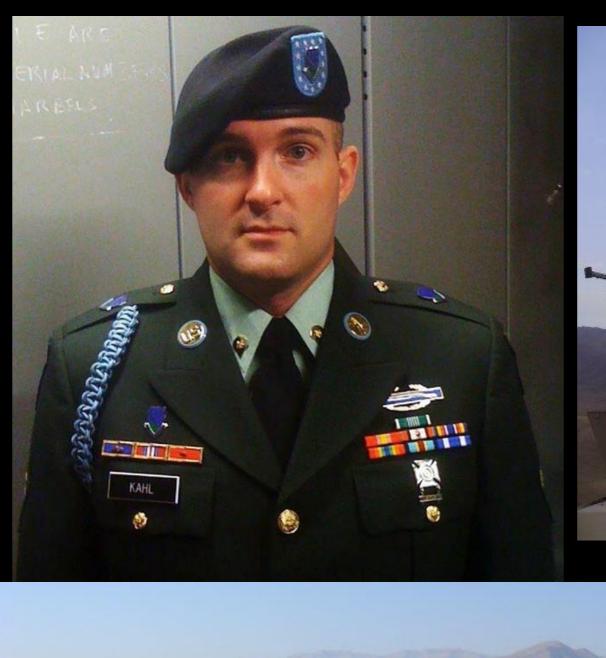


Live Free



OR











# TBI (Traumatic Brain Iniury)

- blasts
- head wounds
- concussion
- post-concussive syndromes
- ischemia
- cognitive deficits reading, memory, comprehension



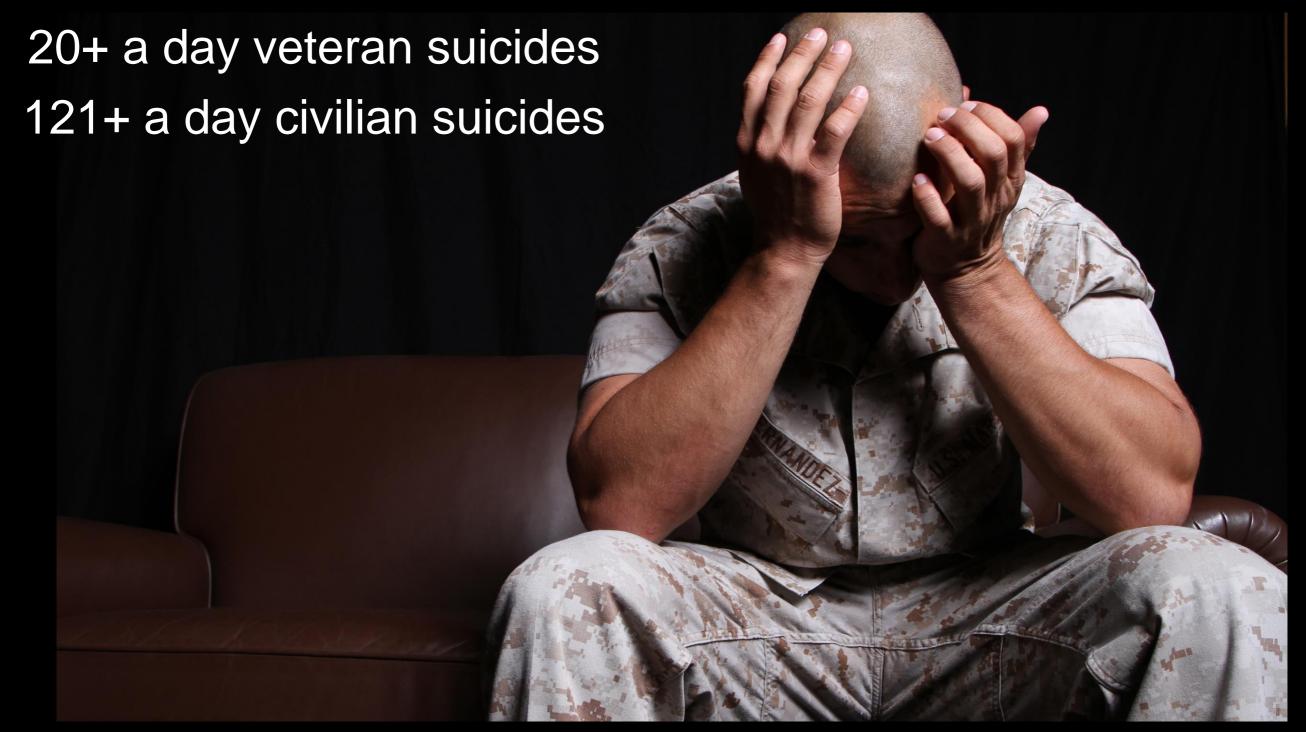
#### Nerve Damage (Neuropathy)

- Spinal Injuries
- Amputations (phantom limb)
- Gunshot wounds
- Shrapnel



# PTSD

Post Traumatic Stress
Disorder

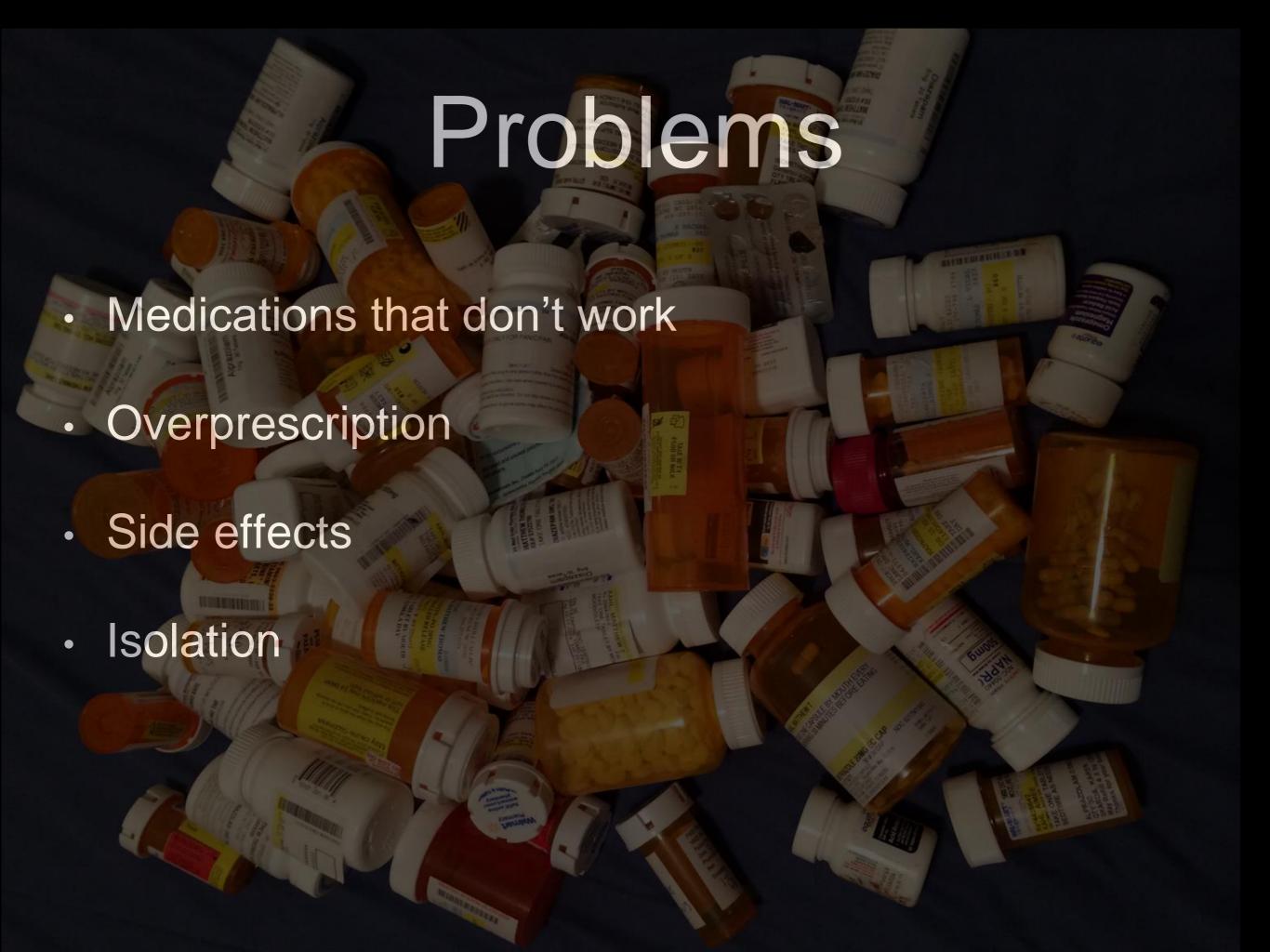


#### Treatments

- Opiate narcotic analgesics
- Antidepressants (SSRIs, SNRIs)
- Antipsychotics
- "Mood stabilizers"
- Neuroleptics
- Benzodiazepines
- Stimulants



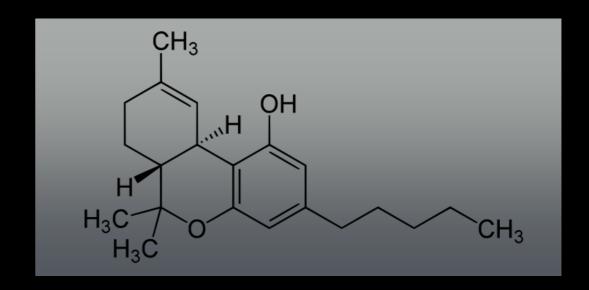
morphine, fentanyl, oxymorphone, hydromorphone, oxycodone, hydrocodone, tramadol, buprenorphine, propoxyphene, meperidine, codeine, loperamide, docusate, sennosides, zolmitriptan, sumatriptan, rizatriptan, butalbital, phenobarbital, isomethiacin, dichloralphenazone, valproate, topiramate, propranolol, amitryptiline, imipramine, verapamil, gabapentin, pregabalin, phenytoin, zonisamide, lamotrigine, fluoxetine, paroxetine, escitalopram, sertraline, duloxetine, venlafaxine, bupropion, buspirone, trazodone, quetiapine, ziprasidone, prednisone, methylprednisolone, dexamethasone, triamcinolone, methocarbamol, carisoprodol, cyclobenzaprine, baclofen, metaxolone, diazepam, alprazolam, clonazepam, midazolam, ondansetron, mirtazapine, promethazine, hydroxyzine, meclizine, atomoxetine, amphetamine, zolpidem, zopiclone, eszopiclone, benzonatate, diclofenac, indomethacin, meloxicam, antipyrine, tolmetin, mefloquine, naproxen, omeprazole, ranitidine, famotidine, cimetidine, lovaza, benzocaine, articaine, and lidocaine patches.





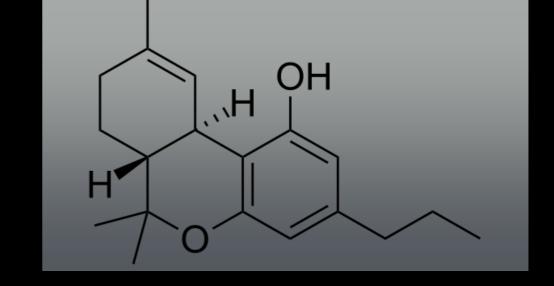
### Δ9 Tetrahydrocannabinol

- Main psychoactive ingredient in cannabis
- CB1 Receptor agonist
- Needed for efficacy in mental health issues and TBI
- Emotion, mood, thinking
- Side effect: Anxiety



#### THCV (Tetrahydrocannabivarin)

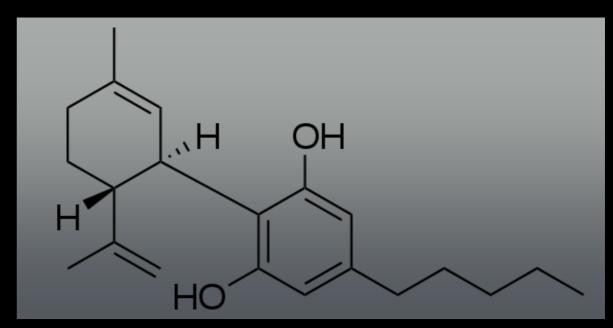
- Increases psychoactivity of THC
- Shown to be useful in reversing cognitive deficits caused by TBI



- Analgesic
- East African landraces

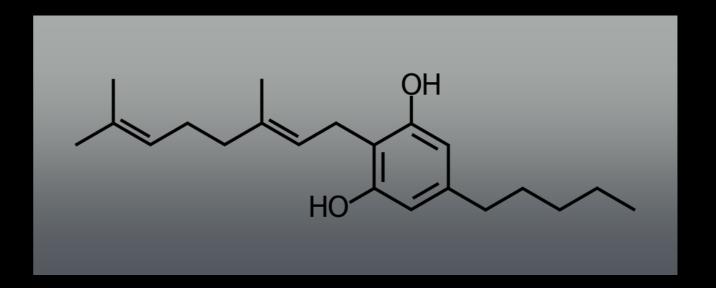
# Cannabidiol (CBD)

- "Non-psychoactive" CB2 Receptor agonist
- Anticonvulsant for TBI-induced seizures
- Antidepressant
- Anxiolytic
- Antipsychotic fewer side effects than typical
- Potent anti-inflammatory
- Powerful anti-ischemic for TBI
- Effective in pain, but higher doses are needed
- Bone stimulant



# Cannabigerol (CBG)

- "Non-psychoactive"
- Stimulates neurogenesis
- Shown to be beneficial in TBI
- Relieves pain
- Bone stimulant



## CANNABIS



is NOT a magic bullet. It is a synergistic shotgun.

#### Isolation and Community

- Broaden your idea of what medicine is
- Diet, Meditation, Writing, Art, Yoga, Exercise
- Canine, Equine, Farming therapies
- Plant medicines; Cannabis, Ayahuasca
- Whatever breaks the isolation of the veteran may save his life that day



# Clinical efficacy studies



 Dr. Sue Sisley (University of Arizona)

# Fighting against barriers to access and research: COLORADO



- 2013 moved to Colorado; started giving away free cannabis to veterans.
- **December 16, 2014** CDPHE hearing allocating \$11M for marijuana research, \$9.1M from marijuana tax revenues directly appropriated for 8 studies on clinical efficacy; **Dr. Sue Sisley**, \$2.1M for studying cannabis in combat vets with PTSD
- Thursday, July 15, 2015 BoH denied PTSD as a qualifying condition for MED MMJ card
- May 2017 Passage of SB17-017 "Medical Marijuana for Stress Disorders"
- At 3:56pm June 5, 2017 Governor Hickenlooper signed SB17-017, "Medical Marijuana for Stress Disorders"



#### Rights



Veterans for Natural Rights formed from a small group of veterans all across the country dedicated to insuring individuals' natural rights, such as the right to manage one's own healthcare and cultivate sacred plants for healing.

We formed to insure the freedoms we served to protect are afforded to our brothers and sisters all across the nation.

Not just veterans, but ALL people.



"Freedom, equally, for everyone."

We build communities where veterans can heal, find their voice, and change the world.



Veterans for Natural Rights

