

- > Soak your dentures overnight in antifungal solutions before starting antifungal treatment.

- **Denture care**

- > Rinse your dentures after meals.
- > Brush your dentures using a soft brush and commercial denture paste/soap. Do not use toothpaste as it may cause wear to your denture.
- > Store dentures in a dry, safe location, however, storing them in water is an option.
- > Dentures should not be worn if you develop denture sores/ulcers, until they heal, or the denture/s is/are adjusted by a dental practitioner.

- **Care for poor bone healing**

- > Have a comprehensive dental check-up before starting radiotherapy to remove loose and severely decayed teeth.
- > Start good oral hygiene practices before radiotherapy begins and continue during and after treatment.
- > Have regular dental check-ups, as recommended by your dental practitioner, to monitor your oral health.

- **Care for tooth decay and gum health**

Dry mouth and salivary gland problems can change your saliva composition and flow. Therefore, you may lose the oral health protective effect of saliva and are more likely to have tooth decay and poor gum health. To reduce this risk, you may be advised by your dental practitioner to:

- > Use high-fluoride toothpaste.
- > Have fluoride gel/varnish applied.
- > Use 0.2% chlorhexidine gluconate mouthwash.
- > Limit sugar intake.

In addition to oral complications, you may develop systemic complications such as aspiration pneumonia (lung infection due to breathing food/saliva into your lungs) and lack of proper nutrition. Your dental practitioner may refer you to other healthcare practitioners such as dietitians, speech pathologists, general medical practitioners and medical specialists for further management of your complications and to improve your quality of life.

FOR FURTHER ENQUIRIES

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ORAL HEALTH OF MEDICALLY COMPROMISED PATIENTS: NIL BY MOUTH, FEEDING TUBES, CHEMOTHERAPY, RADIOTHERAPY AND PALLIATIVE CARE

Information for Patients
Special Topic Pamphlet No. 22

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Good oral hygiene practices, such as regular toothbrushing with a fluoride toothpaste and limiting sugar intake, help maintain your oral health. Poor oral health, on the other hand, may adversely affect your general health. For example, poor gum health may make you more likely to suffer from diseases such as type 2 diabetes, heart diseases and lung diseases. Therefore, good oral care is important and necessary to maintain both your oral health and general health.

You are more likely to develop complications in your mouth if you belong to any of the following groups of medically compromised patients:

- Nil by mouth (NBM)
- On feeding tubes
- Undergoing radiotherapy/chemotherapy
- In palliative care

If you are among any of the above groups, you may develop complications such as dry mouth, ulcers and fungal infections in the mouth. Such complications may make it difficult for you to eat and perform oral hygiene practices. As a result, you are more likely to have poorer oral health.

Nil by mouth (NBM)

As the name suggests, nil by mouth (NBM) implies you are not allowed to or cannot eat and drink from your mouth, for example, if you have conditions such as difficulty swallowing and loss of consciousness. You may also be NBM if you are preparing for surgery or recovering immediately after surgery. If you are NBM, you may develop the following complications in the mouth, mainly due to lack of fluids:



Figure 1. Dry/cracked lips

- Dry mouth
- Dry/cracked lips (Figure 1)
- Thick and stringy saliva
- Difficulty in swallowing and speaking
- Bad breath
- Difficulty in wearing dentures

Feeding tubes

Tube feeding is necessary if you are not able to take sufficient amounts of food from your mouth, particularly if you have difficulty in swallowing. You are fed through a tube connected to the stomach (nasogastric tube - Figure 2) or small bowel.

Lack of food intake by mouth can cause changes to your saliva composition, saliva flow and normal flora in the mouth. As such, you may develop the following complications:



Figure 2. Nasogastric feeding

- Dry mouth
- Thick and stringy saliva
- Fungal infections of the mouth – white-curd like oral thrush (Figure 3)
- Difficulty in swallowing
- Ulcers in the mouth (Figure 4)

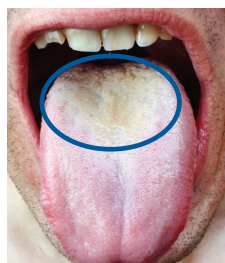


Figure 3. Fungal infection of the tongue (circled)



Figure 4. Ulcers in mouth (circled)

Chemotherapy, Radiotherapy and Palliative Care

Patients who are undergoing chemotherapy, radiotherapy or are in palliative care can develop oral complications. Below is a brief description of each of these therapies:

- **Chemotherapy:** Use of drugs to destroy rapidly growing cells, particularly cancer cells in the body.
- **Radiotherapy:** Delivering high-energy beams directly to an area, especially an area with cancer, to destroy the cancer cells.
- **Palliative care:** Supporting, treating and caring for people living with a terminal or life-limiting serious illness such as cancer that cannot be cured. Palliative care aims to provide relief from the symptoms, pain and stress of a serious illness and to improve the quality of life of the patient. Palliative treatment may also include chemotherapy, radiotherapy and surgery.

Toxic effects of these therapies can damage/destroy the normal cells and tissues in your mouth. Additionally, your immune system may become weak. Consequently, you may develop the following complications:

- Ulcers in the mouth (Figure 4)
- Dry mouth
- Fungal infections in the mouth (Figure 3)
- Altered and/or absence of taste
- Poor bone healing after radiotherapy
- Difficulty in swallowing/wearing dentures
- Pain and soreness in the mouth/face

Oral Care

Complications in the mouth, experienced by medically compromised patients, can negatively affect oral as well as general health. Therefore, if you belong to any of the above groups of medically compromised patients, it is very important to continue good oral hygiene practices such as toothbrushing. Your dental practitioner and/or other healthcare practitioners may recommend the following oral care guidelines.

• Oral hygiene practices

- > Use a small-headed and soft-bristled toothbrush to clean teeth and gums twice daily with a fluoride toothpaste.
- > If you have no swallowing difficulties, a pea-sized, fluoride toothpaste is recommended.
- > If you have swallowing difficulties, a smear of non- or low-foaming fluoride toothpaste is recommended to minimise the risk of accidental swallowing/aspiration of toothpaste.
- > If you are very sick with little energy to hold a toothbrush, you may need assistance from a carer to help with your oral care.
- > If you are frail, your carer may use a piece of gauze or disposable dental swabs (Figure 5) to remove food remnants in your mouth and clean your teeth and gums.
- > You are encouraged to spit the toothpaste out, but not to rinse, to get the maximum benefit of fluoride.



Figure 5. Dental swabs

• Dry mouth care

- > Take frequent sips of water if fluid is not restricted.
- > Apply dry mouth moisturising gels/sprays or mouthwash available over the counter.
- > If you suffer from severe dry mouth, saliva substitutes/stimulants may be prescribed.
- > Chew sugar-free gum to stimulate saliva flow.

• Mouth ulcer care

- > Apply local painkilling gel, moisturising gels/sprays and use mouthwashes to relieve pain and discomfort.
- > If you have severe pain, systemic painkillers ranging from nonsteroidal anti-inflammatory drugs (NSAIDs) to opioids may be prescribed.

• Care for fungal infections (oral candidiasis)

- > You may be prescribed topical antifungal agents such as nystatin rinse/clotrimazole lozenges.
- > If you are resistant to topical agents, systemic antifungal agents may be prescribed.