



## **Nutritional Guidelines for Symptom Management**

### **TASTE CHANGES**

#### **DEFINITIONS**

- **Dysgeusia:** impairment of taste sensation such that food may taste unpleasant or completely different from usual.
- **Hypogeusia:** blunting of sense of taste (mouth blindness) “pastel colors”.
- **Ageusia:** No taste to foods.

#### **POSSIBLE CAUSES**

##### **Tumour:**

Tumour involvement of the 5th, 7th, 9th, and 10th cranial nerves can affect taste changes in people with brain cancer. A tumour itself may produce metabolites that result in taste changes.

##### **Radiation:**

Anyone experiencing mucositis secondary to radiotherapy to head and neck region will experience taste changes. This may occur in week 2 of treatment and may be temporary (from a few months to 1 year post treatment) or permanent. The degree of taste loss is dependent on site and dose of radiation. Dry mouth or decreased salivation can also contribute to taste abnormalities.

##### **Chemotherapy:**

Chemotherapy may result in mucositis or enhance candidiasis, which alters the environment of the mouth. These two conditions result in a decreased sensitivity to tastes. Without good mouth care, a “coating” may form over the taste buds. There may also be a chronic bad taste in the mouth from decaying material or build-up of bacterial products that interfere with flavour distinction. Patients receiving chemotherapy complain of a lingering bitter or metallic aftertaste.

Methotrexate, Cyclophosphamide, 5-FU, Bleomycin, Vinblastine, Procarbazine, and Cisplatin are common drugs that can cause taste changes.

##### **BMT:**

The taste loss is temporary, with recovery occurring between 45-60 days post transplant. Sweet is the first taste to recover and is followed by bitter, sour, and finally salty.

**Medications:**

Antibiotics and pain medications can also lead to taste changes.

**NUTRITIONAL MANAGEMENT STRATEGIES**

The temporary alteration of taste compounds the lack of desire for food. Before and after chemotherapy, patients need information regarding forthcoming changes in taste thresholds.

Identify specific taste sensations that are altered and to what extent they are altered.

The tongue is most sensitive to salty and sweet tastes, and the palate is most sensitive to sour and bitter tastes. The taste changes may lead to food aversions and patients may require a lot of encouragement and motivation to try these foods again at a later date.

- Eliminate the distasteful food from the diet for the period of intolerance. Appropriate substitutions of nutritionally equivalent foods can be suggested.
- Reinforce proper oral care before and between meals (see mouth rinses below).
- Suggest mouth rinses (see recipes below).
- Sugar-free gums or mints may eliminate an unpleasant mouth taste
- Tart foods before a meal may improve flavour perception (e.g. Sherbet, lemon and soda).
- Encourage drinking fluids with meals to decrease unpleasant tastes.
- Marinate foods to mask bitter taste, especially meats.
- Cold or room temperature foods may taste better than hot foods.
- Cinnamon or mint flavoured gum, cream or candies help mask metallic taste.
- Suggest using plastic utensils if foods taste metallic.
- Suggest enhancing food presentations (colour, texture, aroma) to stimulate appetite.
- Encourage smaller, frequent meals.
- Encourage appropriate vitamin/mineral supplementation if variety in diet is severely limited secondary to taste changes.
- Emphasize flavours that the individual **can** taste to encourage eating.
- Encourage experimenting with food flavours (sour, salty, sweet, bitter) and with different foods to find tolerated ones.
- Encourage liberal intake of “treats” or “comfort” foods.
- Suggest scheduling meals and snacks if there is no incentive to eat.
- Encourage patient to retry the distasteful foods again after a 2 week period to note tolerance.
- Provide reassurance and support. Taste changes will improve but may take some time.

**Mouth Rinses:**

- Baking soda and water ( ¼ tsp baking soda to 1 cup water)
- Salted water (½ tsp salt to 1 cup water)
- Flavoured soda water
- Sparkling mineral water
- Cool water (add a slice of cucumber, lemon, lime or orange)
- Club soda, ginger ale
- Tea

**PATIENT/CLIENT EDUCATION MATERIALS****• Coping with Taste Changes (BCCA)**

This pamphlet lists different scenarios of taste changes with some food suggestions for each. Symptoms are usually highly individual and areas need to be highlighted for patient to concentrate on. An individualized list of food ideas may be needed after “brainstorming” with the patient. The last page of the pamphlet can be used for noting food ideas. Close follow up is required to note tolerance of food suggestions and to provide encouragement to continue.

**REFERENCES**

1. Holmes S. Food Avoidance in patients undergoing cancer chemotherapy. Supportive Care in Cancer. 1(6): 326-30, 1993.
2. Mattson T. et al. Alterations in task acuity associated with allogenic bone marrow transplantation. Journal of Oral Pathology and Medicine. 21(1): 3307, 1992.
3. Stubbs L. Taste changes in cancer patients. Nursing Times 85(3): 49-50, 1989.
4. Bloch A. Nutrition management of the cancer patient. Aspen Publishers, 1990.

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<p>This information is not meant to replace the medical counsel of your doctor or individual consultation with a registered dietitian. This information may only be used in its entirety.</p>
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