

Format: Abstract

Send to

Med Hypotheses. 2013 May;80(5):564-7. doi: 10.1016/j.mehy.2013.01.019. Epub 2013 Feb 11.

Cannabis and Δ9-tetrahydrocannabinol (THC) for weight loss?

Le Foll B¹, Trigo JM, Sharkey KA, Le Strat Y.

Author information

Abstract

Obesity is one of the highest preventable causes of morbidity and mortality in the developed world [1]. It has been well known for a long time that exposure to cannabis produces an increase of appetite (a phenomenon referred to as the 'munchies'). This phenomenon led to an exploration of the role of the endocannabinoid system in the regulation of obesity and associated metabolic syndrome. This effort subsequently led to the development of a successful therapeutic approach for obesity that consisted of blocking the cannabinoid CB1 receptors using ligands such as Rimonabant in order to produce weight loss and improve metabolic profile [2]. Despite being efficacious, Rimonabant was associated with increased rates of depression and anxiety and therefore removed from the market. We recently discovered that the prevalence of obesity is paradoxically much lower in cannabis users as compared to non-users and that this difference is not accounted for by tobacco smoking status and is still present after adjusting for variables such as sex and age. Here, we propose that this effect is directly related to exposure to the Δ(9)-tetrahydrocannabinol (THC) present in cannabis smoke. We therefore propose the seemingly paradoxical hypothesis that THC or a THC/cannabidiol combination drug may produce weight loss and may be a useful therapeutic for the treatment of obesity and its complications.

Copyright © 2013 Elsevier Ltd. All rights reserved.

PMID: 23410498 DOI: [10.1016/j.mehy.2013.01.019](https://doi.org/10.1016/j.mehy.2013.01.019)

[Indexed for MEDLINE]



MeSH terms, Substances



LinkOut - more resources



Full text links



Save items

Similar articles

Comparison of orally administered cannabis extract and placebo in patients with chemotherapy-induced nausea and vomiting: a randomized, double-blind, placebo-controlled study [J Clin Oncol. 2006]

Randomized, double-blind, placebo-controlled study of the effects of cannabidiol on anxiety in healthy subjects [Ther Drug Monit. 2005]

Hair analysis for Delta9-tetrahydrocannabinol in cannabis users [Forensic Sci Int. 2010]

Review Cannabis, pain, and sleep: lessons from the [Chem Biodivers. 2007]

Review New perspectives in the studies on endocannabinoids [J Pharmacol Sci. 2004]

See reviews...

See all...

Cited by 5 PubMed Central articles

Review Theoretical Explanation for Redundant Cannabinoid Receptors [Cannabis Cannabinoid Res. 2018]

Review Role of cannabis in cardiovascular disease [J Thorac Dis. 2017]

Prevention of Diet-Induced Obesity by Cannabidiol: Effects on Body Weight and Metabolic Profile [PLoS One. 2015]

See all...

Related information

Articles frequently viewed together

MedGen

PubChem Compound (MeSH Keyword)

Cited in PMC

Recent Activity

Turn Off Clear

Cannabis and Δ9-tetrahydrocannabinol (THC) for weight loss PubMed

Cannabinol and cannabidiol exert opposing effects on rat feeding PubMed

Cannabidiol Is a Potential Therapeutic for the Affective-Disorder-Like Syndrome PubMed

Cannabinoids in the management of difficult to treat pain. PubMed

Role of the cannabinoid system in pain control and therapeutic potential PubMed

See more...

You are here: NCBI > Literature > PubMed

Support Center

GETTING STARTED

- NCBI Education
- NCBI Help Manual
- NCBI Handbook
- Training & Tutorials
- Submit Data

RESOURCES

- Chemicals & Bioassays
- Data & Software
- DNA & RNA
- Domains & Structures
- Genes & Expression
- Genetics & Medicine
- Genomes & Maps
- Homology
- Literature
- Proteins
- Sequence Analysis
- Taxonomy
- Variation

POPULAR

- PubMed
- Bookshelf
- PubMed Central
- BLAST
- Nucleotide
- Genome
- SNP
- Gene
- Protein
- PubChem

FEATURED

- Genetic Testing Registry
- GenBank
- Reference Sequences
- Gene Expression Omnibus
- Genome Data Viewer
- Human Genome
- Mouse Genome
- Influenza Virus
- Primer-BLAST
- Sequence Read Archive

NCBI INFORMATION

- About NCBI
- Research at NCBI
- NCBI News & Blog
- NCBI FTP Site
- NCBI on Facebook
- NCBI on Twitter
- NCBI on YouTube
- Privacy Policy

