

PubMed

**Format:** Abstract**Full text links**

Addiction. 2011 Dec;106(12):2195-203. doi: 10.1111/j.1360-0443.2011.03574.x. Epub 2011 Oct 17.



## Cannabis use and cognitive function: 8-year trajectory in a young adult cohort.

Tait RJ<sup>1</sup>, Mackinnon A, Christensen H.

### Author information

### Abstract

**AIM:** To evaluate the relationship between change in cannabis use and changed cognitive performance over 8 years.

**DESIGN:** We used survey methodology with a cohort design.

**SETTING AND PARTICIPANTS:** An Australian community sample aged 20-24 years at baseline.

**MEASURES:** We assessed cognitive performance with the California Verbal Learning Test (CVLT) (immediate and delayed), Spot-the-Word test (STW), Symbol Digit Modality test (SDMT) and Digit Backwards (DB). Groups of cannabis users were defined from self-reports across three waves as: 'never' (n= 420) 'remain light' (n= 71), 'former light' (n= 231), 'remain heavy' (n= 60), 'former heavy' (n= 60) and 'always former' (since start of study) (n= 657). Planned contrasts within mixed model repeated-measures analysis of variance was used for longitudinal analysis with an adjusted alpha of 0.01.

**FINDINGS:** Data were obtained from 2404 participants with 1978 (82.3%) completing wave 3. At baseline there were significant differences between cannabis groups on CVLT (immediate and delayed) and SDMT. However, after controlling for education, gender, gender × group and gender × wave, there were no significant between-group differences and only CVLT immediate recall reached adjusted statistically significant longitudinal change associated with changed cannabis use (group × wave P= 0.007). Specifically, former heavy users improved their performance relative to remaining heavy users (estimated marginal means: former heavy 6.1-7.5: remain heavy 6.4-6.6).

**CONCLUSIONS:** Cessation of cannabis use appears to be associated with an improvement in capacity for recall of information that has just been learned. No other

measures of cognitive performance were related to cannabis after controlling for confounds.

© 2011 The Authors, *Addiction* © 2011 Society for the Study of Addiction.

PMID: 21749524 DOI: [10.1111/j.1360-0443.2011.03574.x](https://doi.org/10.1111/j.1360-0443.2011.03574.x)

[Indexed for MEDLINE]



---

**Publication type, MeSH terms**

---

**LinkOut - more resources**