Good mouth care is important during and after cancer treatment. Having a healthy mouth can reduce your risk of the mouth problems that cancer and cancer treatment can cause. Ask your doctor or nurse if you should see a dentist before you start cancer treatment.

**Why do cancer treatments cause mouth problems?**

Cancer treatments damage or kill cancer cells. Cancer treatments can also damage or kill normal, healthy cells. The damage to normal, healthy cells can cause side effects.

Radiation (to the head and neck), some chemotherapies and stem cell transplant (also called bone marrow transplant) can damage the normal cells lining the mouth, causing mouth problems.

Cancer treatments can also change the healthy balance of germs in your mouth, increasing your risk of mouth infections.

Mouth problems can start soon after treatment begins and can last for some time after treatment ends. Some mouth problems can be serious and can cause your doctor to change or stop your cancer treatment.

All cancer patients do not have the same risk of mouth problems. Your risk depends on many things - how healthy your mouth is when you are diagnosed, the type of cancer you have and the type of treatment you will have.

Patients with head and neck cancer and patients having a stem cell transplant are at high risk for mouth problems. **These patients will get more mouth care information.**

Ask your cancer doctor and nurse to explain your risk of mouth problems and what you can do to prevent and manage these problems.

**If you see sores, bleeding, or white patches in your mouth, or a white coating on your tongue or lips tell your cancer doctor or nurse. You may have an infection that needs to be treated right away.**
What mouth problems are caused by cancer treatment?

If you have any of the following side effects, tell your doctor, nurse or dentist so the proper care can be started quickly:

• Changes in taste
• Swelling of the gums or lining of the mouth
• Mouth and lip sores
• Sore or painful mouth, lips or gums
• Irritation of the gums and lining of the mouth
• Bleeding of the gums or lining of the mouth
• Cold sores
• Trouble eating, drinking, speaking or swallowing
• Dry mouth
• Burning, peeling, or swollen tongue
• Infection
• Thick or foamy saliva (spit)
• Tooth decay (cavities)

Most side effects should improve 6-8 weeks after your treatment ends. Some mouth problems may be permanent. If your treatment ended more than 8 weeks ago and you still have mouth problems, tell your doctor, nurse or dentist.

When should I see my dentist?

Some patients will need to see a dentist before they start their cancer treatment. Ask your doctor if you should see your dentist before you start your cancer treatment.

• Tell your dentist about your cancer, the kind of cancer treatment you will have and when you are going to start your cancer treatment
• Make sure your dentist has a list of the drugs you are taking, including any chemotherapy drugs
  ° Tell your dentist if you are taking drugs to improve bone health (like pamidronate, denosumab or zoledronic acid)
• Your dentist will clean your teeth, treat any problems and decide if any teeth need to be removed
• If you wear an orthodontic appliance (braces or a retainer) it may have to be removed
• Ask your dentist to show you the best ways to brush and floss your teeth
• Ask your dentist if you should use a daily fluoride rinse
• Ask your dentist how often you should have dental care after your cancer treatment is finished

What if I don’t have a dentist?

Tell your cancer doctor or nurse if you do not have a dentist. To find a dentist, visit the Nova Scotia Dental Association website www.nsdental.org or call (902) 420-0088, look in the Yellow Pages or visit www.canada411.ca.

What if I don’t have dental insurance?

Tell your cancer doctor or nurse if you do not have dental insurance. They will try to help you get support for the dental care you need.
How can I keep my mouth healthy during cancer treatment?

Mouth problems can be uncomfortable, painful, distracting and can really affect your quality of life. As painful and tiring as it may be, it is really important to clean your mouth at least 4 times a day, so that your mouth can heal and more problems do not happen.

- Brush your teeth, tongue and gums after every meal and at bedtime
  - Use an extra-soft toothbrush and brush gently with a fluoride toothpaste
  - Do not use a whitening or strong flavored toothpaste, they can irritate your gums and the lining of the mouth
  - If your toothpaste hurts or burns your mouth, try Sensodyne®, Prevident® or Biotene®
- You may continue to use a battery operated toothbrush or a WaterPik®. If you want to start to use one, ask your dentist
- Rinse your toothbrush well after each use, and store it in a dry place
- After brushing, rinse well using the salt and baking soda mouth rinse shown below
- Replace your extra-soft toothbrush when the bristles are bent
- Gently floss your teeth at least once a day, right before you have brushed your teeth
- It is not uncommon for your mouth to hurt or bleed when you brush and floss your teeth
  - Don’t stop brushing or flossing unless your gums or mouth bleed for more than 2 minutes
- Drink lots of water/liquids (at least 8 cups per day), unless you have been told to limit your liquid intake
  - Sometimes this is hard when you feel sick or have pain in your mouth
- Smoking or drinking alcohol will make your mouth problem worse
  - Talk to your doctor, nurse or social worker if you need help to stop using tobacco or alcohol
- Avoid acidic (sour), high-sugar drinks like pop, “bubbly drinks” or energy drinks
- Rough, coarse and dry foods (like raw vegetables, pretzels, nachos, granola, popcorn, nuts, chips and toast) may cut your gums or the lining of your mouth and make your mouth sore
- Do not use toothpicks, they can cut your mouth or gums
- Eat healthy meals and snacks. Ask to see a dietician if you need help
- Talk to your doctor before you take any vitamins or other supplements.

**Mouth Rinse**

- Each morning, mix 1/2 teaspoon of baking soda and 1/2 teaspoon salt into 2 cups of warm water
  - Only use a 1/2 teaspoon each of salt and soda – more is not better
- Rinse your mouth with this mouth rinse at least 8 times a day.
- Use this rinse after you brush your teeth.
- To protect your teeth, rinse your mouth with this mouth rinse after you throw up (vomit)
- Do not use commercial mouthwashes that contain alcohol, they can dry and hurt your mouth

**If you did not floss before your cancer diagnosis, now is not the time to start.**
What if I wear dentures?

In addition to following the previous helpful hints to keep your mouth healthy, denture wearers should:

- Take your dentures out before using the mouth rinse (see previous page for mouth rinse instructions)
- Be careful when putting in or taking out dentures
- If your dentures don’t fit well, have them adjusted before you start your treatment
- Remove, brush and rinse dentures after meals and at bedtime
  - Brush your dentures with a mild liquid dish soap and rinse well with water
- Leave your dentures out as much as possible
  - Soak them in water with a ¼ teaspoon of salt
- Once a week, soak your dentures in 100% white vinegar for 10 minutes. Rinse them with water before using.
  - Do not use a commercial denture soak, these products can irritate your mouth

What do I do if my mouth is sore or painful?

- Tell your doctor, nurse or dentist if your mouth is sore, or if you are having trouble eating
  - They may suggest a drug for pain
  - Ask to see a dietitian
  - Ask your doctor or dietitian if you should take a food supplement (like Boost® or Ensure®)
- Use the mouth rinse on the previous page
- Eat soft foods
- Eat foods cold or at room temperature, hot and warm foods can bother a sore mouth
- Put cooked food through the blender to make them soft
- Sip liquids with your meals
- Avoid using tobacco or drinking alcohol
- Rinse your mouth well after eating

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<tr>
<th>Try these foods</th>
<th>Avoid these foods</th>
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<tr>
<td>✔ yogurt</td>
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<td>✔ ice cream or sherbet</td>
<td>✗ salty foods</td>
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<td>✔ milk shakes</td>
<td>✗ acidic (sour) foods, like tomatoes, citrus fruit or juice (such as oranges, grapefruit, limes or lemons)</td>
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<td>✔ baby food</td>
<td>✗ rough, coarse and dry foods</td>
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<td>✔ bananas or applesauce</td>
<td>✗ acidic, high-sugar drinks like pop, club soda or energy drinks</td>
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<td>✔ mashed potatoes</td>
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<td>✔ custards, puddings or Jell-O®</td>
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What do I do if my mouth or lips are dry?

- Tell your cancer doctor, nurse or dentist if your mouth or lips are dry
- Ask your doctor if you can use a cool mist humidifier
- Do not touch or pull off loose skin.
- Use the mouth rinse (page 4) more often
- Drink at least 8 cups of water every day, if possible
- Suck on ice chips, popsicles or sugarless candy
- Chew sugarless gum
- Moisten dry foods with butter, margarine, gravy, sauces, or broth
- Eat soft and mashed foods
- Try using an artificial saliva (spit) product (like Biotene®)
- Avoid glycerin or lemon-glycerin swabs, they dry the mouth
- Use a lip lubricant as often as needed to protect your lips and keep them from drying out
  - Use lanolin lubricants (like Lansinoh®)
    - Lanolin cannot be used if you are allergic to wool
    - Do not use lanolin on the inside of the mouth
    - Do not use lanolin if you are using oxygen
  - Water based products (like K-Y jelly ®) can be used on the lips and the inside mouth
    - Water based products can be used if you are on oxygen
    - Water based products must be used often, they do not stay on the lips for a long time
  - Oil based lubricants (like mineral oil or cocoa butter) should not be used inside the mouth, they tend to be drying
    - Oil lubricants cannot be used if you are using oxygen
  - Do not use petroleum based lubricants (like petroleum jelly or Vaseline®) they can increase your risk of infection

If you are concerned about bad breath, ask your dentist, doctor or nurse what you can do.
Where can I learn more about mouth care during cancer treatment?

• Ask your Cancer Care Team any questions you have about taking care of your mouth
• Visit www.cancercare.on.ca and read “Oral Care Symptom Management Guidelines”
• Call the Canadian Cancer Society’s Cancer Information Service 1-888-939-3333 or visit www.cancer.ca
• Visit www.cancer.gov and read “The Oral Complications of Chemotherapy and Head/Neck Radiation”

The information in this brochure does not take the place of the care and advice of your cancer care team.

Talk to your Cancer Care Team about your health concerns and any questions you have about your cancer treatment.