

The Cannabis Papers: a citizen's guide to cannabinoids
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#23

Think of the children: prohibition creates crime ... **and obesity**

The prestige of government has undoubtedly been lowered considerably by the prohibition law. For nothing is more destructive of respect for the government and the law of the land than passing laws which cannot be enforced. It is an open secret that the dangerous increase of crime in this country is closely connected with this.

Albert Einstein, *The World As I See It* (1931)

Three teens are detained by two police. The officers are in civilian clothes and drive an unmarked squad car. Two of the three teens are dressed in high school uniforms – white t-shirt and black pants. The teens assume the “*put your hands on the trunk*” position. One officer searches their pockets, routinely emptying the contents onto the trunk of the squad car. At one point the searching officer shows one of the teens a green item in a plastic baggie. Suddenly the world became black and white.

Think of the children?

We do. We'll think of them as they are welcomed into state detention centers and jails for baggie-size cannabis violations. We'll think of them as they and their families cope with a new reality. Now they are part of the 800,000 cannabis arrests feeding America's drug war diet. That diet is ravenous and pernicious. Prohibition doesn't think of the children – that's why we have to.

In doing so we found a new theory: **what if prohibition creates obesity?**

This theory sounds odd at first, sort of like our earlier moment of “*You want pregnant women to ~~smoke~~ consume pot?*” This new moment would be – “*You want children to ~~smoke~~ consume pot?*”

Let's go all **Albert** for a minute. We can **Einstein** this theory on PubMed by beginning with the failure of Rimonabant, a synthetic cannabinoid intended to be the answer for America's obesity problem. This synthetic cannabinoid was designed to block the CB1 receptor. They thought this would stop you from being hungry – **from getting the munchies**. It didn't work. Why? Stopping obesity is more than just turning the CB1 receptor off. To modulate diet, you have to simultaneously turn on parts of the ECS while blocking others.

So the pharmaceuticals started with the idea that if you smoke pot you will get the munchies and it will make you fat. The idea that cannabinoids are involved in energy intake (munchies) is a given. So if cannabinoids are a potential obesity-buster, there would be research on **activating and not just blocking cannabinoid receptors** – research like this:

2011: *While initially it was believed that this **endocannabinoid signaling system** would only facilitate energy intake, we now know that perhaps even more important functions of endocannabinoids and CB(1) receptors in this context are to **enhance energy storage into the adipose tissue and reduce energy expenditure by influencing both lipid and glucose metabolism.***

So the ECS functions to enhance energy storage and reduce energy expenditure. That's called homeostasis, or how a system maintains balance. Let's click again:

2010: ***Cannabinoids** have been shown to **act as potent immunosuppressive and anti-inflammatory agents** and have been shown to mediate beneficial effects in a wide **range of immune-mediated diseases** such as multiple sclerosis, **diabetes**, septic shock, rheumatoid arthritis, and allergic asthma.*

Here we have a connection to diabetes and other immune-mediated diseases. We also know that obesity is characterized by chronic inflammation. Systems such as adipose tissue (fat) become overstressed:

2010: ***The endocannabinoids, anandamide and 2-AG, are produced by adipocytes**, where they stimulate lipogenesis via cannabinoid CB1 receptors and are under the negative control of leptin and insulin.*

The observed alterations emphasize, for the first time in humans, the potential different role and regulation of adipose tissue anandamide (and its congeners) and 2-AG in obesity and type 2 diabetes.

This is the point where "**Prohibition creates obesity**" moves from the theoretical to the practiced. American youth are bombarded with anti-drug messages that equate "marijuana" with a methamphetamine-like menace. Two out of three American homes have a regular user of drugs – prescription drugs that is. That's a lot of access for our children to these lethal-yet-legal drugs. Cannabinoids are not lethal. This mixed-messaging has to confuse the young.

It's time to begin **the cannabinoid education campaign**. This part of health class has to be de-propagandized. The health of our children depends on it. We are at risk from our government's campaign against "marijuana," as obesity and type 2 diabetes are not theoretical; they are threats.

We think Einstein would agree: "*For nothing is more destructive of respect for the government and the law of the land than passing laws which cannot be enforced.*"

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(2011)

Search terms

Adipose tissue, adipocytes, lipogenesis and cannabinoids; oleic acid; Albert Einstein; Unconventional Foundation for Autism (UF4A); Rimonabant; Ben Harper's *People Lead*.

Research and selected readings

2011: V Di Marzo, et al, *Cannabinoids and endocannabinoids in metabolic disorders with focus on diabetes*, Handbook of Experimental Pharmacology, 2011:(203):75-104.

2011: M Li and B Cheung, *Rise and fall of anti-obesity drugs*, World Journal of Diabetes, February 2011:2(2):19-23.

2010: O Mahmood, et al, *Learning and memory performances in adolescent users of alcohol and marijuana: interactive effects*, Studies on Alcohol and Drugs, November 2010:71(6):885-94.

2010: S Rieder, et al, *Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression*, Immunobiology, August 2010:215(8):598-605.

2010: G Annuzzi, et al, *Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients*, Lipids in Health and Disease, April 2010:9:43.

2010: J Sipe, et al, *Biomarkers of endocannabinoid system activation in severe obesity*, PLoS One, January 2010:5(1):e8792.

2008: D Cota, *Role of the endocannabinoid system in energy balance regulation and obesity*, Frontiers of Hormone Research, 2008:36:135-45.

2008: A Samat, et al, *Rimonabant [SR141716] for the treatment of obesity*, Recent Patents on Cardiovascular Drug Discovery, November 2008:3(3):187-93.

2007: C Pagano, et al, *The endogenous cannabinoid system stimulates glucose uptake in human fat cells via phosphatidylinositol 3-kinase and calcium-dependent mechanisms*, Clinical Endocrinology and Metabolism, December 2007:92(12):4810-9.

2006: P Trayhurn, et al, *Adipose tissue and adipokines – energy regulation from the human perspective*, Nutrition, July 2006:136(7 Suppl):1935S-9S.

2005: D Jeffries and L Jeffries, *Jeffrey's journey: healing a violent child's rage*, Quick American Archives, Oakland CA.

2005: S Engli, et al, *Activation of the peripheral endocannabinoid system in human obesity*, Diabetes, October 2005:54(10):2838-43.

2004: J Miron, *Drug war crimes: the consequences of prohibition*, Independent Institute, Oakland CA.

1931: A Einstein, *The world as I see it*, Forum and Century: 13th in the Living Philosophies series, 1931:84:193-4.

