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Using marijuana in pill form to alleviate pain

DOI: NPP.2013.97

Dronabinol, a pharmaceutical formulation of the psychoactive ingredient in marijuana, produces a longer duration of pain relief than smoked marijuana, according to a new study published in *Neuropsychopharmacology* Given the health risks, higher levels of intoxication and potential for abuse associated with the smoked route of administration of marijuana, dronabinol may prove useful as an alternative for relieving neuropathic pain.

The legalization of marijuana for medical use in a number of states has increased prescriptions of therapeutic marijuana to treat patients with pain conditions, although the analgesic effectiveness of smoked marijuana as compared with orally administered dronabinol are unclear.

Ziva Cooper, Margaret Haney, and colleagues compared the pain response in 30 daily marijuana smokers (15 of each gender) to assess the analgesic, subjective, and physiological effects of marijuana to that of orally administered dronabinol. The results show that compared to placebo, marijuana and dronabinol decreased pain sensitivity, increased pain tolerance, and decreased subjective ratings of pain. Compared to marijuana, dronabinol produced longer-lasting decreases in pain sensitivity and lower ratings of abuse-related subjective effects.

Although the findings are promising regarding the potential for therapeutic use of dronabinol, the authors note that all of the participants studied were daily marijuana smokers, and it is not yet known how these effects would translate to a larger, non-marijuana smoking population.

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