

Prolonged fasting as a method of mood enhancement in chronic pain syndromes: a review of clinical evidence and mechanisms.

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Abstract

Periods of deliberate fasting with restriction to intake of solid food are practiced worldwide, mostly based on a traditional, cultural, or religious background. Recent evidence from clinical trials shows that medically supervised modified fasting (200-500 kcal nutritional intake/day) with periods from 7 to 21 days is efficacious in the treatment of rheumatic diseases and chronic pain syndromes. Here, fasting is frequently accompanied by increased alertness and mood enhancement. The beneficial claims of fasting are supported by experimental research, which has found fasting to be associated with increased brain availability of serotonin, endogenous opioids, and endocannabinoids. Fasting-induced neuroendocrine activation and mild cellular stress response with increased production of neurotrophic factors may also contribute to the mood enhancement of fasting. Fasting treatments may be useful as an adjunctive therapeutic approach in chronic pain patients. The mood-enhancing and pain-relieving effect of therapeutic fasting should be further evaluated in randomized clinical trials.

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