Alcohol VS. Cannabis

Alcohol use is celebrated in our culture, while cannabis consumers are criminalized for choosing a safer alternative. Not only is this mindset cruel & unjust, but it also runs contrary to the known science regarding cannabis.

	Alcohol	Cannabis
$\textbf{Possible Effects} *_{1}$	"Impaired memory, slurred speech, drunken behavior, slow-onset vitamin deficiency, organ damage"	"Euphoria, relaxed inhibitions, increased appetite, disorientation"
Deaths	29,000 "a year, not including accidents or homicides. 3rd leading cause of lifestyle-related deaths"2	O "No death from overdose of marijuana has been reported"*3
Addiction 4	15%	9%
Withdrawal/ Dependence *1	Trembling, anxiety, insomnia, vitamin deficiency, confusion, hallucination, convulsions" Possible Death in Serious Cases.	"Occasional reports of insomnia, hyperactivity, decreased appetite"
$\mathbf{Overdose}_{\ ^{*_{1}}}$	"Vomiting, respiratory depression, loss of consciousness, possible death"	"Fatigue, paranoia, possible psychosis"
Societal Harms	"40% of all murders and Violent Crime 37% of all rapes and sexual assaults 2/3rds [of all] domestic violence"*5	"Not associated with violent or non-violent injuries requiring hospitalization." ₆

- 1U.S. Department of Justice |DEA "Drugs Of Abuse, Uses & Effects" (2005) http://www.southwesterncc.edu/sites/default/files/Drugs_of_Abuse-Uses_and_Effects.pdf 2 National Vital Statistics Reports, Vol. 61, No. 4, p11-20, (2013) http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf Also Available at: http://www.cdc.gov/nchs/fastats/alcohol.htm
- 3 U.S. Department of Justice |DEA "Drugs of Abuse" p73 (2015) http://www.justice.gov/dea/docs/drugs_of_abuse_2015.pdf
- 4 Institute of Medicine Joy JE, Watson SJ, Benson JA, eds. Marijuana and medicine: Assessing the science base. Institute of Medicine at the National Academy of Science. Washington DC: National Academy Press p 95 (1999).
- 5 U.S. Department of Justice, Bureau of Justice Statistics, National Crime Victimization Survey 2002 U.S. Department of Justice | Bureau of Justice "Alcohol and Crime" (1998) http://www.bjs.gov/content/pub/pdf/ac.pdf
- 6 Dept. of Family Medicine, Blondell, R.D., et al., "Toxicology Screening Results: Injury Associations Among Hospitalized Trauma Patients" Journal of Trauma 58 p561-70 (2005

Cannabis & Lungs

American Cancer Society (Updated 2015)

"Cannabinoid receptors have been found on cancer cells, and cannabinoids have shown evidence of antitumoral effects in vivo and in vitro in preclinical studies in glioma, hepatocellular carcinoma, prostate cancer, *lung cancer*, cholangiocarcinoma, breast cancer, and melanoma... "

"Marijuana smoking can cause injury to the large airways and an increase in the symptoms of chronic bronchitis. However, these effects subside after discontinuation of use, and there is no clear link between smoking marijuana and the development of chronic obstructive pulmonary disease...There are no published studies of oral marijuana ingestion and cancer risk, nor are there any studies of vaporized marijuana and cancer risk.".

> Kramer, J. L. Medical marijuana for cancer. (2015), CA: A Cancer Journal for Clinicians, 65: 109–122. http://www.ncbi.nlm.nih.gov/pubmed/25503438

A 2014 University of Delaware study, funded by the Delaware Department of Health and Human Services, shows teen use of nicotine is on a steady decline in Delaware. Not one teen had to be arrested or subjected to the criminal justice system for that to occur, and no lives were permanently destroyed with a damaging criminal record. Education, regulation, & robust "We Card" programs are proven to reduced use.

Center for Drug & Health Studies, University of Delaware. (2014). Delaware School Survey: Alcohol, Tobacco, and Other Drugs Among Delaware Teens Funded by DHSS/DSDMH https://www.cdhs.udel.edu/content -sub-site/Documents/DDATA/2014%20DSS%20State%20Report.pdf

Harvard Study

Delta 9 Tetrahydrocannabinol Inhibits Epithelia **Growth Factor-induced Lung Cancer Cell** (Harvard 2008)

"The active ingredient in marijuana cuts tumor growth in common lung cancer in half and significantly reduces the ability of the cancer to spread."

Preet, A., Groopman, J., et al. (2008). 'Delta 9 Tetrahydrocannabinol Inhibits Epithelia Growth Factor-induced Lung Cancer Cell Migration In Vitro As Well As Its Growth and Metasais In Vivo'. Oncogene 27, 339-346 Harvard Medical School

Marijuana Use and Cancer Incidence (California, United States). Pubmed.Gov

"Compared with nonusers/experimenters (lifetime use of less than seven times), ever- and current use of marijuana were not associated with increased risk of cancer of all sites in analyses adjusted for sociodemographic factors, cigarette smoking, and alcohol use. Marijuana use also was not associated with tobacco-related cancers or with cancer of the following sites: colorectal, lung, melanoma, prostate, breast, cervix."

> Sidney S, Quesenberry CP Jr, et.al. (1997) Cancer Causes Control. Sep;8(5):722-8. http://www.ncbi.nlm.nih.gov/pubmed/9328194

There are alternative methods of consuming cannabis that do not include smoking it, including:

- Vaporization, Tinctures,
- Extracts,
- Oils,
- Edibles,
- **Topical Salves**, and more.

Annual Deaths "5 million"

"Kills 1/2 It's Users"

0...Ever

"No Death From Overdose Of Marijuana Has been Reported" Addiction Rate 3

32%

9%

- 1 World Health Organization Fact Sheet Tobacco, (2015) http://www.who.int/mediacentre/factsheets/fs339/
- 2 U.S. Department of Justice | DEA "Drugs of Abuse" p73 (2015) http://www.justice.gov/dea/docs/
- 3 Institute of Medicine Joy JE, Watson SJ, Benson JA, eds. Marijuana and medicine: Assessing the science base. Institute of Medicine at the National Academy of Science. Washington DC: National Academy Press p 95