



RESEARCH INSIGHTS

## Caffeine, Acupuncture and Pain

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Does caffeine consumption reduce the efficacy of acupuncture analgesia? What does the current research state? Fujita, et al. (2017),¹ published an animal study that showed oral intake of caffeine interferes with the efficacy of acupuncture for pain. Caffeine is a potent adenosine receptor antagonist. This animal study found that once the caffeine was out of the system, the efficacy of acupuncture was fully restored by the next day. Animal studies are important to find how acupuncture works for pain, and what may increase or reduce its efficacy.

That said, Alexander Pope's dictum, "The proper study of mankind is man," is widely cited and known. There are many reasons why results from animal experiments often do not translate into human trials; among them, many animal experiments are poorly conducted, designed and analyzed. Alexander of the conducted of

Cao et al., investigated the modulation effect of daily caffeine intake on acupuncture analgesia (pain relief). Their study, published in early 2021 in the journal *Anesthesia and Analgesia*, found no association between caffeine intake measurements of daily caffeine use, duration of caffeine consumption, or their interaction and pre-/post-acupuncture pain threshold changes. This human study found that caffeine intake may not influence the efficacy of acupuncture analgesia (pain relief) after all.

In general, caffeine may interfere with the "relaxation" many patients expect from acupuncture. However, if they are in pain, have had caffeine, and only seek pain relief, acupuncture will still be worth their time. I often have acupuncture after I have had more than my share of caffeine.

## References

- 1. Fujita T, Feng C, Takano T. Presence of caffeine reversibly interferes with efficacy of acupuncture-induced analgesia. *Sci Rep*, 2017;7(1):3397.
- 2. Gold H. The proper study of mankind is the man. Am J Med, 1952;12:619-20.

- 3. Hackam DG, Redelmeier DA. Translation of research evidence from animals to humans. *JAMA*, 2006;296:1731-2.
- 4. Roberts I, Kwan I, Evans P, Haig S. Does animal experimentation inform human healthcare? Observations from a systematic review of international animal experiments on fluid resuscitation. *BMJ*, 2002;324:474-6.
- 5. Cao J, Tu Y, Lang C, et al. Daily caffeine consumption does not influence acupuncture analgesia in healthy individuals: a preliminary study. *Anesth Analg*, 2021;132(1):e6-e9.

JUNE 2022

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