

# Tobacco in Australia

## Facts & Issues

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### Relevant news and research

#### 7.18 Alternative therapies and emerging treatments

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## Research:

### *7.18 Alternative therapies and emerging treatments*

Kapoor, S, Dhankhar, A, Bhatt, G, Goel, S, & Singh, RJ. (2024). Complementary and Alternative Medicine/Therapy for Tobacco Cessation in India: A Secondary Analysis of GATS-1 and 2. *Indian J Community Med*, 49(1), 144-151. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38425957>

Chichester, KR, Sisson, ML, Chana, SM, Wolford-Clevenger, C, Hugley, MJ, Hawes, ES et al. (2023). An Open-label Pilot Study of NicoBloc as a Novel Smoking Cessation Intervention. *J Addict Med*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36877577>

Gerhardt, S, Lex, G, Holzammer, J, Karl, D, Wieland, A, Schmitt, R ( 2022). Effects of chess-based cognitive remediation training as therapy add-on in alcohol and tobacco use disorders: protocol of a randomised, controlled clinical fMRI trial. *BMJ Open*, 12(9), e057707. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36691127>

Karl, D, Wieland, A, Shevchenko, Y, Grundinger, N, Machunze, N, Gerhardt, S et al. (2023). Using computer-based habit versus chess-based cognitive remediation training as add-on therapy to modify the imbalance between habitual behavior and cognitive control in tobacco use disorder: protocol of a randomized controlled, fMRI study. *BMC Psychol*, 11(1), 24. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36698210>

Garcia-Fernandez, G, Krotter, A, Gonzalez-Roz, A, Garcia-Perez, A, & Secades-Villa, R. (2023). Effectiveness of including weight management in smoking cessation treatments: A meta-analysis of behavioral interventions. *Addict Behav*, 140, 107606. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36642013>

Antoun J, Shehab R, Sakr G, Hlais S, Awad M, et al. Acceptability of smokers of a conceptual cigarette tracker as wearable for smoking reduction. *BMC Research Notes*, 2022; 15(1):38. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35144671>

Zhai D, van Stiphout R, Schiavone G, De Raedt W, and Van Hoof C. Characterizing and modeling smoking behavior using automatic smoking event detection and mobile surveys in naturalistic environments: Observational study. *JMIR Mhealth Uhealth*, 2022; 10(2):e28159. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35179512>

Sancak B, Dokuzlu G, Ozcan O, and Agirbas UO. Self-treatment attempt of tobacco use disorder with melissa officinalis: A case report and brief review of literature. *Journal of Addictive Diseases*, 2022;1-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35550004>

Hata A, Komiya M, Yasoda A, Wada H, Yamakage H, et al. Psychological effects of aromatherapy on smokers with depressive tendencies during smoking cessation treatment: Protocol for a pre-post single-arm clinical trial. JMIR Res Protoc, 2022; 11(7):e38626. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35797095>

Smits JAJ, Baird SO, Rinck M, Rosenfield D, Beevers CG, et al. Corrigendum to "approach bias retraining to augment smoking cessation: Study protocol for a randomized controlled trial" [contemp. Clin. Trials commun. 14 (2019) 100340]. Contemp Clin Trials Commun, 2022; 28:100922. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35859922>

Yang MJ, Brandon KO, Sutton SK, Kleinjan M, Hernandez LM, et al. Augmented reality for extinction of cue-provoked urges to smoke: Proof of concept. Psychology of Addictive Behaviors, 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35834198>

Maguire G, Chen H, Schnall R, Xu W, and Huang MC. Smoking cessation system for preemptive smoking detection. IEEE Internet Things J, 2022; 9(5):3204-14. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36059439>

Tatnell P, Atorkey P, and Tzelepis F. The effectiveness of virtual reality interventions on smoking, nutrition, alcohol, physical activity and/or obesity risk factors: A systematic review. International Journal of Environmental Research and Public Health, 2022; 19(17). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36078528>

Klinsophon T, Thaveeratitham P, and Janwantanakul P. The effect of three-part breathing exercise on smoking cessation: A 6-month cluster-randomized clinical trial. J Bodyw Mov Ther, 2022; 32:156-62. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36180143>

Anggadiredja K, Amalia L, and Haq FA. Ameliorating effects of virgin coconut oil (vco) on nicotine dependence and quality of life in smokers. CNS and Neurological Disorders Drug Targets, 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36443980>

Zamboni L, Campagnari S, Giordano R, Fusina F, Carli S, et al. A virtual reality craving study in tobacco addiction: The role of non-pharmacological support in tobacco detox therapy. Front Psychiatry, 2022; 13:940100. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36311510>

Machulska A, Eiler TJ, Kleinke K, Grunewald A, Bruck R, et al. Approach bias retraining through virtual reality in smokers willing to quit smoking: A randomized-controlled study. Behaviour Research and Therapy, 2021; 141:103858. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33862407>

Perri RL and Perrotta D. Transcranial direct current stimulation of the prefrontal cortex reduces cigarette craving in not motivated to quit smokers: A randomized, sham-controlled study. Addictive Behaviors, 2021; 120:106956. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33940337>

Weinberger AH, Pang RD, Ferrer M, Kashan RS, Estey DR, et al. A novel smoking-specific self-control task: An initial study of feasibility, acceptability, and changes in self-control and cigarette smoking behaviors among adults using cigarettes. Psychology of Addictive Behaviors, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34081484>

Lin X, Deng J, Yuan K, Wang Q, Liu L, et al. Neural substrates of propranolol-induced impairments in the reconsolidation of nicotine-associated memories in smokers. *Transl Psychiatry*, 2021; 11(1):441. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34429396>

Lipkus IM, Mays D, Sheeran P, Pan W, Cameron LD, et al. Effects of mental simulation of future waterpipe tobacco smoking on attitudes, perceived harms and intended use among young adults. *Journal of Behavioral Medicine*, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34406549>

Shevorykin A, Bickel WK, Carl E, and Sheffer CE. Future thinking priming especially effective at modifying delay discounting rates among cigarette smokers. *International Journal of Environmental Research and Public Health*, 2021; 18(16). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34444463>

Velangi CS, Yavagal PC, and Nagesh L. Role of auricular laser acupuncture and psychological counseling in reducing nicotine dependence due to smoking: A randomized controlled trial. *Indian Journal of Public Health*, 2021; 65(3):243-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34558485>

Keijzers M, Vega-Corredor MC, Tomintz M, and Hoermann S. Virtual reality technology use in cigarette craving and smoking interventions (i "virtually" quit): Systematic review. *Journal of Medical Internet Research*, 2021; 23(9):e24307. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34533471>

Gehlenborg J, Goritz AS, Moritz S, Ludtke T, and Kuhn S. Imaginal retraining reduces craving for Tobacco in 1-year controlled follow-up study. *European Addiction Research*, 2021;1-12. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34569480>

Hughes LK, Hayden MJ, Bos J, Lawrence NS, Youssef GJ, et al. A randomised controlled trial of inhibitory control training for smoking cessation: Outcomes, mediators and methodological considerations. *Front Psychol*, 2021; 12:759270. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34803842>

O'Connor RJ, Carl E, Shevorykin A, Stein JS, Vantucci D, et al. Internal validity of two promising methods of altering temporal orientation among cigarette smokers. *International Journal of Environmental Research and Public Health*, 2021; 18(23). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34886327>

Moritz S, Goritz AS, Kraj M, Gehlenborg J, Hottenrott B, et al. Imaginal retraining reduces cigarette smoking: A randomized controlled study. *European Addiction Research*, 2020;1-10. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32877910>

Wu WH and Chiou WB. Exposure to pictures of natural landscapes may reduce cigarette smoking. *Addiction*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31240775>

Bos J, Staiger PK, Hayden MJ, Hughes LK, Youssef G, et al. A randomized controlled trial of inhibitory control training for smoking cessation and reduction. *Journal of Consulting and Clinical Psychology*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31318233>

Sadeghi-Ardekani K, Haghghi M, and Zarrin R. Effects of omega-3 fatty acid supplementation on cigarette craving and oxidative stress index in heavy-smoker males: A double-blind, randomized, placebo-controlled clinical trial. *J Psychopharmacol*, 2018;269881118788806. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30136619>

Bhandari B, JianChao L, Xi Z, Rajasegarar S, and Karmakar C. Non-invasive sensor based automated smoking activity detection. Conference Proceedings, Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2017; 2017:845-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29060004>

Patterson F, Grandner MA, Malone SK, Rizzo A, Davey A, et al. Sleep as a target for optimized response to smoking cessation treatment. *Nicotine and Tobacco Research*, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29069464>

Prapavessis H, De Jesus S, Fitzgeorge L, Faulkner G, Maddison R, et al. Exercise to enhance smoking cessation: The getting physical on cigarette randomized control trial. *Annals of Behavioral Medicine*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26791022>

Gueguen N, Silone F, and David M. The effect of the two feet-in-the-door technique on Tobacco deprivation. *Psychol Health*, 2016;1–17. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26892708>

Hatzigeorgiadis A, Pappa V, Tsiami A, Tzatzaki T, Georgakouli K, et al. Self-regulation strategies may enhance the acute effect of exercise on smoking delay. *Addictive Behaviors*, 2016; 57:35–7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26851493>

Underner M, Perriot J, Peiffer G, and Meurice JC. [effects of physical activity on tobacco craving for smoking cessation]. *Revue des Maladies Respiratoires*, 2016. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26852188>

Scaglia N, Chatkin J, Chapman KR, Ferreira I, Wagner M, et al. The relationship between omega-3 and smoking habit: A cross-sectional study. *Lipids in Health and Disease*, 2016; 15(1):61. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27004534>

Muramoto ML, Gordon JS, Bell ML, Nichter M, Floden L, et al. Tobacco cessation training for complementary and alternative medicine practitioners: Results of a practice-based trial. *American Journal of Preventive Medicine*, 2016; 51(2):e35–e44. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/27061892>

Capozzi B, Chez A, Carpenter T, Hubert L, Hewan-Lowe L, et al. Osteopathic medical student administered smoking cessation counseling is an effective tool. *N Am J Med Sci*, 2016; 8(4):187–90. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27213143>

Monroe D, Patel NR, McCully KK, and Dishman RK. The effects of exercise on affective and prefrontal brain responses to emotional scenes in smokers: 1154 June 1, 3: 15 pm - 3: 30 pm. *Medicine and Science in Sports and Exercise*, 2016; 48(5 Suppl 1):315. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27360189>

Lee S and Park H. The effects of auricular acupressure on smoking cessation for male college students. *Western Journal of Nursing Research*, 2016. Available from:  
<http://www.ncbi.nlm.nih.gov/pubmed/27432347>

Thind H, Jennings E, Fava JL, Sillice MA, Becker BM, et al. Differences between men and women enrolling in smoking cessation programs using yoga as a complementary therapy. *J Yoga Phys Ther*, 2016; 6(3). Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27683623>

Garcia-Romeu A, Griffiths RR, and Johnson MW. Psilocybin-occasioned mystical experiences in the treatment of Tobacco addiction. *Current Drug Abuse Reviews*, 2015. Available from:  
<http://www.ncbi.nlm.nih.gov/pubmed/25563443>

Cellini N and Parma V. Commentary: Olfactory aversive conditioning during sleep reduces cigarette-smoking behavior. *Front Psychol*, 2015; 6:586. Available from:  
<http://www.ncbi.nlm.nih.gov/pubmed/25999897>

Stapleton JA. Cytisine is more effective than nicotine replacement for smoking cessation. *Evidence-Based Medicine*, 2015. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25935656>

Acupuncture and related interventions for smoking. *Nursing Times*, 2015; 111(19):15. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26182598>

De Granda-Orive JI, Solano-Reina S, and Jimenez-Ruiz CA. Would adding an anesthetic to nicotine mouth spray increase smoking cessation rates? Would this justify starting a research project? *Adicciones*, 2015; 27(2):150–1. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26132304>

McFadden DD, Chon TY, Croghan IT, Schroeder DR, Mallory MJ, et al. Trial of intensive acupuncture for smoking cessation: A pilot study. *Acupunct Med*, 2015. Available from:  
<http://www.ncbi.nlm.nih.gov/pubmed/26124197>

Xue S, Schlosburg JE, and Janda KD. A new strategy for smoking cessation: Characterization of a bacterial enzyme for the degradation of nicotine. *Journal of the American Chemical Society*, 2015; 137(32):10136–9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26237398>

Dwivedi S and Chopra D. Neem (*azadirachta indica*) as an alternative therapy for Tobacco cessation. *Indian Journal of Chest Diseases and Allied Sciences*, 2015; 57(1):42. Available from:  
<http://www.ncbi.nlm.nih.gov/pubmed/26410984>

Liu Z, Yang JS, Wu Y, Zhang O, Chen M, et al. Predictors for smoking cessation with acupuncture in a hong kong population. *Evidence-Based Complementary and Alternative Medicine*, 2015; 2015:189694. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26347786>

Marti J and Sindelar J. Smaller cigarette pack as a commitment to smoke less? Insights from behavioral economics. *PLoS ONE*, 2015; 10(9):e0137520. Available from:  
<http://www.ncbi.nlm.nih.gov/pubmed/26356844>

Barr MS and George TP. Deep repetitive transcranial magnetic stimulation for smoking cessation: Is going deeper better? *Biological Psychiatry*, 2014; 76(9):678–80. Available from:  
<http://www.ncbi.nlm.nih.gov/pubmed/25282533>

Arzi A, Holtzman Y, Samnon P, Eshel N, Harel E, et al. Olfactory aversive conditioning during sleep reduces cigarette-smoking behavior. *Journal of Neuroscience*, 2014; 34(46):15382–93. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25392505>

McKee SA, Potenza MN, Kober H, Sofuooglu M, Arnsten AF, et al. A translational investigation targeting stress-reactivity and prefrontal cognitive control with guanfacine for smoking cessation. *J Psychopharmacol*, 2014. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25516371>

Silva RD, Chaves ED, Pillon SC, Silva AM, Moreira DD, et al. Contributions of auriculotherapy in smoking cessation: A pilot study. *Revista da Escola de Enfermagem da USP*, 2014; 48(5):883–90. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25493493>

Bock BC, Rosen RK, Fava JL, Gaskins RB, Jennings E, et al. Testing the efficacy of yoga as a complementary therapy for smoking cessation: Design and methods of the breatheeasy trial. *Contemporary Clinical Trials*, 2014; 38(2):321–32. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24937018>

Dai CL and Sharma M. Between inhale and exhale: Yoga as an intervention in smoking cessation. *J Evid Based Complementary Altern Med*, 2014; 19(2):144–9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24647095>

Dinur-Klein L, Dannon P, Hadar A, Rosenberg O, Roth Y, et al. Smoking cessation induced by deep repetitive transcranial magnetic stimulation of the prefrontal and insular cortices: A prospective, randomized controlled trial. *Biological Psychiatry*, 2014; 76(9):742–9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25038985>

Stuyt EB. Ear acupuncture for co-occurring substance abuse and borderline personality disorder: An aid to encourage treatment retention and tobacco cessation. *Acupunct Med*, 2014; 32(4):318–24. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24824499>

White A and Taylor A. Acupuncture for smoking cessation: Where now? *Acupunct Med*, 2014; 32(4):306–7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25030215>

White AR, Rampes H, Liu JP, Stead LF, and Campbell J. Acupuncture and related interventions for smoking cessation. *Cochrane Database of Systematic Reviews*, 2014; 1:CD000009. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24459016>

Williams DM, Ussher M, Dunsiger S, Miranda R, Jr., Gwaltney CJ, et al. Overcoming limitations in previous research on exercise as a smoking cessation treatment: Rationale and design of the "quit for health" trial. *Contemporary Clinical Trials*, 2014; 37(1):33–42. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24246818>

Zhang AL, Di YM, Worsnop C, May BH, Da Costa C, et al. Ear acupressure for smoking cessation: A randomised controlled trial. *Evidence-Based Complementary and Alternative Medicine*, 2013; 2013:637073. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24191168>

Chae Y, Park H, Kang O, Lee H, Kim S, et al. Acupuncture attenuates autonomic responses to smoking-related visual cues. *Complementary Therapies in Medicine*, 2011; 19 Suppl 1:S1–S7.

Available from: <http://www.complementarytherapiesinmedicine.com/article/S0965-2299%2810%2900099-3/pdf>

Carmody TP. No clear evidence that hypnotherapy for smoking cessation is more effective in the long term than no treatment or other interventions. Evidence-Based Nursing, 2011; [Epub ahead of print]. Available from: <http://ebn.bmj.com/content/early/2011/01/18/ebn1138.full>

White A, Rampus H, Liu J, Stead L, and Campbell J. Acupuncture and related interventions for smoking cessation. Cochrane Database of Systematic Reviews, 2011; 1:CD000009. Available from: [http://onlinelibrary.wiley.com/o/cochrane/clsysrev/articles/CD000009/pdf\\_fs.html](http://onlinelibrary.wiley.com/o/cochrane/clsysrev/articles/CD000009/pdf_fs.html)

Chae Y, Kang O-S, Lee H-J, Kim S-Y, Lee H, et al. Effect of acupuncture on selective attention for smoking-related visual cues in smokers. Neurological Research, 2010; 32(1):27–30(4). Available from: <http://www.ingentaconnect.com/content/maney/nres/2010/00000032/A00101s1/art00006>

Lynn S, Green J, Accardi M, and Cleere C. Hypnosis and smoking cessation: The state of the science. The American Journal of Clinical Hypnosis, 2010; 52(3):177–81. Available from: [http://www.asch.net/membersonly/journals/ajch-52/52-3/lynn\\_green\\_accardi\\_cleere52-3.pdf](http://www.asch.net/membersonly/journals/ajch-52/52-3/lynn_green_accardi_cleere52-3.pdf)

Yan J, Di X, Liu C, Zhang H, Huang X, et al. The cessation and detoxification effect of tea filters on cigarette smoke. Science China Life Sciences, 2010; 53(5):533–41. Available from: <http://www.springerlink.com/content/c3r158573w41h87m/fulltext.pdf>

Barnes J, Dong C, McRobbie H, Walker N, Mehta M, et al. Hypnotherapy for smoking cessation. Cochrane Database of Systematic Reviews, 2010; 10:CD001008. Available from: [http://onlinelibrary.wiley.com/o/cochrane/clsysrev/articles/CD001008/pdf\\_fs.html](http://onlinelibrary.wiley.com/o/cochrane/clsysrev/articles/CD001008/pdf_fs.html)

Walker N, Bullen C, and McRobbie H. Reduced-nicotine content cigarettes: Is there potential to aid smoking cessation? Nicotine and Tobacco Research, 2009; 11(11):1274–9. Available from: <http://ntr.oxfordjournals.org/cgi/content/full/11/11/1274>

Yeh M, Chang C, Chu N, and Chen H. A six-week acupoint stimulation intervention for quitting smoking. The American Journal of Chinese Medicine, 2009; 37(5):829–36. Available from: <http://www.worldscinet.com/ajcm/37/preserved-docs/3705/S0192415X09007314.pdf>

Carmody TP, Duncan C, Simon JA, Solkowitz S, Huggins J, et al. Hypnosis for smoking cessation: A randomized trial Nicotine and Tobacco Research, 2008; 10(5):811–8. Available from: <http://www.informaworld.com/...>

Ussher M, Taylor A, and Faulkner G. Exercise interventions for smoking cessation. Cochrane Database of Systematic Reviews, 2008; 8(4):CD002295. Available from: [http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD002295/pdf\\_fs.html](http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD002295/pdf_fs.html)

Taylor A, Ussher M, and Faulkner G. The acute effects of exercise on cigarette cravings, withdrawal symptoms, affect and smoking behaviour: A systematic review. Addiction, 2007; 102(4):534–43. Available from: <http://www3.interscience.wiley.com/journal/117967853/abstract?CRETRY=1&SRETRY=0>

Ussher M, West R, McEwen A, Taylor A, and Steptoe A. Randomized controlled trial of physical activity counseling as an aid to smoking cessation: 12 month follow-up. *Addictive Behaviors*, 2007; 32(12):3060–4. Available from:

[http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6VC9-4NGRRYG-8&\\_user=10&\\_rdoc=1&\\_fmt=&\\_orig=search&\\_sort=d&view=c&\\_acct=C000050221&\\_version=1&\\_urIVersion=0&\\_userid=10&md5=41ace1686ab6cdb228fe6071553f3006](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VC9-4NGRRYG-8&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urIVersion=0&_userid=10&md5=41ace1686ab6cdb228fe6071553f3006)

West R and Shiffman S, Fast facts - smoking cessation. *Fast facts* Oxford: Health Press Limited; 2004.

Green J and Lynn S. Hypnosis and suggestion-based approaches to smoking cessation: An examination of the evidence. *International Journal of Clinical and Experimental Hypnotherapy*, 2000; 48(2):195–224. Available from:

<http://www.informaworld.com/smpp/content~content=a790196220~tab=send>

Jensen E, Schmidt E, Pedersen B, and Dahl R. The effect of nicotine, silver acetate, and placebo chewing gum on the cessation of smoking. The influence of smoking type and nicotine dependence. *The International Journal of the Addictions*, 1991; 26(11):1223–31. Available from:

<http://www.ncbi.nlm.nih.gov/pubmed/1743819>

US Department of Health and Human Services. The health consequences of smoking: Nicotine addiction. A report of the Surgeon General. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Health Promotion and Education, Office on Smoking and Health, 1988. Available from:

[https://stacks.cdc.gov/view/cdc/22014/cdc\\_22014\\_DS1.pdf](https://stacks.cdc.gov/view/cdc/22014/cdc_22014_DS1.pdf).

Vandevenne A, Rempp M, Burghard G, Kuntzmann Y, and Jung F. Study of the specific contribution of acupuncture to tobacco detoxication. *La Semaine des Hôpitaux*, 1985; 61(29):2155–60. Available from: <http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/885/CN-00184885/frame.html>

Steiner RP, Hay DL, and Davis AW. Acupuncture therapy for the treatment of tobacco smoking addiction. *The American Journal of Chinese Medicine*, 1982; 10(1–4):107–21. Available from: <http://www.mrw.interscience.wiley.com/cochrane/clcentral/articles/305/CN-00031305/frame.html>

Klinsophon T, Thaveeratitham P, and Janwantanakul P. The effect of breathing exercise on nicotine withdrawal symptoms, cigarette cravings, and affect. *J Addict Nurs*, 2020; 31(4):269–75. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33264199>

Schroder B and Muhlberger A. Assessing the attentional bias of smokers in a virtual reality anti-saccade task using eye tracking. *Biological Psychology*, 2022; 172:108381. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35710075>

Naude GP, Dolan SB, Strickland JC, Berry MS, Cox DJ, et al. The influence of episodic future thinking and graphic warning labels on delay discounting and cigarette demand. *International Journal of Environmental Research and Public Health*, 2021; 18(23). Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/34886370>

Daldegan-Bueno D, Maia LO, Massarentti CM, and Tofoli LF. Ayahuasca and tobacco smoking cessation: Results from an online survey in Brazil. *Psychopharmacology*, 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35179623>

Battalio SL, Conroy DE, Dempsey W, Liao P, Menictas M, et al. Sense2stop: A micro-randomized trial using wearable sensors to optimize a just-in-time-adaptive stress management intervention for smoking relapse prevention. *Contemporary Clinical Trials*, 2021; 109:106534. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34375749>

### 7.18.1 Acupuncture

Dai, R, Ren, D, Li, B, Zhang, Y, Ma, X, Zhang, X et al. (2024). Effects of acupuncture and nicotine patch on smoking: a multicenter, randomized, controlled, double-blind clinical trial. *Front Med (Lausanne)*, 11, 1418967. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39086957>

Zhang, YY, Su, YZ, Tian, ZY, Liang, SB, Liu, YJ, Li, YF et al. (2024). Acupuncture and related acupoint therapies for smoking cessation: An umbrella review and updated meta-analysis. *Tob Induc Dis*, 22. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38638420>

Lu, CL, Jin, XY, Wang, QY, Chen, XY, Zheng, RX, Wang, CJ et al. (2023). Traditional Chinese medicine for smoking cessation: An umbrella review of systematic reviews and meta-analysis of randomized controlled trials. *Tob Induc Dis*, 21, 150. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38026501>

Sicker, KM, Secic, M, Graham, A, & Auciello, SE. (2023). Patient interest in acupuncture for smoking cessation: a survey. *Acupunct Med*, 9645284231206145. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37909713>

Mitra, R, Rai, A, Kumar, A, & Mitra, JK. (2023). Role of Herbal Medication in Tobacco Cessation Treatment: A Systematic Review and Meta-analysis. *Addict Health*, 15(1), 63-70. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37560083>

Al-Zalabani, AH. (2023). Silver Spike Point Therapy in smoking cessation: What is it and does it work? *Saudi Med J*, 44(6), 537-543. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37343991>

Wang Q, Dai R, Zhang H, Jiang X, Ma X, et al. The efficacy and safety of acupuncture and nicotine replacement therapy for smoking cessation: Study protocol for a randomized controlled trial. *Trials*, 2022; 23(1):465. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35668503>

Wattanaruangkowit P, Muengtaweepongsa S, Kengganpanich M, and Kengganpanich T. The effects of foot reflexology for smoking cessation on brain activities with functional magnetic resonance imaging (fmri): A pilot study. *Evidence-Based Complementary and Alternative Medicine*, 2022; 2022:1727479. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35855825>

Ho LF, Ho WK, Wong LL, Chiu SW, Tang SY, et al. Acupuncture combined with auricular acupressure for smoking cessation and its effects on tobacco dependence and smoking behavior among hong kong smokers: A multicenter pilot clinical study. *Chinese Medicine*, 2022; 17(1):92. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35941599>

Zeng J, Liao Y, Wei X, Chen G, Cai Z, et al. Efficacy and safety of acupuncture combined with auricular acupressure for smoking cessation: A study protocol of a multicentre, randomized, controlled clinical trial. *Front Neurol*, 2022; 13:921054. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/35968287>

El Bahri M, Wang X, Biaggi T, Falissard B, Naudet F, et al. A multiverse analysis of meta-analyses assessing acupuncture efficacy for smoking cessation evidenced vibration of effects. *Journal of Clinical Epidemiology*, 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36150547>

Sung WS, Choi IS, Moon JH, Chae SY, Jo MG, et al. Efficacy and safety evaluation of adjuvant auricular acupuncture for smoking cessation: A study protocol of randomized, assessor-blinded, pragmatic pilot trial. *Medicine*, 2022; 101(43):e31456. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/36316847>

Dai R, Cao Y, Zhang H, Zhao N, Ren D, et al. Comparison between acupuncture and nicotine replacement therapies for smoking cessation based on randomized controlled trials: A systematic review and bayesian network meta-analysis. *Evidence-Based Complementary and Alternative Medicine*, 2021; 2021:9997516. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34221095>

Yavagal PC and L N. Efficacy of laser auricular acupuncture for smoking cessation: A randomised controlled trial. *Sultan Qaboos Univ Med J*, 2021; 21(2):e275-e81. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/34221476>

Lhommeau N, Huchet A, and Castera P. [acupuncture and smoking cessation, a review of the literature]. *Revue des Maladies Respiratoires*, 2020. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/32416946>

Dai R, Zhang J, Zhang H, Zhao N, Song F, et al. Effect of acupuncture and auricular acupressure on smoking cessation: Protocol of a systematic review and bayesian network meta-analysis. *Medicine*, 2020; 99(22):e20295. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32481398>

Lee EJ. Auricular acupressure and positive group psychotherapy with motivational interviewing for smoking cessation. *Holistic Nursing Practice*, 2019; 33(4):214-21. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/31192833>

Wang YZ, Wang YJ, and Yeh ML. Combining education with auricular acupressure to facilitate smoking cessation in young adults. *Holistic Nursing Practice*, 2019; 33(4):230-6. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31192835>

Wang YY, Liu Z, Chen F, Sun L, Wu Y, et al. Effects of acupuncture on craving after tobacco cessation: A resting-state fmri study based on the fractional amplitude of low-frequency fluctuation. *Quant Imaging Med Surg*, 2019; 9(6):1118-25. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31367566>

Wang JH, van Haselen R, Wang M, Yang GL, Zhang Z, et al. Acupuncture for smoking cessation: A systematic review and meta-analysis of 24 randomized controlled trials. *Tob Induc Dis*, 2019; 17:48. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31516491>

Lee EJ. The effect of auricular acupressure and positive group psychotherapy with motivational interviewing for smoking cessation in Korean adults. Holistic Nursing Practice, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31567305>

Zayed S, Tlili R, Azaiez F, Bouhaed L, Laater A, et al. Predictors of the effectiveness of acupuncture in smoking cessation in coronary patients: A prospective study of 25 patients. Tunisie Medicale, 2019; 97(11):1246-50. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32173826>

Braillon A and Ernst E. Acupuncture and smoking cessation? One swallow doesn't make a summer! Chest, 2018; 153(6):1516. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29884271>

Lim RCH. Painless laser acupuncture for smoking cessation. Med Acupunct, 2018; 30(3):159-62. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29937971>

Hyun S, Huh H, and Kang NG. Effectiveness of auricular acupuncture combined with nicotine replacement therapy for smoking cessation. Tob Induc Dis, 2018; 16:40. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31516439>

Jang S, Park S, Jang BH, Park YL, Lee JA, et al. Study protocol of a pragmatic, randomised controlled pilot trial: Clinical effectiveness on smoking cessation of traditional and complementary medicine interventions, including acupuncture and aromatherapy, in combination with nicotine replacement therapy. BMJ Open, 2017; 7(5):e014574. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28576892>

Wang YY, Liu Z, Wu Y, Yang L, Guo LT, et al. Efficacy of acupuncture is non-inferior to nrt for Tobacco cessation: Results of a prospective, randomized, active-controlled open-label trial. Chest, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29175360>

### 7.18.2 Hypnotherapy

Allredge, CT, Muniz, V, Ekanayake, V, & Elkins, GR. (2024). Preliminary Survey Data From an App-Delivered Hypnosis Intervention for Smoking Cessation. *Tob Use Insights*, 17, 1179173X241287398. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39376250>

Batra, A, Eck, S, Riegel, B, Friedrich, S, Fuhr, K, Torchalla, I, & Tonnies, S. (2024). Hypnotherapy compared to cognitive-behavioral therapy for smoking cessation in a randomized controlled trial. *Front Psychol*, 15, 1330362. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38476396>

Bollinger JW, Beadling CW, and Waters AJ. Effect of hypnotic suggestion on cognition and craving in smokers. *Addict Behav Rep*, 2020; 11:100220. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31890851>

Shakil M. Four session hypnosis intervention for smoking cessation: Treatment outcome evidence from pakistan. *J Pak Med Assoc*, 2019; 69(5):734-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31105300>

Barnes J, McRobbie H, Dong CY, Walker N, and Hartmann-Boyce J. Hypnotherapy for smoking cessation. *Cochrane Database of Systematic Reviews* 2019; 6:CD001008. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31198991>

Munson SO, Barabasz AF, and Barabasz M. Ability of hypnosis to facilitate movement through stages of change for smoking cessation. International Journal of Clinical and Experimental Hypnosis, 2018; 66(1):56-82. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29319462>

Li X, Chen L, Ma R, Wang H, Wan L, et al. The top-down regulation from the prefrontal cortex to insula via hypnotic aversion suggestions reduces smoking craving. Human Brain Mapping, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30467911>

Green JP and Lynn SJ. A multifaceted hypnosis smoking-cessation program: Enhancing motivation and goal attainment. International Journal of Clinical and Experimental Hypnosis, 2017; 65(3):308-35. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28506140>

Li X, Ma R, Pang L, Lv W, Xie Y, et al. Delta coherence in resting-state eeg predicts the reduction in cigarette craving after hypnotic aversion suggestions. Sci Rep, 2017; 7(1):2430. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28546584>

Carmody TP, Duncan CL, Solkowitz SN, Huggins J, and Simon JA. Hypnosis for smoking relapse prevention: A randomized trial. American Journal of Clinical Hypnosis, 2017; 60(2):159-71. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28891777>

### 7.18.3 Exercise

Garey, L, Thai, JM, Zvolensky, MJ, & Smits, JAJ. (2024). Exercise and Smoking Cessation. *Curr Top Behav Neurosci*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39090290>

Minian, N, Mehra, K, Lingam, M, Dragonetti, R, Veldhuizen, S, Zawertailo, L et al. (2024). Healthcare providers' perspectives on implementing a brief physical activity and diet intervention within a primary care smoking cessation program: a qualitative study. *BMC Prim Care*, 25(1), 16. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38184559>

Zhang, J, Cao, Y, Mo, H, & Feng, R. (2023). The association between different types of physical activity and smoking behavior. *BMC Psychiatry*, 23(1), 927. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38082223>

Schottl, SE, Insam, K, Fruhauf, A, Kopp-Wilfling, P, Holzner, B & Kopp, M. (2023). Acute effects of outdoor and indoor walking on cigarette cravings, withdrawal symptoms and affective response during temporary smoking abstinence. *Psychopharmacology (Berl)*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38001265>

Abrantes, AM, Browne, J, Uebelacker, LA, Anderson, BJ, Barter, S, Shah, Z et al (2023). Randomized Controlled Trial of Aerobic Exercise for Smoking Cessation among Individuals with Elevated Depressive Symptoms. *Nicotine Tob Res*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37819741>

Shandu, NM, Mathunjwa, ML, Shaw, I, & Shaw, BS. (2023). Exercise Effects on Health-Related Quality of Life (HRQOL), Muscular Function, Cardiorespiratory Function, and Body Composition in Smokers:

A Narrative Review. *Int J Environ Res Public Health*, 20(19). Retrieved from  
<https://www.ncbi.nlm.nih.gov/pubmed/37835083>

Wiertz, CM, Beauchamp, MR, Priebe, CS, Zumbo, BD, Rhodes, RE, & Faulkner, G. (2023). Predictors of changes in running and smoking identity among individuals in the Run to Quit smoking cessation program. *Psychol Sport Exerc*, 67, 102431. Retrieved from  
<https://www.ncbi.nlm.nih.gov/pubmed/37665884>

Zhou, Y, Feng, W, Guo, Y, & Wu, J. (2023). Effect of exercise intervention on smoking cessation: a meta-analysis. *Front Physiol*, 14, 1221898. Retrieved from  
<https://www.ncbi.nlm.nih.gov/pubmed/37614760>

Stockton, MB, Ward, KD, McClanahan, BS, Vander Weg, MW, Coday, M, Wilson, N et al. (2023). The Efficacy of Individualized, Community-Based Physical Activity to Aid Smoking Cessation: A Randomized Controlled Trial. *J Smok Cessat*, 2023, 5535832. Retrieved from  
<https://www.ncbi.nlm.nih.gov/pubmed/37273658>

Ruslan, NH, Yasin, SM, Mohd Nasir, N, & Isa, MR. (2023). The Impacts of Supervised Exercise Intervention on Tobacco Withdrawal Symptoms. *Tob Use Insights*, 16, 1179173X231179811. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37255578>

Taylor, AH, Thompson, TP, Streeter, A, Chynoweth, J, Snowsill, T, Ingram, W et al. (2023). Motivational support intervention to reduce smoking and increase physical activity in smokers not ready to quit: the TARS RCT. *Health Technol Assess*, 27(4), 1-277. Retrieved from  
<https://www.ncbi.nlm.nih.gov/pubmed/37022933>

Borges AM, Uebelacker LA, Brown RA, Price LH, and Abrantes AM. An examination of the effects of distress intolerance and rating of perceived exertion on changes in mood and anxiety following aerobic exercise among treatment-seeking smokers. *Psychology, Health and Medicine*, 2022:1-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35642263>

Liu H, Zhang Y, Zhang S, and Xu Z. Effects of acute aerobic exercise on food-reward mechanisms in smoking-addicted individuals: An fnirs study. *Physiology and Behavior*, 2022; 254:113889. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35738424>

Saritoy A and Usgu S. The effect of aerobic exercises of different intensities on anxiety, cigarette addiction, sleep quality, and quality of life in former smokers. *Irish Journal of Medical Science*, 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35723855>

Penifornis KM, Van Vliet MHM, Meijer E, and Gebhardt WA. Mapping the evidence on identity processes and identity-related interventions in the smoking and physical activity domains: A scoping review protocol. *BMJ Open*, 2022; 12(7):e058405. Available from:  
<https://www.ncbi.nlm.nih.gov/pubmed/35831054>

Minian N, Lingam M, Moineddin R, Thorpe KE, Veldhuizen S, et al. The impact of a clinical decision support system for addressing physical activity and healthy eating during smoking cessation treatment: Hybrid type i randomized controlled trial. *Journal of Medical Internet Research*, 2022; 24(9):e37900. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36178716>

Denche-Zamorano A, Mendoza-Munoz DM, Pereira-Payo D, Ruiz MJ, Contreras-Barraza N, et al. Does physical activity reduce the risk of perceived negative health in the smoking population? International Journal of Environmental Research and Public Health, 2022; 19(21). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36361246>

Santos CP, Proenca M, Gouveia TDS, Soares de Oliveira CB, Tacao GY, et al. Effectiveness of aerobic exercise on smoking cessation in adults: A systematic review and meta-analysis. Journal of Physical Activity and Health, 2021;1:1-13. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33434887>

Costa RVC. A collaboration to stop smoking. Arquivos Brasileiros de Cardiologia, 2021; 116(1):36. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33566962>

Seet V, Abdin E, Asharani PV, Lee YY, Royston K, et al. Physical activity, sedentary behaviour and smoking status among psychiatric patients in Singapore - a cross-sectional study. BMC Psychiatry, 2021; 21(1):110. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33602151>

Smits JAJ, Zvolensky MJ, Rosenfield D, Brown RA, Otto MW, et al. Community-based smoking cessation treatment for adults with high anxiety sensitivity: A randomized clinical trial. Addiction, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34033178>

Dunsiger S, Emerson JA, Ussher M, Marcus BH, Miranda R, Jr., et al. Exercise as a smoking cessation treatment for women: A randomized controlled trial. Journal of Behavioral Medicine, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34232456>

Kunicki ZJ, Hallgren M, Uebelacker LA, Brown RA, Price LH, et al. Examining the effect of exercise on the relationship between affect and cravings among smokers engaged in cessation treatment. Addictive Behaviors, 2021; 125:107156. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34710842>

Monroe DC, Patel NR, McCully KK, and Dishman RK. The effects of exercise on mood and prefrontal brain responses to emotional scenes in smokers. Physiology and Behavior, 2020; 213:112721. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31669233>

Masiero M, Keyworth H, Pravettoni G, Cropley M, and Bailey A. Short bouts of physical activity are associated with reduced smoking withdrawal symptoms, but perceptions of intensity May be the key. Healthcare (Basel), 2020; 8(4). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33114145>

Soreca I, Conklin CA, Vella EJ, Salkeld RP, Joyce CJ, et al. Can exercise alleviate sleep disturbances during acute nicotine withdrawal in cigarette smokers? Experimental and Clinical Psychopharmacology, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33119386>

Georgakouli K, Manthou E, Georgoulias P, Ziaka A, Deli CK, et al. Hpa axis responses to acute exercise differ in smokers and non-smokers. Physiology and Behavior, 2020:113258. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33232738>

Sohlberg T and Bergmark KH. Lifestyle and long-term smoking cessation. Tob Use Insights, 2020; 13:1179173X20963062. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33132704>

Nakagata T, Fukao K, Kobayashi H, Katamoto S, and Naito H. The effects of transdermal nicotine patches on the cardiorespiratory and lactate responses during exercise from light to moderate intensity: Implications for exercise prescription during smoking cessation. *Medicina (Kaunas)*, 2019; 55(7). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31284668>

Harrison K, Noyes N, Friedrichsen S, Tosun N, Oyenuga A, et al. Self-reported leisure time exercise change during smoking cessation in men and women. *Addictive Behaviors*, 2019; 99:106025. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31412300>

Cheung YT, Lam TH, Chan CHH, Ho KS, Fok WYP, et al. Brief handgrip and isometric exercise intervention for smoking cessation: A pilot randomized trial. *Addictive Behaviors*, 2019; 100:106119. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31522134>

Oncken C, Allen S, Litt M, Kenny A, Lando H, et al. Exercise for smoking cessation in post-menopausal women: A randomized, controlled trial. *Nicotine and Tobacco Research*, 2019. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31536112>

Ussher MH, Faulkner GEJ, Angus K, Hartmann-Boyce J, and Taylor AH. Exercise interventions for smoking cessation. *Cochrane Database Systematic Review*, 2019; 2019(10). Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31684691>

Ozaki Y, Komiyama M, Ueshima K, Iso H, Sakata S, et al. Determining the effects of exercise after smoking cessation therapy completion on continuous abstinence from smoking: Japanese study protocol. *Trials*, 2019; 20(1):734. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31842962>

Vander Weg MW, Coday M, Stockton MB, McClanahan B, Relyea G, et al. Community-based physical activity as adjunctive smoking cessation treatment: Rationale, design, and baseline data for the lifestyle enhancement program (leap) randomized controlled trial. *Contemp Clin Trials Commun*, 2018; 9:50-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29333504>

De Jesus S and Prapavessis H. Smoking behaviour and sensations during the pre-quit period of an exercise-aided smoking cessation intervention. *Addictive Behaviors*, 2018; 81:143-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29454814>

De Jesus S and Prapavessis H. Affect and cortisol mechanisms through which acute exercise attenuates cigarette cravings during a temporary quit attempt. *Addictive Behaviors*, 2018; 80:82-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29407689>

O'Sullivan GA, Hanlon C, Dentry T, Morris T, and Banting L. A qualitative exploration of the client experience of inter-professional practice in the delivery of activeplus: A combined smoking cessation and physical activity intervention. *BMC Health Services Research*, 2018; 18(1):195. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29562905>

Allen A, Carlson SC, Bosch TA, Eberly LE, Okuyemi K, et al. High-intensity interval training and continuous aerobic exercise interventions to promote self-initiated quit attempts in young adults who smoke: Feasibility, acceptability, and lessons learned from a randomized pilot trial. *J Addict Med*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29762196>

Madani A, Alack K, Richter MJ, and Kruger K. Immune-regulating effects of exercise on cigarette smoke-induced inflammation. *J Inflamm Res*, 2018; 11:155-67. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29731655>

Mas S, Bernard P, and Gourlan M. Determinants of physical activity promotion by smoking cessation advisors. *Patient Education and Counseling*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29793785>

Patten C, Levine J, Pavlidis I, Balls-Berry J, Shah A, et al. Survey of potential receptivity to robotic-assisted exercise coaching in a diverse sample of smokers and nonsmokers. *PLoS ONE*, 2018; 13(5):e0197090. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29746530>

Silverman-Lloyd LG, Kianoush S, Blaha MJ, Sabina AB, Graham GN, et al. Mactive-smoke: A prospective observational study using mobile health tools to assess the association of physical activity with smoking urges. *JMIR Mhealth Uhealth*, 2018; 6(5):e121. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29752250>

Thompson TP, Lambert JD, Greaves CJ, and Taylor AH. Intervention delivery fidelity assessment of a counseling-based intervention for promoting smoking reduction and increasing physical activity. *Health Psychology*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29708387>

Zvolensky MJ, Rosenfield D, Garey L, Kauffman BY, Langdon KJ, et al. Does exercise aid smoking cessation through reductions in anxiety sensitivity and dysphoria? *Health Psychology*, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29708388>

Prapavessis H, De Jesus S, Fitzgeorge L, and Rollo S. Anthropometric and body composition changes in smokers vs abstainers following an exercise-aided pharmacotherapy smoking cessation trial for women. *Addictive Behaviors*, 2018; 85:125-30. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29902683>

Angeli M, Hatzigeorgiadis A, Comoutos N, Krommidas C, Morres ID, et al. The effects of self-regulation strategies following moderate intensity exercise on ad libitum smoking. *Addictive Behaviors*, 2018; 87:109-14. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30005332>

Tosun NL, Allen SS, Eberly LE, Yao M, Stoops WW, et al. Association of exercise with smoking-related symptomatology, smoking behavior and impulsivity in men and women. *Drug and Alcohol Dependence*, 2018; 192:29-37. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30199844>

Kawada T. Re: The relationships among physical activity, sedentary behaviour, obesity and quitting behaviours within a cohort of smokers in California. *Public Health*, 2018; 164:157-8. Available from: [https://www.publichealthjrnl.com/article/S0033-3506\(18\)30188-4/fulltext](https://www.publichealthjrnl.com/article/S0033-3506(18)30188-4/fulltext)

Payne P, Fiering S, Zava D, Gould TJ, Brown A, et al. Digital delivery of meditative movement training improved health of cigarette-smoke-exposed subjects. *Front Public Health*, 2018; 6:282. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6202937/pdf/fpubh-06-00282.pdf>

Smits JAJ, Zvolensky MJ, Rosenfield D, Brown RA, Freeman SZ, et al. Ymca exercise intervention to augment smoking cessation treatment in adults with high anxiety sensitivity: Study protocol for a

randomized controlled trial. Contemporary Clinical Trials, 2018; 77:1-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30557623>

Abrantes AM, Farris SG, Minami H, Strong DR, Riebe D, et al. Acute effects of aerobic exercise on affect and smoking craving in the weeks before and after a cessation attempt. Nicotine and Tobacco Research, 2017. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28505303>

Piirtola M, Kaprio J, Silventoinen K, Svedberg P, Korhonen T, et al. Association between long-term smoking and leisure-time physical inactivity: A cohort study among finnish twins with a 35-year follow-up. International Journal of Public Health, 2017. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28488098>

Conklin CA, Soreca I, Kupfer DJ, Cheng Y, Salkeld RP, et al. Exercise attenuates negative effects of abstinence during 72 hours of smoking deprivation. Experimental and Clinical Psychopharmacology, 2017. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28682103>

Allen AM, Abdelwahab NM, Carlson S, Bosch TA, Eberly LE, et al. Effect of brief exercise on urges to smoke in men and women smokers. Addictive Behaviors, 2017; 77:34-7. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28950116>

Klinsophon T, Thaveeratitham P, Sitthipornvorakul E, and Janwantanakul P. Effect of exercise type on smoking cessation: A meta-analysis of randomized controlled trials. BMC Research Notes, 2017; 10(1):442. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/28874175>

Thompson TP, Greaves CJ, Ayres R, Aveyard P, Warren FC, et al. Factors associated with study attrition in a pilot randomised controlled trial to explore the role of exercise-assisted reduction to stop (ears) smoking in disadvantaged groups. Trials, 2016; 17(1):524. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27788686>

Nair US, Patterson F, Rodriguez D, and Collins BN. A telephone-based intervention to promote physical activity during smoking cessation: A randomized controlled proof-of-concept study. Transl Behav Med, 2016. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/27896797>

Linke SE, Strong DR, Myers MG, Edland SD, Hofstetter CR, et al. The relationships among physical activity, sedentary behaviour, obesity and quitting behaviours within a cohort of smokers in California. Public Health, 2016; 141:232-40. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/27932008>

### 7.18.3.1 Yoga

Kim H, Kim J, Woo M, and Kim T. Changes in inhibitory control, craving and affect after yoga vs. Aerobic exercise among smokers with nicotine dependence. Front Psychiatry, 2022; 13:940415. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35911225>

Bock BC, Dunsiger SI, Rosen RK, Thind H, Jennings E, et al. Yoga as a complementary therapy for smoking cessation: Results from breatheeasy, a randomized clinical trial. Nicotine and Tobacco Research, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30295912>

Jeffries ER, Zvolensky MJ, and Buckner JD. The acute impact of hatha yoga on craving among smokers attempting to reduce or quit. Nicotine and Tobacco Research, 2018. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30551146>

Bock BC, Thind H, Dunsiger S, Fava JL, Jennings E, et al. Who enrolls in a quit smoking program with yoga therapy? American Journal of Health Behavior, 2017; 41(6):740-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29025502>

Rosen RK, Thind H, Jennings E, Guthrie KM, Williams DM, et al. "Smoking does not go with yoga:" A qualitative study of women's phenomenological perceptions during yoga and smoking cessation. Int J Yoga Therap, 2016; 26(1):33-41. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/27797659>

#### 7.18.4 Biofeedback

Luo, Y, Li, J, Chen, X, & He, X. (2023). Attentional bias modification in male college smokers: The changes of facilitated attention, difficulty in disengagement and the transfer effects of training. *Behav Res Ther*, 171, 104437. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37979217>

Meng, Q, Zhu, Y, Yuan, Y, Yang, L, Liu, J, Zhang, X, & Bu, J. (2023). Resting-state electroencephalography theta predicts neurofeedback treatment 4-month follow-up response in nicotine addiction. *Gen Psychiatr*, 36(4), e101091. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37663053>

Xie, L, & Xiao, L. (2023). [Performance of exhaled carbon monoxide measurement in smoking cessation clinics and its influence on patients' willingness and behavior for smoking cessation]. *Zhonghua Liu Xing Bing Xue Za Zhi*, 44(7), 1063-1067. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37482707>

Yatabe, N, Hanioka, T, Suzuki, N, Shimazu, A, & Naito, M. (2023). Oral-malodor measurement and intention to quit smoking in men: A before-after study. *Tob Induc Dis*, 21, 95. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37476486>

Chung, YI, White, R, Geier, CF, Johnston, SJ, Smyth, JM, Delgado, MR et al (2023). Testing the efficacy of real-time fMRI neurofeedback for training people who smoke daily to upregulate neural responses to nondrug rewards. *Cogn Affect Behav Neurosci*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36788202>

Esteban Ronda, V, Pastor Espla, E & Rabade Castedo, C. (2023). Functional Brain Imaging in the Treatment of Nicotine Dependence. *Arch Bronconeumol*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36797140>

Pandria, N, Athanasiou, A, Styliadis, C, Terzopoulos, N, Mitsopoulos, K, Paraskevopoulos, E et al. (2023). Does combined training of biofeedback and neurofeedback affect smoking status, behavior, and longitudinal brain plasticity? *Front Behav Neurosci*, 17, 1096122. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36778131>

Kim DY, Tegethoff M, Meinlschmidt G, Yoo SS, and Lee JH. Cigarette craving modulation is more feasible than resistance modulation for heavy cigarette smokers: Empirical evidence from functional mri data. Neuroreport, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33901056>

Pandria N, Athanasiou A, Konstantara L, Karagianni M, and Bamidis PD. Corrigendum to "advances in biofeedback and neurofeedback studies on smoking" [neuroimage: Clinical 28 (2020) 102397]. Neuroimage Clin, 2021;102642. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/33840628>

Keilani M, Steiner M, and Crevenna R. The effect of biofeedback on smoking cessation-a systematic short review. Wiener Klinische Wochenschrift, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34870741>

Paolini M, Keeser D, Rauchmann BS, Gschwendtner S, Jeanty H, et al. Correlations between the dmn and the smoking cessation outcome of a real-time fmri neurofeedback supported exploratory therapy approach: Descriptive statistics on Tobacco-dependent patients. Clinical EEG and Neuroscience, 2021;15500594211062703. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34878329>

Rana M, Ruiz S, Corzo AS, Muehleck A, Eck S, et al. Use of real-time functional magnetic resonance imaging-based neurofeedback to downregulate insular cortex in nicotine-addicted smokers. Journal of Visualized Experiments, 2020; (160). Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/32597838>

Pandria N, Athanasiou A, Konstantara L, Karagianni M, and Bamidis PD. Advances in biofeedback and neurofeedback studies on smoking. Neuroimage Clin, 2020; 28:102397. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/32947225>

Karch S, Paolini M, Gschwendtner S, Jeanty H, Reckenfelderbaumer A, et al. Real-time fmri neurofeedback in patients with Tobacco use disorder during smoking cessation: Functional differences and implications of the first training session in regard to future abstinence or relapse. Front Hum Neurosci, 2019; 13:65. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30886575>

Bu J, Young KD, Hong W, Ma R, Song H, et al. Effect of deactivation of activity patterns related to smoking cue reactivity on nicotine addiction. Brain, 2019; 142(6):1827-41. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31135053>

Iaccarino JM, Duran C, Slatore CG, Wiener RS, and Kathuria H. Combining smoking cessation interventions with Idct lung cancer screening: A systematic review. Preventive Medicine, 2019; 121:24–32. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30753860>

Pandria N, Athanasiou A, Terzopoulos N, Paraskevopoulos E, Karagianni M, et al. Exploring the neuroplastic effects of biofeedback training on smokers. Behav Neurol, 2018; 2018:4876287. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30151058>

Bamidis PD, Paraskevopoulos E, Konstantinidis E, Spachos D, and Billis A. Multimodal e-health services for smoking cessation and public health: The smokefreebrain project approach. Studies in Health Technology and Informatics, 2017; 245:5-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29295041>

Kim DY, Yoo SS, Tegethoff M, Meinlschmidt G, and Lee JH. The inclusion of functional connectivity information into fmri-based neurofeedback improves its efficacy in the reduction of cigarette

cravings. *Journal of Cognitive Neuroscience*, 2015;1–21. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25761006>

Hartwell KJ, Hanlon CA, Li X, Borckardt JJ, Canterbury M, et al. Individualized real-time fmri neurofeedback to attenuate craving in nicotine-dependent smokers. *Journal of Psychiatry and Neuroscience*, 2015; 41(1):140200. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/26505139>

### *7.18.5 Aversive conditioning*

Kunas SL, Bermpohl F, Plank IS, Strohle A, and Stuke H. Aversive drug cues reduce cigarette craving and increase prefrontal cortex activation during processing of cigarette cues in quitting motivated smokers. *Addiction Biology*, 2021:e13091. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/34427358>

Hong JS, Kim SM, Jung HY, Kang KD, Min KJ, et al. Cognitive avoidance and aversive cues related to tobacco in male smokers. *Addictive Behaviors*, 2017; 73:158-64. Available from:

<http://www.ncbi.nlm.nih.gov/pubmed/28521241>

### *7.18.6 Transcranial magnetic stimulation*

Iannuzzo, F., Crudo, S., Basile, G. A., Battaglia, F., Infortuna, C., Muscatello, M. R. A., & Bruno, A. (2024). Efficacy and safety of non-invasive brain stimulation techniques for the treatment of nicotine addiction: A systematic review of randomized controlled trials. *AIMS Neurosci*, 11(3), 212-225.

LoFaro, FM, Jordan, T, Apostol, MR, Steele, VR, Konova, AB, & Petersen, N. (2024). Stimulating the posterior parietal cortex reduces self-reported risk-taking propensity in people with tobacco use disorder. *Addict Neurosci*, 12. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39329155>

Wang, T, Li, R, Chen, D, Xie, M, Li, Z, Mao, H et al. (2024). Modulation of High-Frequency rTMS on Reward Circuitry in Individuals with Nicotine Dependence: A Preliminary fMRI Study. *Neural Plast*, 2024, 5673579. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39234068>

Cabuk, BM, & Guleken, Z. (2024). Transcranial direct current stimulation in the treatment of alcohol, tobacco and opioid use disorder in clinical studies. *Acta Neurobiol Exp (Wars)*, 84(2), 111-127. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39087838>

Makin, S. (2023). A stimulating solution to smoking: Magnetic pulses delivered to the brain could help people to overcome addiction to cigarettes, but there is still a lot to learn. *Sci Am*, 329(2), 0. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39017045>

Addicott, MA, Kinney, KR, Saldana, S, Ip, EH, DeMaioNewton, H, Bickel, WK, & Hanlon, CA. (2024). A randomized controlled trial of intermittent theta burst stimulation to the medial prefrontal cortex for tobacco use disorder: Clinical efficacy and safety. *Drug Alcohol Depend*, 258, 111278. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38579605>

Bellini, BB, Scholz, JR, Abe, TO, Arnaut, D, Tonstad, S, Alberto, RL et al. (2024). Does deep TMS really works for smoking cessation? A prospective, double blind, randomized, sham controlled study. *Prog Neuropsychopharmacol Biol Psychiatry*, 132, 110997. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38531486>

Tang, VM, Zawertailo, L, Selby, P, Zangen, A, Mehta, D, George, TP et al. (2024). Identifying clinical predictors of response to repetitive transcranial magnetic stimulation for smoking cessation: Secondary analysis of a multicenter RCT. *Brain Stimul*, 17(1), 137-139. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38309649>

Ibrahim, C, Tang, VM, Blumberger, DM, & Le Foll, B. (2024). Repetitive transcranial magnetic stimulation for smoking cessation. *CMAJ*, 196(6), E187-E190. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38378215>

Baker, TE, & Robles, D. (2023). Theta Burst Stimulation of the Hyperdirect Pathway Boosts Inhibitory Control and Reduces Craving and Smoking in Nicotine-Dependent Adults. *Biol Psychiatry Cogn Neurosci Neuroimaging*, 8(11), 1072-1074. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37940226>

Palm, U, Obergfell, M, Rabenstein, A, Bjorklund, J, Koller, G, Padberg, F, & Ruther, T. (2023). Transcranial direct current stimulation combined with a brief intervention for smoking cessation: a randomized double-blind clinical trial. *Eur Arch Psychiatry Clin Neurosci*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37955682>

Li, X, Caulfield, K A, Hartwell, KJ, Henderson, S, Brady, KT, & George, MS. (2023). Reduced executive and reward connectivity is associated with smoking cessation response to repetitive transcranial magnetic stimulation: A double-blind, randomized, sham-controlled trial. *Brain Imaging Behav*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37996557>

Lu, J, Wu, Z, Zeng, F, Shi, B, Liu, M, Wu, J, & Liu, Y. (2023). Modulation of smoker brain activity and functional connectivity by tDCS: A go/no-go task-state fMRI study. *Heliyon*, 9(11), e21074. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37920488>

Gwon, SH, Lee, HJ, & Brian Ahn, H. (2023). Transcranial Direct Current Stimulation in Nicotine Use: Nursing Implications for Patient Outcomes. *J Addict Nurs*, 34(3), E74-E78. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37669347>

Jordan, T, Apostol, MR, Nomi, J, & Petersen, N. (2023). Unraveling Neural Complexity: Exploring Brain Entropy to Yield Mechanistic Insight in Neuromodulation Therapies for Tobacco Use Disorder. *bioRxiv*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37745351>

Upton, S, Brown, AA, Ithman, M, Newman-Norlund, R, Sahlem, G, Prisciandaro, JJ et al. (2023). Effects of Hyperdirect Pathway Theta-Burst Transcranial Magnetic Stimulation on Inhibitory Control, Craving, and Smoking in Adults with Nicotine Dependence: A Double-Blind Randomized Crossover Trial. *Biol Psychiatry Cogn Neurosci Neuroimaging*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37567363>

Harmelev, T, Hanlon, CA, & Tendler, A. (2023). Transcranial Magnetic Stimulation as a Tool to Promote Smoking Cessation and Decrease Drug and Alcohol Use. *Brain Sci*, 13(7). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37509004>

Tang, VM, Goud, R, Zawertailo, L, Selby, P, Coroiu, A, Sloan, ME et al. (2023). Repetitive transcranial magnetic stimulation for smoking cessation: Next steps for translation and implementation into

clinical practice. *Psychiatry Res*, 326, 115340. Retrieved from  
<https://www.ncbi.nlm.nih.gov/pubmed/37454610>

Upton, S., Brown, A. A., Golzy, M., Garland, E. L., & Froeliger, B. (2023). Right inferior frontal gyrus theta-burst stimulation reduces smoking behaviors and strengthens fronto-striatal-limbic resting-state functional connectivity: a randomized crossover trial. *Front Psychiatry*, 14, 1166912. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37457779>

Zhang, H., Rajji, T. K., Selby, P., Melamed, O., Attwells, S., & Zawertailo, L. (2023). Augmenting varenicline treatment with transcranial direct current stimulation (tDCS) increases smoking abstinence rates at end of treatment. *Brain Stimul*, 16(4), 1083-1085. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37406928>

Makin, S. (2023). Brain-zapping technology helps smokers to quit. *Nature*, 618(7964), S7-S9. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37286653>

Ghahremani, DG, Pochon, JF, Diaz, MP, Tyndale, RF, Dean, AC, & London, ED. (2023). Nicotine dependence and insula subregions: functional connectivity and cue-induced activation. *Neuropsychopharmacology*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36869233>

Shevorykin, A, Carl, E, Liskiewicz, A, Hanlon, CA, Bickel, WK, Mahoney, MC et al. (2023). Perceived research burden of a novel therapeutic intervention: A study of transcranial magnetic stimulation for smoking cessation. *Front Rehabil Sci*, 4, 1054456. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36937103>

Qin, J, Chen, J, Wang, Y, & Zou, Z. (2023). Effects of psychoeducation combined with transcranial direct current stimulation on reducing cigarette craving and consumption in male smokers. *Addict Behav*, 141, 107643. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36791642>

Gersner, R, Barnea-Ygael, N, & Tendler, A. (2022). Moderators of the response to deep TMS for smoking addiction. *Front Psychiatry*, 13, 1079138. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36699493>

Mikellides G, Michael P, Psalta L, Stefani A, Schuhmann T, et al. Accelerated intermittent theta burst stimulation in smoking cessation: No differences between active and placebo stimulation when using advanced placebo coil technology. A double-blind follow-up study. *Int J Clin Health Psychol*, 2023; 23(2):100351. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36415606>

Li X, Toll BA, Carpenter MJ, Nietert PJ, Dancy M, et al. Repetitive transcranial magnetic stimulation for Tobacco treatment in cancer patients: A preliminary report of a one-week treatment. *J Smok Cessat*, 2022; 2022:2617146. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35909440>

Ibrahim C, Malik S, Barr MS, Blumberger DM, Daskalakis ZJ, et al. Insula deep rtms and varenicline for smoking cessation: A randomized control trial study protocol. *Front Pharmacol*, 2022; 13:969500. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36160428>

Zawertailo L, Zhang H, Rahmani N, Rajji TK, and Selby P. Active versus sham transcranial direct current stimulation (tdcs) as an adjunct to varenicline treatment for smoking cessation: Study

protocol for a double-blind single dummy randomized controlled trial. PLoS ONE, 2022; 17(12):e0277408. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36480510>

Marques RC, Marques D, Vieira L, and Cantilino A. Left frontal pole repetitive transcranial magnetic stimulation reduces cigarette cue-reactivity in correlation with verbal memory performance. Drug and Alcohol Dependence, 2022; 235:109450. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/35487078>

Petit B, Dornier A, Meille V, Demina A, and Trojak B. Non-invasive brain stimulation for smoking cessation: A systematic review and meta-analysis. Addiction, 2022. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/35470522>

Mikellides G, Michael P, Psalta L, Stefani A, Schuhmann T, et al. Accelerated intermittent theta burst stimulation in smoking cessation: Placebo effects equal to active stimulation when using advanced placebo coil technology. Front Psychiatry, 2022; 13:892075. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/35686190>

Lechner WV, Philip NS, Kahler CW, Houben K, Tirrell E, et al. Combined working memory training and transcranial magnetic stimulation demonstrates low feasibility and potentially worse outcomes on delay to smoking and cognitive tasks: A randomized 2x2 factorial design pilot and feasibility study. Nicotine and Tobacco Research, 2022. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/35907262>

Shevorykin A, Carl E, Mahoney MC, Hanlon CA, Liskiewicz A, et al. Transcranial magnetic stimulation for long-term smoking cessation: Preliminary examination of delay discounting as a therapeutic target and the effects of intensity and duration. Front Hum Neurosci, 2022; 16:920383. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35874156>

Caulfield KA, Li X, and George MS. A reexamination of motor and prefrontal tms in tobacco use disorder: Time for personalized dosing based on electric field modeling? Clinical Neurophysiology, 2021; 132(9):2199-207. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34298414>

Muller T, Shevchenko Y, Gerhardt S, Kiefer F, and Vollstadt-Klein S. The influence of perceived stress and self-control on efficacy of repeated transcranial direct current stimulation in non-treatment-seeking smokers. Drug and Alcohol Dependence, 2021; 226:108861. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/34198135>

Tseng PT, Jeng JS, Zeng BS, Stubbs B, Carvalho AF, et al. Efficacy of non-invasive brain stimulation interventions in reducing smoking frequency in patients with nicotine dependence: A systematic review and network meta-analysis of randomized controlled trials. Addiction, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34347916>

Young JR, Galla JT, and Appelbaum LG. Transcranial magnetic stimulation treatment for smoking cessation: An introduction for primary care clinicians. American Journal of Medicine, 2021. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34407423>

Zangen A, Moshe H, Martinez D, Barnea-Ygael N, Vapnik T, et al. Repetitive transcranial magnetic stimulation for smoking cessation: A pivotal multicenter double-blind randomized controlled trial.

World Psychiatry, 2021; 20(3):397-404. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/34505368>

Ponciano-Rodriguez G, Chavez-Castillo CA, Rios-Ponce AE, and Villafuerte G. High frequency and low intensity transcranial magnetic stimulation for smoking cessation. J Addict, 2021; 2021:9988618.

Available from: <https://www.ncbi.nlm.nih.gov/pubmed/34589245>

Aronson Fischell S, Ross TJ, Deng ZD, Salmeron BJ, and Stein EA. Transcranial direct current stimulation applied to the dorsolateral and ventromedial prefrontal cortices in smokers modifies cognitive circuits implicated in the nicotine withdrawal syndrome. Biol Psychiatry Cogn Neurosci Neuroimaging, 2020. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32151567>

Carl E, Liskiewicz A, Rivard C, Alberico R, Belal A, et al. Dosing parameters for the effects of high-frequency transcranial magnetic stimulation on smoking cessation: Study protocol for a randomized factorial sham-controlled clinical trial. BMC Psychol, 2020; 8(1):42. Available from:

<https://www.ncbi.nlm.nih.gov/pubmed/32357940>

Verveer I, Remmerswaal D, Jongerling J, van der Veen FM, and Franken IHA. No effect of repetitive tDCS on daily smoking behaviour in light smokers: A placebo controlled ema study. PLoS ONE, 2020; 15(5):e0233414. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32442205>

Li X, Hartwell KJ, Henderson S, Badran BW, Brady KT, et al. Two weeks of image-guided left dorsolateral prefrontal cortex repetitive transcranial magnetic stimulation improves smoking cessation: A double-blind, sham-controlled, randomized clinical trial. Brain Stimul, 2020; 13(5):1271-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32534252>

Mondino M, Lenglos C, Cinti A, Renauld E, and Fecteau S. Eye tracking of smoking-related stimuli in tobacco use disorder: A proof-of-concept study combining attention bias modification with alpha-transcranial alternating current stimulation. Drug and Alcohol Dependence, 2020; 214:108152.

Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32645683>

Verveer I, Remmerswaal D, van der Veen FM, and Franken IHA. Long-term tDCS effects on neurophysiological measures of cognitive control in tobacco smokers. Biological Psychology, 2020; 156:107962. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32979429>

Alghamdi F, Alhussien A, Alohalil M, Alatawi A, Almusned T, et al. Effect of transcranial direct current stimulation on the number of smoked cigarettes in tobacco smokers. PLoS ONE, 2019; 14(2):e0212312. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30763404>

Ghorbani Behnam S, Mousavi SA, and Emamian MH. The effects of transcranial direct current stimulation compared to standard bupropion for the treatment of tobacco dependence: A randomized sham-controlled trial. European Psychiatry, 2019; 60:41-8. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31100611>

Hajloo N, Pouresmali A, Alizadeh Goradel J, and Mowlaie M. The effects of transcranial direct current stimulation of dorsolateral prefrontal cortex on reduction of craving in daily and social smokers. Iran J Psychiatry, 2019; 14(4):291-6. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/32071602>

Vitor de Souza Brangioni MC, Pereira DA, Thibaut A, Fregni F, Brasil-Neto JP, et al. Effects of prefrontal transcranial direct current stimulation and motivation to quit in Tobacco smokers: A randomized, sham controlled, double-blind trial. *Front Pharmacol*, 2018; 9:14. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29434547>

Chang D, Zhang J, Peng W, Shen Z, Gao X, et al. Smoking cessation with 20 hz repetitive transcranial magnetic stimulation (rtms) applied to two brain regions: A pilot study. *Front Hum Neurosci*, 2018; 12:344. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30319373>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6166007/pdf/fnhum-12-00344.pdf>

Falcone M, Bernardo L, Wileyto EP, Allenby C, Burke AM, et al. Lack of effect of transcranial direct current stimulation (tdcs) on short-term smoking cessation: Results of a randomized, sham-controlled clinical trial. *Drug and Alcohol Dependence*, 2018; 194:244-51. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/30497056>

Sheffer CE, Bickel WK, Brandon TH, Franck CT, Deen D, et al. Preventing relapse to smoking with transcranial magnetic stimulation: Feasibility and potential efficacy. *Drug and Alcohol Dependence*, 2017; 182:8-18. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29120861>

#### *7.18.7 E-cigarettes (link to 18B.6)*

#### *7.18.8 Other types of cessation interventions*

**Garey, L, Rinck, M, Rosenfield, D, Nizio, P, Beevers, CG, Brown, RA et al. (2024). Approach Bias and Tobacco Craving as Mechanisms of the Effect of Approach Bias Retraining on Smoking Cessation. Nicotine Tob Res. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39259134>**

Perski, O, Kale, D, Leppin, C, Okpako, T, Simons, D, Goldstein, SP et al. (2024). Supervised machine learning to predict smoking lapses from Ecological Momentary Assessments and sensor data: Implications for just-in-time adaptive intervention development. *PLOS Digit Health*, 3(8), e0000594. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39178183>

Rovira, A, Lambe, S, Beckwith, H, Ahmed, M, Hudson, F, Haynes, P et al. (2024). A randomized controlled experiment testing the use of virtual reality to trigger cigarette craving in people who smoke. *Sci Rep*, 14(1), 19445. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39169108>

Zhang, Y, Chen, H, Li, W, Gao, L, Zhao, B, & Zhao, W. (2024). The enhancing effect of social reward on inhibitory control in smokers: Evidence from behaviour and ERP studies. *Br J Clin Psychol*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39191675>

Friling, M, Garcia-Munoz, AM, Lavie, A, Perez-Pinero, S, Victoria-Montesinos, D, Lopez-Roman, FJ et al. (2024). Dietary supplementation with a wild green oat extract (*Avena sativa* L.) to improve wellness and wellbeing during smoking reduction or cessation: a randomized double-blind controlled study. *Front Nutr*, 11, 1405156. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38962436>

Benvegnu, G, Perotti, S, Vegher, A, & Chiamulera, C. (2024). Virtual Reality Environmental Enrichment Effects on Craving for Cigarette in Smokers. *Games Health J*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38985569>

Jackson, RW, Cao-Nasalga, A, Chieng, A, Pirkl, A, Jagielo, AD, Xu, C et al. (2024). Adding Virtual Reality Mindful Exposure Therapy to a Cancer Center's Tobacco Treatment Offerings: Feasibility and Acceptability Single-Group Pilot Study. *JMIR Form Res*, 8, e54817. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/39042439>

Walker, L, Grogan, S, Denovan, A, Scholtens, K, McMillan, B, Conner, M et al. (2024). An Age-Progression Intervention for Smoking Cessation: A Pilot Study Investigating the Influence of Two Sets of Instructions on Intervention Efficacy. *Int J Behav Med*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38724879>

Okpako, T, Kale, D, Perski, O, & Brown, J. (2024). Developing content for a virtual reality scenario that motivates quit attempts in adult smokers: A focus group study with art-based methods. *PLOS Digit Health*, 3(5), e0000512. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38781149>

Young, CC, Papini, S, Minami, H, Morikawa, H, Otto, MW, Roache, JD, & Smits, JAJ. (2024). Isradipine augmentation of virtual reality cue exposure therapy for tobacco craving: a triple-blind randomized controlled trial. *Neuropsychopharmacology*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38789642>

Jansen, K, Tranby, B, Shane, A, Takeno, T, Chadwick, K, Sinicrope, P et al (2024). Implementing a Metabolism-Informed Approach for Smoking Cessation in an Alaska Tribal Health System: Study Protocol for a Single-Arm Implementation Pilot Trial. *Res Sq*. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/38343834>

Meeuwsen, EG, de Kleijn, MJ, de Boer, EM, Kocak, AF, Chavannes, NH, & Meijer, E. (2023). "Boy, what are we all doing? We are crazy, really crazy": a qualitative study of psychosocial processes around an atypical one-time smoking cessation course. *BMC Psychol*, 11(1), 405. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37986099>

Luo, M, Gan, Q, Fu, Y, & Chen, Z. (2023). Cue-reactivity targeted smoking cessation intervention in individuals with tobacco use disorder: a scoping review. *Front Psychiatry*, 14, 1167283. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37743997>

Redmond, BY, Salwa, A, Bricker, JB, Buckner, JD, Garey, L, & Zvolensky, MJ. (2023). Personalized feedback intervention for individuals with low distress tolerance who smoke cigarettes: A randomized controlled trial of a digital intervention. *J Subst Use Addict Treat*, 155, 209163. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37717664>

Zhang, MJ, He, WJA, Luk, TT, Wang, MP, Chan, SSC, & Cheung, YTD. (2023). Effectiveness of personalized smoking cessation intervention based on ecological momentary assessment for smokers who prefer unaided quitting: protocol for a randomized controlled trial. *Front Public Health*, 11, 1147096. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37583881>

Niemiec, CP, Ivarsson, A, Weman, K, Smit, E, & Williams, GC. (2023). Self-determination theory and the smoking cessation process: Daily electronic self-reports can identify the initiation of quit attempts. *Patient Educ Couns*, 115, 107886. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37567038>

Versace, F, Robinson, JD, & Cinciripini, PM. (2023). Towards neuromarkers for tailored smoking cessation treatments. *Addict Neurosci*, 6. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/37034180>

Perski, O, Jambharunkar, T, Brown, J, & Kale, D. (2022). A pilot randomised trial of a brief virtual reality scenario in smokers unmotivated to quit: Assessing the feasibility of recruitment. *PLOS Digit Health*, 1(6), e0000060. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/36812542>

Smits JAJ, Rinck M, Rosenfield D, Beevers CG, Brown RA, et al. Approach bias retraining to augment smoking cessation: A pilot randomized controlled trial. *Drug and Alcohol Dependence*, 2022; 238:109579. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/35917763>

Johnson MW, Garcia-Romeu A, Johnson PS, and Griffiths RR. An online survey of tobacco smoking cessation associated with naturalistic psychedelic use. *J Psychopharmacol*, 2017;269881116684335. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/28095732>

## News:

### *7.18 Alternative therapies and emerging treatments*

Achieve Life Sciences I. Achieve announces patent granted in the U.S. For novel analogs of cytisinicline for use in cns and addiction indications. Cision PR Newswire, 2020. Available from: <https://www.prnewswire.com/news-releases/achieve-announces-patent-granted-in-the-us-for-novel-analogs-of-cytisinicline-for-use-in-cns-and-addiction-indications-301103740.html>

No authors listed. Deakin scientists trial new way to suppress smokers' cravings. Deakin University, 2018. Available from: <http://www.deakin.edu.au/about-deakin/media-releases/articles/deakin-scientists-trial-new-way-to-suppress-smokers-cravings>

No authors listed. 4 foods and drinks that could help smokers quit. Truth Initiative (American Legacy Foundation), 2017. Available from: <https://truthinitiative.org/news/4-foods-and-drinks-could-help-smokers-quit>

Harrison D. Health department offers hypnotherapy, acupuncture cash to help staff quit smoking. The Sydney Morning Herald, 2015. Available from: <http://www.smh.com.au/federal-politics/political-news/health-department-offers-hypnotherapy-acupuncture-cash-to-help-staff-quit-smoking-20150108-12k95e.html>

No authors listed. Hypnotherapy helps smokers kick the habit. DW Germany, 2015. Available from: <http://www.dw.de/hypnotherapy-helps-smokers-kick-the-habit/a-18172478>

No authors listed. Talking cigarette pack discourages smoking. Medical Xpress, 2015. Available from: <http://medicalxpress.com/news/2015-02-cigarette-discourages.html>

Burgess K. Nhs will save billions if more cycle to work. The Times, 2015. Available from: <http://www.thetimes.co.uk/tto/public/cyclesafety/article4396390.ece>

No authors listed. New Western university study reveals exercise further combats cigarette cravings Medical News Today 2015. Available from:

<http://www.medicalnewstoday.com/releases/291836.php?tw>

Kass D. FDA considering warning on liquid nicotine. Law 360 2015. Available from:

<https://www.law360.com/articles/674153/fda-considering-warning-on-liquid-nicotine>

listed Na. Dying for a cigarette? Have a game of tetris! Appetite for a smoke is reduced by a fifth after playing because part of brain needed interrupts our cravings. Daily Mail 2015. Available from: <http://www.dailymail.co.uk/health/article-3197125/Tetris-reduces-craving-smoke.html>

listed Na. 32 ways to quit smoking: Everything from eating nuts to playing tetris The Mirror, 2015. Available from: <http://www.mirror.co.uk/news/world-news/32-ways-quit-smoking-everything-6312636>

Paddock C. Promise for new anti-smoking therapy with 'pac-man' bacteria. Medical News Today 2015. Available from: <http://www.medicalnewstoday.com/articles/297872.php?tw>

Jee H. Nicobloc USA announces partnership with appspire.Me. Aspire.me, 2015. Available from: <http://www.prweb.com/releases/2015/10/prweb13045157.htm>

Waugh R. Revolting new way to quit smoking could be most effective yet. Metro 2014. Available from: <http://metro.co.uk/2014/11/21/revolting-new-way-to-quit-smoking-could-be-most-effective-yet-4957640/>

Anon. Quit smoking success claims misleading - asa. Yahoo, 2009. Available from: <http://nz.news.yahoo.com/a/-/top-stories/5262431>

PR.com Smokeless cigarette to revolutionize smoking industry, beat bans. PR.com, 2008. Available from: <http://www.pr.com/press-release/76211>

Press Release. Smokeless cigarette to revolutionize smoking industry, beat bans. PR.com, 2008. Available from: <http://www.pr.com/press-release/76211>

PRWEB. Say hello to filtrim the small metal device that's helping smokers kick the habit. PR News, 2008. Available from:

[http://www.prnewsnetwork.com/Public\\_Release/Health\\_And\\_Fitness/183629.html](http://www.prnewsnetwork.com/Public_Release/Health_And_Fitness/183629.html)

Stead LF and Lancaster T Nicobrevin for smoking cessation. Cochrane Database of Systematic Reviews 2006 DOI: 10.1002/14651858.cd005990. Available from:

<http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD005990/frame.html>

White AR, Rampes H, and Campbell JL Acupuncture and related interventions for smoking cessation. Cochrane Database of Systematic Reviews 2006 DOI: 10.1002/14651858.CD000009.pub2. Available from: <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD000009/frame.html>

Hajek P and Stead LF Aversive smoking for smoking cessation. Cochrane Database of Systematic Reviews 2001 DOI: 10.1002/14651858.CD000546.pub2. Available from:

<http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD000546/frame.html>

Abbot NC, Stead LF, White AR, and Barnes J Hypnotherapy for smoking cessation. Cochrane Database of Systematic Reviews 1998 DOI: 10.1002/14651858.cd001008. Available from: <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD001008/frame.html>

Stead LF and Hughes JR Lobeline for smoking cessation. Cochrane Database of Systematic Reviews 1997 DOI: 10.1002/14651858.cd000124. Available from:

<http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD000124/frame.html>

*7.18.1 Acupuncture*

*7.18.2 Hypnotherapy*

*7.18.3 Exercise*

Swan D. Smoking cessation services should be 'co-located' in gyms Nursing in Practice, 2018.

Available from: <https://www.nursinginpractice.com/article/smoking-cessation-services-should-be-co-located-gyms>

No authors listed. How exercise is key to successfully quitting smoking. Science Daily 2017. Available from: <https://www.sciencedaily.com/releases/2017/12/171219220355.htm>

*7.18.3.1 Yoga*

*7.18.4 Biofeedback*

No authors listed. Mindfulness smoking-cessation app can change the brain EurekAlert, 2019.

Available from: [https://eurekalert.org/pub\\_releases/2019-05/bu-msa051519.php](https://eurekalert.org/pub_releases/2019-05/bu-msa051519.php)

*7.18.5 Aversive conditioning*

*7.18.6 Transcranial magnetic stimulation*

No authors listed. Bold prediction: Brain circuit that supports smoking cessation identified EurekAlert!, 2017. Available from: [https://www.eurekalert.org/pub\\_releases/2017-03/muos-bpb022617.php](https://www.eurekalert.org/pub_releases/2017-03/muos-bpb022617.php)

*7.18.7 E-cigarettes (link to 18B.6)*

*7.18.8 Other types of cessation interventions*