



Caring for the mouth during Chemotherapy or Radiotherapy to the head and neck

Introduction

This booklet is designed to give you information about some of the ways in which chemotherapy or radiotherapy to the head and neck can affect your mouth. We hope it will answer some of the questions that you or those who care for you may have at this time. It is not meant to replace the discussion between you and your doctor, but helps you understand more about what is discussed.

How should I prepare for my cancer treatment?

Radiotherapy and chemotherapy are treatments that are used to treat cancer, including that of the head and neck. Radiotherapy to the head and neck and chemotherapy can have side effects in the mouth. Your oral (mouth) health needs to be as good as possible before the start of treatment to avoid problems later. You will be referred to the consultant restorative dentist who works as part of the head and neck team. They will give you a thorough dental check up before your treatment starts.

Throughout your radiotherapy or chemotherapy your mouth needs careful monitoring by either a dental health professional or an appropriately trained nurse.

What can I expect during cancer treatment?

About two weeks after the start of treatment you may notice an increase in mouth ulcers and mouth soreness. Your mouth will become dry and there will be a loss of taste. These changes will make it difficult to swallow, eat and clean your teeth. They are worst between two and eight weeks after starting treatment, after which they may gradually improve. This leaflet explains what can be done to help you cope with the unwanted effects of treatment.

It is important that you make a list of all medicines you are taking and bring it with you to all your follow-up clinic appointments. If you have any questions at all, please ask your surgeon, oncologist or nurse. It may help to write down questions as you think of them so that you have them ready. It may also help to bring someone with you when you attend your outpatient appointments.

Information for Patients

Unwanted effects of treatment	What happens?	What can I do?	What should I avoid?
Dry Mouth	<p>Saliva moistens and lubricates the mouth.</p> <p>It protects against tooth decay, erosion and sensitivity.</p> <p>Radiotherapy damages the glands which produce saliva and can make the mouth dry. This may make eating and denture wearing more difficult or uncomfortable. In a small number of patients, saliva may not return following radiotherapy.</p>	<p>Sip sugar free drinks, cold water or tooth friendly drinks.</p> <p>If drinking is difficult try sucking chipped ice or sugar free ice-lollies.</p> <p>Try saliva substitutes which are available on prescription. Always choose one which contains fluoride such as Saliva Orthana.</p> <p>Add flavourless vegetable oil, vegetable oil spread, or butter to your tongue as this will lubricate your mouth.</p> <p>Apply petroleum jelly or lip balm to your lips if they are dry.</p>	<p>Fizzy drinks, diet drinks and fruit juice are acidic and they make your teeth sensitive and damage the enamel. If you have to drink these, then drink them ice cold with a straw.</p> <p>Many prescription medicines are acidic or sugary and may damage the teeth or the mouth lining.</p> <p>Check with your doctor for alternatives.</p> <p>Avoid any sugary drinks or acidic food and drink within one hour of bedtime for teeth protection.</p>
Tooth Decay	<p>Radiotherapy damages the glands which produce saliva. Saliva moistens the mouth and protects against tooth decay, sensitivity and erosion. The absence of saliva increases the risk of tooth decay.</p>	<p>Brush your teeth and gums at least twice daily with a fluoride paste. It is recommended that you clean your teeth before meals rather than after them.</p> <p>Always use an alcohol free mouthwash or gel as directed by your dentist before treatment starts. A suitable mouthwash will be prescribed by your oncology team when treatment starts.</p> <p>Drinking black tea without sugar is good for your teeth. You may add milk if you wish.</p>	<p>Avoid food and drink containing even small amounts of sugar between meals or before bedtime.</p> <p>Limit sweet food and sugary drinks to mealtimes only and avoid added sugar where possible.</p>

Information for Patients

Unwanted effects of treatment	What happens?	What can I do?	What should I avoid?
Tooth erosion	<p>Radiotherapy damages the glands that produce saliva. Saliva protects the teeth from the effects of acid, food, drink and the effects associated with indigestion such as when acids may come up into the mouth.</p> <p>Persistent vomiting also leads to acid reaching the mouth.</p> <p>Without saliva, teeth can wear and become sensitive when exposed to acid.</p>	<p>Brush teeth before acid exposure. Brushing after may actually increase tooth damage.</p> <p>Have alkaline food such as cheese or milk at the end of your meals to neutralise the acid.</p>	<p>Avoid acidic foods and drinks, especially citrus fruits, fruit juices and fizzy drinks. These can be particularly harmful to teeth and gums.</p> <p>Avoid brushing your teeth</p>
Loss of taste or altered taste	<p>The taste buds are damaged by radiotherapy and chemotherapy. Usually the effect of this is temporary, although following radiotherapy some patients report longer lasting changes.</p>	<p>There is little you can do to improve this, although concentrating on food that you enjoy, using sauces and seasonings or being around strong food smells may help.</p> <p>Taste usually returns, but as it does you may notice an unpleasant taste for a time, but this should improve.</p>	<p>Sweet food or drinks are a great temptation at this time but if taken between meals or at bedtime you may rapidly get tooth decay.</p>
Difficulty swallowing	<p>Dryness and soreness of the mouth makes swallowing difficult.</p>	<p>Rinse your mouth or gargle with Difflam, a pain relieving mouthwash, before eating. Difflam mouthwash can be diluted if it causes stinging in your mouth. Eat moist food (by adding sauces or gravy), avoid spicy food and sip water frequently.</p>	<p>Avoid alcohol. This will increase mouth dryness.</p>

Information for Patients

Unwanted effects of treatment	What happens?	What can I do?	What should I avoid?
Jaw stiffness (also called trismus)	The muscles that move the jaw can become stiff as a result of radiotherapy.	Gentle jaw exercises can be taught to you. You may be given an appliance to help you; you will be shown how to use it.	Avoid taking too large bites of food.
Difficulty with dentures	Lack of saliva and mouth soreness make dentures difficult to wear.	See your dentist if the dentures become painful. KY jelly is a useful lubricant to add under dentures. Clean your dentures carefully after each meal or at least twice daily. Clean your dentures with toothpaste or non-perfumed soap and a brush. Dentures should be removed at night for cleaning and soaked in an appropriate cleanser. Dentures should be kept wet at all times when they are not worn.	Leaving your dentures out during the radiotherapy treatment can make them difficult to accommodate to when you need to use them later. If dentures are old or poorly fitting you will need new ones – but it is best to leave replacing them until 4 – 6 months after radiotherapy is completed and your mouth is no longer sore.

Information for Patients

Unwanted effects of treatment	What happens?	What can I do?	What should I avoid?
Sore mouth	<p>Radiotherapy and chemotherapy damage normal cells as well as cancer cells.</p> <p>The inside of the mouth, tongue and throat may become red, sore and ulcerated.</p> <p>You may find it uncomfortable to eat, speak, swallow and brush your teeth.</p> <p>Soreness following chemotherapy usually gets better after about one week. The soreness may also be due to a thrush infection.</p>	<p>Clean your teeth with a fluoride tooth paste and a soft toothbrush.</p> <p>Diffiam spray (a pain relieving mouthwash) may be useful to relieve pain; use prior to brushing.</p> <p>If you have a thrush infection, you may need medication which can be prescribed by your oncology team. You should make sure any infection is treated.</p> <p>Soft chilled foods and nutritional drinks can help if eating is difficult and you can also try eating with a small plastic round edged spoon, and drinking through a straw if the corners of your mouth are sore.</p>	<p>Avoid hard, spicy, salty, acidic foods, hot foods and drinks.</p> <p>Avoid alcohol and tobacco; they make your mouth sore, dry and worse.</p> <p>Strongly flavoured toothpaste will be uncomfortable to use and should be avoided.</p>
Coated tongue	<p>The papillae, fine hair- like projections on the upper surface of the tongue, may grow longer as you use your tongue less. Debris can accumulate and the tongue may become stained, white, yellow or brown.</p>	<p>Regular gentle brushing of the tongue with a soft toothbrush and toothpaste can help to reduce this, but do not brush too hard as this can make the tongue sore.</p> <p>Gentle use of a tongue scraper can be useful.</p> <p>A small amount of salt in a cup of water can be helpful as a mouthwash.</p>	<p>Avoid trying to scrub the debris on your tongue away and making your mouth sore.</p> <p>A coated tongue is a common side-effect from radiotherapy treatment and should improve after your treatment finishes.</p>

Information for Patients

Unwanted effects of treatment	What happens?	What can I do?	What should I avoid?
Loss of weight	Mouth soreness, dryness and difficulty in swallowing will reduce your appetite and enthusiasm for food.	Eat high energy foods such as pasta, bread dipped in gravy, yams, sweet potato puree, creamed potato, porridge or mashed banana. Ask to see a dietitian if you are losing weight.	It may be necessary to eat some sugary foods to keep your weight up, and ensure your body has the best chance of recovering from your treatment. This will be discussed with the dietician. If you need to build up calories with sugary food, try to maintain your fluoride regime to minimise the chances of damaging your teeth. Supplement drinks may need to be supplied.
Osteorad- ionecrosis	Osteoradionecrosis is a term used for when bones die. Following your treatment, part of the jawbone (usually the lower jaw) may die as a complication of radiotherapy. It sometimes happens for no obvious reason and often long after the radiotherapy has finished. It may also be provoked by minor trauma to the bone such as when a tooth is extracted, or by a dental infection. It is difficult to treat and is often painful, especially if the fragile bone fractures.	Ensure that you have a thorough dental check- up from a restorative dentist used to dealing with head and neck cancer patients before your treatment starts. We will arrange this for you. After treatment, if your dentist is concerned about your teeth and extractions maybe required, then it should always be with reference to the dental hospital.	The removal of teeth from irradiated bone after radiotherapy should be avoided as far as possible. Your consultant in restorative dentistry may have to advise that some teeth that may cause trouble later should be extracted before the radiotherapy begins, to reduce the risk of future problems.

Information for Patients

Local sources of further information

You can visit any of the cancer information centres listed below:

Sandwell and West Birmingham Hospitals NHS Trust

The Courtyard Centre,

Sandwell general Hospital (Main reception) Lyndon, West Bromwich, B71 4HJ

Tel: **0121 507 3792**

University Hospitals Birmingham NHS Foundation Trust

The Patrick Room, Cancer Centre,

Heritage Building (Queen Elizabeth Hospital Birmingham) Edgbaston, Birmingham, B15 2TH

Tel: **0121 371 3539**

About this information

This guide is provided for general information only and is not a substitute for professional medical advice. Every effort is taken to ensure that this information is accurate and consistent with current knowledge and practice at the time of publication.

Oncology Department

Queen Elizabeth Hospital Birmingham

Mindelsohn Way, Edgbaston Birmingham,

B15 2GW

Telephone: 0121 627 2000

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email patientexperience@uhb.nhs.uk.