

Changes in smell and taste caused by chemotherapy

What can you do as a dietician?



Two out of three patients undergoing chemotherapy are affected by changes in the sense of smell or taste.

Changes in the sense of taste occur more frequently than changes in the sense of smell.

Changes in sense of smell and taste are often temporary, and can last a few weeks to months after treatment.

The senses of smell and taste play an essential role in food choice and intake of food. Smell and taste disorders may lead to altered food preferences, reduced food intake and food aversions. This may result in weight loss and ultimately malnutrition. Changes in the sense of smell or taste may also influence the patient's quality of life.

Reduced nutritional status may influence treatment and the recovery capacity of a patient. It is important to know the cause of smell and taste changes and how they can be treated. This factsheet provides information on smell and taste changes, as well as tips and advice on how to handle these in daily practice.

This factsheet is published by the Science Shop of Wageningen University & Research as part of the project 'Changes in smell and taste in cancer patients', in cooperation with the HungerNdThirst Foundation. If you have any questions, contact the HungerNdThirst Foundation (info@hungerndthirst.org).



Smell and taste disorders

- Changes in the sense of smell or taste may occur during chemotherapy. Chemotherapy attacks rapidly dividing cells. The receptors for smell and taste are rapidly dividing cells, with the result that changes in the sense of smell or taste may be an unwanted side-effect of treatment.
- Changes in smell and taste depend on the type of cancer, the type of chemotherapy treatment and on the individual patient.
- Changes in the sense of smell or taste may occur at three different levels:
 - *Enhanced, reduced or no sensitivity to smell/taste*
 - *Disruption to the perception of smell/taste;*
 - *Smell and/or taste hallucinations (non-present flavors are tasted)*



Recommendations

- Changes in food preferences may arise as a result of changes in the sense of smell and taste. Frequently occurring changes are aversions to meat or coffee. When an aversion to meat is occurring, provide substitutes to ensure an adequate protein intake
- Offer assistance to patients who experience problems in their daily life. Smell and taste changes also influence a patient's social life, as eating no longer is a spontaneous event. Discuss with patients if changes in smell and taste have an influence on their personal situation.
- Ask advice from an oral health specialist if the patient suffers from oral health problems. Injuries in the mouth or changes to saliva production may exacerbate changes in smell and taste. This can make patients more sensitive to certain foods, for example to more sour products.
- Together with the patient, look for alternatives to products that no longer taste good. Most important is a tasty and nutritious eating pattern that is tolerable for the patient.
- Try out food products that differ in taste, structure and intensity, to discover what tastes best to the patient.

