

Understanding Taste and Smell Changes

Information for people affected by cancer

This fact sheet has been prepared to help you understand more about how and why cancer and some cancer treatments can change the way some foods taste, smell or feel.

Changes to the taste, smell or feeling of food are a common side effect for people before, during and after treatment for cancer. This can affect what foods you are able to eat and enjoy eating, and may contribute to a loss of appetite and weight loss. This may lead to malnutrition, which should be avoided as it can result in increased side effects from treatment and loss of muscle strength.

How do we experience flavour?

The senses of taste, smell and touch (the way food feels in your mouth) all work together to enable you to experience flavour. We taste, smell and touch food when signals are sent from the mouth or nose to the brain.

How does cancer and treatment affect taste, smell and touch?

You may notice changes to your senses before, during or after treatment. The cancer can affect your senses, causing changes before treatment begins. Treatment can also affect the senses and damage nerves that send signals to the brain, causing changes during and after treatment.

How you feel, when you eat or where you eat (such as in hospital) can also affect how you feel about the food you are eating. The actual taste or smell of food doesn't change, but you may find that food you usually like may not taste the same due to a change in your environment.

Chemotherapy – Chemotherapy kills or slows the growth of cancer cells but may also damage healthy cells such as tastebuds. It can also affect nerve endings, changing the way you feel hot and cold foods in your mouth.

Radiation therapy – Radiation to the head or neck area can damage tastebuds and salivary glands. This damage can change the way you taste, smell or feel food.

Surgery – Surgery to the mouth and nose area may affect parts of the tongue, nose or salivary glands, changing the way you taste, smell or feel food.

Chemotherapy, radiation therapy and surgery may also reduce the amount of saliva your body produces and make your mouth dry. As saliva helps tastebuds to recognise flavours, a dry mouth may affect your sense of taste. This is known as xerostomia. Having a dry mouth over a long period of time can also result in mouth infections or tooth decay, which can cause further problems with taste, smell or feeling. It is important to see your dentist regularly to help monitor the health of your mouth and teeth.

Some treatments may also cause mucositis, which damages the cells that line your mouth and gut. This can cause mouth ulcers that may increase your sensitivity to hot, cold, salty, spicy or acidic foods and drinks.

If you have dry mouth or mucositis, talk to your treatment team.

Call Cancer Council 13 11 20 for more information or to ask for a copy of the *Mouth Health and Cancer Treatment* fact sheet. You can also download a digital version of the fact sheet from your local Cancer Council website.

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What changes could I experience?

Changes can vary from person to person.

The sense of taste

You may find your sense of taste changes in these ways:

- food has no taste
- food does not taste the same as it did before treatment
- food tastes metallic or you have a metallic taste in your mouth
- food or drinks, such as tea, coffee, beer or wine, taste too bitter
- foods, such as chocolate or sweetened breakfast cereals, taste too sweet.

The sense of smell

You may find your sense of smell changes in these ways:

- you find it difficult to smell food, which may make it harder to taste
- you are more sensitive to smells
- food smells different
- certain smells may make you feel sick
- you smell things that other people do not.

The sense of touch

You may find your sense of touch changes in these ways:

- food feels dry and difficult to chew or swallow
- food tastes like cardboard
- you are less sensitive to food such as spicy food
- food tastes too spicy, cold (pins and needles) or “prickly”.

Changes in appetite or food preferences

You may find your appetite or preferences change in these ways:

- you prefer or dislike foods you didn’t before
- you have less interest in food and find it hard to eat as much as you should
- you crave particular types of food or are hungrier than usual
- you dislike foods you enjoyed before as they are linked to negative feelings or experiences.

For example, if you connect pumpkin soup with hospital visits, you might find it difficult to enjoy it again.

Changes to what you can eat, your interest in food and your weight may make you feel anxious. You may also start to avoid social occasions that centre around food, making you feel isolated. These feelings can affect your quality of life. Talk to someone about how you feel, such as your general practitioner (GP), specialist, nurse or psychologist. You can also call Cancer Council 13 11 20.

How long do changes last?

Most changes will get better with time, but this depends on what type of treatment you have and where the cancer is in your body. Your doctor will be able to tell you how long your senses are likely to be affected.

If you have chemotherapy, you might notice that symptoms change during the course of a single treatment cycle. For example, flavour problems are usually worse in the first week after chemotherapy and then gradually improve. Studies have shown that people who only have chemotherapy treatment start to taste and enjoy food two months after treatment has ended.

People who have radiation therapy to the head or neck area may continue to experience problems, especially when their bodies do not create enough saliva.

The importance of nutrition

Nutrition is the food and drink you need for your health and wellbeing. Good nutrition is important for people who have cancer as this will help you recover more quickly from treatment and continue your life in the best possible way.

Changes to your enjoyment of food may lead you to eat and drink less and to lose weight, which may cause malnutrition. If you are eating and drinking less, ask your doctor or nurse for a referral to see a nutrition specialist, called a dietitian, who can help you to find ways to enjoy food and meet your nutrition needs.

Call Cancer Council 13 11 20 for a free copy of the *Nutrition and Cancer* booklet or download a digital copy from your local Cancer Council website.

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How to manage changes

There are many ways to manage common changes to taste, smell and touch. Talk to your treatment team for advice. You may also be referred to a dietitian who can develop an eating plan and help you improve your diet and eating experience.

You may find these suggestions helpful:

- Taste or smell changes may vary over time and with different treatments. Keep a record of any changes, the time of day, how far from the start or end of your treatment cycle you are, and what food and drink you are having. This will help the treatment team to work out the causes and suggest ways to manage the side effects.
- Experiment with different foods and drinks. You may no longer enjoy your favourite foods but find that you enjoy foods you previously didn't.
- It is important to have high protein foods throughout the day to keep your muscles strong. Try high protein foods such as cheese, eggs, nuts, dairy foods, beans, lentils or chickpeas if red meat tastes unpleasant or you are a vegetarian.
- Keep your mouth clean and fresh. Clean your teeth with a soft toothbrush after each meal, and regularly rinse your mouth with salt water or the mouthwash suggested by your treatment team.
- Use a straw to bypass your tastebuds.

Tips for managing changes

Taste

bland	• Add seasonings such as fresh herbs, lemon, ginger, garlic, soy sauce, honey, chilli, Worcestershire sauce, pickles and marinades.
overpowering	• Choose foods that do not have strong flavours. • Avoid using spices such as chilli. • Avoid fizzy drinks, mints or chewing gum.
too salty	• Avoid adding salt to your cooking and try lower salt alternatives. For example, try mozzarella, cream or ricotta cheese. • Use roast meats in sandwiches instead of ham or salami. • Add a small amount of sugar or honey to food.
too sweet	• Try plain breakfast cereals with less added sugar, such as porridge or bran flakes. • Avoid dried fruit, honey or other sweeteners. • Add salt or lemon juice.
too bitter or metallic	• Avoid foods that taste bitter or metallic. • Nibble on moist fruit, suck boiled sweets or have small sips of flavoured drinks; ginger flavours may be helpful.

Smell

increased sensitivity	• Stay out of the kitchen when food is being prepared. • Ask friends and family to cook for you or buy nutritious prepared meals if possible. • Choose bland, cold or room-temperature foods. • Use exhaust fans, cover pots with lids or cook outdoors. • Avoid strong-smelling foods or ingredients such as garlic and onion.
negative connection with treatment	• Avoid your favourite foods just before or during treatment.
nausea	• Speak with your treatment team who can suggest ways to help.
bad taste in your mouth due to smell	• Rinse away the taste by drinking water or block your nose to minimise the smell.

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Tips for managing changes

Touch

increased sensitivity	• Avoid chilli, peppermints, fizzy drinks and spicy food.
less sensitivity	• Add spices to your food. • Increase the amount of seasoning such as honey, ginger and pickles.
food feeling like “cardboard”, “straw” or “sand”	• Change the consistency of your food by chopping, mincing or pureeing. • Choose soft, moist foods. • Add sauces and gravies. • Try soups and smoothies. • Avoid rough, crunchy or dry foods such as nuts and toast. • Drink water to keep your mouth hydrated and lubricated. • Speak with your treatment team who can recommend products to stimulate or replace saliva.

Where to get help and information

Call Cancer Council **13 11 20** for more information about changes to taste and smell. Trained health professionals can listen to your concerns, provide additional information and link you to local services or send you free copies of *Nutrition and Cancer*, *Mouth Health and Cancer Treatment*, *Understanding Chemotherapy*, *Understanding Radiation Therapy* or *Understanding Surgery*.

You can also download digital versions from your local Cancer Council website:

ACT actcancer.org
 NSW cancercouncil.com.au
 NT nt.cancer.org.au
 QLD cancerqld.org.au
 SA cancersa.org.au
 TAS cancertas.org.au
 VIC cancervic.org.au
 WA cancerwa.asn.au
 Australia cancer.org.au

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Note to reader

Always consult your doctor about matters that affect your health. This fact sheet is intended as a general introduction and is not a substitute for professional medical, legal or financial advice. Information about cancer is constantly being updated and revised by the medical and research communities. While all care is taken to ensure accuracy at the time of publication, Cancer Council Australia and its members exclude all liability for any injury, loss or damage incurred by use of or reliance on the information provided in this fact sheet.



For information and support on cancer-related issues, call Cancer Council **13 11 20**. This is a confidential service.