

## **Auricular neural stimulation as a new non-invasive treatment for opioid detoxification**

Qureshi IS, Datta-Chaudhuri T, Tracey KJ, Pavlov VA, Chen ACH.  
Bioelectronic Medicine. 2020;6(1). doi:10.1186/s42234-020-00044-6.

The recent opioid crisis is one of the rising challenges in the history of modern health care. New and effective treatment modalities with less adverse effects to alleviate and manage this modern epidemic are critically needed. The FDA has recently approved two non-invasive electrical nerve stimulators for the adjunct treatment of symptoms of acute opioid withdrawal. These devices, placed behind the ear, stimulate certain cranial nerves with auricular projections. This neural stimulation reportedly generates a prompt effect in terms of alleviation of withdrawal symptoms resulting from acute discontinuation of opioid use. Current experimental evidence indicates that this type of non-invasive neural stimulation has excellent potential to supplement medication assisted treatment in opioid detoxification with lower side effects and increased adherence to treatment. Here, we review current findings supporting the use of non-invasive neural stimulation in detoxification from opioid use. We briefly outline the neurophysiology underlying this approach of auricular electrical neural stimulation and its role in enhancing medication assisted treatment in treating symptoms of opioid withdrawal. Considering the growing deleterious impact of addictive disorders on our society, further studies on this emerging treatment modality are warranted.