Radiation treatments to your head and neck can cause side effects in the area. These side effects vary from person to person. Most will begin after you have had several treatments and will start to go away a few weeks after your treatment is done.

Radiation Side Effects
The most common side effects from radiation treatments are:

• Skin reactions
• Taste changes
• Sore mouth and throat
• Dry mouth
• Parotid gland swelling and parotitis (see pages 3 and 4)
• Hair loss
• Fatigue

Skin Reactions
You may have skin reactions while you are receiving radiation treatments. These reactions occur because X-rays must pass through the skin to reach the tumor. Special care of the skin in the treatment area helps minimize skin reactions. (See the handout on skin care.)

• Wear shirts, blouses, and neck scarves that are soft and have soft collars (no starch). Do not wear clothes that rub the treated area.

• Use only an electric razor, or do not shave at all within the treated areas. (Radiation therapy will suppress hair growth.) Do not use a pre-shave or after-shave lotion in the treatment area.

• Use a mild soap that does not contain perfume or deodorant.

• Use only lotions on the treatment area that a radiation therapy team member gives you or tells you are OK to use.

Skin care products like Aquaphor and RadiaGel can help lessen and treat skin reactions.
• During treatment, protect your skin from the sun. Limit your time in the sun and use things like hats, clothing, or umbrellas to block the sun from your skin in the treatment area.

**Alopecia**

Your hair in the radiation field will likely fall out. This may happen a few weeks into radiation or even a few weeks after treatment is over. Your hair will likely grow back, but it may not do so for several months and it may be thinner.

**Taste**

Your sense of taste may change during your radiation treatments. Foods may taste different or your sense of taste may get weaker. Taste usually improves 2 to 6 months after treatments are done.

• Try lemon tea, lemon water, lemonade, sugar-free lemon drops, and sugar-free gum. These will also make your mouth feel less dry. (But, if you have mouth sores, anything with lemon in it may increase your discomfort.)

• Try using mild flavorings such as vanilla, mint, or basil to add flavor to your food.

**Sore Mouth and Throat**

You may have a sore mouth and throat starting in the 2nd or 3rd week of treatments. The soreness may increase toward the end of your treatments. It should start improving within a few weeks after your treatments are done.

To help ease these symptoms:

• Eat foods that are soft, smooth, and moist.

• Foods and liquids that are cool or at room temperature are easier to swallow than warm, hot, or very cold foods.

• Avoid dry or coarse foods such as crackers, potato chips, pretzels, popcorn, raw vegetables, and fruits.

• Eat a healthy soft diet. Include foods from all the food groups. Try not to lose weight during radiation therapy.

• After eating, gently brush your teeth and gums with a soft toothbrush. Use baking soda or Biotene toothpaste.

• Make a solution of ¼ teaspoon salt and ¼ teaspoon baking soda in 1 cup of warm water. Rinse your mouth with this solution at least 8 times a day. Do not use mouthwashes you can buy.

• Try eating smaller amounts of food more often. Some people find that 4 to 6 small meals are better than 3 large meals a day.
• If you drink alcohol or smoke, **STOP**. Both are very irritating to the mouth and throat. They can worsen your side effects from the radiation and slow your recovery.

• There are medicines that can help with your swallowing discomfort. Ask your nurse or doctor for more information about these.

**Dry Mouth**

Radiation can affect the glands that produce saliva. This can cause dry mouth. This may be a problem during treatment and, for some people, for a long time after treatment is over. These tips may help:

• Drink plenty of fluids, at least 10 to 12 glasses each day. If your mouth is very dry, carry a water bottle or small spray bottle to wet your mouth often.

• Eat foods with liquids, gravies, and sauces.

• Drink high-calorie liquid supplements and shakes to make sure you are getting the vitamins and proteins you need.

• Try using a cool-mist vaporizer while you sleep to increase the moisture in the air.

• When the saliva is decreased, tooth decay and gum disease may occur. Brush your teeth and floss often, and get fluoride treatments to help protect your teeth. Ask your doctor or nurse about seeing a dental hygienist, who will explain more about this care if needed.

• Decreased saliva can also lead to thicker mucus in your mouth. To help make the mucus thinner and help clear it from your mouth:
  - Drink club soda or papaya juice.
  - Drink a solution made with meat tenderizer. Add ¼ teaspoon tenderizer to 1 cup of liquid.
  - Try Xylimelt lozenges or Biotene Moisturizing Mouth Spray. You can buy these at a drugstore or online without a prescription.

**Parotid Gland Swelling/Parotitis**

• **Parotitis** is swelling of the *parotid* glands. These are your largest salivary glands. You have 2 of them, one in each cheek in front of your ears. Parotitis often occurs when the parotid glands receive radiation.

• Symptoms of parotitis occur 4 to 24 hours after the first treatment. Ice packs and acetaminophen (Tylenol and other brands) help relieve discomfort from the swelling. Check with your medical oncologist before you take acetaminophen.

• The swelling goes away 24 to 72 hours after the first radiation treatments.
• Having parotitis does not mean you will have more problems during treatment than someone who does not have parotitis.

Fatigue
During radiation therapy, your body uses a lot of energy. You may feel very tired from stress related to your illness, daily trips for treatment, and the effects of radiation on your normal cells. The amount of fatigue and how long it lasts varies with each person. For some, it may go away when their treatment is done. For others, the fatigue can last 2 or more years. Spreading out your activities and taking rest breaks will help you from getting over-tired.

We encourage you to do regular exercise, as you can. Do things you enjoy!

Ask someone to help you clean your house, shop, or cook meals. Take advantage of their help while you feel tired. If you live alone and are too tired to cook a full meal, try eating a well-balanced frozen dinner, or consider using a community service such as Meals on Wheels.

Other Side Effects
Other less common side effects may also occur. Tell your doctor, nurse, or therapist if you have any other symptoms.

If you have questions, please ask your nurse or doctor.