

# Chemotherapy-Induced Taste Alteration

Suzanne Penna, RN, MSN, OCN®



Taste alteration is a common side effect of chemotherapy and can have a direct impact on patients' quality of life. Consistent evaluation of alteration in taste is lacking in clinical practice. The literature strongly supports nursing assessment of this significant problem. Early identification can prevent or lessen the severity of complications associated with taste alteration. Additional research regarding interventions is needed.

## AT A GLANCE

- Nurses can educate patients about ways to minimize or avoid taste alteration.
- Taste alteration is associated with decreased dietary intake, increased malnutrition, and decreased quality of life.
- Thorough and accurate assessment of taste alteration is crucial in the ongoing care of any patient receiving chemotherapy.

## KEYWORDS

taste alteration; dysgeusia; miracle fruit; photobiomodulation; CiTAS

## DIGITAL OBJECT IDENTIFIER

10.1188/23.CJON.479-485

**T**aste alteration (TA) has long been recognized as an adverse effect of chemotherapy (Nolden et al., 2019; Uí Dhuibhir et al., 2020). TA can also occur with radiation therapy and immunotherapy, but this article focuses on TA related to chemotherapy. TA, also called dysgeusia, can vary by patient and chemotherapy regimen and has been described as decreased sensation, metallic taste, no taste at all (ageusia), or things tasting “off.” Patient reports of TA are rarely measured or directly assessed, and studies describing treatment options are limited (Baharvand et al., 2013; Nolden et al., 2019; Sevryugin et al., 2021). TA is an adverse effect of chemotherapy and can have a direct impact on patients' quality of life. A thorough and accurate assessment of TA is needed for ongoing care of patients receiving chemotherapy.

TA is associated with several negative outcomes, including decreased dietary intake, increased malnutrition, and decreased quality of life (Ben-Arye et al., 2018; Bressan et al., 2016; Enriquez-Fernandez et al., 2020; Spotten et al., 2017). Patients receiving chemotherapy can also experience other complications such as nausea and vomiting, which can compound these negative outcomes. Overall, these negative outcomes predict a poor prognosis for overall survival (Spotten et al., 2017). When patients do not enjoy eating because of TA, this leads to decreased food intake, particularly decreased protein intake (Arikan et al., 2019; Bressan et al., 2016; Nolden et al., 2019). Malnutrition can cause muscle loss and decreased energy, ultimately leading to loss of ability to maintain activities of life (Pourhassan et al., 2020).

Although studies have shown that taste plays an important role in nutrition and quality of life and have established the impact of malnutrition on survival, the literature is lacking regarding treatment for TA (Baharvand et al., 2013; Kiss et al., 2021; Sevryugin et al., 2021). However, the evidence does support the use of a specific scale to capture patient-reported TA. To provide patients with better outcomes, assessing and documenting patient TA is necessary. Understanding the significant effect this adverse event has on patients with cancer is a critical first step to generating sufficient data to develop successful treatments.

Based on a review of the literature, this article identifies issues related to chemotherapy-induced TA. These issues include the lack of standardized assessment, limited study of interventions, and the need for patient education.

## Methods

A systematic and comprehensive search was conducted in the PubMed®, Health and Psychosocial Instruments, CINAHL®, and Joanna Briggs Institute databases. Search terms included *chemotherapy OR oncology OR neoplasm OR cancer AND taste alteration scale OR taste alteration OR nursing OR dysgeusia*