

Cannabis for Medical



Purposes

The Israeli Experience 2019

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From illegal substance to promising medication



Medical use of Cannabis in ancient times

- 5000 years ago in Egyptian tombs
- 2700 years ago in India
- 2000 years ago in China for the treatment of pain



**Cannabis has been used
in medicine up to our
times**



MERCK'S 1899 MANUAL

OF THE

MATERIA MEDICA

TOGETHER WITH A SUMMARY OF THERAPEUTIC INDICATIONS AND A
CLASSIFICATION OF MEDICAMENTS

A READY-REFERENCE POCKET BOOK

FOR THE

PRACTICING PHYSICIAN

CONTAINING

NAMES AND CHIEF SYNONYMS, PHYSICAL FORM AND APPEARANCE, SOLUBILITIES, PERCENTAGE STRENGTHS AND PHYSIOLOGICAL EFFECTS, THERAPEUTIC USES, MODES OF ADMINISTRATION AND APPLICATION, REGULAR AND MAXIMUM DOSAGE, INCOMPATIBLES, ANTIDOTES, PRECAUTIONARY REQUIREMENTS, ETC., ETC., — OF THE

CHEMICALS AND DRUGS USUAL IN MODERN MEDICAL PRACTICE

Compiled from the Most Recent Authoritative Sources and Published by
MERCK & CO., NEW YORK

Merck's Manual of the Materia Medica First Edition: 1899

Prescribed Uses Of Cannabis Indica

Albuminuria
Ascites
Asthma
Bladder, Irritable
Bright's Disease, Acute
Bright's Disease, Chronic
Bronchitis, Chronic
Cholera Asintica
Chordee
Chorea
Climacteric Disorders
Corns
Coughs
Cystitis
Delerium
Delerium Tremens
Diarrhea
Dropsy
Dysmenorrhea
Dyspepsia
Dysuria
Epilepsy
Exophthalmos
Gastralgia
Gastric Ulcer
Gonorrhea
Headache
Hematuria
Hemicrania

Hiccough
Hydrophobia
Hysteria
Impotence
Inflammation
Influenza
Insomnia
Labor
Locomotor Ataxia
Mania
Melancholia
Mennorrhagia
Metrorrhagia
Migraine
Nephritis, Acute
Neuralgia
Opium Habit
Ovarian Neuralgia
Ovaritis
Pain
Paralysis Agitans
Paralysis and Paresis
Phthisis
Sea-Sickness
Tetanus
Tic Douloureux
Trismus
Uterine Cancer

Courtesy of The Cannabis Consultants

International - Single Convention on Narcotic Drugs 1961

Israel - The Dangerous Drug Ordinance [New Version] - 1973

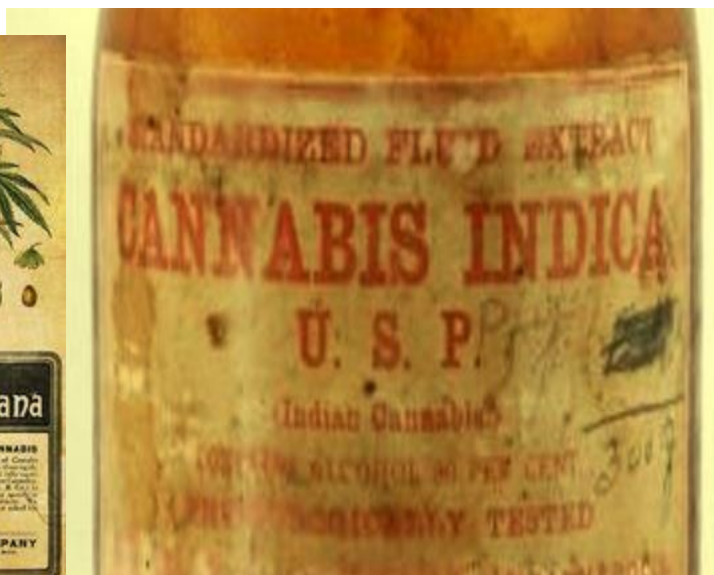
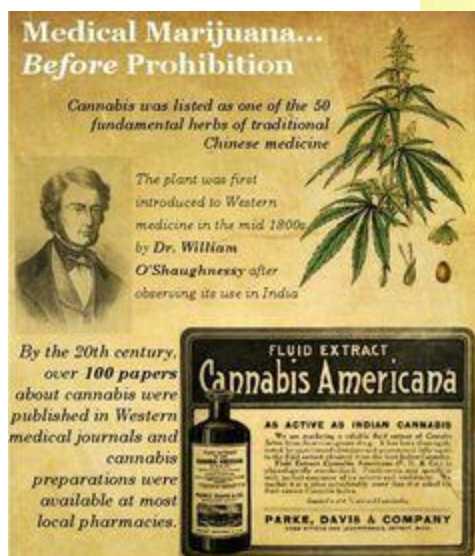


**The Cannabis plant and its products
are defined as narcotic substances
They are not registered as medicinal
products**

RECREATIONAL OR MEDICAL?



How can these two opposite points of view meet?



1850-1937 Cannabis in the USA Pharmacopeia

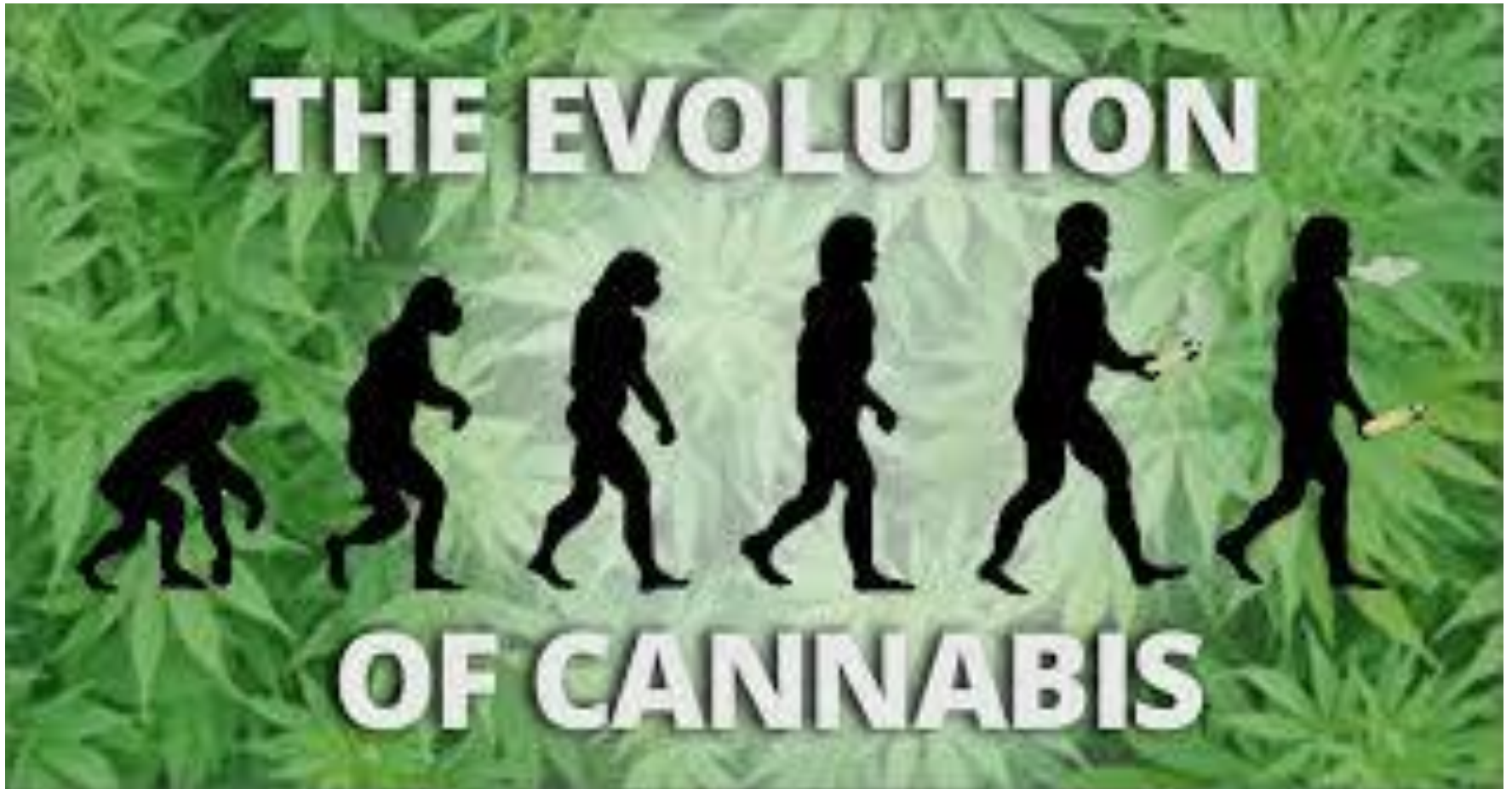
Main biases against Cannabis?

- EBM is missing
- Plant containing multiple substances
- “Entourage” effect (cannabinoids, flavonoids, terpenes)
- Recreational use
- Smoking (decarboxylation)

Extrinsic factors

- Political pressure
- Prejudice
- Media
- Abusers

Evolution of medical cannabis usage



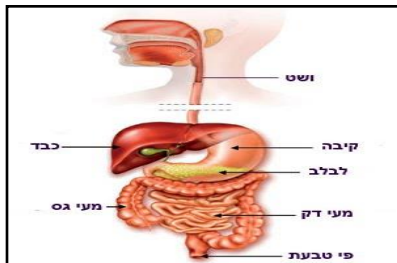
Administration



"Cannabis cookies"



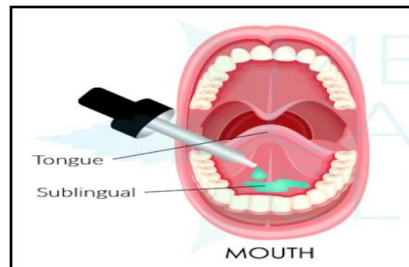
Oral



"Cannabis Extract"



Sublingual



"Cannabis inflorescence"



Inhalational



Future methods of administration

- Inhalers
- Suppository
- Cutaneous administration (ointments)
- Patches
- Food supplements
- Cosmetics
- Veterinary

Administration 2

- Smoking
- Vapor/inhalers
- Oil extractions
- Oral route –
cookies and tea
- Ointments
- Average dosage ~33 gram per month

Cannabis pills



Smokable cannabis



Baked goods

Skin cream



Forms of Medicinal Cannabis

Research for future indications

- Narcotic detoxification
- Head trauma
- Psychiatric disorders
- Psoriasis and Atopic dermatitis
- Tinnitus
- Autoimmune diseases
- Graft VS. Host disease

Process of approval (previous)

1. Request submitted by specialist
2. Data, including diagnosis and medication report, produced by family physician
3. Psychological\psychiatric opinion (if needed)
4. Approved licenses\prescriptions transferred to licensed distributors
5. Pre- usage instructors guidance

Current process

1. Computerized system
2. All data sent to an e-mail address
3. Licenses and prescriptions sent back via e-mail
4. Physicians requested to specify THC and CBD percentages and genetic lines

Renewal process

- Every 6-12 months, physician's follow up
- Dosage addition 10 Gr (max.)
- Demands for increasing dosages carefully examined
- Follow-up by specialists
- Transfer of authority to primary care physicians if possible

Indications



Approved indications

- **Preconditions** for treatment for approval: failure of other conventional treatments
- Recognized indications published by the Ministry Of Health (circular 106)
- **Appeals committee** reviews special cases
- **Experts committee** evaluates new and old indications

Oncology

- 40% of the patients
- Symptoms such as vomiting, chemo-associated pain, weight loss and nausea during and after treatment
- Primary and metastatic pain, after failure of conventional treatment
- End of life palliation
- Discontinuation of treatment ??
- Case report: Parliament member wife

Palliative treatment

- **Intractable pain** after failure of treatment at least one year
- **Neuropathic pain** (recognized as of organic source), and not relieved after a year's treatment in pain clinic
- **Oncology patients exempted from waiting**

CANNABIS OIL

#BlackStuff



A DROP A DAY KEEPS THE CANCER AT BAY

...AND DIABETES, AND SEIZURES,
CHRON'S, ASTHMA, PTSD, ADD
ARTHRITIS, CHRONIC PAIN, NEUROPATHY
MULTIPLE SCLEROSIS, GLAUCOMA
AND THE LIST GOES ON AND ON AND ON...

Neurology

- Patients diagnosed with **Multiple Sclerosis** suffering from spasticity
- **Parkinson's** patients suffering from chronic pain caused by rigidity
- **ADULT** Patients with **Tourette** syndrome suffering from severe functional impairments
- **Treatment is contraindicated in cases of active psychosis**
- Epilepsy

Neurology₍₂₎

- Uncontrolled **epilepsy** in children (> 1,000 patients) - case study: From 200 convulsions/day to < 20/day
- **Autistic spectrum** (> 1,000 patients) – officially not yet a recognized indication
- Case study: 8-years old



Neurology₍₃₎

- **ALS**
- **Fibromyalgia** - approved only in severe cases with recommendation from a psychiatrist+ rheumatologist/neurologist/pain specialist (> 900 patients) - case study: Pregnant woman with fibromyalgia



Gastroenterology

- Crohn's disease - severe cases that did not respond to all other treatments (>1,000 patients)
- Ulcerative colitis (150 patients)
- IBD - severe cases
- Appeal committee for special cases review

Psychiatry

- Unsolved dilemma - PTSD
- Following unsuccessful psychological and medical treatments
- Over 2,000 patients treated
- Late onset of PTSD
- **C/I: psychiatric comorbidities and history of addiction**

Opthalmology

- Previously approved but lately revoked by the specialists in glaucoma cases



Pain clinics

- Over- flooded
- A fertile ground for manipulative and violent patients/imposters



Controversial issues

- **Driving under influence**
- **Recreational** vs. **medical** usage
1,000,000 vs. **38,000**



Controversial issues

- **Place of Treatment**



Pregnancy and Lactation

- No research for obvious reasons
- Cognitive impairment children
- The Woodstock experience (1969)



Treatment during hospitalization



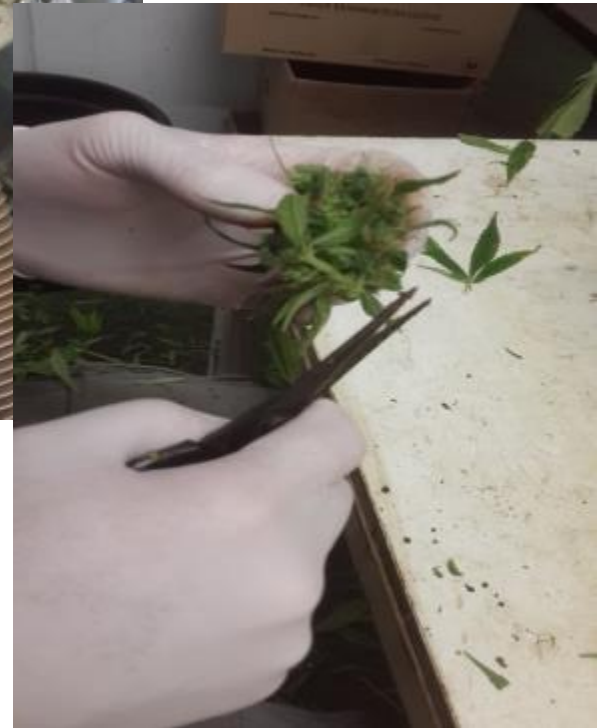
From ILLEGAL substance to MEDICATION

- **Research** to establish recognized indications
- **Evaluation** of efficacy and adverse events
- Start up projects – metered dose vaporizers
- Production of GMP approved medications
- Distribution via pharmacies
- Structured patient education process (e.g. – efficient material consumption)

Cultivation farm complying with security standards



Picking



Manufacturing



Extraction



Package of flowering tops



Package of rolls



Storage and distribution

Specifications of ingredients



Dispensation

Distribution of Cannabis products in pharmacies



ISRAEL



ISRAEL



- Population: **9,000,000**
- 80,000 approved licenses
- 50,000 active patients (last 3 months)
- Daily influx of 200-500 new requests
- **Media and political promotion of treatment**
- New official governmental program launched
- Over 350 Research proposal approved
- 60 clinical studies in process

Cannabis and old age



Thank you for your kind attention



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