

Changes in smell and taste caused by chemotherapy

What can you do as a dietitian?



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 the sense of smell or taste are often temporary and almost always disappear within a few weeks to months after treatment.

The senses of smell and taste play an important part in the 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 hinder treatment and recovery. For this reason it is important to know what causes smell or taste disorders and what can be done about them. This factsheet provides information on smell and taste disorders, 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).



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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.
- Whether changes occur and in what form they occur, depends on the type of the cancer, the type of chemotherapy and 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.*



Recommendations

- Changes in food preferences may arise as a result of changes in the sense of smell and taste. Aversions to meat or coffee occur frequently. When an aversion to meat is occurring, provide alternatives to ensure adequate protein intake.
- Offer assistance to patients with problems in their daily lives. Smell and taste changes also have an influence on the patient's social life, as eating no longer is a spontaneous event. Discuss with the patient how the symptoms influence the home 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 the symptoms, so that it is no longer pleasant to eat certain types of food.
- Together with the patient, look for alternatives to products that no longer taste good. Compile a tasty and nutritious eating pattern together with the patient.
- Try out food products with the patient that differ in taste, structure and intensity, to discover what tastes best.

