



# Head and Neck Radiation Treatment and Your Mouth



Oral Health, Cancer Care, and You  
**Fitting the Pieces Together**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
National Institutes of Health  
National Institute of Dental and Craniofacial Research



Oral Health, Cancer Care, and You  
**Fitting the Pieces Together**

*Oral Health, Cancer Care, and You* is an awareness campaign sponsored by the National Institute of Dental and Craniofacial Research (NIDCR) through its National Oral Health Information Clearinghouse (NOHIC). This campaign is being conducted in partnership with the National Cancer Institute, the National Institute of Nursing Research, the Centers for Disease Control and Prevention, and the Friends of the NIDCR. For more information about the campaign, please contact NOHIC. Campaign publications are also available online at [www.nidcr.nih.gov](http://www.nidcr.nih.gov).

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## Are You Being Treated With Radiation for Cancer in Your Head or Neck?

If so, this booklet can help you. While head and neck radiation helps treat cancer, it can also cause other things to happen in your mouth called side effects. **Some of these problems could cause you to delay or stop treatment.**

This booklet will tell you ways to help prevent mouth problems so you'll get the most from your cancer treatment.

**To help prevent serious problems, see a dentist at least 2 weeks before starting radiation.**



A dentist can help prevent mouth problems.



## How Does Head and Neck Radiation Affect the Mouth?

Doctors use head and neck radiation to treat cancer because it kills cancer cells. But radiation to the head and neck can harm normal cells, including cells in the mouth. Side effects include problems with your teeth and gums; the soft, moist lining of your mouth; glands that make saliva (spit); and jaw bones.

**It's important to know that side effects in the mouth can be serious.**

- The side effects can hurt and make it hard to eat, talk, and swallow.
- You are more likely to get an infection, which can be dangerous when you are receiving cancer treatment.
- If the side effects are bad, you may not be able to keep up with your cancer treatment. Your doctor may need to cut back on your cancer treatment or may even stop it.

## What Mouth Problems Does Head and Neck Radiation Cause?

You may have certain side effects in your mouth from head and neck radiation. Another person may have different problems. Some problems go away after treatment. Others last a long time, while some may never go away.

- **Dry mouth.**
- **A lot of cavities.**
- **Loss of taste.**
- **Sore mouth and gums.**
- **Infections.**
- **Jaw stiffness.**
- **Jaw bone changes.**



You can see or feel most of these problems. Check your mouth every day.



## Why Should I See a Dentist?

You may be surprised that your dentist is important in your cancer treatment. If you go to the dentist before head and neck radiation begins, you can help prevent serious mouth problems. Side effects often happen because a person's mouth is not healthy before radiation starts. Not all mouth problems can be avoided but the fewer side effects you have, the more likely you will stay on your cancer treatment schedule.

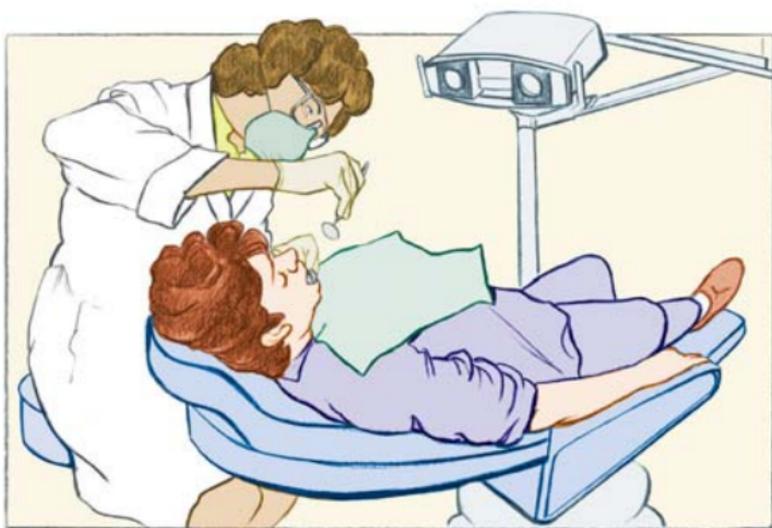
**It's important for your dentist and cancer doctor to talk to each other before your radiation treatment begins.** Be sure to give your dentist your cancer doctor's phone number.

### When Should I See a Dentist?

**You need to see the dentist at least 2 weeks before your first radiation treatment.** If you have already started radiation and didn't go to a dentist, see one as soon as possible.

## What Will the Dentist and Dental Hygienist Do?

- Check your teeth.
- Take x-rays.
- Take care of mouth problems.
- Show you how to take care of your mouth to prevent side effects.
- Show you how to prevent and treat jaw stiffness by exercising the jaw muscles 3 times a day. Open and close the mouth as far as possible (without causing pain) 20 times.



The dentist will do a complete exam.



## What Can I Do To Keep My Mouth Healthy?

You can do a lot to keep your mouth healthy during head and neck radiation. The first step is to **see a dentist before you start cancer treatment**. Once your treatment starts, it's important to **look in your mouth every day** for sores or other changes. These tips can help prevent and treat a sore mouth:

### Keep your mouth moist.

- Drink a lot of water.
- Suck ice chips.
- Use sugarless gum or sugar-free hard candy.
- Use a saliva substitute to help moisten your mouth.



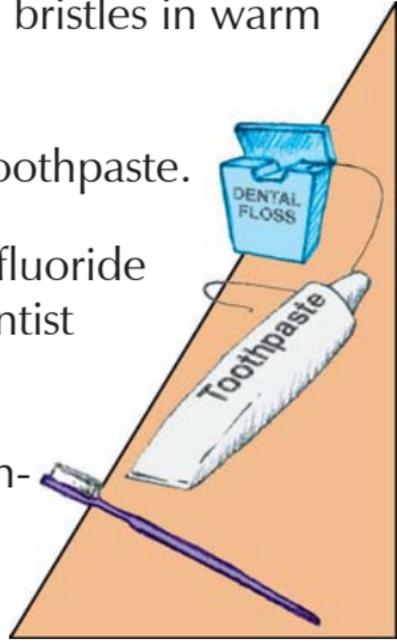
## Clean your mouth, tongue, and gums.

- Brush your teeth, gums, and tongue with an extra-soft toothbrush after every meal and at bedtime. If it hurts, soften the bristles in warm water.

- Use a fluoride toothpaste.

- Use the special fluoride gel that your dentist prescribes.

- Don't use mouth-washes with alcohol in them.



- Floss your teeth gently every day. If your gums bleed and hurt, avoid the areas that are bleeding or sore, but keep flossing your other teeth.

- Rinse your mouth several times a day with a solution of 1/4 teaspoon baking soda and 1/8 teaspoon salt in one cup of warm water. Follow with a plain water rinse.

- Dentures that don't fit well can cause problems. Talk to your cancer doctor or dentist about your dentures.



## If Your Mouth Is Sore, Watch What You Eat and Drink.

- Choose foods that are good for you and easy to chew and swallow.
- Take small bites of food, chew slowly, and sip liquids with your meals.
- Eat moist, soft foods such as cooked cereals, mashed potatoes, and scrambled eggs.
- If you have trouble swallowing, soften your food with gravy, sauces, broth, yogurt, or other liquids.



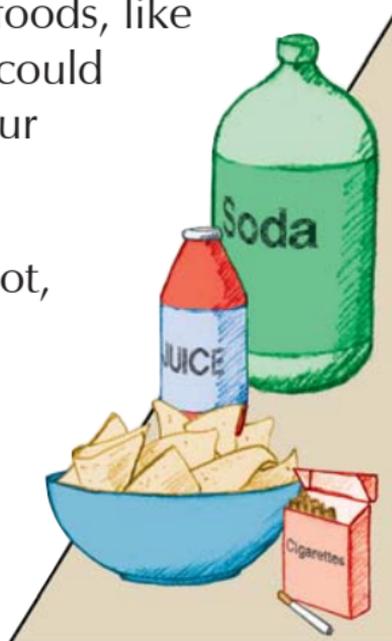
Sipping liquids with your meal will make eating easier.

## Call Your Doctor or Nurse When Your Mouth Hurts.

- Work with them to find medicines to help control the pain.
- If the pain continues, talk to your cancer doctor about stronger medicines.

## Remember To Stay Away From

- Sharp, crunchy foods, like taco chips, that could scrape or cut your mouth.
- Foods that are hot, spicy, or high in acid, like citrus fruits and juices, which can irritate your mouth.



- Sugary foods, like candy or soda, that could cause cavities.
- Toothpicks, because they can cut your mouth.
- All tobacco products.
- Alcoholic drinks.



## Do Children Get Mouth Problems Too?

Head and neck radiation causes other side effects in children, depending on the child's age.

Problems with teeth are the most common. Permanent teeth may be slow to come in and may look different from normal teeth. Teeth may fall out. The dentist will check your child's jaws for any growth problems.

**Before radiation begins, take your child to a dentist.** The dentist will check your child's mouth carefully and pull loose teeth or those that may become loose during treatment. Ask the dentist or hygienist what you can do to help your child with mouth care.



Your child has special dental needs.

## Remember:

- Visit your dentist **before** your head and neck radiation treatment starts.
- Take good care of your mouth **during** treatment.
- Talk to your dentist about using fluoride gel to help prevent all the cavities that head and neck radiation causes.
- Talk regularly with your cancer doctor and dentist about **any** mouth problems you have during and after head and neck radiation treatment.



Call your cancer doctor or dentist if you have any mouth problems.

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