Canny Nurse Presents

Myths & Misconceptions about Medical Cannabis

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Please Note

This presentation is for educational and informational purposes only.

This is is NOT medical advice.

It is always wise to check with your doctor before adding any new medicine, herbs, or treatments to your health care regimen. At CannyNurse®, we believe that You are the ultimate authority on your own body and are responsible for your own health and wellness. In this sprit, we joyfully provide education to help you learn more about your amazing body and all its wonders.

Ariana Ayu, RN, MSc

- Entrepreneur/ Business Owner since 2000
- Holistic Practitioner/ Business Coach/ Consultant
- Master of Science in Advancing Nursing Practice (Edinburgh University, 2010)
- Integrative Nurse Coach (INCA, 2012, Cohort #2)
- Holistic Health Coach (nutrition focus) (IIN, 2012)
- Author, The Magic of Mojo: The Creative Power Behind Success (Tate Publishing, 2015)
- Medical Cannabis Certificate (PCHS, 2020)
- Member: ACNA, CNN, UK MCCS
- Creator/ Lead Educator of CannyNurse® Certificate Program (CannyNurse.com)

Recognition & Accolades

- 2013 — Began speaking internationally
- 2014 — Cover and feature article in Savvy Biz Women magazine
- 2014-15 — Named *Woman of the Year* by National Association of Professional Women
- 2014-2016 — Invited to write Business Mojo column for Inc.com (inc.com/author/ariana-ayu)
- 2021 — Voted *Entrepreneur of the Year* by Cannabis Nurses Network
- 2023 — Formed the CannyNurse® Collaborative by bringing on other award-winning integrative cannabis nurses

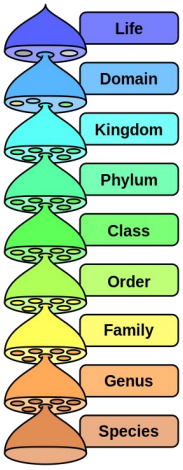
Additional Press & Media:

Weeding through the Jargon

…to find clarity…

Key Terminology

- **Cannabis**: the scientific name of the genus of cannabis plants commonly referred to as “marijuana,” “pot,” “weed,” and/or “hemp”
  - *Note: The word “marijuana” was adopted in the early to mid-1900’s by the US government’s cannabis prohibition movement to incite race-based fear and prejudice, so is inappropriate for professional use*
- **CBD / Cannabidiol:** a non-intoxicating chemical found in the cannabis plant with anti-inflammatory (and other) properties
  - *Note: CBD was patented by the US federal government’s Department of Health & Human Services (HHS) as a neuroprotectant and antioxidant (applied in 1999, granted in 2003)*



Key Terminology

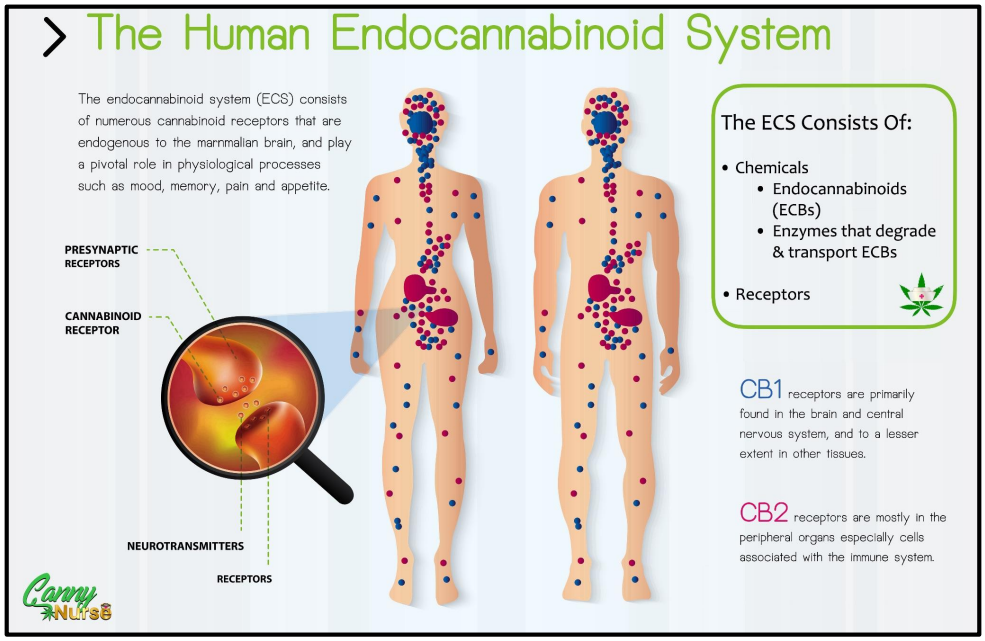
- **Hemp**: common name of the species of cannabis plants originally grown for textiles (ropes, thread, paper, etc.) containing less than a specified percentage of THC (varies by jurisdiction, in USA <0.3% THC)
  - *Note: The word "hemp" is commonly used to refer to CBD-containing products, but is not a standardised term so: read labels carefully, stick with organics (whenever possible), research the brands, and obtain a Certificate of Analysis.*
- **THC / Tetrahydrocannabinol:** the main intoxicating chemical found in the cannabis plant
  - *Benefits include: analgesic (pain-relieving), antiemetic (anti-nausea/ -vomiting), anti-inflammatory, antispasmodic, bronchodilating (open airways), mood elevating, etc.*

Key Terminology

- **Cannabinoid:** a chemical that interacts with the endocannabinoid system (ECS)
- **Endocannabinoid:** short for *endogenous cannabinoid*, meaning a cannabinoid found naturally in the human (or animal) body
- **Phytocannabinoid:** a plant-based cannabinoid, meaning a cannabinoid found naturally in certain plants
- **Synthetic cannabinoid:** a man-made chemical that interacts with the ECS, can be CBD, Delta-8-THC, etc. (NOT recommended due to many safety concerns)

Key Terminology

- **Endocannabinoid System:** the master regulatory system of the human (or animal) body, works by chemical signalling
  - Ancient evolutionary system present in nearly all animals
  - Three main components of the system
    - Endocannabinoids (endogenous cannabinoids made by the body)
    - Receptors (the place where the chemicals take action)
    - Enzymes (the clean-up crew)



You'll see lots of pictures like this…but pictures don't tell the whole story…

Weeding through the Evidence

…to find wisdom…

Does Smoking Cannabis Cause Lung Cancer?

Smoking cannabis isn't the same as smoking tobacco.

In fact, several cannabinoids are being studied currently for their anti-cancer properties (inducing apoptosis in cancer cells).

BUT… it can cause airway irritation, coughing, and may increase likelihood of chronic bronchitis which is why well-educated healthcare providers recommend using a dry-herb vaporizer instead of smoking.

Studies to Peruse:

- Kaplan, A. (2021). Cannabis and lung health: Does the bad outweigh the good? *Pulmonary Therapy*, 7(2), 395–408. https://doi.org/10.1007/s41030-021-00171-8
- Sulé-Suso, J., Watson, N., Van Pittius, D. G., & Jegannathen, A. (2019). Striking lung cancer response to self-administration of cannabidiol: A case report and literature review. *SAGE Open Medical Case Reports*, 7, 2050313X1983216. https://doi.org/10.1177/2050313x19832160

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Pulm Ther (2021) 7:395–408
https://doi.org/10.1007/s41030-021-00171-8

REVIEW

Cannabis and Lung Health: Does the Bad Outweigh the Good?

Alan G. Kaplan

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ABSTRACT

Cannabis use is growing, with multiple medical 'indications' and approval for recreational use in many countries. This article will review some of the respiratory complications to cannabis use, which include lung function changes, lung destruction, increased risk of lung and head and neck cancer, and others. These are mostly related to smoking, and the co-administration of nicotine makes the risks a bit difficult to measure. However, with many reports of EVALI, electronic vaping-associated lung injury, being related to cannabis coadministration, it appears that the safest administration of cannabis, as far as lung health, is orally.

Keywords: Lung function; Cannabis; THC; CBD; Asthma; COPD; Lung cancer; Pneumothorax; Respiratory

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s41030-021-00171-8.

A. G. Kaplan (✉)

Key Summary Points

Evidence collection for cannabis effect on the lung is complicated by issues of accurately understanding the dose given, the concomitant use of nicotine making the effect of the cannabis difficult to assess, and the evidence mostly including only THC while CBD is getting more common to be used for medicinal purposes.

Smoking THC is associated with worsening respiratory symptoms of cough or sputum, wheezing, and shortness of breath, increased incidence of acute bronchitic episodes or clinic visits for acute respiratory illness.

Cannabis leads to hyperinflation and increased large airway resistance, with little evidence of airflow obstruction (cf. nicotine smoking, which causes airflow obstruction).

The association of smoking cannabis to lung cancer risk is not clear.

Case Report

SAGE Open Medical Case Reports

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Striking lung cancer response to self-administration of cannabidiol: A case report and literature review

Josep Sulé-Suso[1,2], Nick A Watson[3], Daniel G van Pittius[4] and Apurna Jegannathen[1]

Abstract

In spite of new drugs, lung cancer is associated with a very poor prognosis. While targeted therapies are improving outcomes, it is not uncommon for many patients to have only a partial response, and relapse during follow-up. Thus, new drugs or re-evaluation of existing therapies used to treat other non-malignant diseases (drug repurposing) are still needed. While this research both *in vitro* and *in vivo* is being carried out, it is important to be attentive to patients where the disease responds to treatments not considered standard in clinical practice. We report here a patient with adenocarcinoma of the lung who, after declining chemotherapy and radiotherapy, presented with tumour response following self-administration of cannabidiol, a non-psychoactive compound present in *Cannabis sativa*. Prior work has shown that cannabidiol may have anti-neoplastic properties and enhance the immune response to cancer. The data presented here indicate that cannabidiol might have led to a striking response in a patient with lung cancer.

Keywords
Lung cancer, cannabinoid, cannabidiol

Date received: 23 August 2018; accepted: 29 January 2019

Introduction

The quest to improve the prognosis of lung cancer has led to the development and evaluation of new drugs with mechanisms of action that differ from those of conventional chemotherapy drugs used for many years worldwide. Great effort is now being placed in developing and assessing the potential of targeted therapies and immunotherapy in lung cancer which are leading to improved clinical outcomes.[1] Thus, targeted therapy is replacing conventional chemotherapy as standard treatment for patients with targetable oncogenic drivers.[2] However, it has to be acknowledged that responses to these agents are still partial with tumours recurring during follow-up. In fact, due to tumours' genetic heterogeneity, a complete response in lung cancer patients is very difficult to achieve.[2]

The challenge to improve the outcome of patients with repurposing) which could have shown an effect on lung cancer *in vitro* and/or *in vivo* are worth pursuing.

One possible example is cannabidiol (CBD), a non-psychoactive compound from *Cannabis sativa*. CBD, which has been used in the management of several non-oncological pathologies,[3] could be a potential drug in the treatment of cancer. CBD has been shown to have anti-neoplastic effects *in vitro* and/or *in vivo* in lung cancer[4–9] and other types of cancer.[10,11] However, although work is needed to better

[1]Cancer Centre, Royal Stoke University Hospital, University Hospitals of North Midlands (UHNM), Stoke on Trent, UK
[2]Institute for Science and Technology in Medicine, Guy Hilton Research Centre, Keele University, Stoke on Trent, UK
[3]Imaging Department, Royal Stoke University Hospital, University Hospitals of North Midlands (UHNM), Stoke on Trent, UK
[4]Histopathology Department, Royal Stoke University Hospital, University Hospitals of North Midlands (UHNM), Stoke on Trent, UK

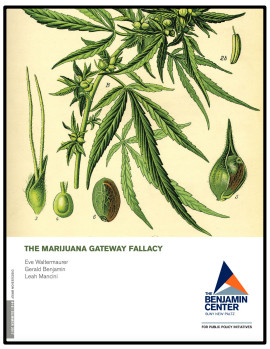
Is Cannabis a Gateway to Substance Abuse?

Cannabis is not a "Gateway" drug.

In fact, CBD shows great promise in reducing the reward effect of addictive substances, including opioids.

Report to Review:

- Waltermaurer, E., Benjamin, G., & Mancini, L. (2017). The marijuana gateway fallacy. In *The Benjamin Center for Public Policy Initiatives State University of New York at New Paltz Discussion Brief* (Vol. 18). Retrieved from https://www.newpaltz.edu/media/the-benjamin-center/db_18_the_marijuana_gateway_fallacy.pdf



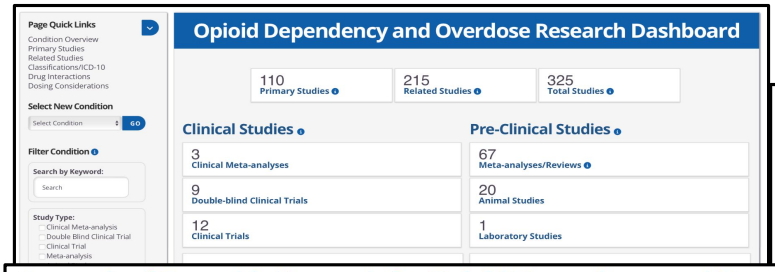
Can Cannabis Really Help with the Opioid Crisis?

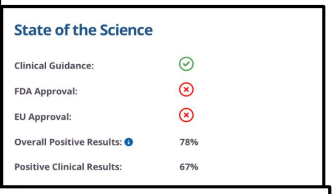
Cannabis can reduce opioid use and reliance.

In fact, cannabinoids are being used both **in combination with** and **to replace opioids** for safer pain management with fewer dangerous and unpleasant side effects.

Studies to Peruse:

- Jeddi, H. B., Busse, J. W., Sadeghirad, B., Levine, M., Zoratti, M. J., Wang, L., Noori, A., Couban, R., & Tarride, J. (2024). Cannabis for medical use versus opioids for chronic non-cancer pain: a systematic review and network meta-analysis of randomised clinical trials. *BMJ Open*, 14(1), e068182. https://doi.org/10.1136/bmjopen-2022-068182
- Le, K., Au, J. T., Hua, J., & Le, K. D. R. (2023). The therapeutic potential of cannabidiol in revolutionising opioid use disorder management. *Cureus*. https://doi.org/10.7759/cureus.50634





Synopsis of Cannabis Research for Opioid Dependency and Overdose

Study results from hundreds of trials (including several clinical studies) have examined components of the endocannabinoid system (ECS), i.e., CB1, CB2, AEA/FAAH, 2-AG/MAGL, in the context of treating opioid dependency and overdose. Thus, the scientific literature is beginning to provide us with a real basis to make more informed and discerning decisions about whether cannabis-based therapeutics (and what cannabis constituents specifically) may offer the best possible course of action in meeting each patient's treatment needs.

While initially, most positive reactions came from clinical observation and/or anecdotal reports of patients self-medicating with cannabis, clinical experiments have presented a number of observations:

- Cannabis constituents THC (J. Roberts et al., 2006) and CBD (A. Capano et al., 2019) can produce synergistic effects with opioids (i.e.morphine, oxycodone), thus allowing for lower opioid dosages to achieve effective pain control (all the while reducing the risk of OD and addiction), especially in patients with chronic pain.
- CBD oral administration of either 400 mg or 800 mg significantly improved withdrawal-associated dysphoria (i.e., anxiety, craving) and physiological symptoms such as heart rate and salivary cortisol levels (Y. Hurd et al., 2019).
- Synergistic effects to improve Naltrexone treatments in patients with opioid dependence (W. Raby et al., 2009).
- Alpha-terpineol prevents dependence and tolerance to morphine in animals (S. Parvardeh et al., 2016).

Is CBD Really the Cure-all People Think It Is?

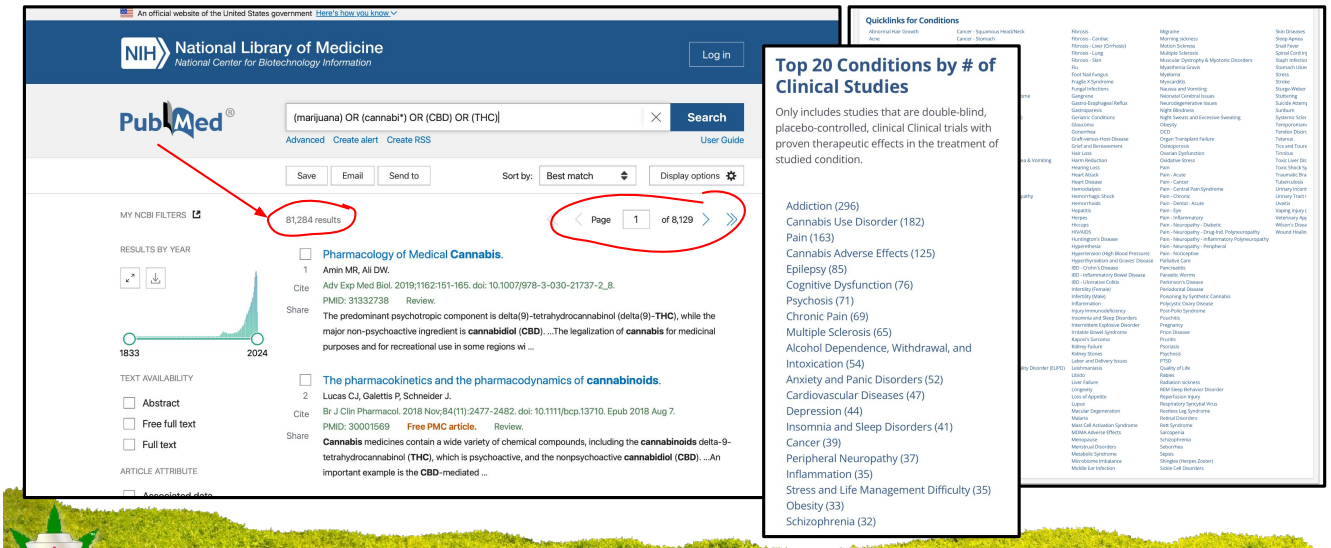
There is NO SUCH THING As a "Cure-All"

BUT…

because we're dealing with the **Master Regulatory System** of the body,

meaning the system that regulates **ALL** the other body systems…

Cannabis May Treat a Wide Variety of Ailments



The Bottom Line

- **Cannabis is an herb used by humans since ancient history.**
- **Organic, plant-based cannabis has an unsurpassed safety profile.**
  - No deaths in recorded history attributed to use of the cannabis plant
  - *Note: synthetics can have greater receptor affinity & may cause fatal OD*
- **Over 81,000 published studies on Pubmed.gov** relating to cannabis, compared to:
  - 3,793 studies published on lavender
  - 4,036 studies on St. John's Wort
  - 7,988 studies on turmeric
  - 45,649 studies on acupuncture / acupressure

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#21	···	>	Search: **turmeric**	7,988	09:52:26
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