

### **Q.** What is acupuncture?

**A.** Acupuncture is an integrative medicine practice that involves stimulation of specific points on the body, usually with a needle inserted into the skin, in order to treat a variety of health conditions. In Traditional Chinese medicine it is believed that balancing the flow of energy in the body, known as “Qi,” can improve health. Acupuncture is postulated to work by inserting and manipulating needles into specified “meridian points” to relieve blockages in the flow of Qi (Grant et al., 2015).

### **Q.** What are the potential mechanisms of action underlying acupuncture as a treatment for substance use disorder (SUD)?

**A.** There are many unanswered questions about the proposed basic mechanisms of acupuncture. For the treatment of SUD, acupuncture needles are inserted and manipulated into meridian points purported to balance dopamine levels and reduce cortisol, ultimately decreasing cravings and withdrawal symptoms (Yang et al., 2008).

### **Q.** Is acupuncture recommended as a treatment for SUD in the Military Health System (MHS)?

**A.** **No.** The 2015 VA/DoD Clinical Practice Guideline for the Management of Substance Use Disorders does not include acupuncture as a treatment for SUD.

*The MHS relies on the VA/DoD clinical practice guidelines (CPGs) to inform best clinical practices. The CPGs are developed under the purview of clinical experts and are derived through a transparent and systematic approach that includes, but is not limited to, systematic reviews of the literature on a given topic and development of recommendations using a graded system that takes into account the overall quality of the evidence and the magnitude of the net benefit of the recommendation. A further description of this process and CPGs on specific topics can be found on the VA clinical practice guidelines website.*

### **Q.** Do other authoritative reviews recommend acupuncture as a treatment for SUD?

**A.** **No.** Other authoritative reviews have not substantiated the use of acupuncture for SUD.

Several other recognized organizations conduct systematic reviews and evidence syntheses on psychological health topics using similar grading systems as the VA/DoD CPGs. These include the Agency for Healthcare Research and Quality (AHRQ) and Cochrane.

- AHRQ: No systematic reviews of acupuncture for SUD identified.
- Cochrane: A 2006 systematic review of auricular acupuncture for cocaine dependence found that the evidence was not of high quality and was inconclusive (Gates, Smith, & Foxcroft).

### **Q.** Is there any recent research on acupuncture as a treatment for SUD?

**A.** A 2015 systematic review by Grant et al. of acupuncture for SUD included 41 randomized clinical trials (RCTs) with 5,227 total participants (Grant et al.). No significant differences of acupuncture were observed, whether used as monotherapy or as adjunctive therapy, versus any comparator (including passive controls, sham acupuncture, treatment as usual, and active interventions) for relapse, frequency of substance use, quantity of substance use or treatment dropout. Although acupuncture showed benefit in reducing withdrawal symptoms, cravings and anxiety immediately after treatment, the difference was not significant long-term (up to 12 months) and the quality of evidence was low. Limited safety data suggests a low risk of serious adverse events. The authors note that their conclusions are limited by the low quality of evidence.

A February 2020 literature search identified four RCTs of acupuncture for SUD published since the search was conducted by Grant et al.:

- Lee, Kim, Jung, Jung, & Kim (2015) evaluated acupuncture in alcohol dependent subjects. Twenty men were randomized to the treatment group or a control group (where the needles did not penetrate the skin). The acupuncture group had a significantly greater reduction in alcohol craving (measured using a Visual Analogue Scale) at the end of treatment.
- Ahlberg, Skarberg, Brus, & Kjellin (2016) randomized 280 adults with substance abuse and psychiatric comorbidity to two different auricular acupuncture protocols or a control group (relaxation). There were no significant changes between the three groups on any of the outcomes measured (anxiety, sleep, drug use, addiction service utilization).
- Zeng, Tao, Hou, Xong, & Yu (2018) randomized 68 men with methamphetamine addiction who had received compulsory drug detoxification to receive either electro-acupuncture or sham electro-acupuncture. Scores on the Positive and Negative Syndrome Scale, the Hamilton Anxiety Scale, and the Hamilton Depression Scale were significantly reduced in the electro-acupuncture group compared to sham after four weeks of treatment.
- Ma et al. (2015) evaluated the effect of transcutaneous electric acupoint stimulation (TEAS) for the treatment of withdrawal syndrome in 63 male heroin addicts. Subjects were randomized to receive TEAS or a sham procedure where the device leads were disconnected. Analyses indicated a significantly greater improvement on the Withdrawal Syndrome Scale in the TEAS group over the course of the 10-day treatment, compared to sham.

These trials have a number of methodological limitations, including small sample sizes, high attrition rates, inadequate control comparisons, and lack of consistent use of valid outcomes measures, reducing our confidence in any observed effect.

**Q.** What conclusions can be drawn about the use of acupuncture as a treatment for SUD in the MHS?

**A.** The current state of evidence for acupuncture is not mature enough to recommend it as an effective evidence-based treatment for SUD in the MHS.

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