

FREQUENT CANNABIS USERS HAVE REDUCED ODDS FOR NON ALCOHOLIC FATTY LIVER DISEASE

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Background: Cannabis is the world's most widely used illicit drug. Though marijuana use has been revealed to impact the prevalence of diabetes, hypertension, and obesity - established risk factors for Non-Alcoholic Fatty Liver (NAFLD), its relationship with NAFLD remains unknown.

Aim: We sought to investigate the association between cannabis use and NAFLD.

Methods: From the National Health and Nutrition Examination Survey (NHANES III, 1988–1994) survey data, we retrieved data from individuals aged 20 to 60 years who had an abdominal ultrasound for evaluation for hepatic steatosis (n=10,682). We then identified three cannabis use groups: never used before (never users, 62.22%), no use in the past month (infrequent users, 29.76%), and multiple uses in the past month (frequent users, 7.91%). After eliminating gender-specific severe alcohol consumption to recognize individuals with NAFLD (18.12%), we controlled for age, gender, race, BMI, DM to estimate the adjusted odds ratio (AOR) for having NAFLD on the frequency of cannabis use (SAS 9.4).

Results: When compared to never users of marijuana, unlike infrequent users who had no difference in the odds of NAFLD, frequent cannabis users had a 52% reduced odds for the disease (AOR: 0.95[0.76-1.18] & 0.48[0.35-0.66]). Frequent cannabis users also had a 52% lower odds of NAFLD when compared to infrequent users (AOR: 0.51[0.34-0.75]). Compared to Non-Hispanic Whites, Non-Hispanic Blacks and Hispanics respectively had 35% reduced and 58% increased odds of NAFLD (0.66[0.52-0.83] & 1.58[1.26-1.99]). Females had a 31% lower odds for NAFLD (0.69[0.58-0.82]). Every percentage unit rise in glycated hemoglobin was associated with a 27% increased odds for NAFLD (1.27[1.17-1.38])

Conclusion: Our findings suggest that frequent cannabis use is associated with a lower odds of NAFLD. More powerful longitudinal studies are required to confirm these novel observations and to provide deeper insight into the modulation of NAFLD by cannabis use.

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