



Dr Ben Jansen

Director of Cannabis Doctors Australia

Saturday, August 10, 2019

(Plenary)

12:20 - 12:30 Medicinal Cannabis for Chronic Pain



MEDICINAL CANNABIS FOR CHRONIC PAIN

NZMA GPCME 2019





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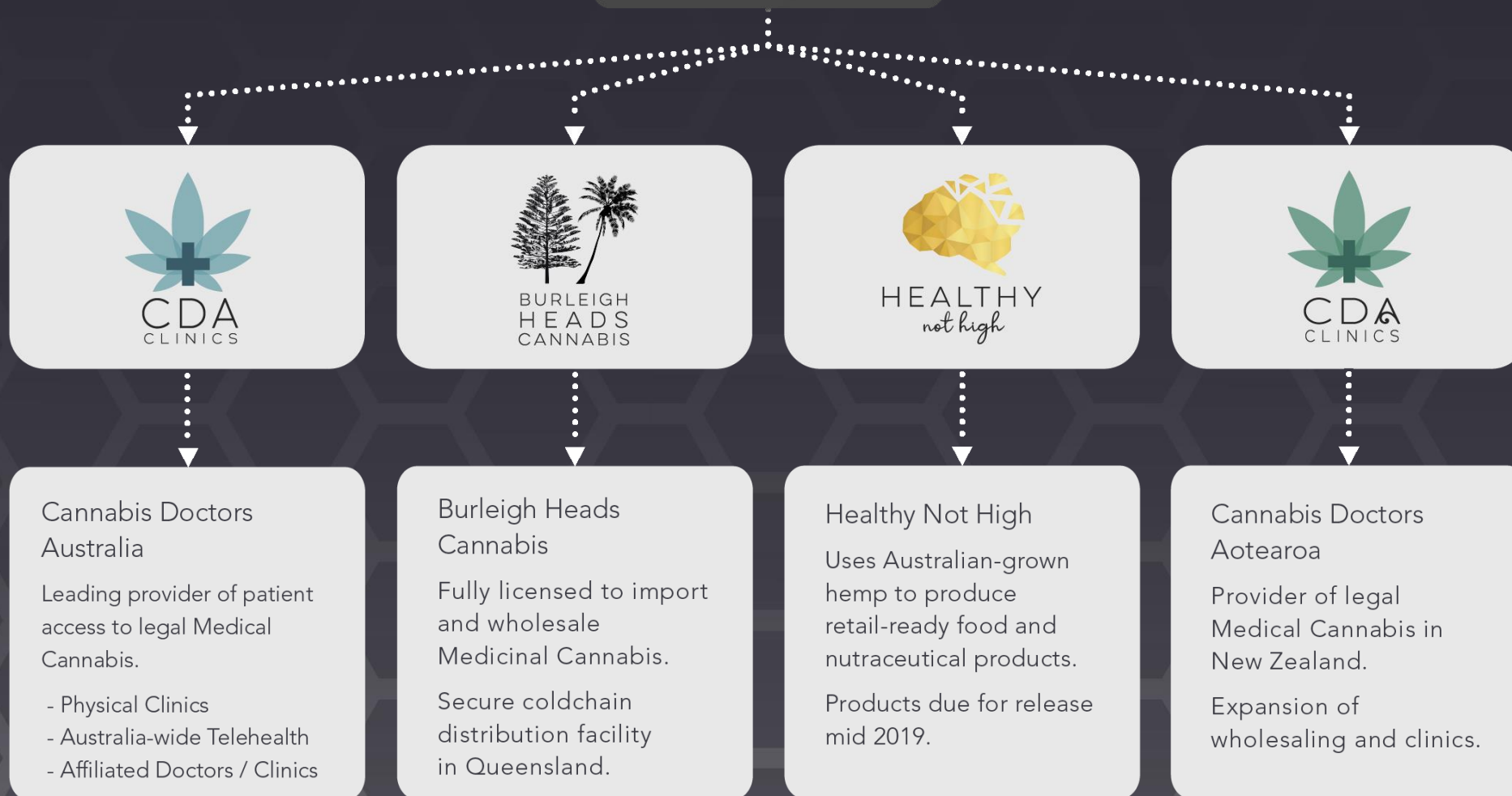


CDA HEALTH

WWW.CDAHEALTH.ORG

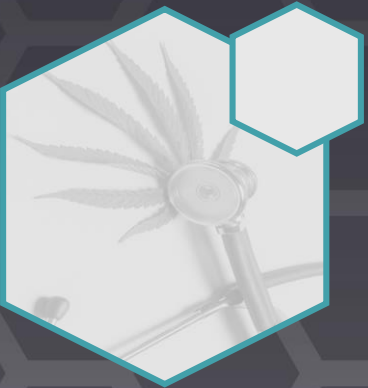


CDA HEALTH

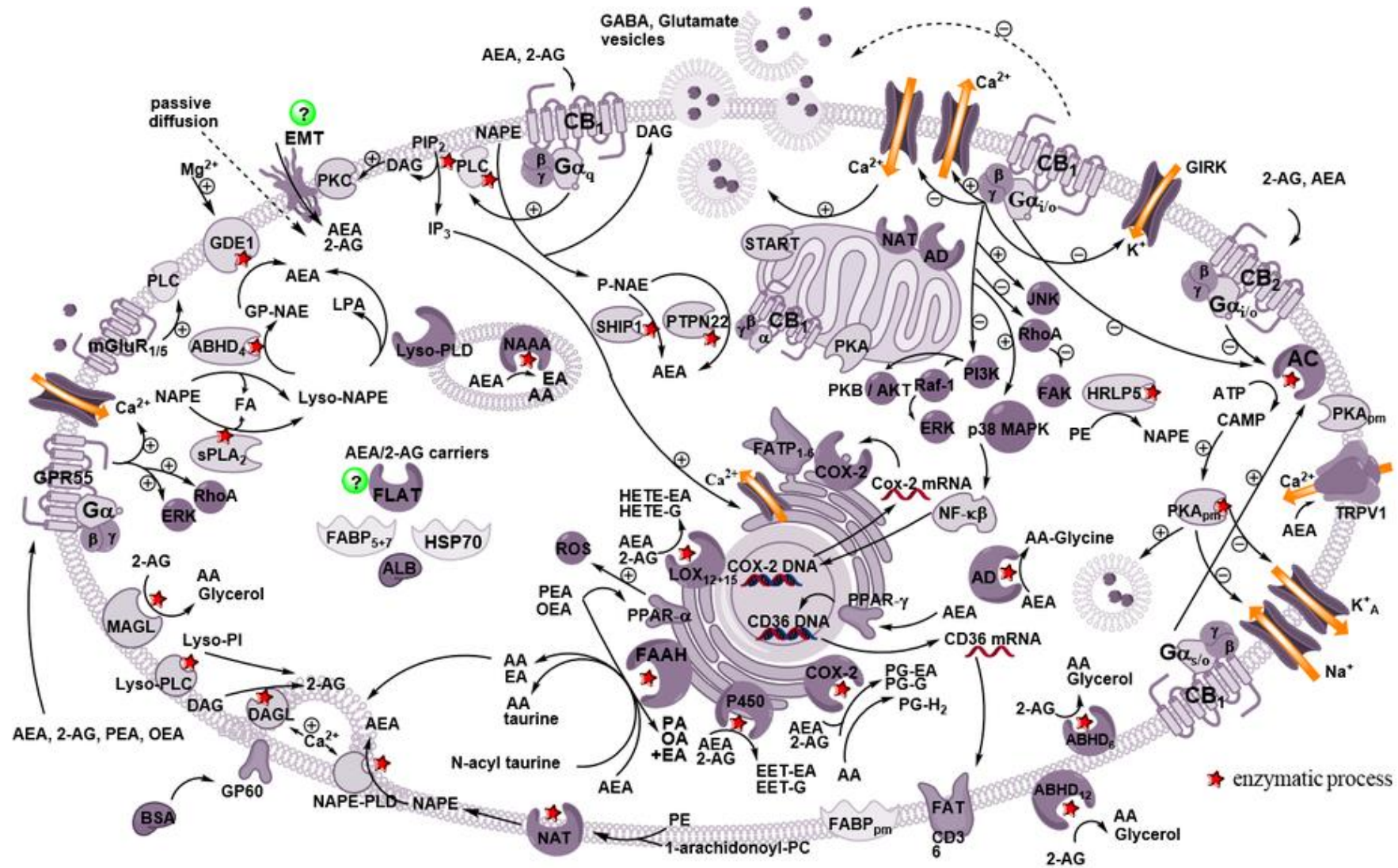


Medicinal Cannabis is available for:

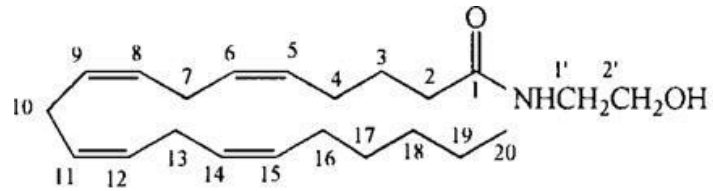
Any condition that has not responded to
standard medications*



ENDOCANNABINOID SYSTEM

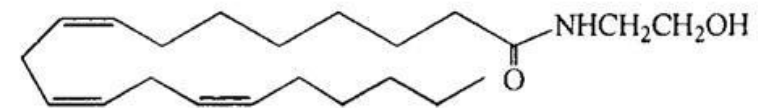


ENDOCANNABINOIDS



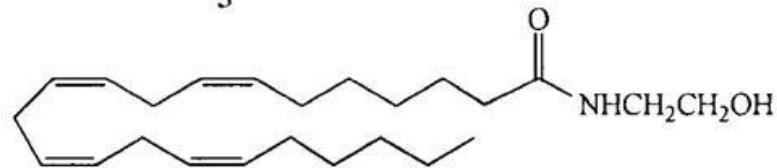
Anandamide

5



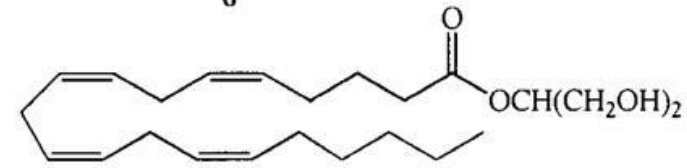
N-homo-gamma-linolenoyl-ethanolamine

6



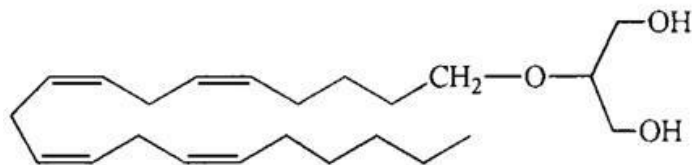
N-docosotetraenoyl-ethanolamine

7



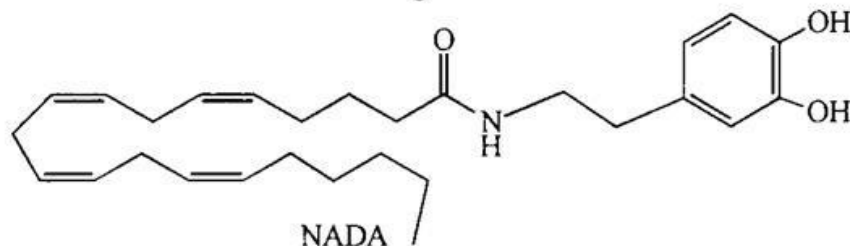
2-AG

8



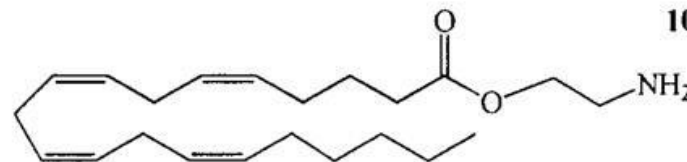
Noladin Ether

9



NADA

10



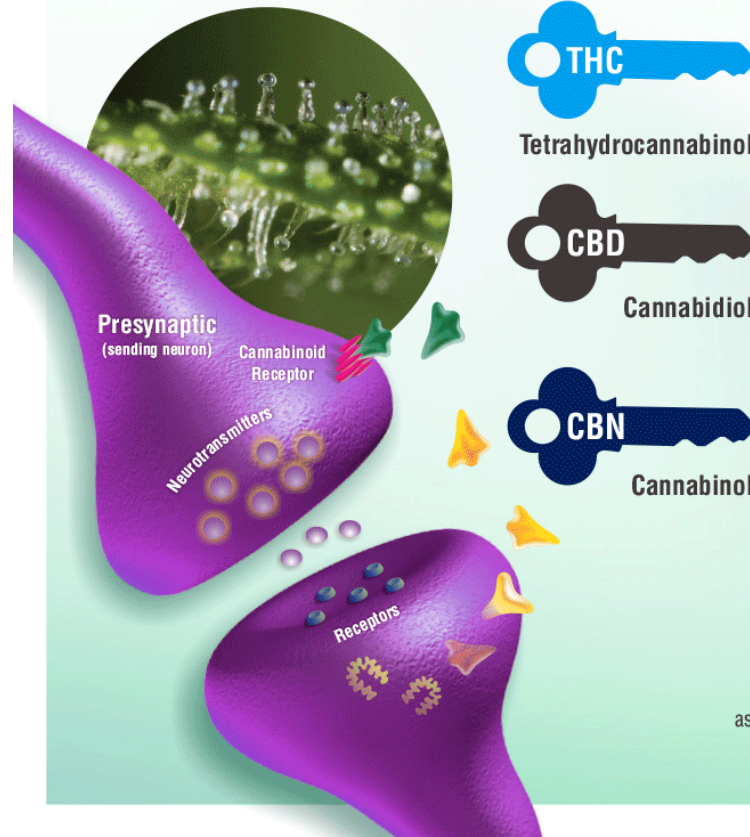
Virodhamine

11

RECEPTORS - CB1 AND CB2

The Human Endocannabinoid System

CBD, CBN and THC fit like a lock and key into existing human receptors. These receptors are part of the endocannabinoid system which impact physiological processes affecting pain modulation, memory, and appetite plus anti-inflammatory effects and other immune system responses. The endocannabinoid system comprises two types of receptors, CB1 and CB2, which serve distinct functions in human health and well-being.



CB1 receptors are primarily found in the brain and central nervous system, and to a lesser extent in other tissues.



CBD does not directly "fit" CB1 or CB2 receptors but has powerful indirect effects still being studied.



CB2 receptors are mostly in the peripheral organs especially cells associated with the immune system.

Receptors are found on cell surfaces

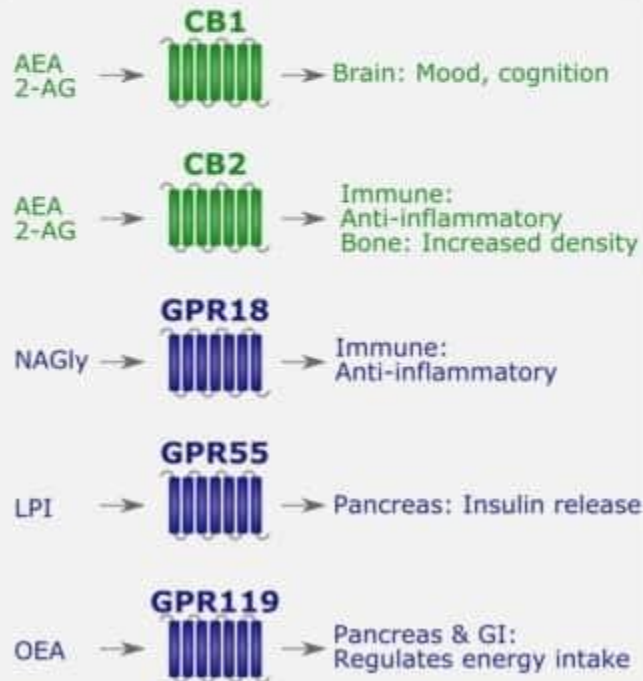


ECS RECEPTORS

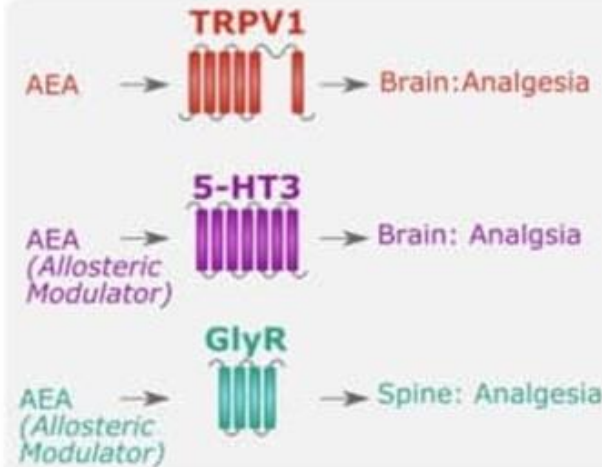
Endocannabinoid Receptors

Key Ligands, Locations & Effects

G-Protein Coupled Receptors



Ligand-Gated Ion Channels



Nuclear Receptors



Receptor ligands, locations and effects are not comprehensive, but only highlight key examples. Only endogenous ligands are considered. AEA=anandamide. 5-HT=serotonin, GlyR=glycine receptor

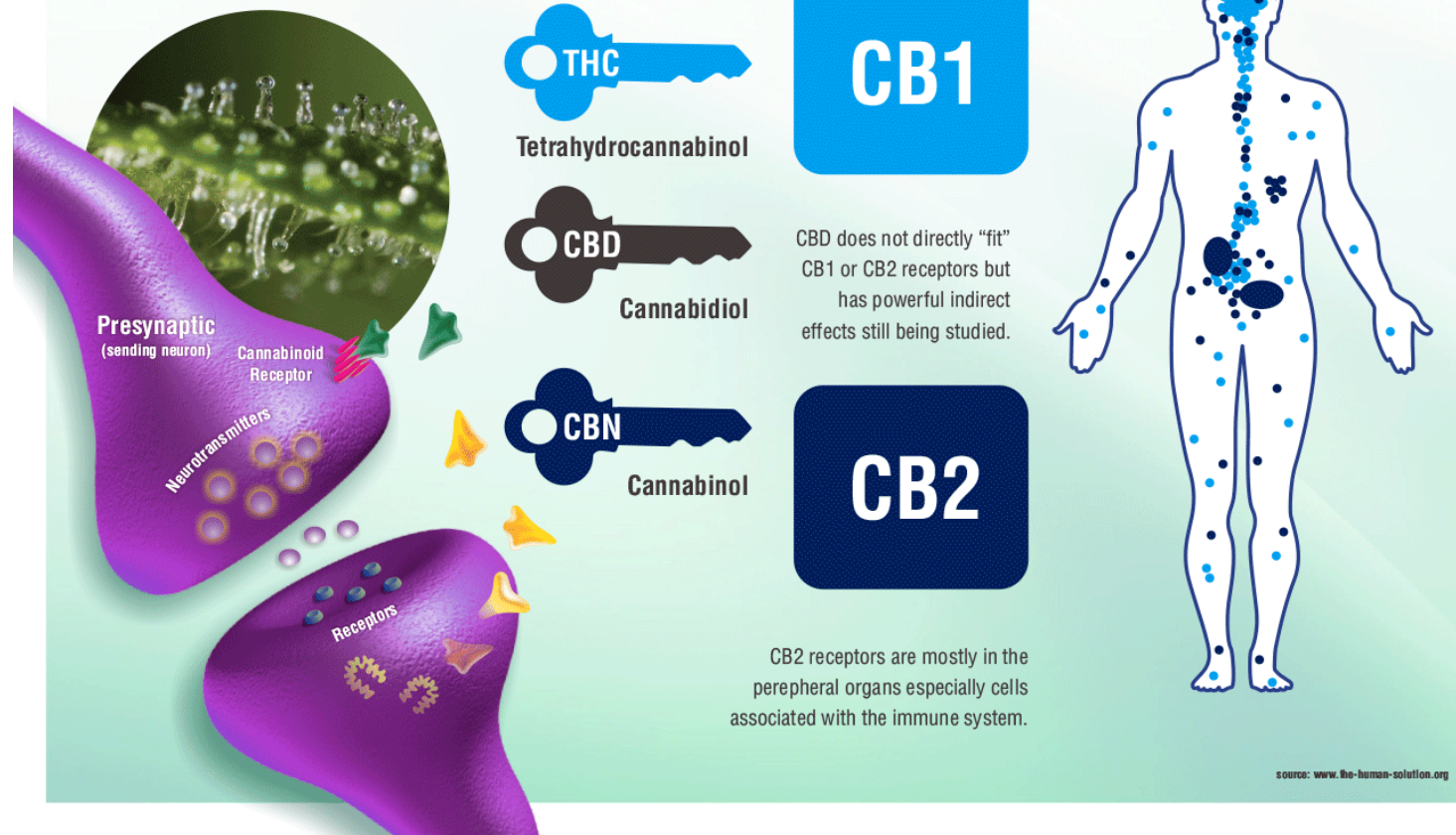
THC AND CBD EFFECTS

The Human Endocannabinoid System

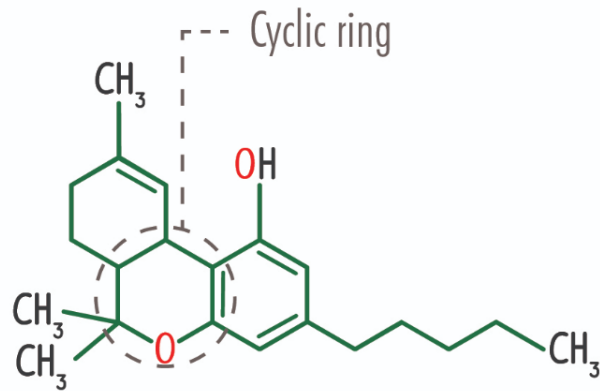
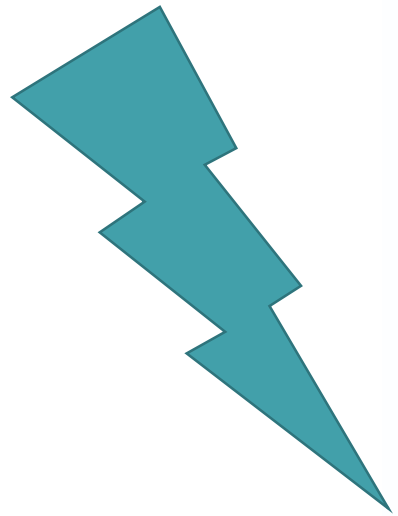
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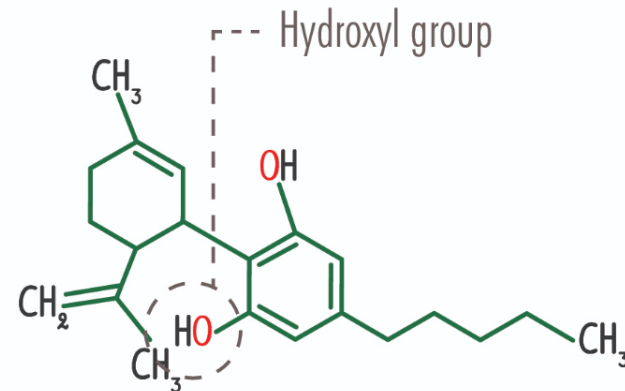
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THC AND CBD



Tetrahydrocannabinol (THC)

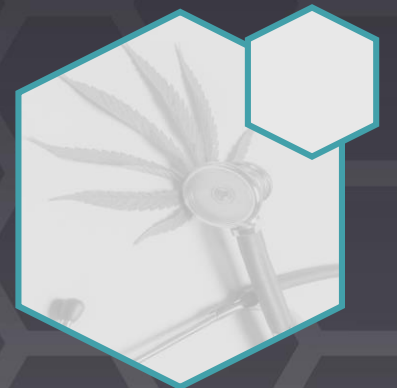


Cannabidiol (CBD)



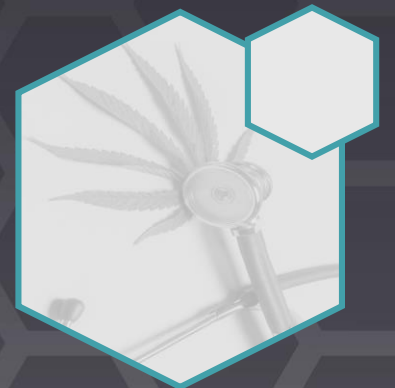
CBD EFFECTS

- Analgesic
- Anti-inflammatory/immunomodulatory
- Anxiolytic
- Antiepileptic
- Antipsychotic
- Antiproliferative
- Counteracts THC psychoactivity



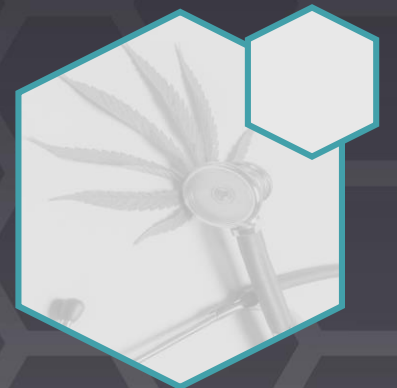
THC EFFECTS

- Analgesic
- Sedative
- Anti-spasmodic
- Anti-dystonic
- Anti-emetic
- Anxiolytic



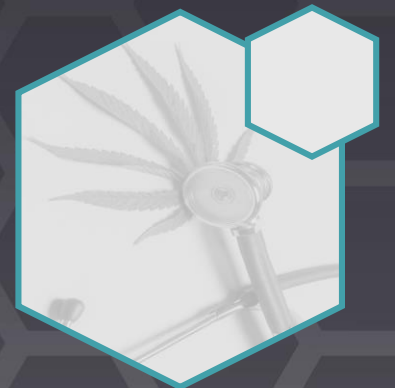
CBD SIDE EFFECTS

- Mild P450 inhibition
- Dry mouth
- Nausea
- Diarrhea
- Allergy to carrier oil



THC SIDE EFFECTS

- Dose dependent*
- Mild P450 inhibition
- Red conjunctiva
- Increased hunger
- Euphoria
- Impaired short term memory
- Sedation and impaired cognitive function
- Anxiety, paranoia, thought disorder
- Toxic psychosis, unmasking of schizophrenia



PAIN PRESCRIPTION

- Consent Form
- Rx: CBD > THC/CBD
- - CBD PO 10mg twice a day starting dose, increase by 10mg every week
- - THC PO 1mg to 20mg BD-QID reg or Q2H PRN, increase daily



PRODUCT FORM



PAIN RX CBD



- CBD PO 1 drop twice a day starting dose, increase by drop every week
- max 150mg BD
- 20 drops/ml

PAIN RX THC



- THC PO 1mg to 20mg BD-QID reg or Q2H PRN
- max 100mg per day
- 20 drops/ml
- Sativex spray THC 2.7mg/CBD 2.5mg

Day	Number of sprays		
	Morning sprays (between waking-up and 12 noon)	Evening sprays (between 4 pm and bedtime)	Total sprays each day
Day 1	0	1	1
Day 2	0	1	1
Day 3	0	2	2
Day 4	0	2	2
Day 5	1	2	3
Day 6	1	3	4
Day 7	1	4	5
Day 8	2	4	6
Day 9	2	5	7
Day 10	3	5	8
Day 11	3	6	9
Day 12	4	6	10
Day 13	4	7	11
Day 14	5	7	12

If you need more relief from your muscle stiffness after Day 10, continue to add one spray each day either in the morning or evening. For example, on Day 11 you would use nine sprays and on Day 12 you would use ten sprays.
You should not use more than 12 sprays in one day



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