

Tobacco in Australia

Facts & Issues

Relevant news and research

3.33 Health effects of chewing tobacco, and of other smokeless tobacco products

Last updated December 2024

Research:

Back, S, Masser, AE, Rutqvist, LE, & Lindholm, J. (2023). Harmful and potentially harmful constituents (HPHCs) in two novel nicotine pouch products in comparison with regular smokeless tobacco products and pharmaceutical nicotine replacement therapy products (NRTs). *BMC Chem*, 17(1), 9. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36869349>

Arora, M, Shrivastava, S, Mishra, VK, & Mathur, MR. (2020). Use of Betel Quid in India from 2009 to 2017: An Epidemiological Analysis of the Global Adult Tobacco Survey (GATS). *Subst Use Misuse*, 55(9), 1465-1471. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32569539>

Hu, Y, Zhong, R, Li, H, & Zou, Y. (2020). Effects of Betel Quid, Smoking and Alcohol on Oral Cancer Risk: A Case-Control Study in Hunan Province, China. *Subst Use Misuse*, 55(9), 1501-1508. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32569534>

Li, K, Wang, C, Zhao, Z, Wu, Z, Wu, Z, Tian, X et al (2020). A comparison for the effects of raw, smoked, and smoked and brined areca nut extracts on the immune and inflammatory responses in the Kunming mice. *J Food Biochem*, e13319. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32537741>

Gajalakshmi, V, Kanimozhi, V. Tobacco chewing and adult mortality: a case-control analysis of 22,000 cases and 429,000 controls, never smoking tobacco and never drinking alcohol, in South India. *Asian Pacific Journal of Cancer Prevention*, 2015; 16(3):1201-6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25735356>

tobaccoinaustralia.org.au

Singh, P et al. Oral Candida carriage among individuals chewing betel-quin with and without tobacco: an observation. *Oral surgery, Oral Medicine, Oral Pathology and Oral Radiology*, 2015 Jun; 119(6):695. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25818478>

Whitehead, TP et al. Tobacco alkaloids and tobacco-specific nitrosamines in dust from homes of smokeless tobacco users, active smokers, and nontobacco users. *Chemical Research in Toxicology*, 2015 May 18; 28(5):1007-14. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25794360>

Chakrabarti, S et al. Whole genome expression profiling in chewing-tobacco-associated oral cancers: a pilot study. *Medical Oncology*, 2015 Mar; 32(3):60. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25663065>

Mahapatra, S et al. Risk of oral cancer associated with gutka and other tobacco products: A hospital-based case-control study. *Journal of Cancer Research and Therapeutics*, 2015 Jan-Mar; 11(1):199-203. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25879362>

Dwivedi, S et al. Aggravation of inflammation by smokeless tobacco in comparison of smoked tobacco. *Indian Journal of Clinical Biochemistry*, 2015 Jan; 30(1):117-9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25646053>

Arefalk, G, Hambraeus, K, Lind, L, Michaelsson, K, Lindahl, B, Sundstrom, J. Discontinuation of smokeless tobacco and mortality risk after myocardial infarction. *Circulation*. 2014 Jul 22;130(4):325-32. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24958793>

Khan, Z, Tonnie, J, Muller, S. Smokeless tobacco and oral cancer in South Asia: a systematic review with meta-analysis. *J Cancer Epidemiol*. 2014;2014:394696. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25097551>

Lee, PN. Health risks related to dual use of cigarettes and snus - a systematic review. *Regul Toxicol Pharmacol*, 2014 Jun;69(1):125-34. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24184647>

Ludvigsson, JF, Nordenvall, C, Jarvholm, B. Smoking, use of moist snuff and risk of celiac disease: a prospective study. *BMC Gastroenterol*. 2014 Jul 3;14:120. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24994113>

Mallery, SR, Tong, M, Michaels, GC, Kiyani, A, Hecht, SS. Clinical and biochemical studies support smokeless tobacco's carcinogenic potential in the human oral cavity. *Cancer Prev Res (Phila)*. 2014 Jan;7(1):23-32. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24265177>

Burkey MD, Feirman S, Wang H, Choudhury SR, Grover S, et al. The association between smokeless tobacco use and pancreatic adenocarcinoma: A systematic review. *Cancer Epidemiol*, 2014 Dec; 38(6):647-53. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25262376>

Chague F, Guenancia C, Gudjoncik A, Moreau D, Cottin Y, et al. Smokeless tobacco, sport and the heart. *Arch Cardiovasc Dis*, 2015 Jan; 108(1):75-83. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25497687>

Janbaz KH, Qadir MI, Basser HT, Bokhari TH, and Ahmad B. Risk for oral cancer from smokeless tobacco. *Contemp Oncol (Pozn)*, 2014; 18(3):160-4. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25520574>

Kamath KP, Mishra S, and Anand PS. Smokeless tobacco use as a risk factor for periodontal disease. *Front Public Health*, 2014; 2:195. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25368861>

Pickworth WB, Rosenberry ZR, Gold W, and Koszowski B. Nicotine Absorption from Smokeless Tobacco Modified to Adjust pH. *J Addict Res Ther*, 2014; 5(3):1000184. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25530912>

News reports:

Perappadan, Bindu Shajan. Delhi bans chewable tobacco from tomorrow. *The Hindu*, 2015. Mar 29, 2015. Available from: <http://www.thehindu.com/news/national/other-states/delhi-bans-chewable-tobacco-from-tomorrow/article7044389.ece>