Head & Neck Cancer: Radiation therapy treatment

Information for patients, families and friends
About this booklet

This booklet is designed to give you information about radiation therapy treatment for head and neck cancer and what to expect.

If you have any questions please speak to your Radiation Oncologist or the other helpful staff at Alfred Health Radiation Oncology during your next visit.

The Cancer Council of Victoria produces an easy to read head and neck cancer information booklet. Copies of the booklet can be found at Alfred Health Radiation Oncology or go to their website www.cancervic.org.au.

How does radiation therapy fit in with other treatments of head and neck cancer?

Radiation therapy is often given as part of a combination of treatments for head and neck cancer. For some patients we may discuss the use of chemotherapy as well as radiation therapy to improve the results of treatment.

Chemotherapy is a drug which is given intravenously (into a vein with fluid). When chemotherapy is combined with radiation therapy it is given on a number of occasions throughout the treatment, but not every day. When chemotherapy is added to radiation therapy the treatment is more intense and the side effects can be more severe. Your Radiation Oncologist will discuss this with you in detail if chemotherapy is suggested.
Planning (Simulation) Appointment

During your planning appointment a personalised plastic mask will be made. This mask is made to help keep your head, neck and shoulders positioned correctly during your radiation therapy treatment. This makes the treatment more accurate.

A CT scan will be taken of the head and neck while you are wearing the mask. Reference lines will be drawn on the mask to help position you for treatment.

To make the mask we place the mask, made from a plastic mesh, into a warm water bath. When the plastic is heated it becomes soft and we are able to mould it to your shape. As it cools down it sets in the position and holds its shape. You can easily breathe and see through the mask.

A small amount of contrast may be injected during the scan. You must notify staff of any allergies to medications, particularly allergies to contrast, iodine or seafood, prior to your scan.
Side effects

Below is a list of the most common side effects associated with radiation therapy to the head and neck region. Side effects may not be limited to the following, so if you have any concerns please speak to your Radiation Oncologist.

Side effects can be divided into two groups:
- Acute – Those which happen during treatment.
- Late – Those which happen after treatment is completed.

Acute side effects

Mouth and throat

Symptoms in the mouth and throat (depending on what is treated) are the most common side effects of this treatment and may include:
- Dryness – You may notice dryness of the mouth after starting your radiation therapy treatment.
- Discomfort.
- Difficulty swallowing.
- Change or loss of taste.
- Thick phlegm.

These symptoms can affect your ability to eat, therefore you will be seen regularly by a dietician. The dietician will give you advice on how to change your diet to best suit your situation.

Some people have a lot of difficulty eating and may need to be tube fed. This is done through a tube in the nose or directly into the stomach. It is important you maintain your fluids as best you can.
Redness of the skin
You may notice some redness of the skin in the area being treated 2-3 weeks after treatment has started. It may become more prominent towards the end of treatment and can include temporary itching and discomfort. To ease the effects of this skin reaction we suggest shorter, less hot showers, mild soaps and avoiding rubbing irritated areas.

Please do not use any perfumes, aftershave, deodorant or any other body products in the area you are receiving treatment. You are able to use a mild, unperfumed, chemical free moisturising lotion on the skin to reduce dryness. You will receive skin care instructions from your radiation therapy nurse who will also supply creams as necessary.

The treated skin may be more sensitive to sun exposure and we advise wearing clothing or sunscreen over the treated area while spending time outdoors. You should not shave using a blade in the area being treated; however an electric shaver is OK.

The skin reaction may substantially improve two to six weeks after the completion of radiation therapy. In the long term an inexpensive moisturizing lotion is recommended for local dryness or itchiness.

Tiredness
Most people experience tiredness during radiation therapy treatment. This is usually mild and begins 2-3 weeks after treatment starts and continues 2-6 weeks after treatment is finished.

This is not normally debilitating and in itself should not affect your daily activities or ability to drive. However, you may wish to go to bed earlier or take a rest during the afternoon. We strongly encourage you to continue your regular activities like walking or light exercises.
Hair loss
You may experience hair loss in the area being treated approximately 2-3 weeks after treatment has started.

Late side effects

Mouth and throat
Symptoms in the mouth and throat (depending on what is treated) are the most common side effects of this treatment and may include:

- Discomfort – The discomfort in your mouth and throat should settle down after a few weeks after your treatment is finished. Uncommonly, some people do have ongoing discomfort which causes problems with eating.
- Taste – Alterations in taste can last for months after treatment is finished.
- Dryness – If it develops is permanent.
- Some patients uncommonly have long term difficulty with swallowing due to scarring and other effects of treatment.

Hair

- Hair loss may be permanent, hair loss occurs only in the area being treated.

Bones, teeth or other tissues treated in the head and neck region
Rarely damage to the jaw and other bones in the treatment area can occur. This is particularly important if any surgery is done, including removal of teeth, particularly in the lower jaw.

You should tell your doctor or dentist that radiation therapy has been given to the head and neck area.
Suggestions to relieve dryness and preserve tissue:

- Take frequent sips of water. Avoid soft drinks.
- Use a water spray bottle to wet your mouth.
- Chew sugarless gum to help stimulate salivary flow.
- Suck lollies or hard candies, but only sugarless.
- Suck on ice blocks.
- Keep a glass of water by your bed for sipping during the night.
- Drink frequently while eating. This will make chewing and swallowing easier.
- Use bland, non-spicy sauces and gravies as accompaniments to meat dishes.
- Pasta dishes with creamy sauces may be easier to swallow.
- Limit caffeine containing coffee and tea, they are diuretics which will increase the amount of water in your urine and cause dryness.

Oral health during head and neck radiation therapy

Diet

Should you have a significant oral discomfort notify your nurse immediately. You will be referred to a dietician who will help you obtain adequate nutrients and prevent weight loss.

Carry a toothbrush with you and if you have your own teeth you can reduce the impact of tooth decay by limiting sweet, sticky, sugary foods or anything with a high acid level such as grapefruit, tomato or orange.

Always brush immediately after eating. If it is not possible to brush, swish and swallow with water as soon as possible.
Toothbrush
Small head electric toothbrushes are easy to use and are gentle on sensitive gums and cheeks.

Brushing
Brush your teeth at least twice a day using small circular strokes. Avoid vigorous and horizontal brushing at the gum line of your teeth as this may damage the gum and cause root surfaces to be exposed which can then decay very rapidly.

Toothpaste
Most toothpastes contain the foaming agent sodium lauryl sulphate, (SLS), which has been found to cause irritation in sensitive mouths. Toothpaste containing SLS should be avoided if you have a sore mouth, oral ulcers or dry mouth. Speak to your doctor or nurse if you need an alternative.

Mouthwash
A warm salt water mouth rinse may improve oral comfort for mild irritation with a sore mouth. It is important to only use an antibacterial mouthwash that does not contain alcohol or phenol if there are symptoms of a dry mouth or sore mouth, as alcohol has a drying effect on oral tissues. It can be diluted with warm water if you feel it is too strong.

Maintenance
You should see a dentist at least twice a year for cleaning and early treatment of cavities. If there is decreased saliva there is likely to be an increase in the amount of tooth decay.

Flossing
Use dental floss or dental tape between teeth at least once daily.
Dental Care
The material from which dentures are made has tiny holes or pores. It is essential that dentures are cleaned thoroughly at least daily with a toothbrush or denture brush.

You should wear your dentures as normal. If your treatment was planned with your dentures in, you must wear them for every treatment. If this becomes too painful you must notify your doctor immediately.

Saliva Substitutes
Saliva substitutes may help keep the mouth moist and allow for easier eating, swallowing, talking and sleeping. Some patients report relief from the effects of dryness by using ‘Oral balance’ moisturizing gel. It is also suitable to place under dentures.
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First Published March 2013. This Edition January 2017.
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