

Tobacco in Australia

Facts & Issues

Relevant news and research

4.2 What is in secondhand smoke?

Last updated December 2024

Research:

Chaparro, MAE, Marie, DC, Chaparro, MAE, Rodriguez Trejo, A, Alba, B, Buitrago Posada, D et al . (2024). Nano to micron-size combustion particles in smokers' homes: Magnetic properties of tobacco and cigarette ashes. *Environ Pollut*, 363(Pt 2), 125276. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39521169>

Wang, SQ, Bao, LJ, Li, TY, & Zeng, EY. (2024). Potential health risk of human exposure to tobacco-specific nitrosamines in second-hand and third-hand smoke. *J Hazard Mater*, 480, 136446. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39536341>

Arfaeinia, H, Ghaemi, M, Jahantigh, A, Soleimani, F, & Hashemi, H. (2023). Secondhand and thirdhand smoke: a review on chemical contents, exposure routes, and protective strategies. *Environ Sci Pollut Res Int*, 30(32), 78017-78029. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37306877>

Braun, M, Klingelhofer, D, Muller, R, & Groneberg, DA. (2021). The impact of second-hand smoke on nitrogen oxides concentrations in a small interior. *Sci Rep*, 11(1), 11703. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/34083603>

Kindilien, S, & Goldberg, E. (2021). Household tobacco smoke exposure and acrylonitrile metabolite levels in a US pediatric sample. *Environ Toxicol Pharmacol*, 84, 103616. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/33609751>

Chen, X, Shi, Q, Zhou, X, & Liu, X. (2019). Molecular characterization of aldehydes and ketones in particle phase of mainstream and sidestream cigarette smoke. *R Soc Open Sci*, 6(2), 181832. Available from : <https://www.ncbi.nlm.nih.gov/pubmed/30891292>

Hems, RF, Wang, C, Collins, DB, Zhou, S, Borduas-Dedekind, N, Siegel, JA, & Abbatt, JP D. (2019). Sources of isocyanic acid (HNCO) indoors: a focus on cigarette smoke. *Environ Sci Process Impacts*. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30976776>

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Cheng, LC, Lin, CJ, Liu, HJ, & Li, LA. Health risk of metal exposure via inhalation of cigarette sidestream smoke particulate matter. *Environ Sci Pollut Res Int*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30778946>

Peters, KO, Williams, AL, Abubaker, S, Curtin-Brosnan, J, McCormack, MC, Peng, R, Breyse, PN, Matsui, EC, Hansel, NN, Diette, GB, Strickland, PT. Predictors of polycyclic aromatic hydrocarbon exposure and internal dose in inner city Baltimore children. *J Expo Sci Environ Epidemiol*, Dec 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27966668>

Gerber, A et al. Tobacco smoke particles and indoor air quality (ToPIQ-II) - a modified study protocol and first results. *Journal of Occupational Medicine and Toxicology*, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25717342>

4.2.1 Secondhand smoke from sources other than cigarettes

Kaplan, B, Sussan, T, Rule, A, Moon, K, Grau-Perez, M, Olmedo, P et al. (2019). Waterpipe tobacco smoke: Characterization of toxicants and exposure biomarkers in a cross-sectional study of waterpipe employees. *Environ Int*, 127, 495-502. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30981020>

Kassem, NOF, Kassem, NO, Liles, S, Zarth, AT, Jackson, SR, Daffa, RM, Chatfield, DA, Carmella, SG, Hecht, SS, Hovell, MF. Acrolein exposure in hookah smokers and non-smokers exposed to hookah tobacco Secondhand Smoke: Implications for regulating hookah tobacco products. *Nicotine Tob Res*, Jun 2017. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28591850>

Juhasz, A, Pap, D, Barta, I, Drozdovszky, O, Egresi, A, Antus, B. Kinetics of exhaled carbon monoxide following waterpipe smoking indoors and outdoors. *Chest*. 2017 Feb 16. pii: S0012-3692(17)30209-X. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28215785>

News reports:

4.2.1 Secondhand smoke from sources other than cigarettes

Ortega-Welch, Marissa. Are There Risks From Secondhand Marijuana Smoke? Early Science Says Yes. NPR, 2018. Mar 21, 2018. Available from: <https://www.npr.org/sections/health-shots/2018/03/19/592873218/are-there-risks-from-secondhand-marijuana-smoke-early-science-says-yes>

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