Radiation Therapy to the Head and Neck

The Ottawa Hospital Cancer Centre
Disclaimer

This is general information developed by The Ottawa Hospital Cancer Centre. It is not intended to replace the advice of a qualified health-care provider. Please consult your health-care provider who will be able to determine the appropriateness of the information for your specific situation.
Your doctor has prescribed radiation therapy to your head and neck region. You will be having radiation treatments five days a week. Radiation therapists will be administering your daily treatments. You may also see the radiation oncology nurse during your treatment and your radiation oncologist and dietician will see you weekly.

If you have concerns or questions, please discuss them with your radiation therapy team. They are here to help you in the following weeks.

### Smoking

Patients are encouraged to stop smoking or at least not to smoke during treatment. Smoking increases side effects and decreases the effectiveness of your treatment. If you are having difficulties stopping smoking please talk to your healthcare team.

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Please note that the following is a list of acute, or short-term, temporary reactions to your radiation treatment. Please discuss possible long-term effects of your treatment with your radiation oncologist.

## Possible Side-Effects

### Skin Reactions

You may develop a skin reaction in the area being treated with radiation. This may occur after the first 2-3 weeks of treatment and may include parts of your scalp. You may experience discomfort, itchiness, tenderness, swelling, and reddening. Your radiation therapy team will explain which areas on your skin may be affected. The severity of the reaction is dependent upon your skin type (sensitivity to radiation), the area being treated and the dose and number of treatments prescribed. Use the following guidelines to minimize any skin reaction you may experience.
Management
(Applies to treatment area only)

The guidelines below are to be used beginning on the first day of your radiation treatment and are to be continued for a minimum of two weeks after finishing all of your radiation treatments or until your skin has healed completely. Further skin care instructions will be provided on your last day of treatment.

Washing instructions

• Wash treated area gently once a day. Use only mild soap containing:
  – Moisturizing agents
  – No scents or perfumes
• Use only lukewarm water when bathing or showering. Avoid long hot soaks in the tub.
• Do not use a wash cloth. Instead, use your bare hand to gently wash the treated area.
• Do not scrub the skin in the treatment area.
• If possible, the shower setting should be adjusted to low pressure.
• Do not remove any non-permanent skin markings.
• Air dry or gently pat skin with a soft cotton towel after bathing. Avoid rubbing skin in the area being treated.

Other General Guidelines

• Hydration: You are advised to apply a moisturizing lotion or cream to the treatment area after bathing and as often as possible throughout the day to moisturize the skin. Start before treatment if possible. The lotion or cream should contain:
  – No scents or perfumes
  – No Lanolin
Discontinue the use of the lotion or cream and inform your radiation therapy team if the skin starts to become itchy, dry or begins to break down or open

- **Lip care:** Use a gentle, non-flavored, scent free lip moisturizer.
- **Irritants:** Avoid any irritants such as perfumes, body sprays, etc.
- **Scratching:** Do not scratch itchy skin within the treatment area.
- **Temperatures:** Avoid exposing irradiated skin to temperature extremes (ice packs, heating pads, hot/cold/wet compresses, hot waxing, saunas and hot tubs, etc.).
- **Bandages:** Avoid Band Aid® type bandages and adhesive tapes on treated skin.
- **Shaving:** Use an electric shaver only when shaving is absolutely necessary. Do not shave more than every third day. Discontinue shaving if a skin reaction occurs. Do not use waxes and other hair removal products in the treatment area until treatment is complete and the skin has fully healed
- **Clothing:** Wear soft, breathable, loose fitting clothing near the treatment area.
- **Sun and wind exposure:** Protect treated area from direct sunlight and wind exposure. Do not use sunscreen on the treatment area during radiation treatments and for 2 weeks after the completion of treatment. Once the skin has healed a sunscreen, with SPF of 30 or higher, should always be applied to the treated area due to permanent sensitivity to the sun
- **Swimming:** Swimming may be allowed ONLY if the skin in the treatment area is intact. Please discuss with your Radiation Therapist whether or not swimming is advisable for you. After swimming rinse your skin using the washing instructions mentioned above. Avoid swimming if the skin starts to break down.
Your skin reaction will be monitored by your radiation therapy team. Should your skin become itchy or begin to breakdown, please inform your radiation therapist. Your skin reaction may increase in severity 1-2 weeks following treatments. **You are advised to follow all skin care guidelines listed above for 2 weeks following the end of your radiation treatments or until your skin has healed completely.** You can contact your radiation oncology nurse (613-737-7700 ext. ) in the first two weeks after treatment if you are concerned with the condition of your skin. Following this two weeks period after the end of treatment, you are to contact your patient designated nurse with any questions related to side effects. Contact information will be provided on your last day of treatment.

**Hair loss/Scalp Care**

Some hair loss may occur after 2-3 weeks of treatment. This may include facial hair (beard), hair at the base of your neck or smaller patches on your head, depending on your particular treatment. Your radiation therapy team will let you know which areas may be affected for your particular treatment. Hair may or may not grow back, depending on the dose of radiation given.

**Management**

Follow the skin reaction management recommendations above, along with the following guidelines specific to scalp reactions if indicated by your radiation therapy team.

Wash scalp gently with a gentle baby shampoo containing no scents or perfumes.

- Use only lukewarm water when bathing or showering.
- The shower setting should be adjusted to low pressure.
- Do not scrub the scalp.
- Air dry or gently pat hair dry with a soft cotton towel after bathing. You may also use a hair dryer on the cool setting. Avoid rubbing your scalp.
Other General Guidelines

• **No moisturizing:** Do not apply a moisturizer to the scalp. Ask the nurse or your doctor about using a cream if your scalp becomes dry or itchy.

• **Scratching:** Do not scratch your scalp if it becomes itchy.

• **Hair care products:** Avoid the use of hair care or styling products such as gels, hairsprays and mousses. Avoid also chemical treatments such as hair colouring, perms and straightening.

• **Temperatures:** Avoid curling irons and flat irons and avoid exposing your scalp to temperature extremes (ice packs, heating pads, hot/cold/wet compresses, saunas and hot tubs, etc.). Ask the nurse or your doctor about using a cream if your scalp becomes dry or itchy.

Sore Mouth & Throat

You may develop a sore throat, difficulty swallowing, or hoarseness during your radiation treatments. This may occur 1-2 weeks from the start of your treatment and may impact your ability to eat enough food.

Management

• **Mouthwash:** Use baking soda mouthwashes regularly (see recipe below). Rinse and gargle (but do not swallow) with baking soda mouthwash as often as possible (6-8 times per day). Do it hourly if you can manage it. This mouthwash helps to clear the thick saliva and is especially helpful before and after meals. You can also try flat club soda for rinsing and gargling. Once you have rinsed your mouth, you can swallow some club soda to clear the back of your throat.
Baking Soda Mouthwash Recipe:

- 1 level teaspoon of baking soda
- 1 ½-2 cups of water (2 large glasses or 500 ml)
- Mix together and store in a clean jar
- Make a fresh batch everyday

Do not use any commercial mouthwash solutions that contain alcohol. These will dry and irritate your mouth. Use ALCOHOL FREE mouth wash.

- **Medication:** Your doctor may prescribe pain medications and/or antifungal medications for you. Take these medications as prescribed to help reduce the pain and make eating more comfortable.
- **Dentures:** Make sure dentures fit properly or avoid them altogether.
- **Talking:** Rest your voice as much as possible.

**Eating:**

- Avoid alcohol, spicy and dry foods.
- Eat foods served at room temperature (not too hot or too cold).
- Eat soft foods such as yogurt, mashed potatoes, soups, puddings, gelatin desserts, cooked cereals and eggs. Add sauces and gravies to help lubricate the food. Avoid hard or crunchy foods which may further irritate your throat, such as crackers, raw vegetables or potato chips.
- Avoid foods that are acidic such as oranges or citrus fruits and juices.

If your mouth or throat becomes painful, please notify your radiation therapy team. There can be several causes of pain so it is important that your mouth be examined.
**Thick, sticky saliva and Dry Mouth**

If the salivary glands are in the treatment area, radiation can decrease the amount and consistency of saliva produced. This change in saliva may occur 1-2 weeks from the start of your treatment and continue throughout your treatment. Your mouth may become dry and sticky with thickened saliva making it difficult and possibly painful to swallow. This thick sticky saliva is hard to clear and may cause nausea, gagging and possibly vomiting. The inside of your mouth may also become red, swollen and feel painful. Sores may develop on the inside of your mouth. In some cases there will be a gradual recovery but some dryness may be permanent. The dryness and swelling in your throat may cause temporary hoarseness and you may lose your voice.

**Management**

- **Mouthwash:** Rinse regularly (up to 20x per day) with club soda to reduce thickness of the mucus and get it out. You can also use the baking soda mouthwash described above.

- **Moisture:** Keep your mouth and throat moist at all times by sipping water or use a spray bottle to mist the back of the throat. There are products available for dry mouth which can be very useful, especially before speaking. Ask your pharmacist about them.

- **Humidifier:** Use a cool-air vaporizer or humidifier in your room to keep the air moist.

- **Suctioning:** A home suction device may be needed (usually covered by CCAC).
Changes in Taste
Your sense of taste may be changed due to the irradiation of your taste buds. This can result in food tasting different, or there may be a complete loss of taste. Generally, there is a recovery of taste over a 6-12 months period following treatment, but some changes in your taste sensation may be permanent.

Management
• Salty food: For foods that taste too salty, add sugar
• Sweet food: For foods that taste too sweet, add salt
• Metallic taste: If experiencing metallic taste, try to avoid canned foods and use plastic utensils and dishes.

Dental Care
If your mouth is being treated you may require dental consultations before, during and/or after your treatments. Please ask your radiation therapy team for more information. This may include instructions on the regular use of fluoride trays. Once your treatments have finished, it is important that you continue with regular dental check-ups.

Management
• Toothbrush: Use an ULTRA SOFT toothbrush with mild toothpaste.
• Floss: Floss gently, however discontinue if pain and bleeding occur.

Weight Loss
As your mouth and throat get sore, you may find that you are eating less food, which may result in weight loss. It is important that you minimize weight loss during your treatments. The
dietitian will meet with you to suggest some changes to your diet and discuss the use of nutritional supplements that may help you to maintain a healthy nutritional intake.

**Management**

- Eat small, frequent meals served in an appealing manner.
- Try high protein, high calorie foods (milk shakes, potatoes and gravy, ice cream, etc).
- Try marinating food.
- Try fresh fruit or sugarless candies/gum

Ask a member of your radiation therapy team for a referral to the dietitian if you need more suggestions to ensure that you are eating well.

**Fluid Intake and Dehydration**

You may find you drink less fluid as you progress through your treatments. This may make it more difficult for you to swallow and can lead to dehydration. It is important that you keep hydrated. This will make you feel better through your treatment. If you are not drinking enough fluids, you may feel light headed, more tired and your urine may be darker.

**Management**

- Drink lots of fluids such as water, juices, milk, soups and supplements.
- Carry a bottle of water with you at all times and take small sips frequently.
- If you become dehydrated you may also need intravenous fluid. Your Doctor will prescribe this if necessary.
- If you have a feeding tube, you can use the tube to take extra water.
Radiation Induced Fatigue

You may experience some level of fatigue during the course of your treatment. Fatigue is the feeling of being mentally and/or physically tired. You may already be feeling tired as it is one of the most common symptoms associated with cancer. This lack of energy can get in the way of your normal functioning making it harder to concentrate and bringing down your mood. Some patients may feel even more tired in the first two weeks following their radiation treatments. It may take a few weeks to return to how you felt before the treatments.

Management

• **Eating:** Eat a balanced diet and drink plenty of fluids.
• **Set priorities.** Continue with regular daily activities, however, only perform most important tasks if fatigue increases.
• **Rest:** Take short naps during the day if required. Aim to get the majority of your sleep at night.
• **Stay active:** Physical activity and exercise can help to minimize the effects of fatigue. Take a brisk 20-30min walk daily if you are able.

Let your radiation therapy team know if you are feeling very fatigued, sleepy, depressed or are having difficulty performing everyday tasks. Your radiation therapy team can direct you to other resources as required.

Other Side-Effects

If you experience side effects other than those listed in this pamphlet, please notify your radiation therapy team and you will be referred to the appropriate health professional.