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Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial

[T. D. Brisbois](#)¹, [I. H. de Kock](#)², [S. M. Watanabe](#)², [M. Mirhosseini](#)², [D. C. Lamoureux](#)², [M. Chasen](#)³, [N. MacDonald](#)⁴, [V. E. Baracos](#)² and [W. V. Wismer](#)^{1,*}

[± Author Affiliations](#)

- ¹ *Department of Agricultural, Food & Nutritional Science*
 - ² *Division of Palliative Care Medicine, Department of Oncology, University of Alberta, Edmonton*
 - ³ *Division of Palliative Care Medicine, Department of Oncology, University of Ottawa, Ottawa*
 - ⁴ *Cancer Nutrition and Rehabilitation Program, Department of Oncology, McGill University, Montreal, Canada*
- *Correspondence to: Dr. W. Wismer, Department of Agricultural, Food and Nutritional Science, 4-10 Ag/For Centre, University of Alberta, Edmonton, Alberta, Canada T6G 2P5. Tel: +780-492-2923; Fax: +780-492-4265; E-mail: wendy.wismer@ualberta.ca*
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Abstract

Background: A pilot study ([NCT00316563](#)) to determine if delta-9-tetrahydrocannabinol (THC) can improve taste and smell (chemosensory) perception as well as appetite, caloric intake, and quality of life (QOL) for cancer patients with chemosensory alterations.

Patients and methods: Adult advanced cancer patients, with poor appetite and chemosensory alterations, were recruited from two sites and randomized in a double-blinded manner to receive either THC (2.5 mg, Marinol[®]; Solvay Pharma Inc., $n = 24$) or placebo oral capsules ($n = 22$) twice daily for 18 days. Twenty-one patients completed the trial. At baseline and posttreatment, patients completed a panel of patient-reported outcomes: Taste and Smell Survey, 3-day food record, appetite and macronutrient preference assessments, QOL questionnaire, and an interview.

Results: THC and placebo groups were comparable at baseline. Compared with placebo, THC-treated patients reported improved ($P = 0.026$) and enhanced ($P < 0.001$) chemosensory perception and food 'tasted better' ($P = 0.04$). Premeal appetite ($P = 0.05$) and proportion of calories consumed as protein increased compared with placebo ($P = 0.008$). THC-treated patients reported increased quality of sleep ($P = 0.025$) and relaxation ($P = 0.045$). QOL scores and total caloric intake were improved in both THC and placebo groups.

Conclusions: THC may be useful in the palliation of chemosensory alterations and to improve food enjoyment for cancer patients.

Key words [anorexia/drug therapy](#) [appetite/drug effects](#), [neoplasms/complications](#) [taste/olfaction disorders/diagnosis](#) [tetrahydrocannabinol/therapeutic use](#)

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