

Acupuncture and the Opiate Crisis

● PROBLEM: Too much opioid use resulting in too much opioid abuse

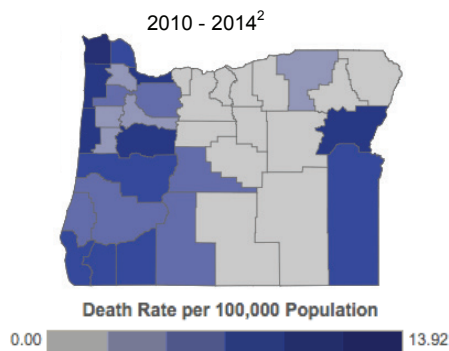
- Oregon has **one of the highest rates** of prescription opioid misuse in the nation.^{1,3}

... More drug poisoning deaths involve **prescription opioids** than any

other type of drug, including alcohol, methamphetamines, heroin and cocaine. An average of **three Oregonians die each week** from prescription opioid overdose.¹

... **\$155 per capita** is spent on health care costs related to opioid abuse — **the highest number in the nation.**³

... More than **\$614 million** is spent on health care costs related to opioid abuse.³



Acupuncture is low-risk ...

- The Substance Abuse Division of the Lincoln Hospital in the South Bronx, New York has used auricular acupuncture to treat narcotics abuse for over 25 years. It has been **so effective for drug and alcohol detoxification** that 20 years ago **methadone was eliminated as a treatment modality.**¹⁶

Acupuncture is safe ...

- "Overall, the incidence of **serious adverse effects from acupuncture is lower than many drugs** or other therapeutic procedures used for the same conditions for which acupuncture is used."¹⁷
- "It is clear that . . . **acupuncture is relatively safe, especially when provided by properly trained individuals.**"¹⁷

● SOLUTION: Acupuncture is effective and safe as an alternative pain treatment

"... Associated with **significant reductions in pain intensity, improvement in functional mobility and quality of life**... current evidence **supports the use of acupuncture** as an alternative for traditional analgesics in patients with osteoarthritis."⁴ (*systematic review from 2014*)

"... **One of the more effective physical treatments** for alleviating osteoarthritis knee pain."⁵ (*meta-analysis from 2013 analyzing 9,709 patients*)

"... Current estimates of **acupuncture's effects** on chronic low back pain are **statistically significant and clinically important** . . ." and "**Acupuncture effectively relieves chronic low back pain.**"⁶ (*meta-analysis from 2005, from Annals of Internal Medicine*)

"... **Superior to usual care** in treating chronic low back pain."⁷ (*systematic review from 2010*)

"... for the treatment of chronic pain and is therefore a **reasonable referral option.**"⁸ (*meta-analysis from 2012 analyzing 17,922 patients*)

- "Results indicate that **acupuncture provided by qualified therapists is safe, and patients benefited from the treatment.**"¹⁸ (*studies included were on treatment of headaches, low back pain, and osteoarthritis, analyzing treatment of 454,920 patients; from 2007*)

Acupuncture is cost-effective ...

- "According to the **WHO cost-effectiveness threshold values, acupuncture is a cost-effective treatment strategy** in patients with chronic LBP."¹⁹
- "According to this threshold, acupuncture as a **complement to standard care** for relief of **chronic LBP is highly cost-effective**..."¹⁹
- "Acupuncture with or without usual care has **acceptable cost-effectiveness.**"²⁰
- "Acupuncture appears to be a **cost-effective intervention** for some **chronic pain conditions.**"²¹

Acupuncture reduces consumption of pain meds after surgery

- “Analgesic consumption was significantly lower in the acupuncture group compared with the sham placebo group”⁹
- “In a meta-analysis of 13 RCTs of acupuncture performed before or after surgery, “the pooled data showed patients in the experimental group had **less opioid analgesics usage than those in the control group.**”¹⁰
- “Our findings indicate that certain methods of **acupuncture improved postoperative pain a day after surgery**, supporting the use of acupuncture as adjuvant therapy in treating postoperative pain.”¹⁰ (*systematic review and meta-analysis from 2016, PLoS One*)
- “Use of TENS [transcutaneous electrical nerve stimulation] on six specific acupoints in elderly patients undergoing total hip arthroplasty is a non-invasive, non-pharmacological, and simple technique for use **in postoperative analgesia** and is associated with **reductions in opioid-related side effects.**”¹¹
- “**Group Acu[puncture] required 37% and 31% less fentanyl** than Group Sham at 24 h and 48 h after surgery, respectively”¹¹ (*in total hip arthroplasty surgeries in elderly, 2012*)
- “The differences between the treatment and control groups in postoperative pain scores to be **clinically significant**, particularly when treatment resulted in an **earlier improvement of oral intake.**”¹² (*for tonsillectomies in pediatrics, 2015*)

● **ACUPUNCTURE also provides opioids — the natural ones ...and thus can treat opioid addiction itself**

- “**Electroacupuncture blocks pain** by activating a variety of bioactive chemicals through peripheral, spinal, and supraspinal mechanisms. **These include opioids**, which desensitize peripheral nociceptors [pain receptors] and “reduce proinflammatory cytokines peripherally and in the spinal cord. . .”¹³
- “... Analgesia induced by low-frequency [electroacupuncture] stimulation . . . can be reversed by low doses of the opioid antagonist naloxone, suggesting that low-frequency stimulation can **increase the release of opioid peptides** in the CNS.”¹⁴
- “The **US federal government’s Center for Substance Abuse Treatment** (2007), **the United Nations** (2006), . . . as well as the US Department of Defense/Veteran’s Affairs (2010) have each published best practice guidelines that address **the value of acupuncture for chemical dependency.**”¹⁵



OREGON COLLEGE of ORIENTAL MEDICINE

www.ocom.edu



Oregon Association of Acupuncture and Oriental Medicine

www.oaaom.com

REFERENCES

1. Reducing Opioid Overdose and Misuse. Oregon Health Authority website <https://public.health.oregon.gov/PreventionWellness/SubstanceUse/Opioids/Pages/index.aspx>. Accessed July 17, 2016.
2. Data Dashboard: Prescribing and Overdose Data for Oregon. Oregon Health Authority website <https://public.health.oregon.gov/PreventionWellness/SubstanceUse/Opioids/Pages/data.aspx>. Accessed July 17, 2016.
3. Health Care Costs from Opioid Abuse: A State-by-State Analysis by Matrix Global Advisors, LLC for Partnership for Drug-Free Kids website http://www.drugfree.org/wp-content/uploads/2015/04/Matrix_OpioidAbuse_040415.pdf. Updated April 2015. Accessed July 17, 2016.
4. Manyanga T, Froese M, Zarychanski R, et al. Pain management with acupuncture in osteoarthritis: a systematic review and meta-analysis. *BMC Complement Altern Med*. 2014;14: 312. doi: 10.1186/1472-6882-14-312
5. Corbett MS, Rice SJ, Madurasinghe V, et al. Acupuncture and other physical treatments for the relief of pain due to osteoarthritis of the knee: network meta-analysis. *Osteoarthritis Cartilage*. 2013 Sep;21(9):1290-8. doi: 10.1016/j.joca.2013.05.007
6. Manheimer E, White A, Berman B, Forys K, Ernst E. Meta-analysis: acupuncture for low back pain. *Ann Intern Med*. 2005 Apr 19;142(8):651-63. doi:10.7326/0003-4819-142-8-200504190-00014
7. Trigkilidas D. Acupuncture therapy for chronic lower back pain: a systematic review. *Ann R Coll Surg Engl*. 2010 Oct;92(7):595-8. doi: 10.1308/003588410X12699663904196
8. Vickers AJ, Cronin AM, Maschino AC, et al. Acupuncture for chronic pain: individual patient data meta-analysis. *Arch Intern Med*. 2012 Oct 22;172(19):1444-53. doi: 10.1001/archinternmed.2012.3654
9. Sun Y, Gan TJ, Dubose JW, Habib AS. Acupuncture and related techniques for postoperative pain: a systematic review of randomized controlled trials. *Br J Anaesth*. 2008 Aug;101(2):151-60. doi: 10.1093/bja/aen146.
10. Wu MS, Chen KH, Chen IF, et al. The Efficacy of Acupuncture in Post-Operative Pain Management: A Systematic Review and Meta-Analysis. *PLoS One*. 2016 Mar 9;11(3):e0150367. doi: 10.1371/journal.pone.0150367.
11. Lan F, Ma YH, Xue JX, Wang TL, Ma DQ. Transcutaneous electrical nerve stimulation on acupoints reduces fentanyl requirement for postoperative pain relief after total hip arthroplasty in elderly patients. *Minerva Anesthesiol*. 2012 Aug;78(8):887-95.
12. Tsao GJ, Messner AH, Seybold J, Sayyid ZN, Cheng AG, Golianu B. Intraoperative acupuncture for posttonsillectomy pain: a randomized, double-blind, placebo-controlled trial. *Laryngoscope*. 2015 Aug;125(8):1972-8. doi: 10.1002/lary.25252.
13. Zhang R, Lao L, Ren K, Berman BM. Mechanisms of Acupuncture-Electroacupuncture on Persistent Pain. *Anesthesiology*. 2014;120(2):482-503. doi:10.1097/ALN.0000000000000101.
14. Han, JS. Acupuncture: neuropeptide release produced by electrical stimulation of different frequencies. *Trends in Neurosciences*. 2003;26(1):17-22.
15. Bemis, R. Evidence for the NADA Ear Acupuncture Protocol, Summary of Research. National Acupuncture Detoxification Association (NADA) website [http://acudetox.com/phocadownload/Research_Summary_2013%20\(2\).pdf](http://acudetox.com/phocadownload/Research_Summary_2013%20(2).pdf). Updated 2013. Accessed July 17, 2016.
16. Otto KC. Acupuncture and substance abuse: a synopsis, with indications for further research. *Am J Addict*. 2003 Jan-Feb;12(1):43-51. doi: 10.1111/j.1521-0391.2003.tb00538.x
17. Birch S, Keppel Hesselink J, Jonkman F, Hekker T, Bos A. Clinical Research on Acupuncture: Part 1. What Have Reviews of the Efficacy and Safety of Acupuncture Told Us So Far? *J Altern Complement Med*. 2004 Jun;10(3):468-80. doi: 10.1089/1075553041323894
18. Weidenhammer W, Streng A, Linde K, Hoppe A, Melchart D. Acupuncture for chronic pain within the research program of 10 German Health Insurance Funds--basic results from an observational study. *Complement Ther Med*. 2007 Dec;15(4):238-46. doi: 10.1016/j.ctim.2006.09.005
19. Taylor P, Pezzullo L, Grant SJ, Bensoussan A. Cost-effectiveness of Acupuncture for Chronic Nonspecific Low Back Pain. *Pain Pract*. 2014 Sep;14(7):599-606. doi: 10.1111/papr.12116.
20. Kim SY1, Lee H, Chae Y, Park HJ, Lee H. A systematic review of cost-effectiveness analyses alongside randomised controlled trials of acupuncture. *Acupunct Med*. 2012 Dec;30(4):273-85. doi: 10.1136/acupmed-2012-010178.
21. Ambrósio EM, Bloor K, MacPherson H. Costs and consequences of acupuncture as a treatment for chronic pain: a systematic review of economic evaluations conducted alongside randomised controlled trials. *Complement Ther Med*. 2012 Oct;20(5):364-74. doi: 10.1016/j.ctim.2012.05.002.