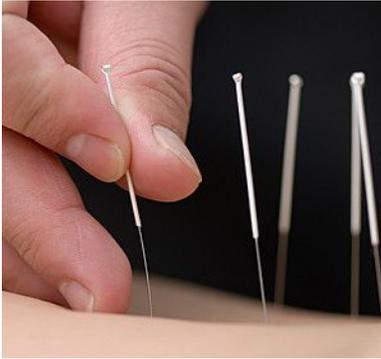


Chinese acupuncture boosts painkiller effectiveness in fibromyalgia



Research using brain imaging techniques has shown that Chinese acupuncture increases the effectiveness of common painkillers by increasing their binding to opioid receptors.

The study involved 20 women who had been diagnosed with fibromyalgia at least a year previously and experienced pain at least 50% of the time. The participants agreed to take no other painkilling medication during the study.

The research was conducted by a team of researchers led by Richard E. Harris, Ph.D., at [the University](#) of Michigan's Chronic Pain and Fatigue Research Center. Harris is a molecular and cell biologist at the University of Michigan and a licensed acupuncturist. Results of the study are published online prior to appearing in the September issue of the journal *NeuroImage*.

The fibromyalgia patients underwent eight acupuncture sessions over the period of a month. The researchers used a positron emission tomography (PET) scanner to produce images of the women's brains during each woman's first acupuncture session and, her eighth, at the end of the study period.

The results showed that the acupuncture sessions appeared to increase the sensitivity of important brain cells to opioid chemicals. Specifically, the PET scans showed that acupuncture treatment produced increases in the receptivity, and possibly the number, of brain cells to which opioids bind in the regions of the brain that process and dampen pain signals - the amygdala, caudate, cingula, thalamus and insula.

Opioid painkillers, such as morphine, codeine, Vicodin, and Oxycontin, are thought to work by binding to these opioid receptors in the central nervous system (CNS), comprised of the brain and spinal cord.

This research is important not only because it may explain mechanisms behind [acupuncture's](#) painkilling ability but because these specific medications have been found to be particularly ineffective in those with fibromyalgia. Previous work by Harris and colleagues again using PET scans found [fibromyalgia patients have fewer opioid receptors in the pain processing regions of the brain](#)

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mentioned previously.

This latest study may allow for an integrative medicine approach whereby acupuncture and opioid painkillers are used alongside each other to provide effective pain relief to fibromyalgia patients.

The study always provides a mechanism by which acupuncture could act to reduce pain when used alone. The body produces its own opioid painkilling chemicals such as endorphins and enkephalins which would also act more powerfully if acupuncture does indeed increase the sensitivity of opioid receptors in the CNS.

Many fibromyalgia patients turn to complementary and **alternative medicine** when conventional medicine fails to bring relief from the disabling pain they must deal with on a day to day basis. The imaging studies carried out by Harris and colleagues certainly suggests alternative approaches such as acupuncture have a place in **pain management** in fibromyalgia and other **chronic pain** disorders.

Talking about the respective roles of conventional and alternative medicine Harris said: "I don't see them as mutually exclusive, and in some cases, they may work synergistically."