SJ, et al. Development of a questionnaire to assess dependence on electronic cigarettes in a large sample of ex-smoking e-cig users. *Nicotine & Tobacco Research*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25332459>.

Eissenberg T and Shihadeh A. Nicotine Flux: A Potentially Important Tool For Regulating Electronic Cigarettes. *Nicotine & Tobacco Research*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25332456>.

18.4.2.1 Nicotine addiction

Andreas, M, Grundinger, N, Wolber, N, Szafran, D, Gorig, T, Mons, U et al. (2024). Understanding e-Cigarette Addictiveness: Triangulation of Focus Group and Netnographic Data. *J Med Internet Res*, 26, e57970. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39353183>

Nian, Q, Hardesty, JJ, Crespi, E, Sinamo, J, Kennedy, RD, Welding, K, & Cohen, JE. (2024). Is Maintenance or Switching Between Freebase and Nicotine Salt Liquid Associated with Electronic Nicotine Delivery Systems Dependence? *Subst Use Misuse*, 1-7. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38918934>

Keller-Hamilton, B, Sloan, R, Mehta, T, Hinton, A, Tackett, AP, Roberts, ME et al. (2024). An observational human laboratory assessment of nicotine delivery, vaping topography and subjective

effects of usual brand electronic cigarette use among young adults. *Addiction*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38800982>

Yahya, L, Mandoura, N, & Harere, R. (2024). Nicotine Dependency Levels Among Adult Electronic Cigarette Smokers in Jeddah, Saudi Arabia: An Analytical Cross-Sectional Study. *Cureus*, *16*(5), e61038. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38800771>

Adjei, A, Mantey, DS, Chen, B, Wilkinson, AV, & Harrell, MB. (2024). Reply to Foxon F. & Shiffman S. Regarding Comments on "Adjei et al. 2024 Symptoms of nicotine dependence by E-cigarette and cigarette use behavior and brand: A population-based, nationally representative cross-sectional study" [Drug Alcohol Depend. 255 (2024) 111059]. *Drug Alcohol Depend*, 111256. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38492989>

Foxon, F, & Shiffman, S. (2024). Methodological considerations when assessing symptoms of nicotine dependence by cigarette and e-cigarette use behavior and brand. *Drug Alcohol Depend*, 111255. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38503599>

Algallal, HE, Jacquemet, V, & Samaha, AN. (2024). Intermittent nicotine access is as effective as continuous access in promoting nicotine seeking and taking in rats. *Psychopharmacology (Berl)*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38326505>

Milstred, AR, Douglas, AE, Felicione, NJ, & Blank, MD. (2024). Psychometric properties of measures for electronic cigarette dependence among former-smoking electronic cigarette users. *Addict Behav*, *152*, 107974 Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38301587>

Zuo, Y, Solingapuram Sai, KK, Jazic, A, Bansode, AH, Rose, JE, & Mukhin, AG. (2024). Comparison of brain nicotine accumulation from traditional combustible cigarettes and electronic cigarettes with different formulations. *Neuropsychopharmacology*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38225397>

Frie, JA, McCunn, P, Eed, A, Hassan, A, Luciani, KR, Chen, C et al. (2023). Factors influencing JUUL e-cigarette nicotine vapour-induced reward, withdrawal, pharmacokinetics and brain connectivity in rats: sex matters. *Neuropsychopharmacology*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38057369>

Leavens, ELS, Lambart, L, Diaz, FJ, Wagener, TL, Ahluwalia, JS, Benowitz, N, & Nollen, NL. (2023). Nicotine delivery and changes in withdrawal and craving during acute electronic cigarette, heated tobacco product, and cigarette use among a sample of Black and White people who smoke. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38097340>

Cristol, BA, Clendennen, SL, Hebert, ET, & Harrell, MB. (2024). Nicotine dependence among young adults: Comparing exclusive ENDS users to exclusive cigarette smokers. *Addict Behav*, *149*, 107897. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37924585>

Sharma, H, & Ruikar, M. (2023). Electronic cigarettes: Ally or an enemy in combating tobacco-use-associated diseases - An integrative review. *Indian J Dent Res*, *34*(2), 216-222. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37787216>

Chu, M, Deng, J, Hu, H, Wang, R, Li, D, Chen, Z et al. (2023). Nicotine Transport across Calu-3 Cell Monolayer: Effect of Nicotine Salts and Flavored E-liquids. *Drug Dev Ind Pharm*, 1-27. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37751149>

Kolaczyk, K, & Jiang, H. (2023). Photometric Monitoring of Electronic Cigarette Puff Topography. *Sensors (Basel)*, 23(19). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37837050>

Underly, R, Dull, GM, Nudi, E, Pionk, T, Prevette, K, & Smith, J. (2023). Using a Novel Connected Device for the Collection of Puffing Topography Data for the Vuse Solo Electronic Nicotine Delivery System in a Real-World Setting: Prospective Ambulatory Clinical Study. *JMIR Form Res*, 7, e49876. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37902830>

Selya, A, Kim, S, Shiffman, S, Gitchell, J, & Foxon, F. (2023). What Substances Are Adolescents Vaping? Estimating Nicotine-Specific and Cannabis-Specific Vaping from US National Youth Surveys. *Subst Use Misuse*, 1-7. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37838985>

Martinez, M, Espinoza, VE, Garcia, V, Uribe, KP, Negishi, K, Estevao, IL et al. (2023). Withdrawal from repeated nicotine vapor exposure increases somatic signs of physical dependence, anxiety-like behavior, and brain reward thresholds in adult male rats. *Neuropharmacology*, 109681. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37611823>

Li, L, Yang, C, Zhan, S, Wilson, KM, Taioli, E, Mazumdar, M, & Liu, B. (2023). Longitudinal Assessment of Association Between Tobacco Use and Tobacco Dependence Among Adults: Latent Class Analysis of the Population Assessment of Tobacco and Health Study Waves 1-4. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37496127>

Hernandez-Perez, A, Garcia-Gomez, L, Robles-Hernandez, R, Thirion-Romero, I, Osio-Echanove, J, Rodriguez-Llamazares, S et al. (2023). Addiction to Tobacco Smoking and Vaping. *Rev Invest Clin*, 75(3), 158-168. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37441760>

Strong, DR, Pierce, JP, White, M, Stone, MD, Abrams, DB, Glasser, AM et al. (2023). Changes in Tobacco Dependence and Association with Onset and Progression of Use by Product Type from Wave 1 to Wave 3 of the Population Assessment of Tobacco and Health (PATH) Study. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37410879>

Shiffman, S, & Goldenson, NI. (2023). Changes in dependence over one year among US adults who smoke cigarettes and switched completely or partially to use of the JUUL-brand electronic nicotine delivery system. *Drug Alcohol Depend Rep*, 6, 100137. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36994368>

Alkhlaif, Y, & Shelton, KL. (2023). Assessment of abuse-related discriminative stimulus effects of nicotine aerosol in rodents. *J Pharmacol Exp Ther*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36918277>

Szafran D, Gorig T, Vollstadt-Klein S, Grundinger N, Mons U, et al. Addictive Potential of e-Cigarettes as Reported in e-Cigarette Online Forums: Netnographic Analysis of Subjective Experiences. *Journal of Medical Internet Research*, 2023; 25:e41669. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36607713>.

Perez-Martin H, Lidon-Moyano C, Gonzalez-Marron A, Fu M, Perez-Ortuno R, et al. Variation in Nicotine Metabolization According to Biological Factors and Type of Nicotine Consumer. *Healthcare (Basel)*, 2023; 11(2). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36673548>.

Parms TA, Valverde R, Park-Lee E, Graham-Glover BS, Cunningham CS, et al. Symptoms of tobacco dependence among middle and high school tobacco users - Data from the 2019-2020 National Youth Tobacco Survey. *Addictive Behaviors*, 2023; 137:107537. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36332518>.

Zuo Y, Mukhin AG, Berg H, Morgan JD, Mintz A, et al. Comparison of brain nicotine uptake from electronic cigarettes and combustible cigarettes. *Neuropsychopharmacology*, 2022; 47(11):1939–44. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35962133>.

Suchanecka A, Chmielowiec J, Chmielowiec K, Trybek G, Jaron A, et al. Serotonin Receptor HTR3A Gene Polymorphisms rs1985242 and rs1062613, E-Cigarette Use and Personality. *International Journal of Environmental Research and Public Health*, 2022; 19(8). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35457612>.

Scherer G, Mutze J, Pluym N, and Scherer M. Assessment of nicotine delivery and uptake in users of various tobacco/nicotine products. *Curr Res Toxicol*, 2022; 3:100067. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35330709>.

Prochaska JJ, Vogel EA, and Benowitz N. Nicotine delivery and cigarette equivalents from vaping a JUULpod. *Tobacco Control*, 2022; 31(e1):e88–e93. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33762429>.

Murray RL, Evison M, and Callister ME. Nicotine or tobacco abstinence? *Eur Respir Rev*, 2022; 31(166). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36323419>.

Milstred AR, Douglas AE, Romm KF, and Blank MD. Evaluation of the Psychometric Properties of Dependence Measures for Exclusive Electronic Cigarette Users. *Nicotine & Tobacco Research*, 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36377569>.

Manrique-Ruiz Tapia MA, Macias-Lopez MP, Murcia-Casas DZ, Lozada Ramirez G, Torres Barreto K, et al. Adaptation and Psychometric Properties of the Electronic Cigarette Dependence Index (ECDI) in a Colombian Sample. *Int J Psychol Res (Medellin)*, 2022; 15(1):20-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36199525>.

Loukas A, Marti CN, Harrell MB, Pasch KE, and Wilkinson AV. Electronic nicotine delivery systems (ENDS) dependence among Texas Young Adults, 2014-2019: Increasing trajectory after the 2017 surge in vape pod popularity. *Drug and Alcohol Dependence*, 2022; 241:109700. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36434881>.

Keijsers M, Vega-Corredor MC, Hoermann S, and Tomintz M. Cue Reactivity to Electronic Cigarettes: A Systematic Review. *Subst Abuse*, 2022; 16:11782218221114971. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35923180>.

Huh Y, Min Lee C, and Cho HJ. Comparison of nicotine dependence between single and multiple tobacco product users among South Korean adults. *Tobacco Induced Diseases*, 2022; 20:22. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35291560>.

Gao X, Fewx M, Sprock J, Jiang H, Gao Y, et al. A Novel Puff Recording Electronic Nicotine Delivery System Toward Assessment of Naturalistic Puff Topography and Nicotine Consumption During Ad Libitum Use: An Ancillary Study. *JMIR Form Res*, 2022. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/36542679>.

Fearon IM, Seltzer RGN, Houser TL, Tope A, Cahours X, et al. Examination of the Impact of myblu Electronic Nicotine Delivery System E-Liquid Nicotine Strength on Self-Reported Measures of Dependence. *Drug Test Anal*, 2022. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/35712897>.

Vollstadt-Klein S, Grundinger N, Gorig T, Szafran D, Althaus A, et al. Study protocol: evaluation of the addictive potential of e-cigarettes (EVAPE): neurobiological, sociological, and epidemiological perspectives. *BMC Psychology*, 2021; 9(1):181. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/34794514>

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8600891/pdf/40359_2021_Article_682.pdf.

Taylor A, Dunn K, and Turfus S. A review of nicotine-containing electronic cigarettes-Trends in use, effects, contents, labelling accuracy and detection methods. *Drug Test Anal*, 2021; 13(2):242–60.

Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33450135>.

Simpson KA, Kechter A, Schiff SJ, Braymiller JL, Yamaguchi N, et al. Characterizing symptoms of e-cigarette dependence: a qualitative study of young adults. *BMC Public Health*, 2021; 21(1):959.

Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34016066>.

Pamungkasningsih SW, Taufik FF, Samoedro E, Andarini S, and Susanto AD. Urinary Cotinine and Nicotine Dependence Levels in Regular Male Electronic Cigarette Users. *Eurasian J Med*, 2021; 53(3):168-73. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35110091>.

Palmer AM, Toll BA, Carpenter MJ, Donny EC, Hatsukami DK, et al. Reappraising Choice in Addiction: Novel Conceptualizations and Treatments for Tobacco Use Disorder. *Nicotine & Tobacco Research*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34270729>.

Mercincavage M, Karelitz JL, Kreider CL, Souprountchouk V, Albelda B, et al. Comparing video observation to electronic topography device as a method for measuring cigarette puffing behavior. *Drug and Alcohol Dependence*, 2021; 221:108623. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/33618196>.

Loud EE, Duong HT, Henderson KC, Reynolds RM, Ashley DL, et al. Addicted to smoking or addicted to nicotine? A focus group study on perceptions of nicotine and addiction among US adult current smokers, former smokers, non-smokers and dual users of cigarettes and e-cigarettes. *Addiction*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34227709>.

Leventhal AM, Madden DR, Peraza N, Schiff SJ, Lebovitz L, et al. Effect of Exposure to e-Cigarettes With Salt vs Free-Base Nicotine on the Appeal and Sensory Experience of Vaping: A Randomized Clinical Trial. *JAMA Netw Open*, 2021; 4(1):e2032757. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/33433597>.

Lee J. Nicotine Dependence of Electronic Cigarette, Dual Combustible and Electronic Cigarette Users. *Korean J Fam Med*, 2021; 42(3):189-90. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/34038986>.

Lallai V, Chen YC, Roybal MM, Kotha ER, Fowler JP, et al. Nicotine e-cigarette vapor inhalation and self-administration in a rodent model: Sex- and nicotine delivery-specific effects on metabolism and behavior. *Addict Biol*, 2021:e13024. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33624410>.

Kittaneh AA, Sidhu NK, Tackett AP, and Lechner WV. Effects of Negative Emotion on Abstinence Induced Change in Urge to Vape and Measures of Vaping Dependence. *Substance Use and Misuse*, 2021:1-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33706646>.

Kimber CF, Soar K, and Dawkins LE. Changes in puffing topography and subjective effects over a 2-week period in e-cigarette naive smokers: Effects of device type and nicotine concentrations. *Addictive Behaviors*, 2021; 118:106909. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33756301>.

Kim JY, Kang HS, Jung JW, Jung SY, Park HJ, et al. Nicotine Dependence and Stress Susceptibility in E-Cigarette Smokers: The Korea National Health and Nutrition Examination Survey 2013-2017. *Tuberc Respir Dis (Seoul)*, 2021; 84(2):159–66. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33401344>.

Karam E, Talih S, Salman R, El-Hage R, Karaoghlanian N, et al. JUUL ‘new technology’ pods exhibit greater electrical power and nicotine output than previous devices. *Tobacco Control*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33963073>.

Jain RB. Concentrations of serum hydroxycotinine for US adult smokers aged ≥ 20 years by type of smoker. *Environ Sci Pollut Res Int*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33840034>.

Jacobson K, Martinez J, Larroque S, Jones IW, and Paschke T. Nicotine pharmacokinetics of electronic cigarettes: A pooled data analysis from the literature. *Toxicol Rep*, 2021; 8:84–95. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33437651>.

Hammond D, Reid JL, Rynard VL, O’Connor RJ, Goniewicz ML, et al. Indicators of dependence and efforts to quit vaping and smoking among youth in Canada, England and the USA. *Tobacco Control*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33526441>.

Goldenson NI, Fearon IM, Buchhalter AR, and Heningfield JE. An Open-Label, Randomised, Controlled, Crossover Study to Assess Nicotine Pharmacokinetics and Subjective Effects of the JUUL System with Three Nicotine Concentrations Relative to Combustible Cigarettes in Adult Smokers. *Nicotine & Tobacco Research*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33486526>.

Do EK, O’Connor K, Perks SN, Soule EK, Eissenberg T, et al. E-cigarette device and liquid characteristics and E-cigarette dependence: A pilot study of pod-based and disposable E-cigarette users. *Addictive Behaviors*, 2021; 124:107117. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34555560>.

Cox S, Goniewicz ML, Kosmider L, McRobbie H, Kimber C, et al. The time course of compensatory puffing with an electronic cigarette: Secondary analysis of real-world puffing data with high and low nicotine concentration under fixed and adjustable power settings. *Nicotine & Tobacco Research*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33483754>.

Cobb CO, Lopez AA, Soule EK, Yen MS, Rumsey H, et al. Corrigendum to “Influence of electronic cigarette liquid flavors and nicotine concentration on subjective measures of abuse liability in young adult cigarette smokers” [Drug Alcohol Depend. 203 (2019) 27-34]. Drug and Alcohol Dependence, 2021; 222:108645. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33780790>.

Buu A, Cai Z, Li R, Wong SW, Lin HC, et al. Validating E-cigarette Dependence Scales Based on Dynamic Patterns of Vaping Behaviors. Nicotine & Tobacco Research, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33758949>.

Barakat MM, Al-Qudah RA, Alfayoumi I, Al-Obaidi HJ, Jirjees FJ, et al. Electronic cigarettes' withdrawal severity symptoms among users during intermittent fasting: a cross-sectional study. Addiction Science & Clinical Practice, 2021; 16(1):10. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33546764>.

Yingst J, Foulds J, and Hobkirk AL. Dependence and Use Characteristics of Adult JUUL Electronic Cigarette Users. Substance Use and Misuse, 2020:1-6. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33118854>.

Wong LP, Mohd Salim SN, Alias H, Aghamohammadi N, Hoe VCW, et al. The Association Between E-Cigarette Use Behaviors and Saliva Cotinine Concentration Among Healthy E-Cigarette Users in Malaysia. Journal of Addictions Nursing, 2020; 31(2):102-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32487936>.

Talih S, Salman R, El-Hage R, Karaoghlanian N, El-Hellani A, et al. Effect of free-base and protonated nicotine on nicotine yield from electronic cigarettes with varying power and liquid vehicle. Scientific Reports, 2020; 10(1):16263. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33004992>.

Talih S, Salman R, El-Hage R, Karam E, Salam S, et al. A comparison of the electrical characteristics, liquid composition, and toxicant emissions of JUUL USA and JUUL UK e-cigarettes. Scientific Reports, 2020; 10(1):7322. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32355323>.

Soule EK, Lee JGL, Egan KL, Bode KM, Desrosiers AC, et al. “I cannot live without my vape”: Electronic cigarette user-identified indicators of vaping dependence. Drug and Alcohol Dependence, 2020; 209:107886. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32061946>.

Snow D. Nicotine Addiction and E-Cigarettes. Journal of Addictions Nursing, 2020; 31(2):77-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32487932>.

Smith LC, Kallupi M, Tieu L, Shankar K, Jaquish A, et al. Validation of a nicotine vapor self-administration model in rats with relevance to electronic cigarette use. Neuropsychopharmacology, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32544927>.

Shiffman S and Sembower MA. Dependence on e-cigarettes and cigarettes in a cross-sectional study of US adults. Addiction, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32196810>.

Rycroft N, Hogarth L, MacKillop J, and Dawkins L. Vapers exhibit similar subjective nicotine dependence but lower nicotine reinforcing value compared to smokers. Addictive Behaviors, 2020; 115:106737. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33360443>.

Rostron BL, Coleman B, Cheng YC, Kimmel HL, Oniyide O, et al. Nicotine Exposure by Device Type among Adult Electronic Nicotine Delivery System Users in the Population Assessment of Tobacco and

Health Study, 2015-2016. *Cancer Epidemiology, Biomarkers & Prevention*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32727724>.

Rapp J, Alpert N, Flores RM, and Taioli E. Serum cotinine levels and nicotine addiction potential of E-cigarettes-an NHANES Analysis. *Carcinogenesis*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32052011>.

Rahman AU, Mohamed MHN, Jamshed S, Mahmood S, and Iftikhar Baig MA. The Development and Assessment of Modified Fagerstrom Test for Nicotine Dependence Scale among Malaysian Single Electronic Cigarette Users. *J Pharm Bioallied Sci*, 2020; 12(Suppl 2):S671-S5. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33828359>.

Ponzoni L, Braida D, Carboni L, Moretti M, Viani P, et al. Persistent cognitive and affective alterations at late withdrawal stages after long-term intermittent exposure to tobacco smoke or electronic cigarette vapour: Behavioural changes and their neurochemical correlates. *Pharmacol Res*, 2020; 158:104941. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32450347>.

Phillips-Waller A, Przulj D, Smith KM, Pesola F, and Hajek P. Nicotine delivery and user reactions to Juul EU (20 mg/ml) compared with Juul US (59 mg/ml), cigarettes and other e-cigarette products. *Psychopharmacology (Berl)*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33270145>.

Pergadia ML, Newcomer JW, and Gilbert DG. Depression and Nicotine Withdrawal Associations with Combustible and Electronic Cigarette Use. *International Journal of Environmental Research and Public Health*, 2020; 17(24). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33327373>.

Mermelstein RJ, Hedeker D, and Rest EC. Response To: Can We Measure Nicotine Dependence in Dual Users of Cigarettes and ENDS? *Nicotine & Tobacco Research*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33331899>.

Leavens ELS, Smith TT, Natale N, and Carpenter MJ. Electronic cigarette dependence and demand among pod mod users as a function of smoking status. *Psychology of Addictive Behaviors*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32297753>.

Idris IB. Electronic cigarettes: an emerging part of the modern lifestyle or a public health threat? *Perspect Public Health*, 2020; 140(3):146-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32414314>.

Gholap V and Halquist MS. Historical Perspective of Proactive and Reactive Regulations of E-cigarettes to Combat Nicotine Addiction. *Journal of Addiction Medicine*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32097237>.

Felicione NJ, Karaoghlanian N, Shihadeh A, Eissenberg T, and Blank MD. Comparison of Measurement Methods for Electronic Cigarette Puff Topography. *Tobacco Regulatory Science*, 2020; 6(5):318-30. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33959673>.

Ebrahimi Kalan M, Ward KD, and Ben Taleb Z. Can We Measure Nicotine Dependence in Dual Users of Cigarettes and ENDS? *Nicotine & Tobacco Research*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33295987>.

Dugas EN, Sylvestre MP, and O'Loughlin J. Type of e-liquid vaped, poly-nicotine use and nicotine dependence symptoms in young adult e-cigarette users: a descriptive study. *BMC Public Health*, 2020; 20(1):922. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32532250>.

Chung S, Bengtson CD, Kim MD, and Salathe M. CrossTalk opposing view: E-cigarettes expose users to adverse effects of vapours and the potential for nicotine addiction. *The Journal of physiology*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32495948>.

Camara-Medeiros A, Diemert L, O'Connor S, Schwartz R, Eissenberg T, et al. Perceived addiction to vaping among youth and young adult regular vapers. *Tobacco Control*, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32198277>.

Aslan D, Gurbay A, Hayran M, Sengelen M, Pasli D, et al. Re: Nicotine Delivery of E-Cigarettes. *Turk Thorac J*, 2020; 21(1):74. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32163369>.

Akpinar EE. Nicotine Delivery of E-Cigarettes. *Turk Thorac J*, 2020; 21(1):73-4. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32163368>.

Yingst JM, Foulds J, Veldheer S, Hrabovsky S, Trushin N, et al. Nicotine absorption during electronic cigarette use among regular users. *PLoS One*, 2019; 14(7):e0220300. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31344110>.

Voos N, Goniewicz ML, and Eissenberg T. What is the nicotine delivery profile of electronic cigarettes? *Expert Opin Drug Deliv*, 2019;1-11. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31495244>.

Vogel EA, Prochaska JJ, and Rubinstein ML. Measuring e-cigarette addiction among adolescents. *Tobacco Control*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31079033>.

Truman P, Stanfill S, Heydari A, Silver E, and Fowles J. Monoamine oxidase inhibitory activity of flavoured e-cigarette liquids. *Neurotoxicology*, 2019; 75:123-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31536738>.

St Helen G, Nardone N, Addo N, Dempsey D, Havel C, et al. Differences in nicotine intake and effects from electronic and combustible cigarettes among dual users. *Addiction*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31691397>.

Srbinoska M, Kavrakovski Z, Rafajlovska V, and Simonovska J. Determined and declared nicotine content in refill liquids for electronic cigarettes marketed in North Macedonia. *Arh Hig Rada Toksikol*, 2019; 70(2):130-3. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31246569>.

Solingapuram Sai KK, Zuo Y, Rose JEy, Garg PK, Garg S, et al. Rapid Brain Nicotine Uptake from Electronic Cigarettes. *J Nucl Med*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31676729>.

Smets J, Baeyens F, Chaumont M, Adriaens K, and Van Gucht D. When Less is More: Vaping Low-Nicotine vs. High-Nicotine E-Liquid is Compensated by Increased Wattage and Higher Liquid Consumption. *International Journal of Environmental Research and Public Health*, 2019; 16(5). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30823395>.

Rosen RL and Steinberg ML. Interest in Quitting E-Cigarettes among Adults in the United States. *Nicotine & Tobacco Research*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31011747>.

Romberg AR, Miller Lo EJ, Cuccia AF, Willett JG, Xiao H, et al. Patterns of nicotine concentrations in electronic cigarettes sold in the United States, 2013-2018. *Drug and Alcohol Dependence*, 2019; 203:1-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31386973>.

Robinson RJ and Hensel EC. Behavior-based yield for electronic cigarette users of different strength e-liquids based on natural environment topography. *Inhal Toxicol*, 2019; 31(13-14):484-91. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31994941>.

Pericot-Valverde I, Yoon JH, and Gaalema DE. Single- and cross-commodity delay discounting of money and e-cigarette liquid in experienced e-cigarette users. *Drug and Alcohol Dependence*, 2019; 206:107740. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31778948>.

Nardone N, Helen GS, Addo N, Meighan S, and Benowitz NL. JUUL electronic cigarettes: Nicotine exposure and the user experience. *Drug and Alcohol Dependence*, 2019; 203:83-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31408770>.

Morean ME, Krishnan-Sarin S, Sussman S, Foulds J, Fishbein H, et al. Psychometric evaluation of the Patient-Reported Outcomes Measurement Information System (PROMIS) Nicotine Dependence Item Bank for use with electronic cigarettes. *Nicotine & Tobacco Research*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31254382>.

Maloney SF, Breland A, Soule EK, Hiler M, Ramoa C, et al. Abuse liability assessment of an electronic cigarette in combustible cigarette smokers. *Experimental and Clinical Psychopharmacology*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30777773>.

Jankowski M, Krzystanek M, Zejda JE, Majek P, Lubanski J, et al. E-Cigarettes are More Addictive than Traditional Cigarettes-A Study in Highly Educated Young People. *International Journal of Environmental Research and Public Health*, 2019; 16(13). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31252671>.

Jackler RK and Ramamurthi D. Nicotine arms race: JUUL and the high-nicotine product market. *Tobacco Control* 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30733312>.

Hughes JR, Peters EN, Callas PW, Peasley-Miklus C, Oga E, et al. Withdrawal Symptoms from E-Cigarette Abstinence Among Adult Never-Smokers: A Pilot Experimental Study. *Nicotine & Tobacco Research*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31504882>.

Hoetger C, Bono RS, Nicksic NE, Barnes AJ, and Cobb CO. Influence of Electronic Cigarette Characteristics on Susceptibility, Perceptions, and Abuse Liability Indices among Combustible Tobacco Cigarette Smokers and Non-Smokers. *International Journal of Environmental Research and Public Health*, 2019; 16(10). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31126016>.

Hiler M, Karaoghlanian N, Talih S, Maloney S, Breland A, et al. Effects of electronic cigarette heating coil resistance and liquid nicotine concentration on user nicotine delivery, heart rate, subjective effects, puff topography, and liquid consumption. *Experimental and Clinical Psychopharmacology*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31855003>.

Harvanko AM, St Helen G, Nardone N, Addo N, and Benowitz NL. Twenty-four Hour Subjective and Pharmacological Effects of Ad Libitum Electronic and Combustible Cigarette Use among Dual Users. *Addiction*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31837232>.

Duell AK, Pankow JF, and Peyton DH. Nicotine in tobacco product aerosols: 'It's deja vu all over again'. Tobacco Control, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31848312>.

Duell AK, Pankow JF, and Peyton DH. Correction to Free-Base Nicotine Determination in Electronic Cigarette Liquids by (1)H NMR Spectroscopy. Chem Res Toxicol, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31464426>.

Dinardo P and Rome ES. Vaping: The new wave of nicotine addiction. Cleve Clin J Med, 2019; 86(12):789-98. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31821136>.

Cobb CO, Lopez AA, Soule EK, Yen MS, Rumsey H, et al. Influence of electronic cigarette liquid flavors and nicotine concentration on subjective measures of abuse liability in young adult cigarette smokers. Drug and Alcohol Dependence, 2019; 203:27-34. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31401532>.

Vansickel AR, Edmiston JS, Liang Q, Duhon C, Connell C, et al. Characterization of puff topography of a prototype electronic cigarette in adult exclusive cigarette smokers and adult exclusive electronic cigarette users. Regulatory Toxicology and Pharmacology, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30053435>.

Son Y, Wackowski O, Weisel C, Schwander S, Mainelis G, et al. Evaluation of E-Vapor Nicotine and Nicotyrine Concentrations under Various E-Liquid Compositions, Device Settings, and Vaping Topographies. Chem Res Toxicol, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30080399>.

Soar K, Kimber C, McRobbie H, and Dawkins LE. Nicotine absorption from e-cigarettes over 12 months. Addictive Behaviors, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30054021>.

Reilly SM, Bitzer ZT, Goel R, Trushin N, and Richie JP, Jr. Free Radical, Carbonyl, and Nicotine Levels Produced by Juul Electronic Cigarettes. Nicotine & Tobacco Research, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30346584>
<https://academic.oup.com/ntr/advance-article-abstract/doi/10.1093/ntr/nty221/5139734?redirectedFrom=fulltext>.

Perkins KA, Herb T, and Karelitz JL. Discrimination of nicotine content in electronic cigarettes. Addictive Behaviors, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29871789>.

Morean M, Krishnan-Sarin S, Sussman S, Foulds J, Fishbein H, et al. Psychometric evaluation of the Patient-Reported Outcomes Measurement Information System (PROMIS) Nicotine Dependence Item Bank for use with electronic cigarettes. Nicotine & Tobacco Research, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29301008>.

Koval R, Willett J, and Briggs J. Potential Benefits and Risks of High-Nicotine e-Cigarettes. Journal of the American Medical Association, 2018; 320(14):1429-30. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30326513>
<https://jamanetwork.com/journals/jama/article-abstract/2703960>.

Koval R, Willett J, and Briggs J. Potential benefits and risks of high-nicotine e-cigarettes. Journal of the American Medical Association, 2018; 320(14):1429-30. Available from: <http://dx.doi.org/10.1001/jama.2018.12328>.

Kosmider L, Kimber CF, Kurek J, Corcoran O, and Dawkins LE. Compensatory puffing with lower nicotine concentration e-liquids increases carbonyl exposure in e-cigarette aerosols. *Nicotine & Tobacco Research*, 2018; 20(8):998–1003. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29065196>.

Karam-Hage M. E-cigarettes and the Nicotine Epidemic. *American Journal on Addictions*, 2018; 27(8):650-1. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30516335>.

Hughes JR and Callas PW. Prevalence of withdrawal symptoms from electronic cigarette cessation: A cross-sectional analysis of the US Population Assessment of Tobacco and Health. *Addictive Behaviors*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30033197>.

Harvanko A, Kryscio R, Martin C, and Kelly T. Stimulus effects of propylene glycol and vegetable glycerin in electronic cigarette liquids. *Drug and Alcohol Dependence*, 2018; 194:326-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30471584>.

Fearon IM, Eldridge AC, Gale N, McEwan M, Stiles MF, et al. Nicotine pharmacokinetics of electronic cigarettes: A review of the literature. *Regulatory Toxicology and Pharmacology*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30201538>.

Dowd AN, Motschman CA, and Tiffany ST. Development and Validation of the Questionnaire of Vaping Craving. *Nicotine & Tobacco Research*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29546379>.

Raymond BH, Collette-Merrill K, Harrison RG, Jarvis S, and Rasmussen RJ. The Nicotine Content of a Sample of E-cigarette Liquid Manufactured in the United States. *Journal of Addiction Medicine*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29280749>.

Harris AC, Muelken P, Smethells JR, Krueger M, and LeSage MG. Similar precipitated withdrawal effects on intracranial self-stimulation during chronic infusion of an e-cigarette liquid or nicotine alone. *Pharmacol Biochem Behav*, 2017; 161:1-5. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28867606>.

Gonzalez Roz A, Secades Villa R, and Weidberg S. Evaluating nicotine dependence levels in e-cigarette users. *Adicciones*, 2017; 0(0):905. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28170058>.

Gonzalez Roz A, Secades Villa R, and Weidberg S. Evaluating nicotine dependence levels in e-cigarette users. *Adicciones*, 2017; 0(0):905. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28170058>.

Farsalinos K, Poulas K, and Voudris V. Changes in puffing topography and nicotine consumption depending on the power setting of electronic cigarettes. *Nicotine & Tobacco Research*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29059377>.

DeVito EE and Krishnan-Sarin S. E-cigarettes: Impact of E-Liquid Components and Device Characteristics on Nicotine Exposure. *Curr Neuropharmacol*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29046158>.

Caponnetto P, Maglia M, Cannella MC, Inguscio L, Buonocore M, et al. Impact of Different e-Cigarette Generation and Models on Cognitive Performances, Craving and Gesture: A Randomized

Cross-Over Trial (CogEcig). *Front Psychol*, 2017; 8:127. Available from:

<http://www.ncbi.nlm.nih.gov/pubmed/28337155>.

Bold KW, Sussman S, O'Malley SS, Grana R, Foulds J, et al. Measuring E-cigarette dependence: Initial guidance. *Addictive Behaviors*, 2017. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/29174664>.

Nicotine Addiction and E-cigarettes. *Journal of Addictions Nursing*, 2017; 28(4):229-30. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/29200053>.

Spindle TR, Hiler MM, Breland AB, Karaoghlanian NV, Shihadeh AL, et al. The Influence of a Mouthpiece-Based Topography Measurement Device on Electronic Cigarette User's Plasma Nicotine Concentration, Heart Rate, and Subjective Effects Under Directed and Ad Libitum Use Conditions. *Nicotine & Tobacco Research*, 2016. Available from:

<http://www.ncbi.nlm.nih.gov/pubmed/27613914>.

Papaseit E, Farre M, Graziano S, Pacifici R, Perez-Mana C, et al. Monitoring nicotine intake from e-cigarettes: measurement of parent drug and metabolites in oral fluid and plasma. *Clin Chem Lab Med*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27559692>.

Cox S, Kosmider L, McRobbie H, Goniewicz M, Kimber C, et al. E-cigarette puffing patterns associated with high and low nicotine e-liquid strength: effects on toxicant and carcinogen exposure. *BMC Public Health*, 2016; 16:999. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27650300>.

18.4.2.2 Consuming other drugs in e-cigarettes

Civiletto, CW, Aslam, SP, & Hutchison, J. (2024). Electronic Vaping Delivery of Cannabis and Nicotine. In *StatPearls*. Treasure Island (FL) ineligible companies. Disclosure: Sunny Aslam declares no relevant financial relationships with ineligible companies. Disclosure: Julia Hutchison declares no relevant financial relationships with ineligible companies. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/31424744>

Liu, J, Hanby, E, Kingsley, M, Winickoff, JP, Gundersen, DA, & Tan, ASL. (2024). Dual-Vaping of Nicotine and Cannabis among Adults who Currently Use Tobacco Products in Five New England States. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38502116>

Harries, RL, Norman, C, Reid, R, Nic Daeid, N, & Nisbet, LA. (2024). Detection of anabolic-androgenic steroids in e-cigarettes seized from prisons: A case study. *Forensic Sci Int*, 356, 111965. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38359752>

Silva, A. (2024). E-cigarettes with vitamins and nutrients: where quackery and technology meet. *Cad Saude Publica*, 40(1), e00024223. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38324865>

Gutierrez, A, Creehan, KM, Grant, Y, & Taffe, MA. (2024). Adult consequences of repeated nicotine and Delta(9)-tetrahydrocannabinol (THC) vapor inhalation in adolescent rats. *Psychopharmacology (Berl)*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38282127>

Liu, J, Winickoff, JP, Hanby, E, Rees, V, Emmons, KM, & Tan, AS. (2023). Prevalence and correlates of past 30-day dual-vaping of nicotine and cannabis among adolescents in five New England states.

Drug Alcohol Depend, 254, 111055. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38071894>

Ouellette, RR, Selino, S, & Kong, G. (2023). Electronic Nicotine Delivery Systems and E-Liquid Modifications to Vape Cannabis Depicted in Online Videos. *JAMA Netw Open*, 6(11), e2341075. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37917060>

Selya, A, Kim, S, Shiffman, S, Gitchell, J, & Foxon, F. (2023). What Substances Are Adolescents Vaping? Estimating Nicotine-Specific and Cannabis-Specific Vaping from US National Youth Surveys. *Subst Use Misuse*, 1-7. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37838985>

Maglalang, DD, Hu, Y, Baslock, D, Daus, JD, Cano, M, & Ahluwalia, JS. (2023). Recency of Cannabis Vaping in Sexual Minorities in Wave 5 of the Population Assessment of Tobacco and Health (PATH) Study. *Subst Use Misuse*, 1-7. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37750356>

Holt, AK, Rudy, AK, Sawyer, AN, Poklis, JL, Breland, AB, & Peace, MR. (2023). Survey of U.S. Residents and Their Usage of Electronic Cigarettes with Drugs Other Than Nicotine. *J Psychoactive Drugs*, 1-10. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37632360>

Churchill, V, Fairman, RT, Brown, D, Massey, ZB, Ashley, DL, & Popova, L. (2023). "I get the flavors and it makes me love vaping more:" How and why youth users modify electronic nicotine delivery systems. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37358211>

Rychert, M, Romeo, JS, & Wilkins, C. (2023). Exploring Differences in Daily Vaping of Nicotine and Cannabis among People Who Use Drugs in New Zealand. *Subst Use Misuse*, 1-11. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37328432>

Tanaka, R, & Kikura-Hanajiri, R. (2023). Identification of hexahydrocannabinol (HHC), dihydro-iso-tetrahydrocannabinol (dihydro-iso-THC) and hexahydrocannabiphorol (HHCP) in electronic cigarette cartridge products. *Forensic Toxicol*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37365398>

Roberts, E, Taylor, E, Cox, S, Brose, L, McNeill, A, & Robson, D. (2023). Pattern and prevalence of vaping nicotine and non-nicotine drugs in the United Kingdom: a cross-sectional study. *BMJ Open*, 13(4), e066826. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37185643>

Sartor, CE, O'Malley, SS, Krishnan-Sarin, S, & Foster, DW. (2023). In what settings and social contexts do young adults vape or smoke cannabis? Findings from a web-based diary pilot study. *Addict Behav*, 144, 107753. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37210830>

Barhdadi, S, Courselle, P, Deconinck, E, & Vanhee, C. (2023). The analysis of cannabinoids in e-cigarette liquids using LC-HRAM-MS and LC-UV. *J Pharm Biomed Anal*, 230, 115394. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37062207>

Carlini, BH, Garrett, SB, & Nims, LN. (2022). The Kids Are Not All Right: E-cigarettes, Cannabis Co-Use, and an Emerging Public Health Crisis--A Commentary on Roberts et al. (2022). *J Stud Alcohol Drugs*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36971745>

Roberts, ME, Tackett, AP, Singer, JM, Wagner, DD, Lu, B, Wagener, TL et al. (2022). Dual Use of E-cigarettes and Cannabis among Young People in America: A New Public Health Hurdle? *J Stud Alcohol Drugs*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36971738>

Bhat, TA, Kalathil, SG, Goniewicz, ML, Hutson, A, & Thanavala, Y. (2023). Not all vaping is the same: differential pulmonary effects of vaping cannabidiol versus nicotine. *Thorax*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36823163>

Jiao, TF, Li, YQ, Kang, G, Chen, SS, & Cheng, LH. (2022). Detection of Synthetic Cannabinoid CUMYL-PEGACLONE in E-Cigarette Oil and Hair. *Fa Yi Xue Za Zhi*, 38(5), 595-600. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36727175>

Xu, Y, Xu, J, Chen, X, Fan, YL, & Wu, H. (2023). Structural Confirmation of Synthetic Cannabinoids in Seized Electronic Cigarette Oil: A Combined Mass Spectrometric and Computational Study. *Rapid Commun Mass Spectrom*, e9485. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36735629>

Scott A and Jasper A. Wellness vapes: what you need to know about vaping vitamins and other supplements, in *The Conversation*2022. Available from: https://theconversation.com/wellness-vapes-what-you-need-to-know-about-vaping-vitamins-and-other-supplements-187130?utm_source=twitter&utm_medium=bylinetwitterbutton.

Delibasic S. Drug dealers brazenly delivering cannabis-laced vapes to schools, in *The Daily Telegraph*2022. Available from: <https://www.dailytelegraph.com.au/news/victoria/drug-dealers-brazenly-delivering-cannabislaced-vapes-to-schools/news-story/f53a4abd5ade1dd31d746dfee7cf45da?btr=9a9c12ca7eb2174cb90d6bb14782d28c>.

Ferraro K. Apparently Vaping Melatonin Is A Thing People Do Now, in *Bustle*2021. Available from: <https://www.bustle.com/wellness/melatonin-vape-side-effects-safe-experts>.

Spice vaping warning issued by Public Health Agency in *Newry Times*2021: Newry, Northern Ireland. Available from: <http://newrytimes.com/2021/04/13/spice-vaping-warning-issued-by-public-health-agency-newry-times/>.

Tsui J. Cannabis Use in E-cigarettes Increases Among Teens, in *Technology Networks*2020. Available from: <https://www.technologynetworks.com/tn/articles/cannabis-use-in-e-cigarettes-increases-among-teens-330411>.

Research and Markets. Global Market Outlook for the Alternative Non-Nicotine Liquid Vaping Products Market 2020 - Market Analysis of Herbals, Extracts and Vitamin Vaping, in *Cision PR Newswire*2020. Available from: <https://www.prnewswire.com/news-releases/global-market-outlook-for-the-alternative-non-nicotine-liquid-vaping-products-market-2020---market-analysis-of-herbals-extracts-and-vitamin-vaping-301081143.html>.

No authors listed. Marijuana, E-Cigarettes Enticing More Young Adults, in *Health Day*2020. Available from: <https://consumer.healthday.com/cancer-information-5/electronic-cigarettes-970/marijuana-e-cigarettes-enticing-more-young-adults-759189.html>.

No authors listed. British American Tobacco looking into cannabis vape flavours, in *itv*2020. Available from: <https://www.itv.com/news/2020-02-10/british-american-tobacco-looking-into-cannabis-vape-flavours/>.

Mandal A. Vaping marijuana linked to lung injuries warns CDC, in *NEWS MEDICAL*2020. Available from: <https://www.news-medical.net/news/20200115/Vaping-marijuana-linked-to-lung-injuries-warns-CDC.aspx>.

Ives J. Cases of poisoning attributed to manipulated cannabidiol liquids in e-cigarettes, in *News Medical*2020. Available from: <https://www.news-medical.net/news/20200227/Cases-of-poisoning-attributed-to-manipulated-cannabidiol-liquids-in-e-cigarettes.aspx>.

Harris K. A vape being touted as a vitamin inhaler is being targeted to young women on Instagram, in *NZ Herald*2020. Available from: https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12334612.

Truth Initiative. The link between marijuana and e-cigarettes, in *Truth Initiative*2019. Available from: <https://truthinitiative.org/research-resources/substance-use/link-between-marijuana-and-e-cigarettes>.

Siegel M. The “Other” Youth Vaping Epidemic: Why Has It Been Ignored? , in *Tobacco Analysis*2019. Available from: <https://tobaccoanalysis.blogspot.com/2019/10/the-other-youth-vaping-epidemic-why-has.html>.

Siegel M. Marijuana Reform Organization Issues Warning Against Vaping THC Oils Obtained from Unlicensed Sellers; CDC Does Not in *Tobacco Analysis*2019. Available from: <https://tobaccoanalysis.blogspot.com/2019/08/marijuana-reform-organization-issues.html>.

No authors listed. As cannabis vaping set to become legal, public health experts urge strict control, in *CBC*2019. Available from: <https://www.cbc.ca/news/health/vaping-cannabis-1.5321563>.

No authors listed. Undercover look at how THC vape oil ends up on black market in *CBS News*2019. Available from: <https://www.cbsnews.com/video/undercover-look-at-how-thc-vape-oil-ends-up-on-black-market/#x>.

No authors listed. CBDs to Fill In for Vape Flavors?, in *CPS Daily News*2019. Available from: <https://www.cspdailynews.com/tobacco/cbds-fill-vape-flavors>.

Maloney J. Vaping’s Black Market Complicates Efforts to Combat Crises, in *The Wall Street Journal*2019. Available from: <https://www.wsj.com/articles/vapings-black-market-complicates-efforts-to-combat-crises-11570354204>.

Lintern S. More than a dozen children collapse after vaping fake cannabis oil laced with ‘spice’, in *Independent*2019. Available from: <https://www.independent.co.uk/news/health/vaping-cannabis-oil-spice-fake-thc-manchester-children-a9250431.html>.

Hancock L. 3 Ohio medical marijuana processors to disclose ingredients on vape product labels, in *Cleveland*2019. Available from: <https://www.cleveland.com/open/2019/10/3-ohio-medical-marijuana-processors-to-disclose-ingredients-on-vape-product-labels.html>.

Ford R. Prisoners using e-cigarettes to smoke smuggled ‘spice’, in *The Times*2019. Available from: <https://www.thetimes.co.uk/article/prisoners-using-e-cigarettes-to-smoke-smuggled-spice-3jgmnr70>.

Civiletto CW, Aslam S, and Hutchison J. Electronic Delivery (Vaping) Of Cannabis And Nicotine, in *StatPearls*. Treasure Island (FL): 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31424744>.

Center for Network Therapy. As Drug Cartels Leverage Vaping Infrastructure, Expect Vaping Deaths to Rise Sharply in *Cision PR Newswire*2019. Available from: <https://www.prnewswire.com/news-releases/as-drug-cartels-leverage-vaping-infrastructure-expect-vaping-deaths-to-rise-sharply-300938752.html>.

Burgess K. Vaping blamed for woman's lung disease, in *The Times*2019. Available from: <https://www.thetimes.co.uk/article/vaping-blamed-for-womans-lung-disease-80rn37rc2>.

Wood DR. Dr. Wood: Nicotine isn't the only vaping ingredient you need to worry about, in *The Olympian*2018. Available from: <https://www.theolympian.com/latest-news/article218441215.html>.

Taney P. Good Question: Is that weed in that e-cigarette? , in *WHEC*2018. Available from: <https://www.whec.com/news/good-question-is-that-weed-in-that-e-cigarette/5141515/>.

Ng J. FDA: Don't vape prescription erectile dysfunction drugs, in *Boston Herald* 2018. Available from: <https://www.bostonherald.com/2018/12/12/fda-dont-vape-prescription-erectile-dysfunction-drugs/>.

Leoni V. Army releases warning on dangers of 'CBD' vape oils, in *Navy Times*2018. Available from: <https://www.navytimes.com/news/your-military/2018/01/30/army-releases-warning-on-dangers-of-cbd-vape-oils/>.

LaMotte S. FDA warns consumers about e-cigarette liquids with erectile dysfunction drugs, in *CNN*2018. Available from: <https://edition.cnn.com/2018/12/11/health/fda-warning-e-cig-liquid-erectile-dysfunction/index.html>.

King H. Synthetic drugs being produced in liquid form for e-cigarettes, decreasing chance of detection in *Stuff NZ*2018. Available from: <https://www.stuff.co.nz/national/100413742/synthetic-drugs-being-produced-in-liquid-form-for-ecigarettes-decreasing-chance-of-detection>.

Kaskey J. Modern Take on Hashish Is Becoming the Most Popular Way to Consume Legal Cannabis, in *Bloomberg*2018. Available from: <https://www.bloomberg.com/news/articles/2018-09-18/ancient-hashish-gets-vape-makeover-to-lead-legal-cannabis-gains>.

Johnson CK. 2 million US teens are vaping marijuana, in *CNBC*2018. Available from: <https://www.cnn.com/2018/09/17/the-associated-press-2-million-us-teens-are-vaping-marijuana.html>.

Dellatto M. Experts blast trendy vitamin vaping as risky and pointless, in *New York Post*2018. Available from: <https://nypost.com/2018/10/24/experts-blast-trendy-vitamin-vaping-as-risky-and-pointless/>.

Agarlb A. Beware, e-cigarettes are being used to smoke drugs in UAE, in *Khaleej Times*2018. Available from: <https://www.khaleejtimes.com/news/general//beware-e-cigarettes-are-being-used-to-smoke-drugs-in-uae>.

Green A. People are vaping cannabis because they think it makes them less likely to get caught. *Manchester Evening News*, 2017. Available from: <http://www.manchestereveningnews.co.uk/news/greater-manchester-news/people-vaping-cannabis-because-think-13734266>

Gray R. E-cigarettes are being adapted to smoke heroin, crack cocaine, ecstasy and cannabis which could lead to more overdoses, warn experts. Daily Mail 2017. Available from: <http://www.dailymail.co.uk/health/article-4984138/E-cigarettes-adapted-smoke-illegal-drugs.html>

No authors listed. "Darth vapor" sending students to the hospital, in *9 and 10 News* 2015. Available from: <https://kfor.com/2015/05/21/we-will-have-a-death-its-just-a-matter-of-time-new-drug-trend-targeting-e-cigarettes/>.

McIntosh J. Almost a fifth of students using e-cigarettes to vape cannabis, in *Medical News Today* 2015. Available from: <http://www.medicalnewstoday.com/articles/299137.php>.

18.4.2.3 "Dripping"

Massey ZB, Brockenberry LO, Murray TE, and Harrell PT. Dripping Technology Use Among Young Adult E-Cigarette Users. *Tob Use Insights*, 2021; 14:1179173X211035448. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34377042>.

Kamboj A, Kamel T, Burbank M, Esposito M, and Harvey RS. Severe chemical pneumonitis from tetrahydrocannabinol 'vaping' and 'dabbing'. *Cleve Clin J Med*, 2021; 88(2):77-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33526459>.

Harrell PT and Eissenberg T. Automated dripping devices for vapers: RDTAs, bottomfeeders, squonk mods and dripboxes. *Tobacco Control*, 2018; 27(4):480–2. Available from: <http://tobaccocontrol.bmj.com/content/tobaccocontrol/27/4/480.full.pdf>.

Guy MC, Helt J, Palafox S, Green K, Soule EK, et al. Orthodox and Unorthodox Uses of Electronic Cigarettes: A Surveillance of YouTube Video Content. *Nicotine & Tobacco Research*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29961828>.

Polosa R. RE: e-cigarettes and "dripping" among high-school youth: interpretation of the findings flawed by vague definition. *Pediatrics*, 2017. Available from: <http://pediatrics.aappublications.org/content/139/3/e20163224.comments>.

Poklis JL, Mulder HA, Halquist MS, Wolf CE, Poklis A, et al. The Blue Lotus Flower (*Nymphaea caerulea*) Resin Used in a New Type of Electronic Cigarette, the Re-Buildable Dripping Atomizer. *J Psychoactive Drugs*, 2017:1-7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28266899>.

Krishnan-Sarin S, Morean M, Kong G, Bold KW, Camenga DR, et al. E-cigarettes and "dripping" among high-school youth. *Pediatrics*, 2017; 139(3). Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28167512>.

Harrell P and Eissenberg T. Automated dripping devices for vapers: RDTAs, bottomfeeders, squonk mods and dripboxes. *Tobacco Control*, 2017. Available from: <http://tobaccocontrol.bmj.com/content/early/2017/07/26/tobaccocontrol-2017-053817><http://www.ncbi.nlm.nih.gov/pubmed/28735274>.

NewsCAP: 'Dripping' is becoming popular with e-cigarette users. *Am J Nurs*, 2017; 117(5):14. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28448350>.

Talih S, Balhas Z, Salman R, Karaoghlanian N, and Shihadeh A. "Direct dripping": A high-temperature, high-formaldehyde emission electronic cigarette use method. *Nicotine & Tobacco Research*, 2016; 18(4):453–9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25863521>.

18.4.3 Environmental impact

Seidenberg, AB, Braganza, K, Chomas, M, Diaz, MC, Friedman, AS, Phillips, S, & Pesko, M. (2024). Coverage of Indoor Smoking and Vaping Restrictions in the US, 1990-2021. *Am J Prev Med*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38876294>

Donovan, EM, Azadi, M, McKay, T, Aarvig, K, & Kreslake, J. (2024). Not-so-disposable e-cigarettes: Methods young people use to discard single-use e-cigarettes. *Addiction*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38828645>

Boots, B, Green, DS, Wright, ACM, Olah-Kovacs, B, & Tovey, L. (2024). Ecotoxicological effects of leachate from e-cigarettes and e-liquid on the performance of perennial ryegrass (*Lolium perenne*). *Environ Pollut*, 348, 123888. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38548156>

Ngambo, G, Hanna, EG, Gannon, J, Marcus, H, Lomazzi, M, & Azari, R. (2023). A scoping review on e-cigarette environmental impacts. *Tob Prev Cessat*, 9, 30. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37789930>

Venugopal, PD, Addo Ntim, S, Goel, R, Reilly, SM, Brenner, W, & Hanna, SK. (2023). Environmental persistence, bioaccumulation, and hazards of chemicals in e-cigarette e-liquids: short-listing chemicals for risk assessments. *Tob Control*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37845042>

Lu, D. Call for national strategy to force Australian vaping industry to clean up waste. *The Guardian*, 2023. Oct 1, 2023. Retrieved from <https://www.theguardian.com/society/2023/oct/01/call-for-national-strategy-to-force-australian-vaping-industry-to-clean-up-waste>

Shamhuyenzva, RM, Muposhi, A, & Hungwe, DR. (2023). A downstream social norms approach for curtailing e-cigarette waste: Promising social marketing interventions from consumer interactions. *Waste Manag Res*, 734242X231160083. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36922705>

18.4.3.2 Manufacturers' response to e-cigarette waste

18.4.3.3 Policy response

News:

18.4.1 Safety risks

No authors listed. Urgent: Voluntary Product Recall of Vuse Vibe Power Units, in RJ Reynolds Vapor2018. Available from: <http://www.reynoldsameric.com/about-us/press-releases/Press-Release-Details-/2018/Urgent-Voluntary-Product-Recall-of-Vuse-Vibe-Power-Units/default.aspx>.

Goh B. Air China flight's sudden descent linked to co-pilot smoking - state media, in Reuters2018. Available from: <https://uk.reuters.com/article/uk-air-china-investigation/air-china-flights-sudden-descent-linked-to-co-pilot-smoking-state-media-idUKKBN1K30FU?il=0>.

18.4.1.1 Explosions, fires and burns

Caporn, D. Horrific burns after vape erupts in fire. *The West Australian*, 2023. May 22, 2023.

Willis, B. Dangerous DIY vape recharge warning. *InDaily*, 2023. Feb 17, 2023. Retrieved from <https://indaily.com.au/news/2023/02/17/dangerous-diy-vape-recharge-trend-warning/>

No authors listed. Family flee burning home after charging vape catches alight, in *Nine*2022. Available from: <https://www.9news.com.au/videos/national/family-flee-burning-home-after-charging-vape-catches-alight/cl8h6cpkp001b0jo8re63muvb>.

Government of Western Australia - Department of Mines Industry Regulation and Safety. Hazards associated with the use of e-cigarette devices in *Safety bulletin 01/2021*2021. Available from: https://www.commerce.wa.gov.au/sites/default/files/atoms/files/01-2021_safety_bulletin_e_cigarette.pdf.

Department for Business EIS and Office for Product Safety and Standards. Take charge of battery safety when using e-cigarettes in *GOV.UK*2020. Available from: <https://www.gov.uk/government/news/take-charge-of-battery-safety-when-using-e-cigarettes>.

No authors listed. Flight attendant union warns of "catastrophic" fire risk from e-cigarettes on planes, in *CBS News*2019. Available from: <https://www.cbsnews.com/news/e-cigarette-vaping-flight-attendant-union-catastrophic-fire-risk-planes/>.

No authors listed. Exploding e-cigarette kills 24-year-old Texas man, in *BBC News*2019. Available from: <https://www.bbc.com/news/world-us-canada-47136678>.

Knapman H. E-CIG DANGER Argos recalls e-cigs because they could overheat and cause FIRES, in *The Sun*2019. Available from: <https://www.thesun.co.uk/money/9226182/argos-recalls-e-cigs-overheat-cause-fires/>.

Horton W. Don't Vape In Your Seat At 36,000 Feet: Korean Air Tackles In-Flight Smoking in *Forbes*2019. Available from: <https://www.forbes.com/sites/willhorton1/2019/10/28/dont-vape-from-your-seat-at-36000-feet-korean-air-tackles-in-flight-smoking/#1c17ad408e55>.

CNN Wire. 24-Year-Old Texas Man Suffers Massive Stroke, Dies After E-Cigarette Explodes in His Face, in *KTLA 5*2019. Available from: <https://ktla.com/2019/02/05/24-year-old-texas-man-suffers-massive-stroke-dies-after-e-cigarette-explodes-in-his-face/>.

Albert V. This Surgeon Has Treated 30 People for Exploding E-Cigarettes, in *Daily Beast*2019. Available from: <https://www.thedailybeast.com/this-surgeon-has-treated-30-people-for-exploding-e-cigarettes>.

Segar M. Why safer vaping devices that don't explode will not be available in the U.S., in *NBC News*2018. Available from: <https://www.nbcnews.com/business/consumer/why-safer-vaping-devices-don-t-explode-will-not-be-n918221>.

Rodionova Z. URGENT RECALL Vype e-cigarettes sold at Argos and Sainsbury's recalled over fears they could catch fire, in *The Sun*2018. Available from: <https://www.thesun.co.uk/money/6912901/vype-ecigarettes-sainsburys-product-recall-fire/>.

No authors listed. UL Certifies First Electronic Cigarette to UL 8139 Standard, in *Cision*2018. Available from: <https://www.prnewswire.com/news-releases/ul-certifies-first-electronic-cigarette-to-ul-8139-standard-300731087.html>.

No authors listed. Florida man dies after e-cigarette explodes, in *Nine News*2018. Available from: <https://www.9news.com.au/national/2018/05/16/16/12/vaping-pen-death-florida?app=applenews>.

Leiker AR. E-cigarette battery explodes in Derby man's pants. 'It ignites like a bomb,' lawyer says, in *The Wichita Eagle*2018. Available from: <http://www.kansas.com/news/local/crime/article202246854.html>.

Ives L. How likely is your e-cigarette to explode?, in *BBC*2018. Available from: <http://www.bbc.com/news/health-44161348>.

Antinori S. Exploding E-Cigarette Causes 'Significant Injury' To Woman's Face, in *Rockford Patch*2018. Available from: <https://patch.com/illinois/rockford/exploding-e-cigarette-causes-significant-injury-womans-face>.

US Department of Health and Human Services. Battery safety concerns in Electronic Nicotine Delivery Systems (ENDS) Public Workshop - April 2017. US 2017. Available from: https://www.fda.gov/TobaccoProducts/NewsEvents/ucm535185.htm?source=govdelivery&utm_campaign=ctp-endsbatteries&utm_content=20170103-button&utm_medium=email&utm_source=govdelivery.

Tanabe M and Volentine J. EXPERT: Mishandling electronic cigarettes makes them more prone to explosions, in *KNXV-TV ABC 15* 2017. Available from: <http://www.abc15.com/news/region-southeast-valley/tempe/mishandling-electronic-cigarettes-makes-them-more-prone-to-explosions-vape-store-manager-says>.

Sanginiti DB. E-cigarette Product Construction Linked to Severity of Explosion Injuries. *The National Law Review*, 2017. Available from: <https://www.natlawreview.com/article/e-cigarette-product-construction-linked-to-severity-explosion-injuries>.

No authors listed. Be careful of lithium ion batteries, Europe warns Christmas air travellers, in *Reuters*2017. Available from: <https://www.reuters.com/article/us-europe-airlines-batteries/be-careful-of-lithium-ion-batteries-europe-warns-christmas-air-travellers-idUSKBN1ED2HU>.

No authors listed. Brigade 'butts' into vaping campaign London Fire Brigade—London Fire and Emergency Planning Authority (LFEPA) UK 2017. Available from: http://www.london-fire.gov.uk/news/LatestNewsReleases_Brigade-butts-into-vaping-campaign-29September2017.asp#.Wf59blhx1hE.

No authors listed. The Unique Explosion Dangers of E-Cigarettes in *Lexology*2017. Available from: <https://www.lexology.com/library/detail.aspx?g=05e4e388-ab56-48a0-bddb-e81e0ed9fd14>.

No authors listed. 255 times more likely to have a fire caused by tobacco than vaping Brigade says, in *London Fire Brigade* 2017. Available from: http://www.london-fire.gov.uk/news/LatestNewsReleases_255-times-more-likely-to-have-a-fire-caused-by-tobacco-than-vaping.asp#.Wa5z2dFLdhG.

No authors listed. French e-cigarette alert after battery explosions, in *The Connexion* 2017. Available from: <https://www.connexionfrance.com/French-news/French-e-cigarette-alert-after-battery-explosions>.

No authors listed. Tips to Help Avoid “Vape” Battery Explosions. 2017. Available from: <https://www.fda.gov/TobaccoProducts/Labeling/ProductsIngredientsComponents/ucm539362.htm>.

No authors listed. Naples man injured by possible e-cig explosion, in *WBBH NBC2* 2017. Available from: <http://www.nbc-2.com/story/35136344/naples-man-injured-by-possible-e-cig-explosion>.

No authors listed. Navy Suspends Electronic Nicotine Delivery Systems (ENDS) on Ships, Subs, Aircraft, in *U.S. Navy.mil* 2017. Available from: http://www.navy.mil/submit/display.asp?story_id=99913.

No authors listed. Battery Safety Concerns in Electronic Nicotine Delivery Systems (ENDS) Public Workshop - April 2017. 2017. Available from: https://www.fda.gov/tobaccoproducts/newsevents/ucm535185.htm?source=govdelivery&utm_campaign=ctp-endsbatteries&utm_content=20170309-image&utm_medium=email&utm_source=govdelivery.

No authors listed. Toxic metals found in E-cigarette liquid, in *HealthDay [HealthScout]* 2017. Available from: <https://consumer.healthday.com/cancer-information-5/electronic-cigarettes-970/toxic-metals-found-in-e-cigarette-liquid-719461.html>.

No authors listed. Battery safety concerns in electronic nicotine delivery systems; public workshop; establishment of a public docket; request for comments, in *Fed Regist* 2017. Available from: https://www.federalregister.gov/documents/2017/01/04/2016-31857/battery-safety-concerns-in-electronic-nicotine-delivery-systems-public-workshop-establishment-of-a?source=govdelivery&utm_campaign=ctp-mrtp&utm_content=20170203-directlink-fr&utm_medium=email&utm_source=govdelivery.

Kapnick I. Vape Battery Explosion Lawsuits on the Rise in *Courthouse News* 2017. Available from: <https://www.courthousenews.com/vape-battery-explosion-lawsuits-on-the-rise/>.

Antell A. Upcoming FDA Hearing Will Address Exploding E-Cigarette Problems in *Top Class Actions* 2017. Available from: <https://topclassactions.com/lawsuit-settlements/lawsuit-news/494083-federal-regulators-center-tobacco-products-discuss-exploding-e-cigarette-problems/>.

Adams S. Former Navy veteran sues after e-cigarette explosion tore hole in thigh, in *WZZM 13 Box Z* 2017. Available from: <http://www.wzzm13.com/news/local/former-navy-seal-sues-after-e-cigarette-explosion-tore-hole-in-thigh/431881977>.

British American Tobacco. E-cigarette vapour does not cause DNA mutations in lab tests, in *British American Tobacco Media release* 2016. Available from: http://www.bat-science.com/groupms/sites/BAT_9GVJXS.nsf/vwPagesWebLive/DOAGKJQD?opendocument.

Connor L. Watch moment bus driver tries to load e-cigarette for more than 60 seconds while driving down busy road The Mirror, 2015 Available from: <http://www.mirror.co.uk/news/uk-news/watch-moment-bus-driver-tries-6519010>

Welch S. Lawsuits filed in California after exploding E-cigarettes leave 3 injured, in *KTLA 5* 2015. Available from: <http://ktla.com/2015/11/19/lawsuits-filed-after-exploding-e-cigarettes-leave-3-injured/>.

Wegener S. Exploding batteries in e-cigarettes lead to lawsuits, in *WCPO (Cincinnati, OH)* 2015. Available from: <http://www.wcpo.com/money/consumer/exploding-batteries-in-e-cigarettes-lead-to-lawsuits>.

Sims A. Exploding e-cigarettes spark national safety concerns. The Independent, 2015. Available from: <http://www.independent.co.uk/life-style/health-and-families/health-news/exploding-cigarettes-spark-national-safety-concerns-10382229.html>

Sandhu S. Father says e-cigarette accident burned hole through his lung. The Independent, 2015. Available from: <http://www.independent.co.uk/news/uk/home-news/father-says-e-cigarette-burned-hole-through-his-lung-a6702691.html>

Rouland C. Opinion: Beware that fake smartwatch. It's a malware magnet (+video), in *Christian Science Monitor* 2015: US Available from: <http://m.csmonitor.com/World/Passcode/Passcode-Voices/2015/0615/Opinion-Beware-that-fake-smartwatch.-It-s-a-malware-magnet-video>.

Reilly N. Man left with gaping hole in mouth after 'E-cigarette explosion', in *Yahoo! News* 2015. Available from: <https://uk.news.yahoo.com/man-left-gaping-hole-mouth-114016072.html#T8w7eJQ>.

No authors listed. UPDATE: Man injured after e-cigarette explodes in Maindee, Newport. South Wales Argus 2015. Available from: http://www.southwalesargus.co.uk/news/14096240.Person_injured_after_e_cigarette_explodes_in_Newport_house/

No authors listed. Florida man placed in a coma after e-cigarette explosion in *Fox News* 2015. Available from: <http://www.foxnews.com/health/2015/10/28/florida-man-placed-in-coma-after-e-cigarette-explosion.html>.

No authors listed. E-cigarette charger safety alert issued after spate of fires, in *BBC News* 2015. Available from: <http://www.bbc.com/news/uk-33489427>.

Linning S. BBC engineer who loved his job becomes 'Britain's first' e-cigarette suicide after drinking liquid nicotine and bingeing on cider. Daily Mail 2015. Available from: <http://www.dailymail.co.uk/news/article-3336284/BBC-engineer-loved-job-Britain-s-e-cigarette-suicide-drinking-liquid-nicotine-bingeing-cider.html>

LaCapria T. Black Hole Lung, in *Snopes* 2015. Available from: <http://www.snopes.com/vaping-burned-hole-lung/>.

Forrest J. E-cigarette charging warning issued by Worcestershire's trading standards team. Worcester News, 2015. Available from: http://www.worcesternews.co.uk/news/14118022.E_cigarette_charging_warning_issued_by_Worcestershire_s_trading_standards_team/

Brennan D. Man sues e-cigarette store for \$1million after batteries explode in his cargo shorts and give him second degree burns on his crotch. Daily Mail 2015. Available from: <http://www.mailonsunday.co.uk/news/article-2991815/Man-sues-e-cigarette-store-1million-batteries-explode-cargo-shorts-send-sparks-flying-crotch-kickball-game.html>

Branson-Potts H. E-cigarette explosions prompt three lawsuits in California. Los Angeles Times, 2015. Available from: <http://www.latimes.com/local/lanow/la-me-e-cigarette-lawsuits-20151119-story.html>

Branson-Potts H. Woman burned by exploding e-cigarette battery awarded \$1.9 million Los Angeles Times, 2015. Available from: <http://www.latimes.com/local/crime/la-me-ecigarette-burns-verdict-20151001-story.html>

Boyle D. Former LA Galaxy star suffers hole in his cheek after an e-cigarette exploded in his face... as industry faces string of lawsuits from victims who say they suffered burns and even lost FINGERS. Mail on Sunday 2015. Available from: <http://www.mailonsunday.co.uk/news/article-3327374/Former-LA-Galaxy-star-suffers-hole-cheek-e-cigarette-exploded-face-industry-faces-string-lawsuits-victims-say-suffered-burns-lost-FINGERS.html>

Blue L. E-cigarette Facts You Need to Know, in *Consumer Reports* 2015. Available from: http://www.consumerreports.org/health/e-cigarette-facts-you-need-to-know?EXTKEY=NH5BS00H&utm_source=acxiom&utm_medium=email&utm_campaign=20151120_nslr_healthalertnov2015.

Bannister A. Coventry man, 71, 'engulfed in flames' while smoking at home, inquest hears Coventry Telegraph 2015. Available from: <http://www.coventrytelegraph.net/news/coventry-news/coventry-man-71-engulfed-flames-9247173>

Wellman A. Family's Christmas presents destroyed in fireball after e-cigarette explodes and burns down bedroom Daily Mirror, 2014. Available from: <http://www.mirror.co.uk/news/uk-news/familys-christmas-presents-destroyed-fireball-4777134>

Richtel M. Dire warnings by Big Tobacco on E-smoking. The New York Times, 2014. Available from: http://www.nytimes.com/2014/09/29/business/dire-warnings-by-big-tobacco-on-e-smoking.html?_r=0

Rahman K. Fire chiefs call for safety messages to be put on e-cigarettes after devices cause more than 100 fires and one fatality in less than two years. Daily Mail, 2014. Available from: <http://www.dailymail.co.uk/news/article-2835702/Fire-chiefs-call-safety-messages-e-cigarettes-devices-cause-100-fires-one-fatality-two-years.html>

No authors listed. Smoker's legs nearly blown off by exploding e-cigarette. The Telegraph, 2014. Available from: <http://www.telegraph.co.uk/health/11158544/Smokers-legs-nearly-blown-off-by-exploding-e-cigarette.html>

Ismail A. E-cigarette explodes, killing smoker. The Borneo Post, 2014. Available from: <http://www.theborneopost.com/2014/10/06/e-cigarette-explodes-killing-smoker/>

Ferdman RA. Big Tobacco is cool with scary e-cigarette warnings because no one reads them anyway. The Washington Post, 2014. Available from: <http://www.washingtonpost.com/blogs/wonkblog/wp/2014/09/29/big-tobacco-is-cool-with-scary-e-cigarette-warnings-because-no-one-reads-them-anyway/>

Bogart N. Why lithium-ion smartphone batteries keep exploding. Global News, 2014. Available from: <http://globalnews.ca/news/1714748/why-lithium-ion-smartphone-batteries-keep-exploding/>

Man killed as e-cigarette 'explodes', Merseyside fire service says. BBC News, 2014. Available from: <http://www.bbc.com/news/uk-england-merseyside-28701515>

Farberov S. Woman's shock after her e-cigarette EXPLODED when she charged it. Daily Mail, 2013; Sep 3. Available from: <http://www.mailonsunday.co.uk/news/article-2410425/E-cigarette-eHit-explodes-sends-4-foot-flames-womans-living-room.html>

Arkell H. E-cigarette wrecked car when it EXPLODED 'like a firework' while being charged overnight leaving seats destroyed and windows blackened, in *Mail Online* 2013. Available from: <http://www.dailymail.co.uk/news/article-2430393/E-cigarette-wrecked-car-EXPLODED-like-firework-charged-overnight-leaving-seats-destroyed-windows-blackened.html>.

18.4.1.2 Nicotine toxicity and accidental poisoning

Kidsafe South Australia (2024). Nicotine Poison Prevention. Retrieved from <https://www.kidsafesa.com.au/nicotinepoisonprevention/>

Genovese, M. Babies exposed to vapes as calls to poisons helpline spike. *The Age*, 2023. Dec 4, 2023. Retrieved from <https://www.theage.com.au/national/western-australia/babies-exposed-to-vapes-as-calls-to-poisons-helpline-spike-20231204-p5eozb.html>

Novak, L. Shock number of SA kids poisoned by vapes, liquid nicotine. *Herald Sun*, 2023. Nov 26, 2023. Retrieved from <https://www.heraldsun.com.au/news/south-australia/shock-number-of-sa-kids-poisoned-by-vapes-liquid-nicotine/news-story/f8cef71ae27a626b7430761d47ca54b5>

Delibasic, S, & O'Brien, S. Calls about e-cigarette poisoning have surged by 75 per cent in the past year in Victoria. *The Herald Sun*, 2023. August 9, 2023. Retrieved from <https://www.heraldsun.com.au/news/victoria/poisoning-from-ecigarettes-have-surged-by-75-per-cent-in-the-past-year-in-victoria/news-story/94a1a4c105173a4498159b9465d6fce0>

No authors listed. How to Properly Store E-Liquids and Prevent Accidental Exposure of E-Liquids to Children. *U.S. Food & Drug Administration*, 2023. June 22, 2023. Retrieved from <https://www.fda.gov/consumers/consumer-updates/how-properly-store-e-liquids-and-prevent-accidental-exposure-e-liquids-children>

Varga R. Poisons alert as kids exposed to vapes. *The Australian*, 2022.

Hansen J. Hundreds of kids poisoned by vapes. *The Daily Telegraph*, 2022.

Fiore B. Vaping crisis: WA babies getting sick from ingesting liquid nicotine as e-cigarette poisonings double, in *PerthNow* 2022. Available from: <https://www.perthnow.com.au/news/health/vaping-crisis-wa-babies-getting-sick-from-ingesting-liquid-nicotine-as-e-cigarette-poisonings-double-c-7273106>.

Delibasic S. Babies vaping alarm. *The Australian*, 2022.

Schriever J. Kids poisoned by e-cigs, in *Adelaide Advertiser*2021. Available from: <https://www.cosa.org.au/publications/cancer-in-the-news/2021/03/tobacco-kids-poisoned-by-e-cigs/>.

Dunlevy S and Rose A. Fatal levels of nicotine. *Courier Mail*, 2020; (19). Available from: <https://readnow.isentia.com/Temp/142902-219752/1352437605.pdf>

Stein L. Vape juice can kill kids. A vaping law's slow rollout left them at risk of nicotine poisoning., in *USA Today*2019. Available from: <https://www.usatoday.com/story/news/investigations/2019/11/25/vape-juice-nicotine-can-poison-kids-but-vaping-law-enforcement-delayed/4008990002/>.

Minister for Health. E-Cigarette Liquids Are Deadly For Kids, in *Premier of Victoria*2019. Available from: <https://www.premier.vic.gov.au/e-cigarette-liquids-are-deadly-for-kids/>.

McCleery A. Baby dies after being poisoned by nicotine vaping liquid as experts question dangers of e-cigarettes, in *Daily Mail Australia*2019. Available from: <https://www.dailymail.co.uk/news/article-6674051/Baby-dies-poisoned-nicotine-vaping-liquid-experts-question-dangers-e-cigarettes.html>.

McArthur G. Vape poison alert. *Herald Sun*, 2019; (3). Available from: https://customreport.mediaportal.com/#/articlepresenter/ef453c7e-71cb-434d-b67d-b9139a541fd1/545093258/1291352612?_k=xo3ycg

Cox D. Nicotine sickness: the latest vaping scare, in *The Guardian*2019. Available from: <https://www.theguardian.com/society/2019/nov/30/nicotine-sickness-the-latest-vaping-scare>.

Conte E. Spellbound Nicotine Salts, in *Convenience Store Decisions*2019. Available from: <https://cstoredecisions.com/2019/02/18/spellbound-nicotine-salts/>.

U.S. Food and Drug Administration. FDA warns company for selling e-liquids that resemble kid-friendly foods as part of the agency's ongoing Youth Tobacco Prevention Plan, in *FDA*2018. Available from: <https://www.fda.gov/news-events/press-announcements/fda-warns-company-selling-e-liquids-resemble-kid-friendly-foods-part-agencys-ongoing-youth-tobacco>.

No authors listed. Liquid nicotine used in e-cigarettes still a danger to children despite recent decline in exposures in *EurekaAlert!*2018. Available from: https://eurekaalert.org/pub_releases/2018-04/nch-lnu041618.php.

Maddipatla M. FDA warns e-cigarette liquid maker against products resembling food for kids, in *Reuters*2018. Available from: <https://uk.reuters.com/article/us-fda-tobacco/fda-warns-e-cigarette-liquid-maker-against-products-resembling-food-for-kids-idUKKCN1NY205>.

Ip S and Gindlay L. 14-year-old Delta baseball player dies after falling while vaping nicotine, in *Vancouver Sun*2018. Available from: <http://vancouversun.com/news/local-news/teen-baseball-player-14-in-delta-dies-of-serious-injuries>.

First L. E-Cigarettes and Young Children: The Dangers of Liquid Nicotine Exposure in *AAP News & Journals*2018. Available from: <http://www.aappublications.org/news/2018/04/25/e-cigarettes-and-young-children-the-dangers-of-liquid-nicotine-exposure-pediatrics-4-25-18>.

Pruss V. 9-year-old sent to hospital after drinking 'Unicorn Milk' e-cigarette fluid, in *CBC News* 2017. Available from: <http://www.cbc.ca/news/canada/new-brunswick/unicorn-milk-vapour-e-cigarettes-1.4137455>.

Leonard J. Nicotine poisoning symptoms: Can you overdose on too much nicotine?, in *Medical News Today* 2017. Available from:

https://www.medicalnewstoday.com/articles/319627.php?utm_source=newsletter&utm_medium=email&utm_campaign=weekly.

Chaplain C. Keep pets away from e-cigarettes over poisoning fears, vets warn *Evening Standard*, 2017. Available from: <https://www.standard.co.uk/news/uk/keep-pets-away-from-ecigarettes-over-poisoning-fears-vets-warn-a3615946.html>

Paddock C. E-cigarette and nicotine liquid poisonings increasing rapidly in young children, in *Medical News Today* 2016. Available from: <http://www.medicalnewstoday.com/articles/310082.php>.

No authors listed. How to measure nicotine delivery from e-cigarettes, in *Medical News Today* 2016. Available from: <http://www.medicalnewstoday.com/releases/306876.php?tw>.

No authors listed. National Poisons Information Service Report 2014/15. National Poisons Information Service UK 2015 Available from: <http://www.npis.org/NPISAnnualReport2014-15.pdf>.

No authors listed. FDA weighs new restrictions on liquid nicotine packets. *Daily Mail* 2015 Available from: <http://www.dailymail.co.uk/wires/ap/article-3144671/FDA-weighs-new-restrictions-liquid-nicotine-packets.html>

Leake J. Vaping poison put children at risk. *The Sunday Times* 2015 Available from: http://www.thesundaytimes.co.uk/sto/news/uk_news/article1609589.ece?CMP=OTH-gnws-standard-2015_09_19

Villarreal W. FDA considering warning labels for liquid nicotine. *Los Angeles Times* 2015. Available from: <http://www.latimes.com/business/la-fi-cigarette-labeling-20150630-story.html>

Swerling G. Alarm after toddler drinks 'vaping' liquid. *The Times* 2015. Available from: <http://www.thetimes.co.uk/tto/news/uk/scotland/article4608600.ece>

Reilly K. N.Y. fines liquid nicotine makers for not child-proofing packages, in *Reuters* 2015. Available from: <http://www.reuters.com/article/2015/06/23/usa-new-york-ecigarette-idUSL1N0Z91E820150623>.

Prigg M. E-cigarettes are just as addictive as the real thing and most are mislabeled, researchers warn. *Daily Mail*, 2015. Available from: <http://www.dailymail.co.uk/sciencetech/article-3171371/E-cigarettes-just-addictive-real-thing-mislabeled-researchers-warn.html>

No authors listed. Nicotine "no more harmful to health than caffeine", in *Royal Society for Public Health* 2015. Available from: <https://www.rsph.org.uk/en/about-us/latest-news/press-releases/press-release1.cfm/pid/32B2FF71-A11A-42F6-A0C8EF19BA0E0C4F>.

No authors listed. Stopping smoking by using other sources of nicotine, in *Royal Society for Public Health* 2015. Available from: http://www.rsph.org.uk/filemanager/root/site_assets/our_work/position_statements/rsph_smoking_positional_final.pdf.

No authors listed. Novel model developed to predict the amount of nicotine emitted from e-cigarettes in *Medical News Today* 2015. Available from: <http://www.medicalnewstoday.com/releases/297607.php?tw>.

Nair SK. FDA seeks data on e-cigarettes after surge in poisoning cases, in *Reuters* 2015. Available from: <http://www.reuters.com/article/2015/06/30/fda-ecigarettes-idUSL3N0ZG51620150630>.

Myers ML. Poisoning calls about E-cigarettes and liquid nicotine more than doubled in 2014 – FDA must act to protect kids. Campaign for Tobacco-Free Kids US 2015. Available from: http://www.tobaccofreekids.org/press_releases/post/2015_01_13_poisoning.

Riches C. Nicotine from e-cigarettes poisoning more of our pets warn UK vets Daily Mirror, 2014. Available from: <http://www.mirror.co.uk/news/uk-news/nicotine-e-cigarettes-poisoning-more-pets-4687629>

No authors listed. Rise in pet dogs poisoned by e-cigarettes in Leeds. Yorkshire Evening Post, 2014. Available from: <http://www.yorkshireeveningpost.co.uk/news/latest-news/top-stories/rise-in-pet-dogs-poisoned-by-e-cigarettes-in-leeds-1-6982045>

No authors listed. Poisoning cases related to E-cigarettes keep spiraling upward, in *Campaign for Tobacco-Free Kids* 2014. Available from: http://www.tobaccofreekids.org/tobacco_unfiltered/post/2014_09_26_e-cig.

No authors listed. Pets poisoned by e-cigarette liquids on rise, in *Daily News Journal* 2014. Available from: <http://www.dnj.com/story/money/business/2014/09/09/pets-poisoned-e-cigarette-liquids-rise/15329423/>.

Hagen K. E-cigarettes poisoning Victorian Toddlers. The Age, 2014. Available from: <http://www.theage.com.au/national/ecigarettes-poisoning-victorian-toddlers-20140606-39ohu.html?skin=text-only>

Branley A. Health experts alarmed after rise in accidental poisoning from e-cigarettes. ABC News, 2014. Available from: <http://www.abc.net.au/news/2014-08-27/accidental-poisoning-from-ecigarettes-on-the-rise/5699592>>

Roetker M. E-cigarettes cause alarming increase in calls to poison control center, in *Globe Newswire* 2013. Available from: <http://globenewswire.com/news-release/2013/12/09/595574/10060841/en/E-cigarettes-cause-alarming-increase-in-calls-to-poison-control-center.html>.

18.4.2 Abuse potential

Rahhal N. Now you can vape VITAMINS - but should you? 'Absolutely not,' warns expert who says inhaling nutrients is pointless if not dangerous, in *Dailymail* 2018. Available from: <https://www.dailymail.co.uk/health/article-6265797/Now-vape-VITAMINS-Absolutely-not-expert-warns.html#comments>.

18.4.2.1 Nicotine addiction

No authors listed. More e-cigarettes are entering the market, with increasingly high concentrations of nicotine. *Truth Initiative*, 2023. May 5, 2023. Retrieved from <https://truthinitiative.org/research-resources/emerging-tobacco-products/more-e-cigarettes-are-entering-market-increasingly>

Roeder A. Pod-based e-cigarettes efficiently addictive, in *The harvard Gazette*2020. Available from: <https://news.harvard.edu/gazette/story/2020/06/pod-based-e-cigarettes-may-foster-greater-nicotine-dependence/>.

Weeks H. E-cigarettes, opioid epidemic among top emerging health issues in Canada: report, in *The Globe and Mail*2019. Available from: <https://www.theglobeandmail.com/canada/article-e-cigarettes-opioid-epidemic-among-top-emerging-health-issues-in/>.

Stockton B, Cave T, Davies M, and Chapman M. Vaping giant Juul pushes for more addictive e-cigarettes, in *Bureau of Investigative Journalism*2019. Available from: <https://www.thebureauinvestigates.com/stories/2019-11-23/vaping-giant-juul-pushes-for-more-addictive-e-cigarettes>.

Stockton B, Cave T, Davies M, and Chapman M. Vaping giant Juul pushes for more addictive e-cigarettes, in *The Bureau of Investigative Journalism*2019. Available from: <https://www.thebureauinvestigates.com/stories/2019-11-23/vaping-giant-juul-pushes-for-more-addictive-e-cigarettes>.

McPhee J. Young vapers like high-nicotine, flavoured juices, Nova Scotia survey finds, in *The Chronicle Herald*2019. Available from: <https://www.thechronicleherald.ca/news/local/young-vapers-like-high-nicotine-flavoured-juices-nova-scotia-survey-finds-374222/>.

Chapman M. How vaping has REVERSED the fall in nicotine use and tobacco giants are cashing in on the surprising trend, in *This Is Money*2019. Available from: <https://www.thisismoney.co.uk/money/markets/article-7267587/How-vaping-REVERSED-fall-nicotine-use-tobacco-giants-cashing-in.html>.

Tiku N. Users Sue Juul for Addicting Them to Nicotine, in *Wired*2018. Available from: <https://www.wired.com/story/users-sue-juul-for-addicting-them-to-nicotine/>.

No authors listed. E-cigarette maker Juul targeted teens with false claims of safety, lawsuit says, in *The Washington Post*2018. Available from: <https://www.washingtonpost.com/news/to-your-health/wp/2018/07/30/e-cigarette-maker-juul-targeted-teens-with-false-claims-of-safety-lawsuit-claims/?noredirect=on>.

Hoffman J. The Price of Cool: A Teenager, a Juul and Nicotine Addiction, in *New York Times*2018. Available from: <https://www.nytimes.com/2018/11/16/health/vaping-juul-teens-addiction-nicotine.html>.

Daley J. He started vaping as a teen and now says habit is “impossible to let go”, in *Salon*2018. Available from: https://www.salon.com/2018/06/09/he-started-vaping-as-a-teen-and-now-says-habit-is-impossible-to-let-go_partner/.

Becker R. Juul plans to release lower-nicotine vape juice starting in August. *The Verge*, 2018. Available from: <https://www.theverge.com/2018/7/12/17565066/juul-labs-reduces-nicotine-dose-virginia-tobacco-mint-flavors>

Teichert A, Brossard P, Felber-Medlin L, Sandalic L, Franzon M, et al. Evaluation of Nicotine Pharmacokinetics and Subjective Effects following Use of a Novel Nicotine Delivery System, in *PMI Science (philip Morris International)*2017. Available from: <https://www.pmisceience.com/library/evaluation-nicotine-pharmacokinetics-and-subjective-effects-following-use-novel-nicotine-0>.

No authors listed. E-cigarettes less addictive than cigarettes, PATH study shows, in *Science Magazine* 2017. Available from: <https://scienmag.com/e-cigarettes-less-addictive-than-cigarettes-path-study-shows/>.

Mündel T. Nicotine in sports: high use but little evidence of effects on performance, in *The Conversation* 2017. Available from: <https://theconversation.com/nicotine-in-sports-high-use-but-little-evidence-of-effects-on-performance-81935>.

Glantz S. Over time young adults who use e-cigarettes smoke more not less; ecigs enhancing harm by making tobacco epidemic worse Center for Tobacco Control Research and Education (UCSF), 2017. Available from: <https://tobacco.ucsf.edu/over-time-young-adults-who-use-e-cigarettes-smoke-more-not-less-ecigs-enhancing-harm-making-tobacco-epidemic-worse>

Das S and Prochaska JJ. E-Cigarettes, Vaping, and Other Electronic Nicotine Products: Harm Reduction Pathways or New Avenues for Addiction? *Psychiatric Times*, 2017. Available from: www.psychiatrictimes.com/special-reports/e-cigarettes-vaping-and-other-electronic-nicotine-products-harm-reduction-pathways-or-new-avenues

18.4.2.2 Consuming other drugs in e-cigarette devices

Antrobus, B. Vape overdose which occurred in 'matter of minutes' linked to potent opioids in black market vape refills, health authorities claim. *Herald Sun*, 2023. Nov 21, 2023. Retrieved from <https://www.heraldsun.com.au/lifestyle/health/vape-overdose-which-occurred-in-matter-of-minutes-linked-to-potent-opioids-in-black-market-vape-refills-health-authorities-claim/news-story/803a95bcf6f377bfedfbd6c0419a4a6a>

Scott A and Jasper A. Wellness vapes: what you need to know about vaping vitamins and other supplements, in *The Conversation* 2022. Available from: https://theconversation.com/wellness-vapes-what-you-need-to-know-about-vaping-vitamins-and-other-supplements-187130?utm_source=twitter&utm_medium=bylinetwitterbutton.

Delibasic S. Drug dealers brazenly delivering cannabis-laced vapes to schools, in *The Daily Telegraph* 2022. Available from: <https://www.dailytelegraph.com.au/news/victoria/drug-dealers-brazenly-delivering-cannabislaced-vapes-to-schools/news-story/f53a4abd5ade1dd31d746dfee7cf45da?btr=9a9c12ca7eb2174cb90d6bb14782d28c>.

Ferraro K. Apparently Vaping Melatonin Is A Thing People Do Now, in *Bustle* 2021. Available from: <https://www.bustle.com/wellness/melatonin-vape-side-effects-safe-experts>.

Spice vaping warning issued by Public Health Agency in *Newry Times* 2021: Newry, Northern Ireland. Available from: <http://newrytimes.com/2021/04/13/spice-vaping-warning-issued-by-public-health-agency-newry-times/>.

Tsui J. Cannabis Use in E-cigarettes Increases Among Teens, in *Technology Networks* 2020. Available from: <https://www.technologynetworks.com/tn/articles/cannabis-use-in-e-cigarettes-increases-among-teens-330411>.

Research and Markets. Global Market Outlook for the Alternative Non-Nicotine Liquid Vaping Products Market 2020 - Market Analysis of Herbals, Extracts and Vitamin Vaping, in *Cision PR Newswire* 2020. Available from: <https://www.prnewswire.com/news-releases/global-market-outlook-for-the-alternative-non-nicotine-liquid-vaping-products-market-2020---market-analysis-of-herbals-extracts-and-vitamin-vaping-301081143.html>.

No authors listed. Marijuana, E-Cigarettes Enticing More Young Adults, in *Health Day*2020. Available from: <https://consumer.healthday.com/cancer-information-5/electronic-cigarettes-970/marijuana-e-cigarettes-enticing-more-young-adults-759189.html>.

No authors listed. British American Tobacco looking into cannabis vape flavours, in *itv*2020. Available from: <https://www.itv.com/news/2020-02-10/british-american-tobacco-looking-into-cannabis-vape-flavours/>.

Mandal A. Vaping marijuana linked to lung injuries warns CDC, in *NEWS MEDICAL*2020. Available from: <https://www.news-medical.net/news/20200115/Vaping-marijuana-linked-to-lung-injuries-warns-CDC.aspx>.

Ives J. Cases of poisoning attributed to manipulated cannabidiol liquids in e-cigarettes, in *News Medical*2020. Available from: <https://www.news-medical.net/news/20200227/Cases-of-poisoning-attributed-to-manipulated-cannabidiol-liquids-in-e-cigarettes.aspx>.

Harris K. A vape being touted as a vitamin inhaler is being targeted to young women on Instagram, in *NZ Herald*2020. Available from: https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12334612.

Truth Initiative. The link between marijuana and e-cigarettes, in *Truth Initiative*2019. Available from: <https://truthinitiative.org/research-resources/substance-use/link-between-marijuana-and-e-cigarettes>.

Siegel M. The “Other” Youth Vaping Epidemic: Why Has It Been Ignored? , in *Tobacco Analysis*2019. Available from: <https://tobaccoanalysis.blogspot.com/2019/10/the-other-youth-vaping-epidemic-why-has.html>.

Siegel M. Marijuana Reform Organization Issues Warning Against Vaping THC Oils Obtained from Unlicensed Sellers; CDC Does Not in *Tobacco Analysis*2019. Available from: <https://tobaccoanalysis.blogspot.com/2019/08/marijuana-reform-organization-issues.html>.

No authors listed. As cannabis vaping set to become legal, public health experts urge strict control, in *CBC*2019. Available from: <https://www.cbc.ca/news/health/vaping-cannabis-1.5321563>.

No authors listed. Undercover look at how THC vape oil ends up on black market in *CBS News*2019. Available from: <https://www.cbsnews.com/video/undercover-look-at-how-thc-vape-oil-ends-up-on-black-market/#x>.

No authors listed. CBDs to Fill In for Vape Flavors?, in *CPS Daily News*2019. Available from: <https://www.cspdailynews.com/tobacco/cbds-fill-vape-flavors>.

Maloney J. Vaping’s Black Market Complicates Efforts to Combat Crises, in *The Wall Street Journal*2019. Available from: <https://www.wsj.com/articles/vapings-black-market-complicates-efforts-to-combat-crises-11570354204>.

Lintern S. More than a dozen children collapse after vaping fake cannabis oil laced with ‘spice’, in *Independent*2019. Available from: <https://www.independent.co.uk/news/health/vaping-cannabis-oil-spice-fake-thc-manchester-children-a9250431.html>.

Hancock L. 3 Ohio medical marijuana processors to disclose ingredients on vape product labels, in *Cleveland*2019. Available from: <https://www.cleveland.com/open/2019/10/3-ohio-medical-marijuana-processors-to-disclose-ingredients-on-vape-product-labels.html>.

Ford R. Prisoners using e-cigarettes to smoke smuggled 'spice', in *The Times* 2019. Available from: <https://www.thetimes.co.uk/article/prisoners-using-e-cigarettes-to-smoke-smuggled-spice-3jgmnr70>.

Civiletto CW, Aslam S, and Hutchison J. Electronic Delivery (Vaping) Of Cannabis And Nicotine, in *StatPearls*. Treasure Island (FL): 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31424744>.

Center for Network Therapy. As Drug Cartels Leverage Vaping Infrastructure, Expect Vaping Deaths to Rise Sharply in *Cision PR Newswire* 2019. Available from: <https://www.prnewswire.com/news-releases/as-drug-cartels-leverage-vaping-infrastructure-expect-vaping-deaths-to-rise-sharply-300938752.html>.

Burgess K. Vaping blamed for woman's lung disease, in *The Times* 2019. Available from: <https://www.thetimes.co.uk/article/vaping-blamed-for-womans-lung-disease-80rn37rc2>.

Wood DR. Dr. Wood: Nicotine isn't the only vaping ingredient you need to worry about, in *The Olympian* 2018. Available from: <https://www.theolympian.com/latest-news/article218441215.html>.

Taney P. Good Question: Is that weed in that e-cigarette? , in *WHEC* 2018. Available from: <https://www.whec.com/news/good-question-is-that-weed-in-that-e-cigarette/5141515/>.

Ng J. FDA: Don't vape prescription erectile dysfunction drugs, in *Boston Herald* 2018. Available from: <https://www.bostonherald.com/2018/12/12/fda-dont-vape-prescription-erectile-dysfunction-drugs/>.

Leoni V. Army releases warning on dangers of 'CBD' vape oils, in *Navy Times* 2018. Available from: <https://www.navytimes.com/news/your-military/2018/01/30/army-releases-warning-on-dangers-of-cbd-vape-oils/>.

LaMotte S. FDA warns consumers about e-cigarette liquids with erectile dysfunction drugs, in *CNN* 2018. Available from: <https://edition.cnn.com/2018/12/11/health/fda-warning-e-cig-liquid-erectile-dysfunction/index.html>.

King H. Synthetic drugs being produced in liquid form for e-cigarettes, decreasing chance of detection in *Stuff NZ* 2018. Available from: <https://www.stuff.co.nz/national/100413742/synthetic-drugs-being-produced-in-liquid-form-for-ecigarettes-decreasing-chance-of-detection>.

Kaskey J. Modern Take on Hashish Is Becoming the Most Popular Way to Consume Legal Cannabis, in *Bloomberg* 2018. Available from: <https://www.bloomberg.com/news/articles/2018-09-18/ancient-hashish-gets-vape-makeover-to-lead-legal-cannabis-gains>.

Johnson CK. 2 million US teens are vaping marijuana, in *CNBC* 2018. Available from: <https://www.cnn.com/2018/09/17/the-associated-press-2-million-us-teens-are-vaping-marijuana.html>.

Dellatto M. Experts blast trendy vitamin vaping as risky and pointless, in *New York Post* 2018. Available from: <https://nypost.com/2018/10/24/experts-blast-trendy-vitamin-vaping-as-risky-and-pointless/>.

Agarlb A. Beware, e-cigarettes are being used to smoke drugs in UAE, in *Khaleej Times* 2018. Available from: <https://www.khaleejtimes.com/news/general//beware-e-cigarettes-are-being-used-to-smoke-drugs-in-uae>.

Green A. People are vaping cannabis because they think it makes them less likely to get caught. *Manchester Evening News*, 2017. Available from: <http://www.manchestereveningnews.co.uk/news/greater-manchester-news/people-vaping-cannabis-because-think-13734266>

Gray R. E-cigarettes are being adapted to smoke heroin, crack cocaine, ecstasy and cannabis which could lead to more overdoses, warn experts. *Daily Mail* 2017. Available from: <http://www.dailymail.co.uk/health/article-4984138/E-cigarettes-adapted-smoke-illegal-drugs.html>

No authors listed. "Darth vapor" sending students to the hospital, in *9 and 10 News* 2015. Available from: <https://kfor.com/2015/05/21/we-will-have-a-death-its-just-a-matter-of-time-new-drug-trend-targeting-e-cigarettes/>.

McIntosh J. Almost a fifth of students using e-cigarettes to vape cannabis, in *Medical News Today* 2015. Available from: <http://www.medicalnewstoday.com/articles/299137.php>.

18.4.2.3 "Dripping"

Usborne S. Squonkers, drippers and cloud chasers: the rise of vape culture, in *The Guardian* 2018. Available from: <https://www.theguardian.com/society/2018/jun/09/vape-culture-squonkers-drippers-cloud-chasers-simon-usborne>.

Nguyen A. E-cigs and 'dripping': What you need to know, in *Philly. com* 2017. Available from: http://www.philly.com/philly/blogs/healthy_kids/E-cigs-and-dripping-What-you-need-to-know.html.

18.4.3 Environmental impact

European Commission. Commission proposes to extend coverage of smoke-free environments. Sept 17, 2024. Retrieved from https://commission.europa.eu/news/commission-proposes-extend-coverage-smoke-free-environments-2024-09-17_en

Boettcher, L, & Moon, L. (2024). *Litter Report FY23*. Retrieved from <https://www.cleanup.org.au/rubbish-report>

Clean Up Australia. Vape rubbish doubles in the past two years *ABC News*, 2024. Feb 2, 2024. Retrieved from <https://www.abc.net.au/news/2024-02-02/vapes-are-a-risk-to-public-health/103418322>

McIntyre, A. Shocking footage shows vapes piled up next to West Gate Freeway. *Geelong Advertiser*, 2023. Dec 6, 2023. Retrieved from <https://www.geelongadvertiser.com.au/news/victoria/shocking-footage-shows-vapes-piled-up-next-to-west-gate-freeway/news-story/5d73934487d08f4e0fd308c55e6169ac>

Gutterman, L. (2023). *Vape Waste*. Retrieved from <https://publicinterestnetwork.org/wp-content/uploads/2023/07/Vape-Waste-Full-Report-PIRG.pdf>

Keane, K. Millions of single-use vapes littered on Scotland's streets. *BBC News*, 2023. June 30, 2023. Retrieved from <https://www.bbc.com/news/uk-scotland-66059090>

No authors listed. Environmental groups breathe a sigh of relief for national ban on disposable vapes. *Inside Waste*, 2023. June 1st 2023.

Tapper, J. Single-use vapes sparking surge in fires at UK waste plants. *The Guardian*, 2023. May 13, 2023. Retrieved from <https://www.theguardian.com/society/2023/may/13/single-use-vapes-sparking-surge-in-fires-at-uk-waste-plants>

Barnes, O, & Heal, A. The environmental cost of single-use vapes. *Financial Times*, 2023. March 7, 2023. Retrieved from <https://www.ft.com/content/6d5ed980-8b91-4372-9e7e-14eda5419325>

Becerra Mellet, G. Waste experts tip Clean Up Australia Day will be 'overwhelmed by plastic' including vapes and e-cigarettes. *Perth Now*, 2023. March 2, 2023. Retrieved from <https://www.perthnow.com.au/local-news/experts-tip-what-this-years-clean-up-australia-day-waste-will-look-like-and-how-to-dispose-of-it-c-9860153>

Belot, H. Environment groups call for urgent action on hazardous waste from e-cigarettes. *The Guardian*, 2023. Feb 13, 2023. Retrieved from <https://www.theguardian.com/australia-news/2023/feb/13/environment-groups-call-for-urgent-action-on-hazardous-waste-from-e-cigarettes>

No authors listed. Disposable vapes ban to be considered for Scotland, in *BBC*2023. Available from: <https://www.bbc.com/news/uk-scotland-64336216>.

No authors listed. Most young users put disposable e-cigarettes in trash, creating huge streams of toxic and hazardous waste, as companies fail to take responsibility, in *Truth Initiative*2022. Available from: <https://truthinitiative.org/research-resources/harmful-effects-tobacco/most-young-users-put-disposable-e-cigarettes-trash>.

Linnenkoper K. Thank you for smoking, in *Recycling International*2022. Available from: <https://recyclinginternational.com/business/column/thank-you-for-smoking/51184/>.

Linnenkoper K. Thank you for smoking, in *Recycling International*2022. Available from: <https://recyclinginternational.com/business/column/thank-you-for-smoking/51184/>.

Greenhalgh E, Smith L, Grace C, and Scollo M. 18B.8 Legal status in Australia, in *Tobacco in Australia: Facts and issues*2022, Cancer Council Victoria: Melbourne. Available from: <http://www.tobaccoaustralia.org.au/chapter-18-harm-reduction/indepth-18b-e-cigarettes>.

Evans-Reeves K, Novotny T, Huber L, and Violini M. Plastics, the Environment and the Tobacco Industry, in *Tobacco Tactics*2022. Available from: <https://tobaccotactics.org/wiki/plastics-environment-tobacco-industry/>.

Clarke T. Millions of disposable vapes containing valuable metal ending up in landfill, in *Sky News*2022. Available from: <https://news.sky.com/story/millions-of-disposable-vapes-containing-valuable-metal-ending-up-in-landfill-12652211>.

Askew J. Two e-cigarettes are thrown away every second in the UK. What damage do they do?, in *EuroNews*2022. Available from: <https://www.euronews.com/green/2022/11/26/two-e-cigarettes-are-thrown-away-every-second-in-the-uk-what-damage-do-they-do>.

What is synthetic nicotine and what does it mean for the youth vaping epidemic?, in *Truth Initiative* 2022. Available from: <https://truthinitiative.org/research-resources/emerging-tobacco-products/what-synthetic-nicotine-and-what-does-it-mean-youth>.

UNEP, Secretariat of the WHO FCTC partner to combat microplastics in cigarettes, 2022, WHO FCTC. Available from: <https://fctc.who.int/newsroom/news/item/01-02-2022-unesp-secretariat-of-the-who-fctc-partner-to-combat-microplastics-in-cigarettes>.

Truth Initiative. A toxic, plastic problem: E-cigarette waste and the environment, 2021. Available from: <https://truthinitiative.org/research-resources/harmful-effects-tobacco/toxic-plastic-problem-e-cigarette-waste-and-environment>.

Truth Initiative. Tobacco and the environment, 2021. Available from: <https://truthinitiative.org/research-resources/harmful-effects-tobacco/tobacco-and-environment3->

MacKenzie R, Wallbank L, Freeman B, and Winstanley M. 10.16 The environmental impact of tobacco use, in Tobacco in Australia: Facts and issues. Greenhalgh E, Scollo M, and Winstanley M, Editors. Melbourne: Cancer Council Victoria; 2021. Available from: <https://www.tobaccoaustralia.org.au/chapter-10-tobacco-industry/10-16-the-environmental-impact-of-tobacco-use>.

Greenhalgh E, Jenkins S, and Scollo M. 18B.3 Prevalence of e-cigarette use, in Tobacco in Australia: Facts and issues. Greenhalgh E, Scollo M, and Winstanley M, Editors. Melbourne: Cancer Council Victoria; 2021. Available from: <http://www.tobaccoaustralia.org.au/chapter-18-harm-reduction/indepth-18b-e-cigarettes>.

Commonwealth of Australia Department of Health. About e-cigarettes, 2021. Available from: <https://www.health.gov.au/health-topics/smoking-and-tobacco/about-smoking-and-tobacco/about-e-cigarettes>.

The Disposal of Single-use Vaping Products in Australia, 2021, Return Unwanted Medicines. Available from: <https://returnmed.com.au/disposal-single-use-vaping-products-australia/>.

About e-waste, 2021, Environmental Protection Authority Victoria Available from: <https://www.epa.vic.gov.au/for-business/find-a-topic/manage-e-waste/about-ewaste#:~:text=The%20Victorian%20Government%20has%20banned,this%20rapid%20rate%20of%20Ogrowth>.

An Analysis of Lithium-ion Battery Fires in Waste Management and Recycling. United States Environmental Protection Agency, 2021. Available from: https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01_508.pdf.

FDA. Tips for Safe Disposal of E-Cigarettes and E-Liquid Waste, 2020. Available from: <https://www.fda.gov/tobacco-products/products-ingredients-components/tips-safe-disposal-e-cigarettes-and-e-liquid-waste>.

Ebbs S. E-cigarettes highlight the challenges of dealing with plastic waste, in *ABC News* 2020. Available from: <https://abcnews.go.com/Politics/cigarettes-highlight-challenges-dealing-plastic-waste/story?id=68890487>.

Walsh F. Vaping habit is a real drag on landfill sites, in *The Times* 2019. Available from: <https://www.thetimes.co.uk/article/vaping-habit-is-a-real-drag-on-landfill-sites-wwlw6r2gw>.

Stern C. Animals against e-cigs! Popular doggy Instagram influencer Doug the Pug protests Juul in new anti-e-cigarette campaign - as more teens and young adults are hospitalized from vaping, in

*Daily Mail Australia*2019. Available from: <https://www.dailymail.co.uk/femail/article-7384203/Doggy-Instagram-influencer-Doug-Pug-hits-Juul-new-anti-e-cigarette-campaign.html>.

Paul K. Vaping's other problem: are e-cigarettes creating a recycling disaster?, in *The Guardian*2019. Available from: <https://www.theguardian.com/society/2019/aug/26/vapings-other-problem-are-e-cigarettes-creating-a-recycling-disaster>.

No authors listed. NZ launches world-first recycling initiative for vapes, in *Scoop Independent News*2019. Available from: <https://www.scoop.co.nz/stories/BU1912/S00320/nz-launches-world-first-recycling-initiative-for-vapes.htm>.

Daley J. Colorado's new trash problem: Vape pods, in *The Durango Herald*2019. Available from: <https://durangoherald.com/articles/277411>.

Greenhalgh E and Scollo M. 18B.4 Safety and abuse potential, in *Tobacco in Australia: Facts and issues*. Greenhalgh E, Scollo M, and Winstanley M, Editors. Melbourne: Cancer Council Victoria; 2018. Available from: <https://www.tobaccoinustralia.org.au/chapter-18-harm-reduction/indepth-18b-e-cigarettes/18b-4-safety>

World Health Organization. Tobacco and its environmental impact: an overview. 2017. Available from: <https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf>.

McKenna Jr L. Electronic Cigarette Fires and Explosions in the United States 2009 - 2016. U.S. Fire Administration, 2017. Available from: https://www.usfa.fema.gov/downloads/pdf/publications/electronic_cigarettes.pdf.

Greenhalgh E and Scollo M. InDepth 18B: Electronic cigarettes (e-cigarettes), in *Tobacco in Australia: Facts and issues*. Greenhalgh E, Scollo M, and Winstanley M, Editors. Melbourne: Cancer Council Victoria; 2016. Available from: <https://www.tobaccoinustralia.org.au/chapter-18-harm-reduction/indepth-18b-e-cigarettes/18b-0-introduction>.

Clean Up Australia. Cigarette Butts, in *Clean Up*. Available from: <https://www.cleanup.org.au/cigarette-butts>.

18.4.3.2 Manufacturers' response to E-cigarette waste

Guest, H. Biffa launches vape takeback scheme. *Letsrecycle*, 2023. July 13, 2023. Retrieved from <https://www.letsrecycle.com/news/biffa-vape-takeback-scheme/>

Butterworth, B. Free vapes to be offered to e-cigarette users if they recycle their used ones through Royal Mail. *iNews*, 2023. May 16, 2023. Retrieved from <https://inews.co.uk/news/free-vapes-e-cigarette-users-new-recycling-scheme-2342447>

Jethwa, P. VPZ offers vape recycling service in store. *Better Retailing*, 2023. May 26, 2023. Retrieved from <https://www.betterretailing.com/industry-news/vpz-offers-vape-recycling-service-in-store/>

Ghazali, R. UK company offers users free vape pen for every 10 e-cigarettes they recycle under new scheme. *Peterborough Telegraph*, 2023. Feb 21, 2023. Retrieved from <https://www.peterboroughtoday.co.uk/read-this/uk-company-offers-users-free-vape-pen-for-every-10-e-cigarettes-they-recycle-under-new-scheme-how-to-apply-4035944>

18.4.3.3 Policy response

Tasmanian Times. (2024). Free Hazardous Waste Collection Across 'Circular North' [Press release]. Retrieved from <https://tasmaniantimes.com/2024/10/free-hazardous-waste-collection-across-circular-north/>

Department for Environment, Food & Rural Affairs, Department of Health and Social Care, Mary Creagh CBE MP, & Andrew Gwynne MP. (204). Government crackdown on single-use vapes [Press release]. Retrieved from <https://www.gov.uk/government/news/government-crackdown-on-single-use-vapes>

Public Accounts and Estimates Committee. (2024). *Inquiry into vaping and tobacco controls*. Retrieved from Melbourne: <https://www.parliament.vic.gov.au/vapetobaccoinquiry>

Ison, S. Calls for vape waste plan as dozens of fires caused every month from their disposal. *The Australian*, 2024. Jan 30, 2024. Retrieved from <https://www.theaustralian.com.au/nation/politics/calls-for-vape-waste-plan-as-dozens-of-fires-caused-every-month-from-their-disposal/news-story/d139bc77c4d7d5972eaae02ffff3d5b2>

Brewer, P. Tricky destruction problem for 35 tonnes of seized vapes. *Sunday Canberra Times*, 2023. Nov 5, 2023.

Hutcheon, P. Ban on single use vapes in Scotland moves closer as government-backed report calls for action. *Daily Record*, 2023. June 30, 2023. Retrieved from <https://www.dailyrecord.co.uk/news/politics/ban-single-use-vapes-scotland-30354363>

Dailey-Provost, J TOBACCO REGULATION AMENDMENTS 2023 GENERAL SESSION STATE OF UTAH, (2023).