

## **Inhaled Peppermint Aromatherapy for Treatment of Postoperative Nausea and Vomiting: A Complement to Traditional Pharmacological Treatments**

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**Introduction:** Postoperative nausea and vomiting (PONV) rates after surgery with general anesthesia have been estimated at 20% - 57%. There is strong evidence that demonstrates that female patients undergoing general anesthesia have a higher risk of PONV than males. Holistic approaches to treat nausea have been well studied, and provide a potential supplement or alternative to traditional pharmacological treatments, although strong evidence is lacking.

**Identification of the Problem:** PONV after general anesthesia is an overwhelmingly common side effect and can greatly impact patients' recovery.

**Purpose of the study:** This pilot study aimed to assess the impact of the inhalation of *Mentha piperita* (Peppermint oil) on early postoperative nausea in female patients.

**Aims:** This study investigated the use and effect of inhaled peppermint essential oil for 35 women undergoing laparoscopic abdominal surgery.

**Method:** Assessment of nausea was performed using the 4-point Visual Analogue Scale before and after discharge from the Post Anesthesia Care Unit (PACU). When reporting nausea, participants were given the option of using peppermint aromatherapy in addition to standard medications. For patients who utilized aromatherapy in the (PACU), ongoing postoperative aromatherapy use was monitored.

**Results:** Of patients who utilized the aromatherapy sniffer in the PACU, 88% continued to use it postoperatively once departing the PACU, demonstrating strong statistical significance ( $\chi^2 = 11.774, p = .001$ ). Additionally, all participants who reported nausea in the PACU, and used the aromatherapy sniffer, reported a decrease in their nausea level.

**Discussion:** This project successfully showed a significant association between the use of aromatherapy in the PACU and postoperatively. Although nausea reduction was also appreciated in this study, the small sample size and lack of a control group limits interpretation.

**Conclusions:** The dramatic association of aromatherapy use in the PACU and use outside the PACU supports the hypothesis that patients may have perceived benefits from aromatherapy use. Providing aromatherapy, in addition to conventional pharmacological treatments, can empower nurses in managing PONV.

**Implication for Future Research:** Further research with larger sample sizes, control group analysis, and different essential oils and/or combination of essential oils would be valuable.