

# FROM OPIOID REPLACEMENT TO MANAGING CHRONIC PAIN

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## Presenters:

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# DISCLOSURES

Shayne Lynn is Executive Director of Champlain Valley Dispensary and Southern Vermont Wellness

Bridget Conry is Operations Director of Champlain Valley Dispensary and Southern Vermont Wellness





# WHAT IS CBD?

CBD or Cannabidiol is one of the chemical compounds found in both Cannabis and Hemp

- Hemp is a variety of the plant species Cannabis Sativa
- Non-intoxicating
- Holds therapeutic properties
- Can work synergistically with THC
- Considered Schedule 1- high potential for abuse and no accepted medical treatment use in the US
- Currently can be purchased without a medical card if it is hemp-derived and contains less than 0.3% THC (Farm Bill 2014)
- VT authorized hemp growing since 2013 & requires registration with the state



# CONDITIONS

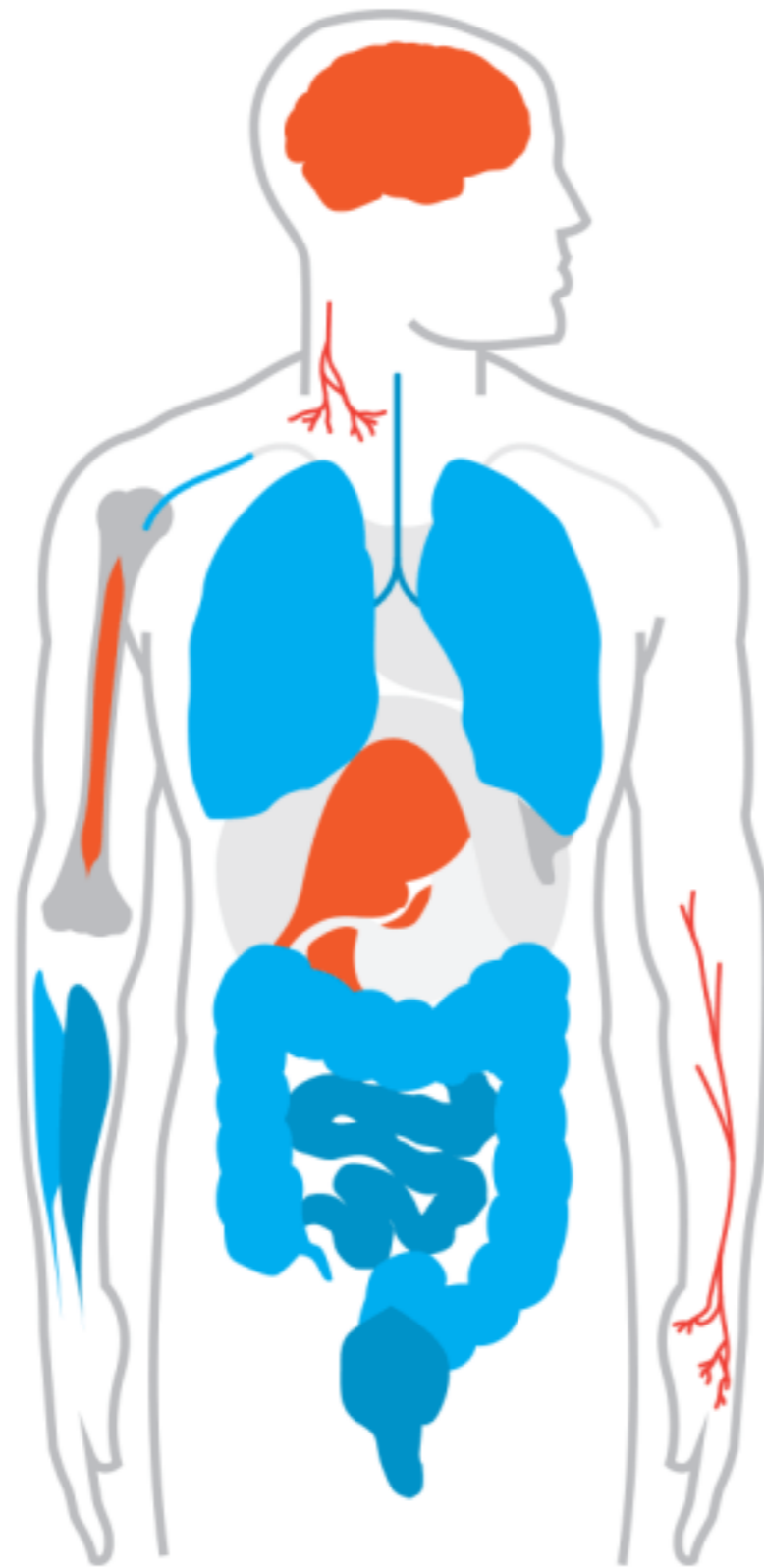
List of all conditions that CBD may help, compiled by Project CBD:

Acne  
ADD and ADHD  
Addiction  
AIDS  
ALS  
Alzheimer's Disease  
Anorexia  
Antibiotic Resistance  
Anxiety  
Atherosclerosis  
Arthritis  
Asthma  
Autism  
Bipolar  
Cancer  
Digestive Issues  
Depression

Diabetes  
[Endocrine Disorders](#)  
[Epilepsy and Seizures](#)  
Fibromyalgia  
Glaucoma  
[Heart Disease](#)  
[Huntington's Disease](#)  
[Inflammation](#)  
[Irritable Bowel Syndrome](#)  
[Kidney Disease](#)  
[Liver Disease](#)  
[Metabolic Syndrome](#)  
[Migraine](#)  
[Mood Disorders](#)  
[Motion Sickness](#)  
Multiple Sclerosis (MS)  
Nausea

[Neurodegeneration](#)  
[Chronic Pain](#)  
[Obesity](#)  
[OCD](#)  
[Osteoporosis/Bone Health](#)  
[Parkinson's Disease](#)  
[Prion/Mad Cow disease](#)  
[PTSD](#)  
[Rheumatism](#)  
[Schizophrenia](#)  
[Sickle Cell Anemia](#)  
[Skin Conditions](#)  
[Sleep Disorders](#)  
Spinal Cord Injury  
Stress  
Stroke and TBI





#### CB1 Present:

- Central nervous system (brain & spine)
- Lungs
- Vascular system
- Muscles
- Gastrointestinal tract
- Reproductive organs

#### CB2 Present:

- Spleen
- Bones
- Skin

#### CB1 + CB2 Present:

- Immune system
- Liver
- Bone Marrow
- Pancreas

# MEDICAL PROPERTIES OF CANNABINOIDS

*Antiemetic*- Reduces nausea and vomiting

*Anticonvulsant* – Suppresses seizure activity

*Antipsychotic* – Combats psychosis disorders

*Anxiolytic/Anti-depressant* – Combats anxiety and depression

*Anti-tumoral/Anti-cancer* – Combats tumor and cancer cells

*Antioxidant* – Combats free-radical damage

*Anti-inflammatory* – Combats inflammatory disorders

British Journal of Clinical Pharmacology, 2013

Fernández-Ruiz J1, Sagredo O, Pazos MR, García C, Pertwee R, Mechoulam R, Martínez-Orgado J.  
Cannabidiol for neurodegenerative disorders: important new clinical applications for this  
phytocannabinoid?, 2013 Feb. Br J Clin Pharmacol. 2013







# SAFETY & DRUG INTERACTIONS

Department of Health and Human Services states “no signs of toxicity or serious side effects have been observed following chronic administration of cannabidiol to healthy volunteers – even in acute doses of 700mg/day.”

- CBD is non-toxic with no known lethal overdoses
- At sufficient dosages, CBD will temporarily deactivate cytochrome P450 enzymes
- Cytochrome P450 enzymes metabolize more than 60% of pharmaceutical medications
- Check with a health care provider about drug interaction

# CHRONIC PAIN



- “Use of marijuana for chronic pain, neuropathic pain, and spasticity due to multiple sclerosis is supported by high quality evidence.” - Harvard-led review, 2015-16
- Conclusive or substantial evidence found that patients who were treated with cannabinoids were more likely to experience a significant reduction in chronic pain symptoms. - National Academy of Science, Engineering and Medicine, January 2017
- A total of 1,248 (46%) of respondents reported using cannabinoids as a substitute for prescription drugs. - Journal of Pain Research, February 2017



# CBD & THE OPIOID



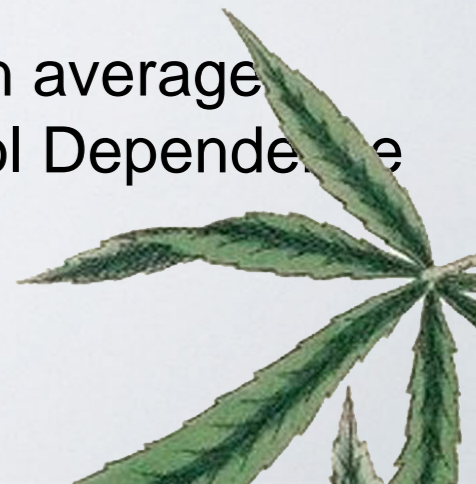
Prepared by Adrienne Wilson-Poe, PhD, Washington University in St. Louis, School of Medicine - Department of Anesthesiology  
Distributed by Congressman Earl Blumenauer

- \* Cannabis reduces opioid overdose mortality
- \* Cannabis reduces opioid consumption
- \* Cannabis can prevent dose escalation and the development of opioid tolerance
- \* Cannabis, alone or in combination with opioids, could be a first-line analgesic
- \* Cannabis may be a viable tool in medication-assisted relapse prevention
- \* CBD alleviates the anxiety that leads to drug craving
  - In human studies, CBD administration is sufficient to prevent heroin craving for at least seven days

Specific study citations can be found on [cvdvt.org](http://cvdvt.org)

# DECREASE IN OPIOID DEATHS, PRESCRIPTION PAINKILLERS & HOSPITALIZATIONS

- States with medical cannabis had lower opioid-related mortality rates – a decrease of approximately 25% - JAMA Internal Medicine, 2014
- Doctors in medical marijuana states prescribed 1800 fewer painkiller prescriptions for patients a year - Health Affairs journal, 2016
- Hospitalization rates for opioid painkiller dependence and abuse dropped on average 23% after marijuana was permitted for medical purposes - Drug and Alcohol Dependence journal, April 2017







# AN SOCIETY OF ADDICTION M

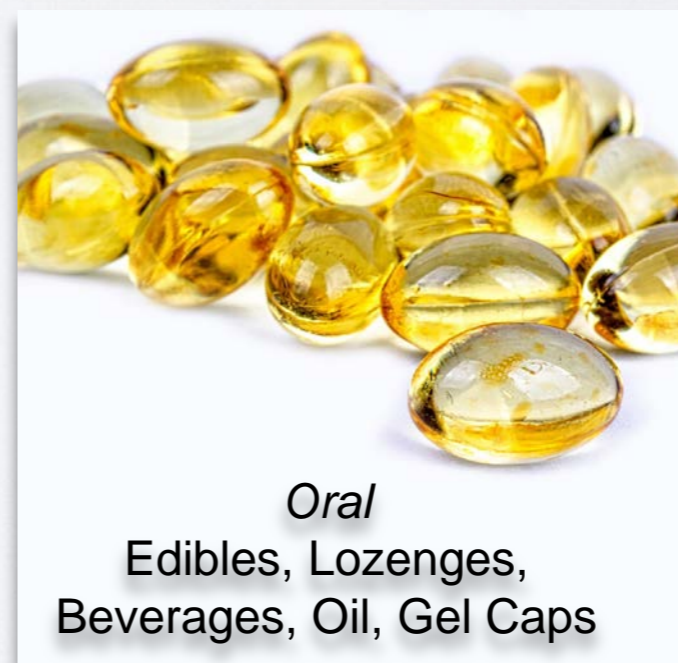
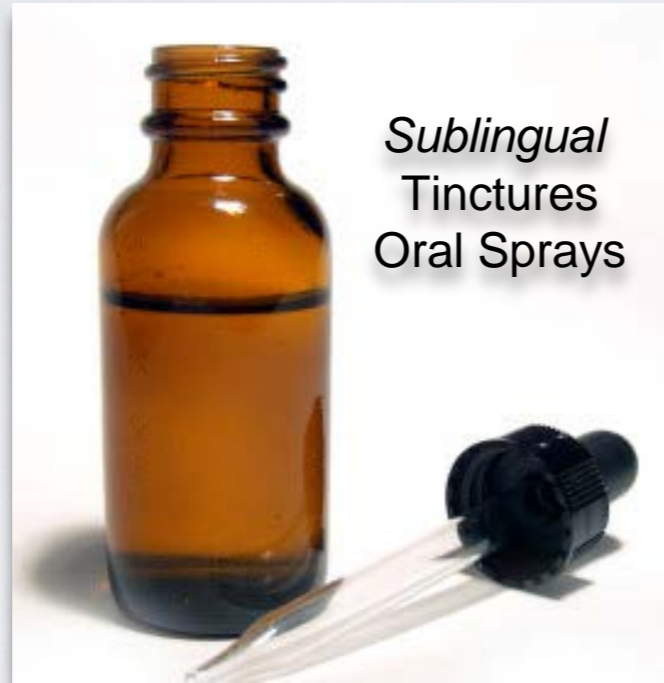
## *2016 Facts and Figures:*

- Drug overdose is the leading cause of accidental death in the US, with 52404 lethal drug overdoses in 2015
- Opioid addiction is driving this epidemic, with 20,101 overdose deaths related to prescription pain relievers, and 12,990 deaths related to heroin in 2015

The U.S. DEA fact sheet for marijuana reports no deaths from marijuana overdose have ever been reported

# PRODUCTS

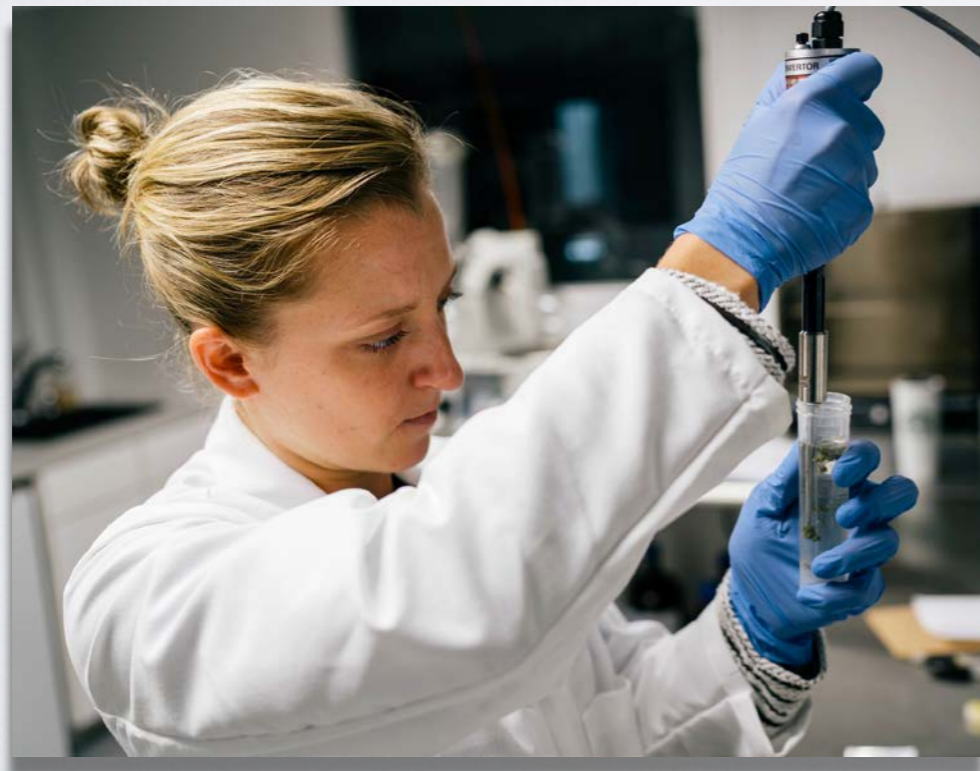
Onset and duration of effects vary depending on the *method of administration* and the *individual*





# LAB TESTED

- CVD/Ceres has it's own in-house QC laboratory
- We have a UHPLC, Molecular Plant Sex and Pathogen testing instrumentation, moisture balance
- All Cannabinoid products including CBD are formulated and tested for potency before distribution



# DOSING

- Personalized medicine, no single ratio or product that's right for everyone
- Experimentation is the best method
- Get to know your products and administer consistent, measurable doses
- No known adverse side effects
- Excessive amounts could be less effective than a moderate dose





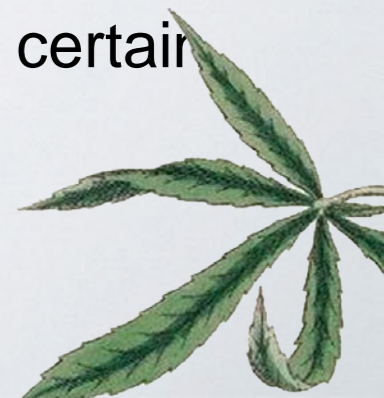
# CBD IN THE NEWS

## *Charlotte Figi:*

- Child who began having seizures at three months from the intractable Dravet Syndrome (2006)
- Family eventually began treating daughter with a high CBD/low-THC strain of cannabis
- Developed by the Stanley Brothers in Colorado and now a cannabis strain and product line known as Charlotte's Web
- Story is covered in detail in Sanjay Gupta's (CNN Chief Medical Officer) three-part documentary, "Weed" (2013-2015)

## *GW Pharmaceuticals*

- British pharmaceutical company developing primarily CBD-based products for muscle spasticity in MS (Sativex), and seizures due to treatment-resistant epilepsy syndromes including Dravet syndrome, Lennox-Gastaut syndrome (LGS), Tuberous Sclerosis Complex (TSC) and Infantile Spasms (IS) (Epidiolex)
- None are approved for the U.S. Market - though they are in Phase 3 trials for certain of the seizure disorder medications with the FDA (2017)





# SHORT SELECTED HISTORY OF CANNABINOIDS

*8000 BCE* – Carbon tests date the use of wild hemp

*2737 BCE* – First recorded use of cannabis as medicine by Emperor Shen Neng of China

*200 BCE* – Medical cannabis used in ancient Greece as a remedy for earache, edema and inflammation

*1840 CE* – Queen Victoria reportedly used a hemp tincture for menstrual cramps

*1850 CE* – Marijuana added to the US Pharmacopeia for a long list of ailments

*1889 CE* – Article in The Lancet outlines use of cannabis for opium withdrawal

*1970 CE* – Controlled Substances Act passed - cannabis was ultimately added as Schedule 1

*1996 CE* – California was first state to create a medical cannabis program

*2004 CE* – Vermont legalizes medical cannabis







SOUTHERN VERMONT  
**WELLNESS**

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CHAMPLAIN VALLEY  
**DISPENSARY**

**cvdvt.org**

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