

Sore Mouth (Oral mucositis)

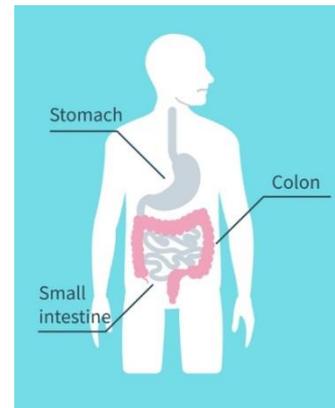


Sore mouth, or oral mucositis, occurs when there is inflammation of the lining of the mouth, and can range from just redness in the mouth and/or gums to severe ulcerations that can cause pain and difficulties in eating, swallowing and speech. Problems associated with sore mouth can have a negative impact on a person's quality of life, and the best way to manage them is to prevent or treat them early.

Causes of Sore Mouth

The lining of our entire gastrointestinal tract (including our mouth, throat, stomach and intestines), also called the “mucosa”, is made up of cells which divide and grow rapidly. Chemotherapy and radiation therapy kills not only cancer cells, but also other rapidly dividing cells - and this includes the mucosa of the whole gastrointestinal tract. Cancer and cancer treatment-related causes of sore mouth therefore include:

- **Chemotherapy.** Over 40% of people receiving chemotherapy will develop some degree of sore mouth during their treatment, and this usually occurs when the white blood cell count is low. People receiving certain chemotherapeutic drugs (e.g. methotrexate, 5-fluorouracil, doxorubicin, vincristine, etc.) are more likely to developing sore mouth than others.
- **Radiation therapy.** People receiving radiation to the salivary glands, head and neck region, or total body irradiation are more likely to develop sore mouth.
- **Graft-versus-Host disease.** This is a process that can happen after a bone marrow or stem cell transplant, where the donor cells recognize the recipient's cells as foreign, and mount an attack against them. This can occur in any part of the body, including the mouth.



- **Infections.** Mouth sores cause by infections e.g. herpes virus can be more common in people with cancer.

There are other factors that can increase your likelihood of developing sore mouth. These include: poor oral health, smoking, drinking alcohol, dehydration, taking medications that causes dry mouth (e.g. antidepressants) or that predisposes you to mouth infection (e.g. corticosteroids), and certain diseases (e.g. kidney disease, diabetes).

What you need to look out for

Depending on the cause and other associated conditions, signs and symptoms can include:

- Mouth, gum or tongue ulcers
- Red and swollen mouth and gums
- Bleeding in the mouth
- Pain in the mouth or throat
- Difficulty or painful eating, drinking, swallowing or talking
- Dry mouth, with increased mucus or thicker saliva

How it can be treated

In general, having a good oral care regimen (see section on “***what you can do***”) can help prevent and relieve sore mouth, as well as decrease the risk of associated complications such as infections from mouth ulcers. Depending on the treatment you are receiving, your doctor may recommend additional steps you may take. For instance, you may be advised to suck on ice chips right before, during and after your chemotherapy treatment – this method is called “cryotherapy”, and has been shown to be effective in preventing sore mouth caused by certain chemotherapy drugs.

For pain associated with sore mouth, treatment depends on the severity of pain. Your doctor may prescribe gels or mouth rinses containing numbing agents for pain relief. If these do not adequately control the pain, oral painkillers or opioids may be used.

What you can do

Below are some tips you may find helpful, in preventing and managing sore mouth:

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| <p data-bbox="135 432 606 465"><i>Have a good oral care regimen</i></p> <ul data-bbox="183 504 861 1478" style="list-style-type: none"><li data-bbox="183 504 861 705">• Rinse mouth before and after meals, and at bedtime. Rinsing helps to remove debris and keep your mouth moist and clean. If your mouth is sore, you can rinse up to every hour with salt water rinse<li data-bbox="183 739 861 862">• Use salt water rinse (half teaspoon salt to 250mls of water), or mouth rinses as recommended by your doctor or nurse<li data-bbox="183 896 861 1097">• Brush your teeth using a soft-bristle toothbrush within half an hour after meals and at bedtime. Toothettes, or sponge swabs, can be used if toothbrush causes pain<li data-bbox="183 1131 861 1209">• Use a water-based mouth moisturizer to keep the inside of your mouth moist<li data-bbox="183 1243 861 1276">• Moisten lips with lip balm or moisturizer<li data-bbox="183 1310 861 1478">• Check your mouth daily, especially when you are undergoing anticancer treatment. Inform your doctor or nurse if you see any redness, ulcers or bleeding | <ul data-bbox="997 504 1492 1310" style="list-style-type: none"><li data-bbox="997 504 1492 716">• Avoid mouth rinses with alcohol as they are drying and can cause stinging sensation especially if mouth ulcers are present<li data-bbox="997 761 1492 974">• Avoid toothpastes with whitening agents as they may contain hydrogen peroxide which is irritating to sore mouth<li data-bbox="997 1019 1492 1310">• Do not start flossing while on cancer treatment if it is not part of your regular routine unless advised otherwise by your doctor or dentist. Avoid flossing if it causes pain or bleeding |
| <p data-bbox="135 1538 718 1572"><i>Maintain good nutrition and hydration</i></p> <ul data-bbox="183 1590 885 1881" style="list-style-type: none"><li data-bbox="183 1590 885 1803">• Drink plenty of liquids (8-12 glasses of fluids a day), unless otherwise advised by your doctor. Carrying a water bottle makes it more convenient for you to sip water frequently throughout the day<li data-bbox="183 1848 885 1881">• Eat foods high in protein | <ul data-bbox="997 1579 1492 1747" style="list-style-type: none"><li data-bbox="997 1579 1492 1747">• Avoid irritating (hot, spicy, acidic or coarse) foods, alcohol and smoking. These will worsen your sore mouth |

- Try changing the consistency of your food, or add gravy or sauces to soften your foods if you are having trouble taking solid foods
- Consider liquid nutritional supplements if you are having trouble eating. Speak with your dietician, doctor or nurse for more information regarding this

If you wear dentures

- Remove dentures whenever possible, to help reduce gum irritation. Wear dentures only during mealtimes especially if gums are sensitive or sore
- Remove dentures before cleaning your mouth
- Brush and rinse dentures after every meal and at bedtime, and store them in antibacterial soak

- Avoid tight or loose fitting dentures as these can irritate the gums

Pain and bleeding

- For minor bleeding, rinse your mouth with ice water to stop the bleed
- Apply topical gels or take pain medications as prescribed (e.g. before your meals to relieve pain during eating)
- Drink with a straw to bypass mouth ulcers
- Cut foods into small pieces so that you can chew less

- Avoid hot foods as they will worsen pain. Try warm or cool foods

When to call your cancer care team

Please seek immediate medical attention as soon as you notice any of the following, which can indicate complications from sore mouth:

- Persistent bleeding from the mucosa
- Unable to take medications or swallow pills
- Unable to eat or drink for more than 24 hours
- Signs of dehydration (decreased urination, dizziness, dry mouth / skin, feeling very tired or sleepy)
- Fever of 38°C or higher

If you have any questions regarding the above information, please call Cancer Helpline at **+65 6225 5655** or approach your doctor or nurse for further details.

The above contents are made available as part of TEMASEK FOUNDATION-ACCESS (Accessible Cancer Care to Enable Support for Survivors) PROGRAMME, a holistic care programme to support cancer patients during their care and recovery journey.

The contents have been approved by the Cancer Education Information Service, National Cancer Centre Singapore (NCCS), for people with cancer and their families and caregivers. However, this information serves only as a guide and should not be used as a substitute for medical diagnosis, treatment or advice. For specific medical conditions, please seek expert medical advice from your healthcare team.

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