

Navigating Taste Changes during Cancer Treatment

How common are taste changes in cancer?

Taste changes has been reported as the 3rd most common bothersome symptom where up to 60% of children undergoing cancer treatment report experiencing this [1]. In addition to taste, children undergoing cancer treatment can experience changes in smell and how food/drink feels in the mouth. The taste, smell and mouthfeel affect how the flavours of the food are experienced.

These changes can contribute to:

- ◆ Negative feeding experiences
- ◆ Poor food intake
- ◆ Low motivation to eat



Studies have demonstrated an increase in preference for savoury foods and decrease in fruit and vegetables intake during cancer treatment, resulting in poor dietary quality. Food preferences developed during this period can persist later in life, contributing to increased risk of chronic diseases [2].

What type of taste changes may happen?

Sense of taste



Tastebuds detect the five basic tastes: sweet, salty, sour, bitter and savory (umami).

Changes can occur in various ways

For example:

- Food having no taste
- Food does not taste the same as before treatment
- Tasting too bitter/ too sweet

Sense of smell



Extreme sensitivities to specific smells can occur

For example:

- Perfume, cleaning solutions, food cooking and hand sanitizers.

Smell changes can also present as difficulty in smelling food or food smelling different.



Sense of touch



Food can feel:

- Rough
- Described as “tasting like cardboard”.

It can also taste too spicy, cold or prickly.

Both the sense of smell and touch are closely linked to the sense of taste.

Hence, it can be confusing and make the actual problem difficult to identify.

Why do taste changes happen?

Cancer and its treatment can cause changes to taste perception.



Some chemotherapy drugs may cause changes in the lining of the mouth and the salivary glands, which make saliva [3]. Saliva directly affect cells known as taste receptor cells [4]. These taste receptor cells are organized into taste buds. Radiation therapy and surgery targeting the head, neck, or mouth area can cause damage to the taste buds and salivary glands [5]. As a result, damage to these specific areas can lead to changes in taste, as discussed earlier in the category of sense of taste.



Some common chemotherapy drugs that have been reported to be associated with taste changes include:

Methotrexate

Vincristine

Cisplatin

Doxorubicin

5-Fulorouracil

Taste changes can also result from oral mucositis, poor oral hygiene, infections, or a dry mouth as a result of cancer treatments. The presence of ulcers can cause sensitivities to cold/hot food, salty/spicy/acidic foods, and drinks.

The mealtime environment and emotional state of your child can affect how your child perceives the food as well. For example, your child may like the same fried rice at home but refuse to eat it in the hospital.



How long do these changes last?

Returning to normal after cancer treatment may take from weeks to months. Taste changes related to chemotherapy drugs may fluctuate during the course of a single treatment cycle. However, children experiencing taste changes as a result of radiation therapy to the head/neck area can continue to experience problems in the long-term due to a lack of saliva.

What can you do to help your child cope with taste changes?

..... KEEP A RECORD




A record of the type of taste, smell and touch changes your child experiences, the different food and drinks your child has tried, as well as the treatment cycle can be helpful. It can help you, your dietitian and medical team to identify patterns and related causes. They can also suggest strategies to help manage these side effects.


.... ACKNOWLEDGE AND VALIDATE YOUR CHILD'S FEELINGS


With the cancer diagnosis, each child and caregiver can have a mixture of feelings to deal with and changes to adapt to. Start by acknowledging and validating your child's feelings, especially when their comfort/favourite foods no longer taste the same.



Empower them with knowledge about taste changes and develop their own unique coping strategies. This may include unconventional strategies such as:

 Having chocolate sauce/rainbow sprinkles with their meals to reduce bitter tastes

 Diluting gravies/sauces to make food taste less salty

 Adding their own seasonings at the table to make the food tastier

..... KEEP YOUR CHILD'S MOUTH CLEAN AND FRESH

Remind your child to regularly clean their teeth and rinse their mouth to manage taste and smell changes.



EXPERIMENT WITH DIFFERENT FOODS AND DRINKS

Try modifying your child's food and drinks according to their taste changes:



COPING WITH TASTE CHANGES

If your child says their food tastes...

TOO SOUR

Choose something sweet

Try adding a sweet topping/ sauce to your meals.



- E.g. ketchup, maple syrup, chocolate/ caramel/ biscuit sauce, chocolate chips, canned fruits

Avoid sour or tart foods.

TOO SALTY

Choose something sweet to balance out the flavour.

Add a sweet topping/ sauce/ drink to your meal

- E.g. teriyaki, kecap manis/ plum sauce/ hoisin sauce with main meals.

Avoid adding salt during cooking. Swap for natural herbs and spices

- E.g. swapping from parmesan/ feta/processed cheese to swiss or cream cheese.
- e.g. pepper, onion powder, garlic or lower salt alternatives



TOO SWEET

Choose something salty, spicy or sour

Pair your meals with something salty/spicy/ sour.



- E.g. adding a little salt/ lemon juice/ vinegar to food.

Avoid added sugars in foods.

- E.g. swap jam for margarine as a spread.



Dilute sweet-tasting drinks

BITTER/ METALLIC TASTE



Remind your child to rinse their mouth with water before & after meals.

Nibbling on a sweet before the meal/ sipping on flavored drinks may be helpful.

Use a non-metal straw for drinks to bypass the taste buds



Try adding something sweet/ salty

- e.g. anchovies, chocolate sauce, teriyaki sauce, seaweed or soy sauce.



Use plastic/ bamboo utensils instead of metal.





COPING WITH SMELL CHANGES

Serve food at room temperature.

Cover beverages and drink through a straw.



Staying out of the kitchen when food is prepared

Have meals in well-ventilated areas. If in hospital, open food covers away from the bedside to dilute the smell.



COPING WITH TOUCH CHANGES

Cope with food feeling like "cardboard" or "straw" or "sand" by:

Change the consistency of your food by chopping, mincing or blending

Avoiding rough, crunchy or dry foods
e.g. nuts and toasts

Choosing soft, moist food
e.g. by adding sauces/ gravies



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