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[> Cannabis Cannabinoid Res.](#) 2021 Sep 27. doi: 10.1089/can.2021.0058. Online ahead of print.

## Survey of Patients Employing Cannabigerol-Predominant Cannabis Preparations: Perceived Medical Effects, Adverse Events, and Withdrawal Symptoms

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### Abstract

**Introduction:** Cannabigerol (CBG), and its precursor before decarboxylation, cannabigerolic acid is sometimes labeled the "mother of all cannabinoids." The purpose of the present study was to investigate reasons for use and self-reported therapeutic effects in CBG-predominant cannabis users. Usage patterns and adverse effects, including withdrawal symptoms were also explored.

**Methods:** Cannabidiol-predominant cannabis users were recruited online to complete an online survey assessing CBG use patterns, conditions treated with CBG-predominant cannabis (containing >50% CBG), perceived efficacy, associated adverse events, and withdrawal symptoms. One hundred twenty-seven eligible participants (U.S. residents ages 21+ who reported using CBG-predominant cannabis in the past 6 months) completed the survey. **Results:** Most of the samples ( $n=65$ ; 51.2%) reported use of CBG-predominant products solely for medical purposes ( $n=46$ ; 36.2% reported use for medical and recreational purposes;  $n=8$ ; 6.3% reported recreational use only, and  $n=8$  were missing). The most common conditions the complete sample reported using CBG to treat were anxiety (51.2%), chronic pain (40.9%), depression (33.1%), and insomnia/disturbed sleep (30.7%). Efficacy was highly rated, with the majority reporting their conditions were "very much improved" or "much improved" by CBG. Furthermore, 73.9% claimed superiority of CBG-predominant cannabis over conventional medicines for chronic pain, 80% for depression, 73% for insomnia, and 78.3% for anxiety. Forty-four percent of CBG-predominant cannabis users reported no adverse events, with 16.5% noting dry mouth, 15% sleepiness, 11.8% increased appetite, and 8.7% dry eyes. Around 84.3% reported no withdrawal symptoms, with sleep difficulties representing the most frequently endorsed withdrawal symptom (endorsed by two respondents). **Conclusions:** This is the first patient survey of CBG-predominant cannabis use to date, and the first to document self-reported efficacy of CBG-predominant products, particularly for anxiety, chronic pain, depression, and insomnia. Most respondents reported greater efficacy of CBG-predominant cannabis over conventional pharmacotherapy, with a benign adverse event profile and negligible withdrawal symptoms. This study establishes that humans are employing CBG and suggests that CBG-predominant cannabis-based medicines should be studied

in randomized controlled trials.

**Keywords:** anxiety; cancer; cannabigerol; pain; phytocannabinoids; psychopharmacology.

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