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**Medical Cannabis**

Arash Taghvai  
MD



# Who is Apollo?



**MEDICAL INFORMATION FORM:**

**Section 1. FOR OFFICE USE ONLY:**

Patient Identification Number

Date

**Patient Details:**

**Section 2. Please print (complete all fields)**

Surname

First Names

Title

Mr Mrs Ms Miss

Date of Birth

Day Month Year

Home Address

Telephone



# Industry Leading Research

Apollo is a Research organization and Medical Cannabis Clinic that strives to better understand the effects of medical cannabis on chronic conditions through validated research studies.

## Experts In Cannabis

- More than 30 years of combined clinical research experience
- One of Canada's largest medical cannabis studies
- Database of over 50,000 patients
- Team of Psychiatrists, Anesthesiologists, Neurologists, Pain Specialists, Psychiatrists, Family Doctors, Researchers, Academics, and Statisticians





# Who Are Our Patients?



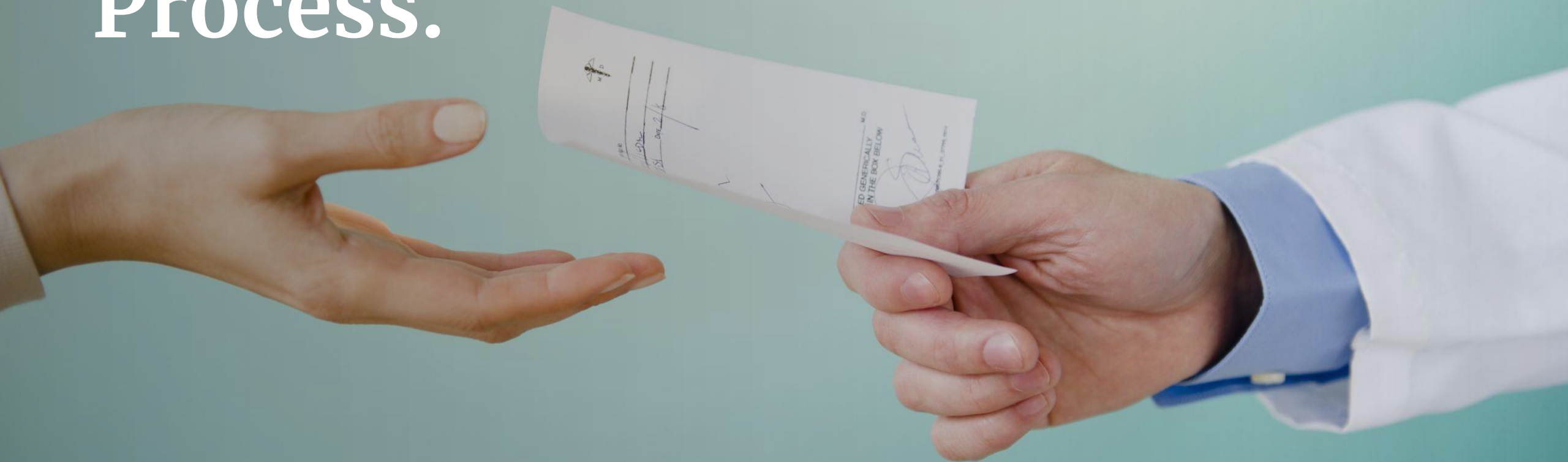
# The Reality

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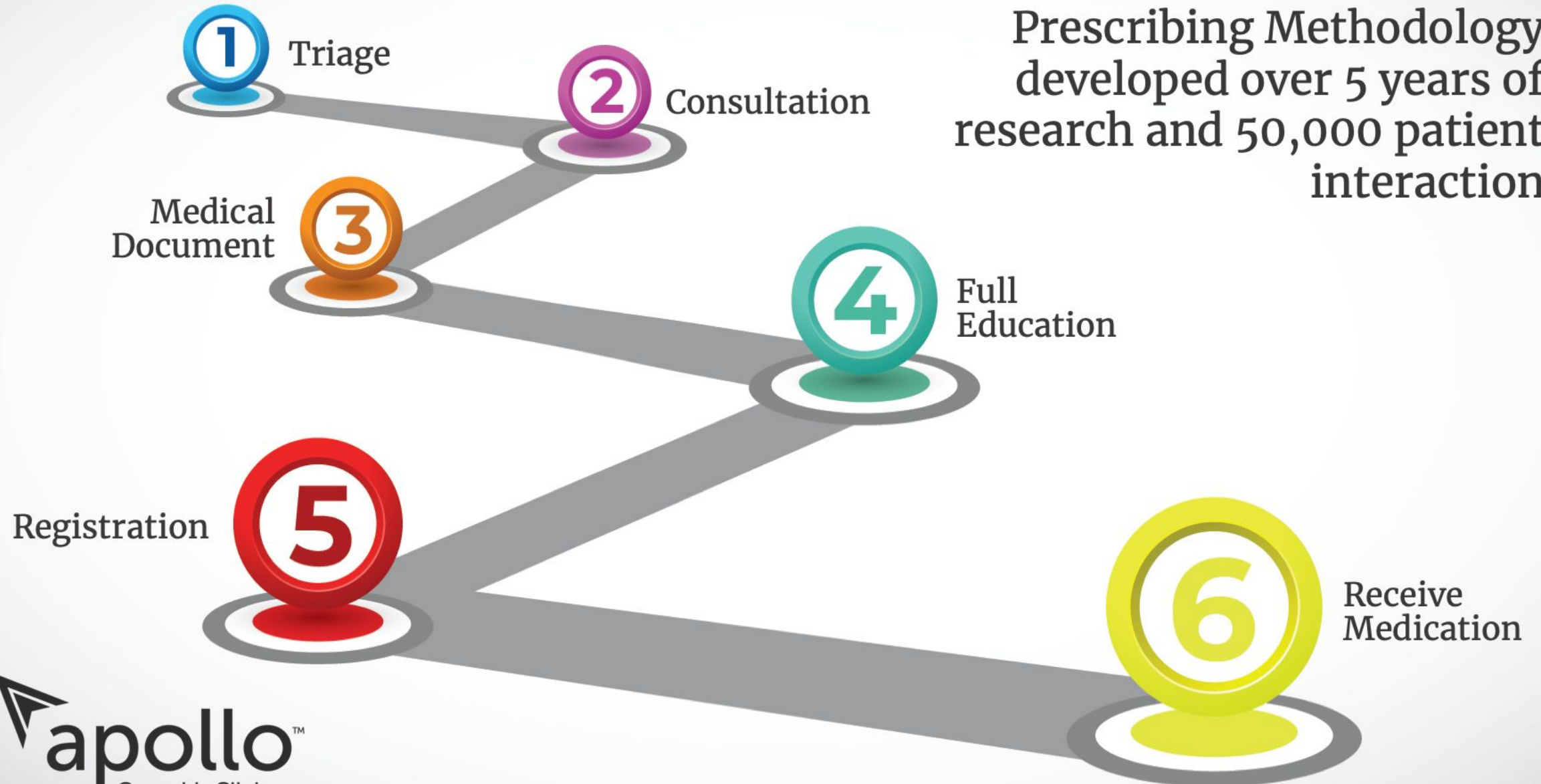




# The Medical Process.



Prescribing Methodology  
developed over 5 years of  
research and 50,000 patient  
interaction







# Licensed Producers

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- Licensed by Health Canada.
- Authorized to produce and sell to the public. Dried bud, oil, capsules and topical.
- They adhere to rigorous standards and regulations and provide medical cannabis to authorized patients.
- 211 authorized LPs within Canada.
- Offer a range of products with various ratios of CBD:THC.



# Different Plant Types

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**Sativa Plants:** Tall, strong, originally from South America.

**Indica Plants:** Short, stubby, shallow rooted – originally from Asia.

Although the two plants are genetically identical, they are phenotypically different.



INDICA



SATIVA



**BETTER SUITED  
FOR DAYTIME**

# SATIVA



**INCREASES  
ENERGY  
(FATIGUE)**



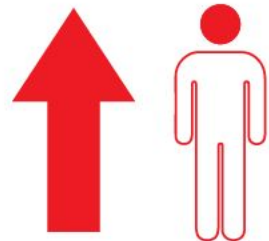
**ANTI-DEPRESSANT**



**STIMULATING**



**MIND  
DOMINANT**



**UPLIFTING &  
EUPHORIC**

**HELPS WITH  
MOOD DISORDERS**

**INCREASES  
ALERTNESS**



**FOCUS**



**CREATIVITY**



**ENHANCED SENSES**





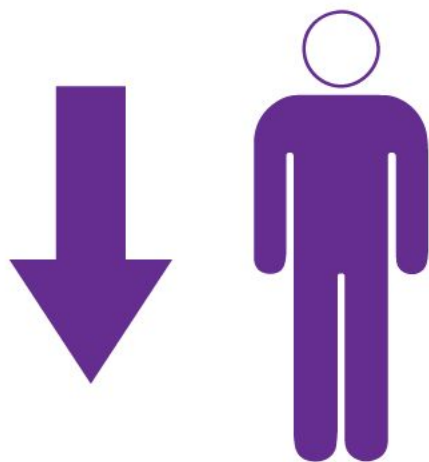


# INDICA

BETTER SUITED  
FOR NIGHTTIME



**BODY  
DOMINANT**



**ANTI  
NAUSEA**



**HELPS  
WITH  
SLEEP**  
(INSOMNIA)

**SEDATING**



**DEEP  
RELAXATION**



**ANTI  
ANXIETY**

**APPETITE  
STIMULANT**



**MUSCLE  
RELAXANT**



**PAIN  
RELIEF**



**REDUCES HEADACHES  
AND MIGRAINES**

**REDUCES  
MUSCLE SPASMS  
AND SEIZURES**



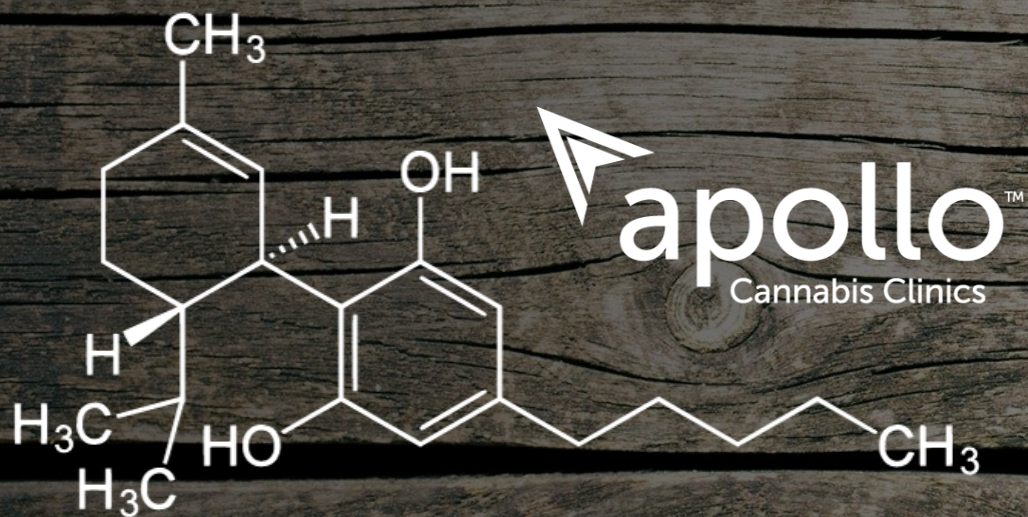
# The Medical Cannabis Compounds.





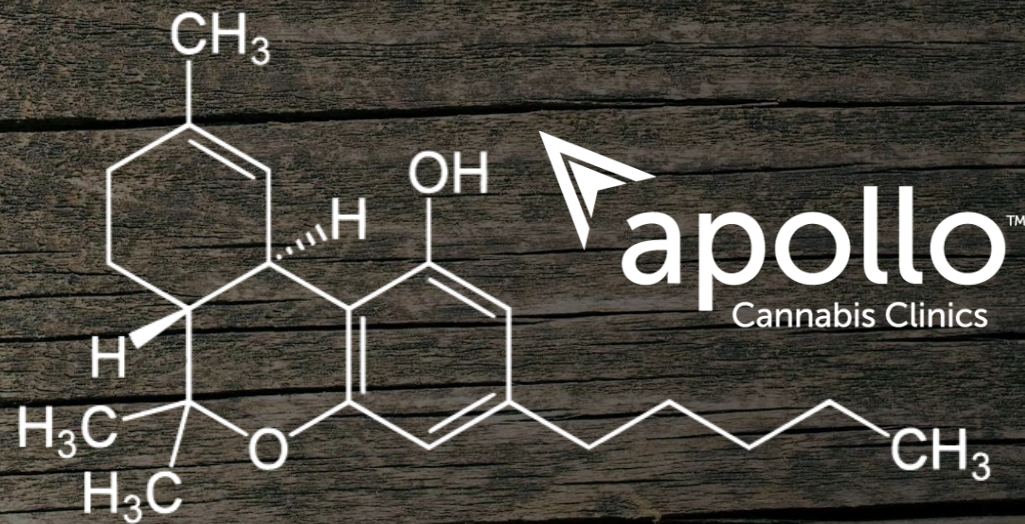
# CBD

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# THC





# Trichomes

Cannabinoids are produced inside the heads of the trichomes.





# What Are Terpenes?



# The Most Common Terpenes Found in Cannabis



$\alpha$ -Pinene



$\beta$ -Caryophyllene



$\beta$ -Myrcene



d-Limonene



$\beta$ -Linalool



$\alpha$ -Humulene

Potential Therapeutic Effects:	Memory Retention Alertness	Pain Relief Gastric Cytoprotective	Sedating Muscle Relaxant Sleep Aid	Elevates Mood Relieves Nausea Boosts Immune System	Sedating Calming Aliviates Skin Burns	Appetite Suppressant Pain Relief
Potential Medicinal Benefits:	Treatment of Asthma Bronchodilator (Sinus) Anti-inflammatory	Antioxidant Anti-inflammatory Anti-bacterial	Anti-septic Anti-inflammatory Anti-tumor	Anti-anxiety Anti-depressant Anti-fungal	Anti-insomina Anti-anxiety Anti-epileptic	Anti-tumor Anti-bacterial Anti-inflammatory
Flavor Aroma:	Pine, Rosemary Sage, Parsley	Basils, Cloves Black Pepper, Spicy, Woody	Earthy, Cloves, Musky, Hops, Thyme, Mango	Citrus, Lemon, Orange, Tangerine, Juniper	Floral, Mint, Coriander, Rosewood, Lavender	Hops, Pine Trees, Sunflower fields
Boiling Temperature:	155 °C (311 °F)	160 °C (320 °F)	168 °C (334 °F)	176 °C (349 °F)	198 °C (388 °F)	198 °C (388 °F)

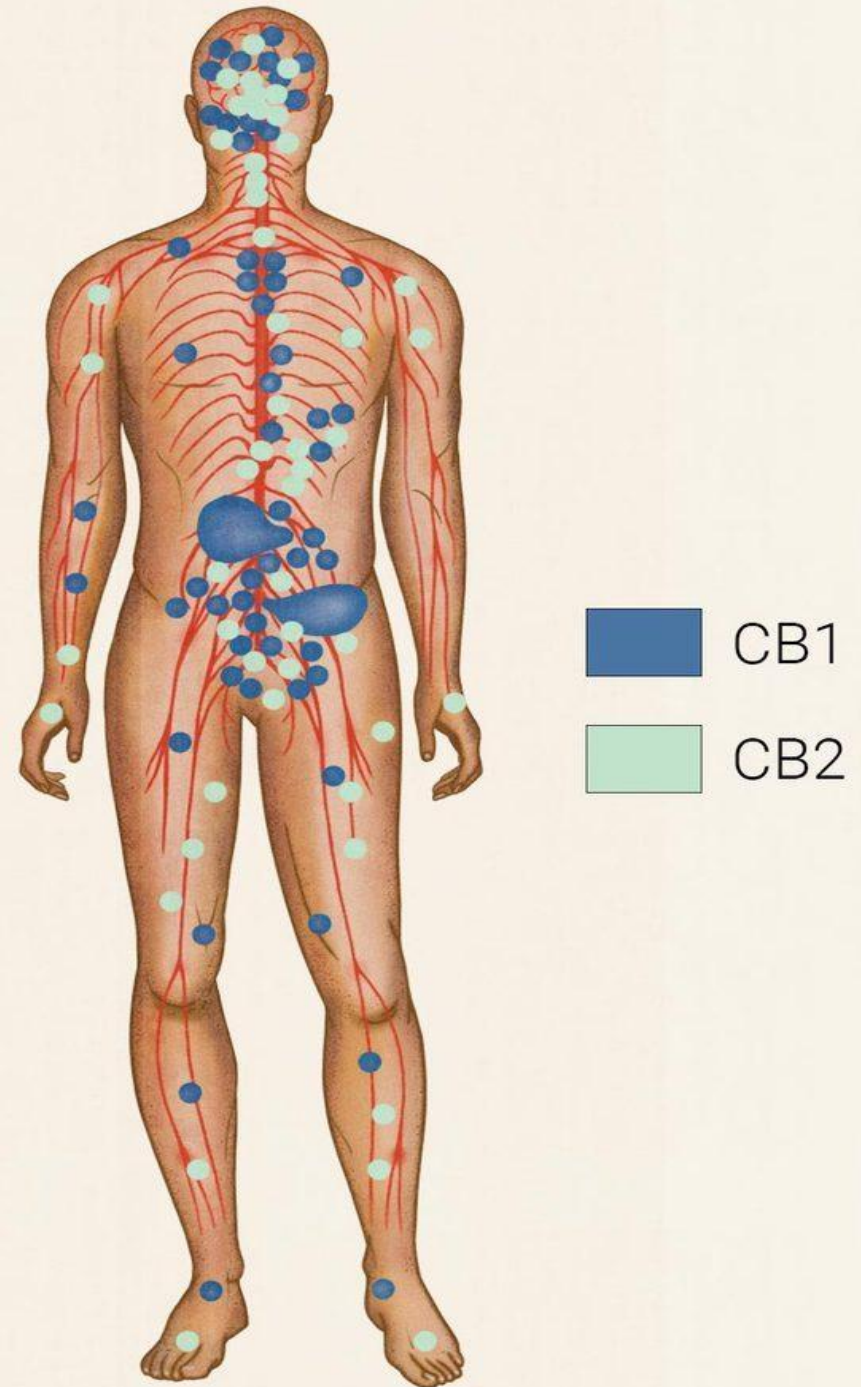
# Medical Cannabinoids

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**Cannabinoids:** A class of compounds that act on cannabinoid receptors in the human body.

**Endocannabinoids:** Cannabinoids that are naturally produced in the body (endogenous).

**Synthetic Cannabinoids:** Laboratory-synthesized compounds that bind to cannabinoid receptors, e.g. pharmaceuticals (i.e Nabilone)

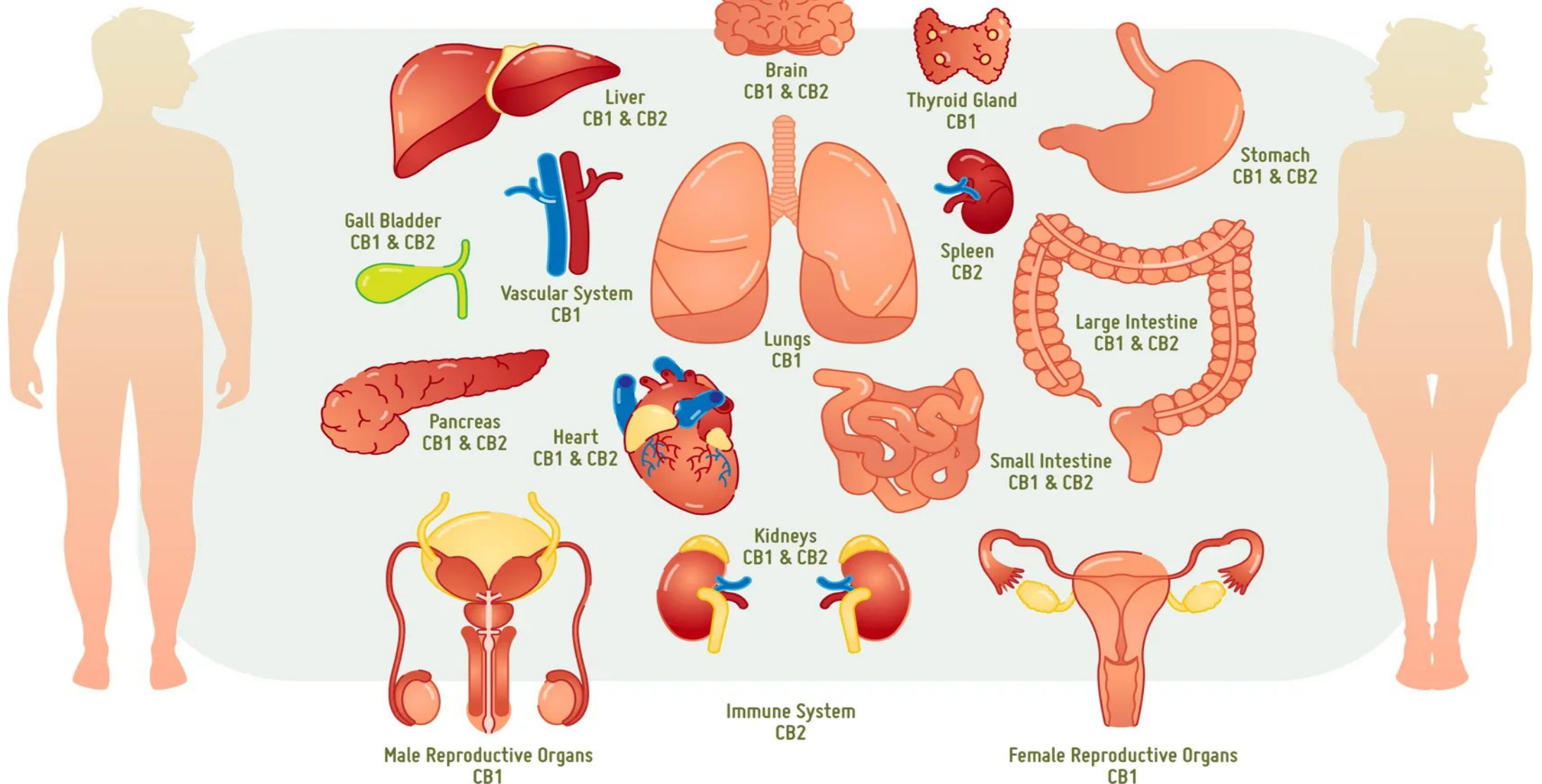




# The Human Endocannabinoid System

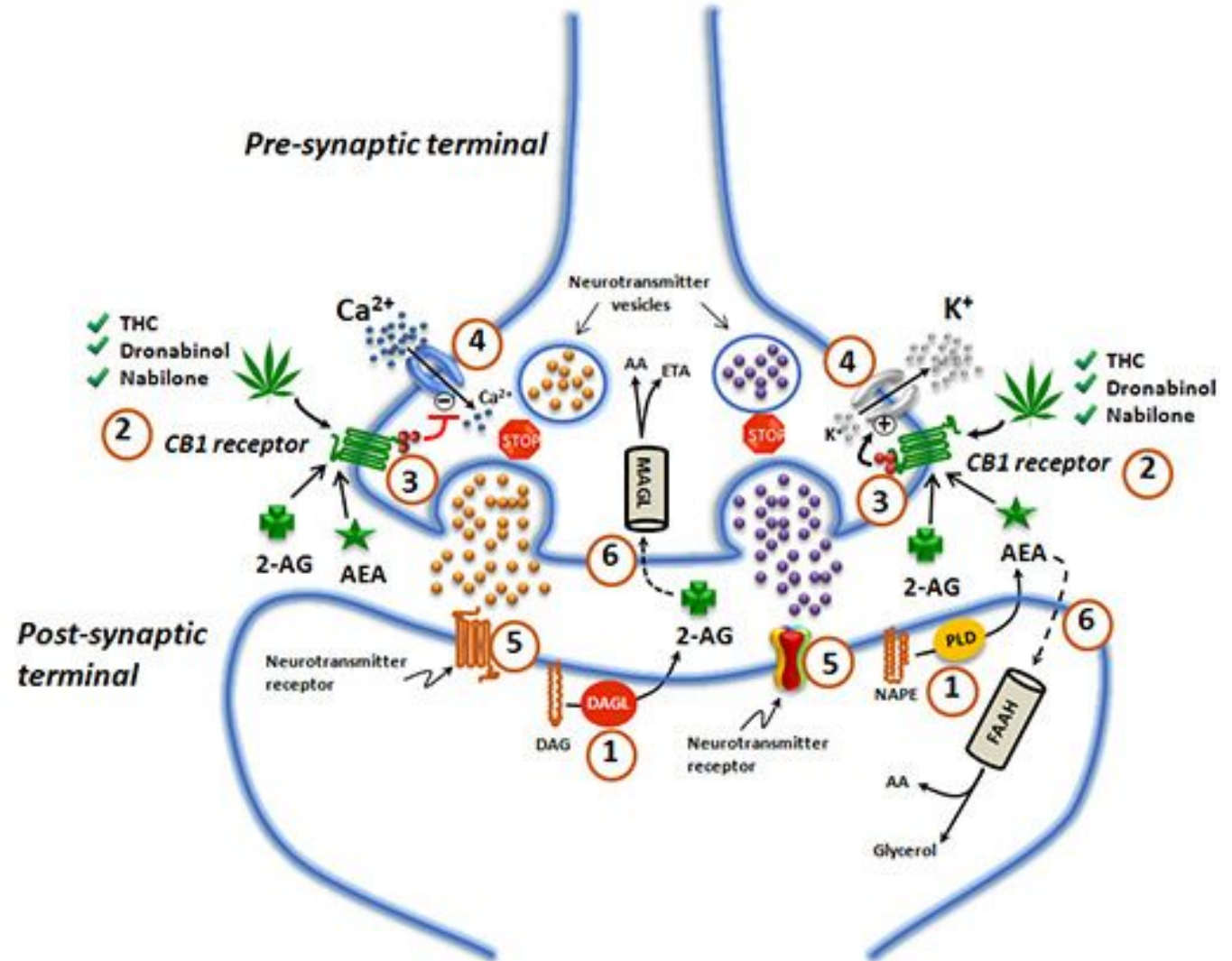
**CB1** Receptors are mostly found in the Nervous System and Brain

**CB2** Receptors are mostly found in the peripheral organs, especially immune cells



# Endocannabinoid System

Complex system that is responsible for extensive physiological and pathophysiological activity.





# Potential Medicinal Benefits

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- Analgesic via CB1, CB2
- Neuroprotective antioxidant
- Powerful anti-inflammatory
- Muscle Relaxant
- Antiemetic and Appetite-stimulating
- Insomnia
- Primary psychoactive component





# Methods of Consumption.





# Oil & Capsules

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- Edible
- Long lasting relief (4-8 hours)
- Takes 1-2 hours to 'kick in'
- Easy to use
- Precise dosing
- Discreet



# Dry Cannabis (Vaporized)

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- Plant matter, heated in a vaporizer
- Releases the compounds
- Inhale warm misty vapor with the medicine
- Fast acting (within 5 minutes)
- Shorter lasting (1-4 hours)





# How Addictive is Cannabis?

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<u>Drug/Substance</u>	<u>Dependancy</u>
Tobacco	32%
Alcohol	15%
<b>Marijuana</b>	<b>9%</b>
Tranquilizers	9%
Cocaine	17%
Heroin	23%

Mack A Janet J Merijuana as medicine The science beyond the controversy National Academy press Washington DC 2001



# Side Effects

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## Possible

- Dizziness
- Dry Mouth
- Drowsiness
- Anxiety
- Red Eyes
- Fast Pulse
- Low Blood Pressure
- Cognitive Slowing

## Uncommon

- Panic Attack
- Paranoia
- Psychosis

## Opioid Overdose

- Respiratory Depression



# Cannabis.

- No Reports of Death
- No Reports of Overdose



# Epidemiological Characteristics, Safety and Efficacy of Medical Cannabis in the Elderly

Ran Abuhaira<sup>a,1</sup>, Lihi Bar-Lev Schleider<sup>a,b,1</sup>, Raphael Mechoulam<sup>c</sup>, Victor Novack<sup>a,\*</sup>

## Quality of Life (Before and After) Cannabis initiation

### Before Treatment:

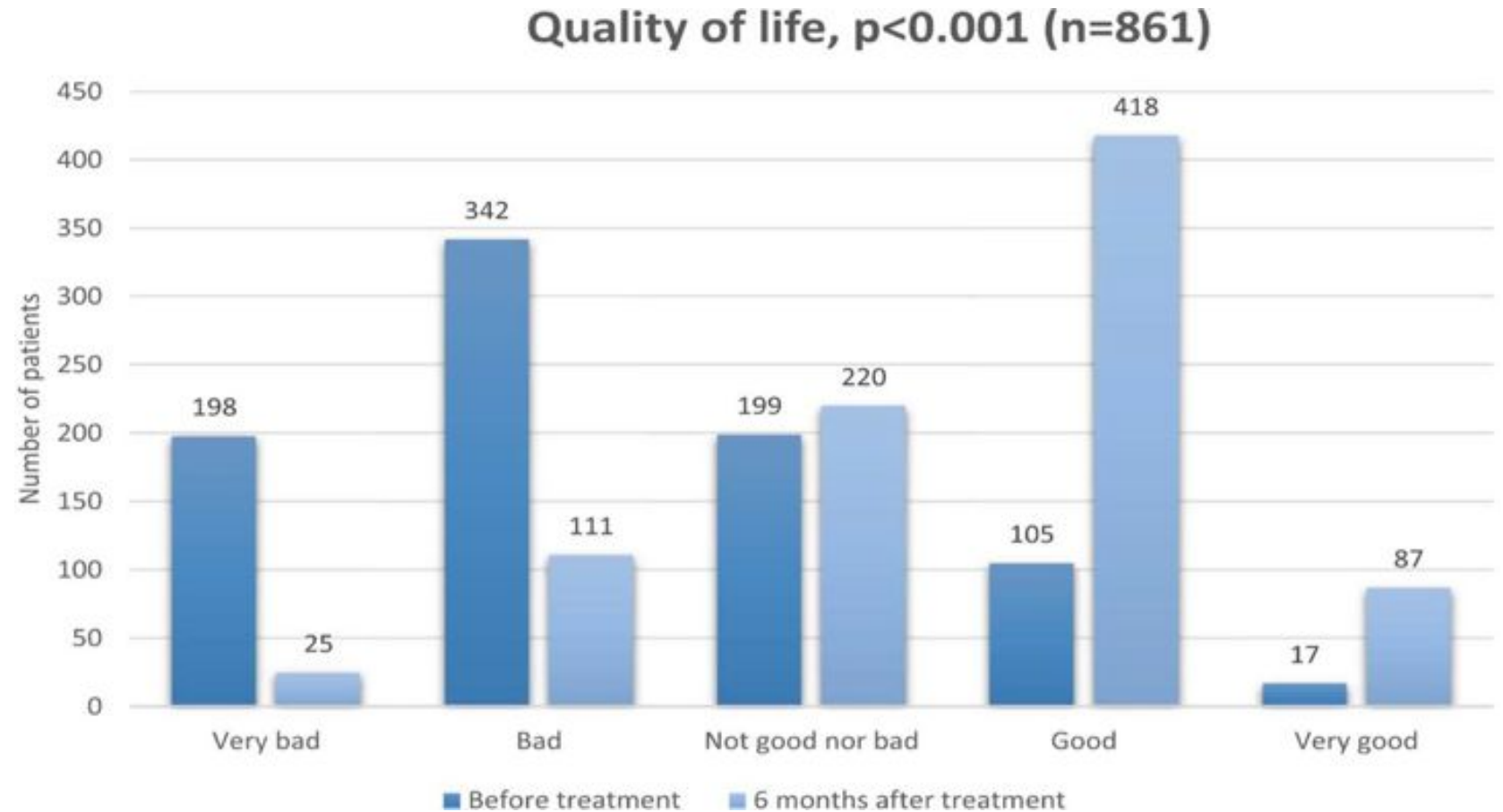
Good or Very Good – 14.2%

Bad or Very Bad – 62.7%

### After Treatment

Good or very good: 58.6%

Bad or Very Bad: 15.6%



(Eur J Int Med 2018)

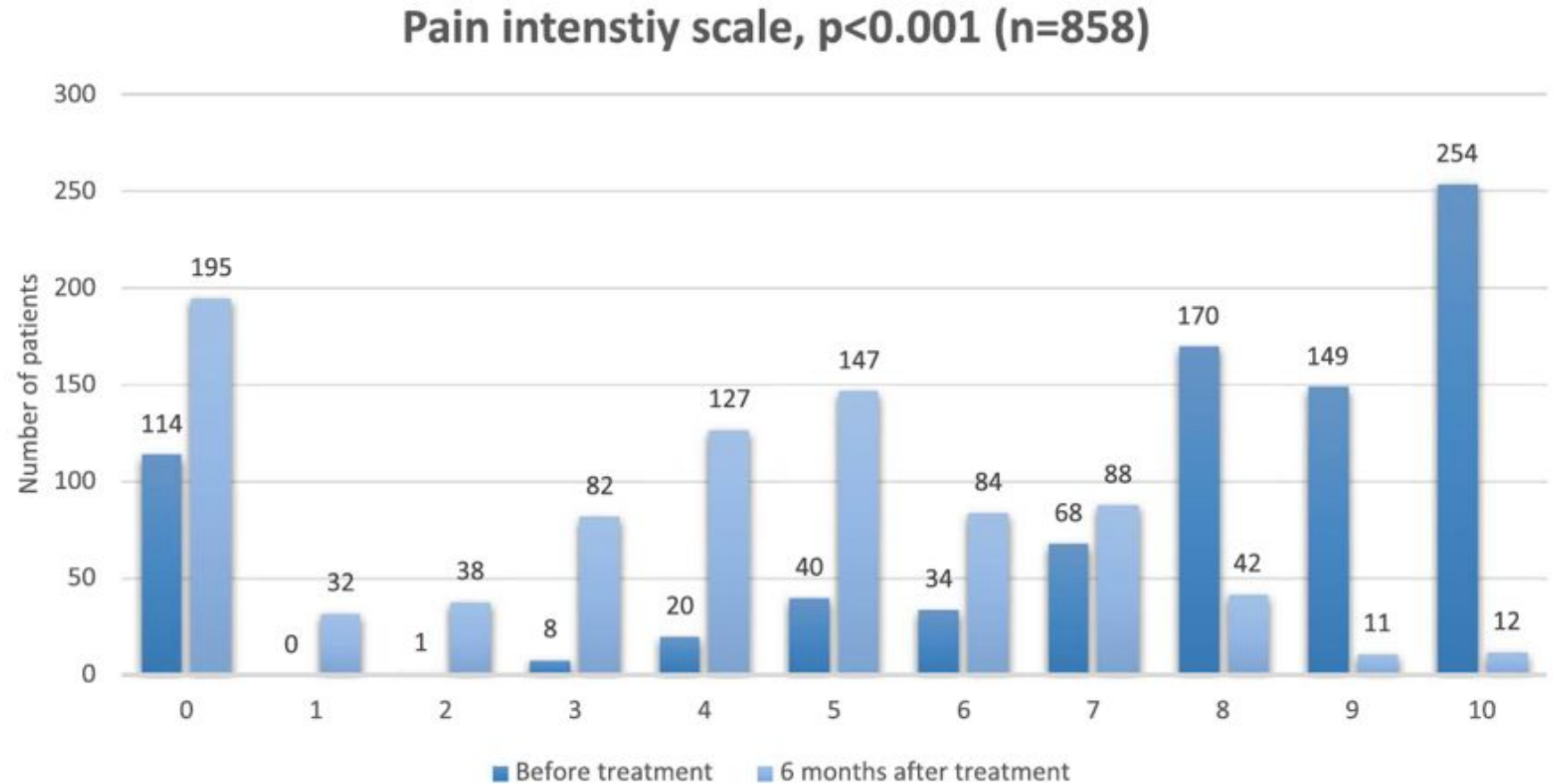


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## Analgesic efficacy

- **Median Pain Intensity:**
  - Before Treatment - 8/10
  - After Treatment - 4/10
- **Severe pain Score (8-10)**
  - Before Treatment 66.8% Reported Severe Pain
  - After Treatment 7.6% Reported Severe pain



(Eur J Int Med 2018)



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## Adverse events

Adverse events after six months of treatment with cannabis.

Adverse event	Number of patients (N = 901)
Dizziness	87 (9.7%)
Dry mouth	64 (7.1%)
Somnolence	35 (3.9%)
Weakness	21 (2.3%)
Nausea	20 (2.2%)
Confusion and disorientation	17 (1.9%)
Drop in sugar levels	16 (1.8%)
Cough	13 (1.4%)
Headache	10 (1.1%)
Vomiting	10 (1.1%)
Sore throat	9 (1.0%)
Restlessness	8 (0.9%)
Hallucinations	7 (0.8%)

31,7%

10.8% stopped cannabis

- 1.6% ineffectiveness
- 1.4% adverse events

**Falls** ( $\geq 1$  in past 6 months)

- 53.4% reported falls prior to cannabis initiation and this decreased to 21.9% following cannabis treatment.

(Eur J Int Med 2018)



## *Example: Spectrum Therapeutics*

- Easy ‘color coded’ system
- Excellent customer service / patient care
- Compassionate program and Veterans program
- 20% off with CARP membership







Toll Free:  
**1-877-560-9195**

**T: 416-840-5991**  
**F: 647-729-4766**

**[www.apollocannabis.ca](http://www.apollocannabis.ca)**



