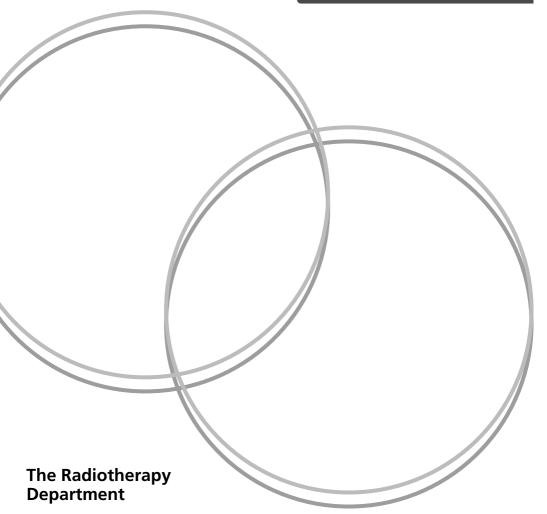
Oxford University Hospitals NHS Foundation Trust

# Radiotherapy for cancer in the head and neck region

Information for patients



You have been given this leaflet as you have been recommended treatment with radiotherapy for a tumour in your head and neck region. This doesn't include brain tumours, which are discussed in the Radiotherapy to the brain leaflets.

The general **Radiotherapy leaflet** will explain what having the treatment involves, common side effects and some information about the department, including details of how your treatment may be planned. This leaflet – Radiotherapy to the head and neck region – will provide more specific detail about the type of treatment planned for you, including how you can help yourself during and after treatment. There is other information also available to guide you if you have specific problems during your treatment.

This leaflet is intended as a guide, because the timing and effects of treatment may vary from one person to another. It will highlight the key points of the discussions you would have had with your oncology team. Family members and friends may also find it helpful. We hope that this leaflet answers most of your questions, but if you have any concerns please speak to a member of the team.

### **Before starting treatment**

Before you start your treatment you may need to have a number of tests, to make sure your treatment goes smoothly and safely.

### **Dental assessment**

Radiotherapy to the mouth area can cause long term problems with your teeth and jaw bone. Radiotherapy may cause a permanently dry mouth, as it can damage your salivary glands.

Your main salivary glands are situated in front of your ears, on either side of your face. Saliva is important in preventing tooth decay. Without saliva, you will be more prone to developing dental problems. If your tumour is close to this area, or the lymph glands in your upper neck on both left and right sides need treating, you may develop this side effect.

If the area treated includes your jaw bone, over time your teeth may discolour or decay. This is because the radiotherapy can cause the blood supply to that area to be reduced.

Radiotherapy may also cause gum shrinkage, which may cause further dental problems. If a tooth is removed from an area that has been treated with radiotherapy, healing may be slower and the jaw bone in which the tooth sat may develop long-term problems.

To minimise these late effects (effects that can develop years after treatment) we will ask a specialist dentist to see you. They will examine your teeth to make sure that any dental work you need is done before you start radiotherapy. You may not require any specific dental treatment before radiotherapy, however the dentist may suggest it is safer to remove some, or rarely, all of your teeth before radiotherapy starts. If you have any teeth removed, this may cause some temporary swelling for 1-2 weeks.

### **Hearing tests**

Certain chemotherapy drugs or radiotherapy near your ears can affect your hearing, so your doctor may arrange for you to have a hearing test before you start treatment. If your doctors know your baseline level of hearing, they can monitor any future changes to your hearing with more accuracy.

### Nutrition

Nutrition is important, as it provides your body with energy, protein and the vitamins and minerals needed for your body to function well. It helps your body to cope better during radiotherapy and may improve your rate of healing and recovery after treatment. Your requirements for calories and protein increase during and after radiotherapy, so it is important to increase your intake to keep your weight stable. If you have lost weight or are finding it difficult to eat and drink enough before you start treatment, please ask to be seen by the dietitian.

Eating and drinking can become quite difficult during and after radiotherapy treatment, particularly if you are having both sides of your mouth and neck treated, or if you have swallowing difficulties before starting treatment. You may be advised to have a feeding tube (gastrostomy tube) inserted into your stomach, which can be used for nutrition, water and medications.

If you have a feeding tube, your dietitian will advise you on what liquid nutrition you will have, and organise supplies of liquid nutrition and feeding equipment. You can still eat and drink whilst the feeding tube is in place and we encourage you to keep swallowing for as long as possible. This helps to keep your muscles involved with swallowing as strong as possible and may help you to get back to eating and drinking sooner once radiotherapy has finished.

If you have been recommended to have a feeding tube, this will usually be inserted either before you start treatment or within the first two weeks of treatment. Feeding tubes are usually inserted at the John Radcliffe Hospital and you will need to stay in hospital overnight afterwards for observation. Once you return back to full eating and drinking, and are making a good recovery from treatment, your team will advise you on when the feeding tube can be removed. This is generally a straight forward procedure which can be done as a Day Case (with no overnight stay).

### **Swallowing exercises**

Radiotherapy can affect the muscles in the mouth jaw and throat that are required for swallowing. If you are likely to have swallowing problems your speech and language therapist will give you some exercises. These exercises are designed to keep you swallowing as safely as possible for as long as possible and to help recovery of your mouth opening and swallowing after treatment has finished. These exercises can also be viewed online at https://www.ouh.nhs. uk/cancer/services/radiotherapy/for-patients/videos.aspx

If you have had eating and drinking difficulties following surgery, these may become a problem again or get worse during and after radiotherapy. It is important that you follow any swallowing exercises given to you by your speech and language therapist. If you are having problems swallowing before you start your treatment, please ask to see a speech and language therapist.

### Treatment plan

When you have radiotherapy will depend on your treatment pathway.

Radiotherapy for head and neck cancers can sometimes be given in combination with chemotherapy. Radiotherapy may also be used on its own instead of surgery, or after surgery. When high doses of radiotherapy are given with the aim of curing a tumour then it is called **radical** radiotherapy.

Radiotherapy can also be given to treat symptoms that are causing you problems, usually due to tumour growth on other parts of your body. The treatment relieves this pressure by shrinking the tumour. When lower doses of radiation are given to control symptoms then this is called **palliative** radiotherapy. The team will discuss with you which treatment has been recommended for you.

### The radiotherapy planning process

Your first appointment for radiotherapy planning will take at least 90 minutes. If it has been decided that you will have a PET (positron emission tomography) scan, then this appointment will need to be longer.

For the planning scan and for daily treatment, you will need to wear a plastic shell or mask. This helps to position you, so that we can accurately deliver the radiotherapy. The mask will be made before you have your planning scan. You may already have had scans as part of your diagnosis, but you will still need to have a radiotherapy CT scan, as this will allow us to plan where we need to treat you.

Lines will be marked on your mask and a permanent tattoo mark (the size of a pin head) may be made on your chest. These marks will be used to make sure you are in the correct position each day for your treatment.

Before you leave from this appointment you will be given a schedule of your treatment appointments. While you are undergoing radiotherapy, you are also entitled to a parking permit for the duration of your treatment. Please ask at the radiotherapy reception about how to collect this.

### Side effects during treatment

Radiotherapy treatment itself is painless. However, there are some side effects which are associated with radiotherapy. You will notice some of them gradually developing over the course of your treatment. Side effects gradually increase in severity as you go through treatment and it is likely they may become worse 10-14 days after your last session of radiotherapy. During the treatment reviews, your care team will assess how you are coping with the treatment and will provide advice and support.

During your treatment you will see:

- your **medical team**, who will see you at a weekly appointment either in the oncology outpatients department or the radiotherapy department
- the radiotherapy review team, who will see you weekly in the radiotherapy department
- the **specialist dietitian**, who will usually see you weekly after 10 radiotherapy treatment sessions. If you are experiencing difficulties with eating and/or drinking before this point the dietitian may see you sooner.
- the **speech and language therapist**, who will see you if you are having difficulties with swallowing or speaking.

### **Skin reaction**

The skin in the area of the treatment will become red, dry or sensitive, itchy and then often become moist and sore. You will lose the hair in the area treated; this may grow back after treatment. It is important to keep these areas clean and dry. It is likely that the skin in the area, especially around creases, will become broken and produce a discharge. It is normal for this to be coloured or bloody. It is common for the skin reaction to become worse during treatment and for about 10-14 days after your last treatment of radiotherapy.

The radiotherapy review team will assess your skin each week and advise you on the different lotions and dressings which will ease the discomfort and help heal your skin. If you have had a laryngectomy before radiotherapy you will be given advice about how to care for the skin around your stoma, which tube to use (if you need one) and which baseplate to use as treatment progresses.

Please refer to the **Radiotherapy Skin Reactions** leaflet which will tell you how to care for the skin in this area.

### Sore mouth and throat

The treatment will cause your mouth and throat to swell and become sore, which can make eating and swallowing more uncomfortable or difficult. This usually happens around the end of the second week.

When your mouth and throat become sore you may need to avoid very spicy or 'acidic' foods such as curry, chillies, vinegar, tomatoes and citrus fruits. Food and drinks at room temperature may be more comfortable, so you may need to allow hot food and drinks to cool before eating and drinking.

It is important to regularly take the pain relief you have been prescribed. If you are using anti-inflammatory painkillers such as ibuprofen, these need to be taken with food to prevent irritation to your stomach. We recommend that you take other painkillers half an hour before meals. Rinsing your mouth with dissolvable aspirin half an hour before meals will also help to reduce the soreness and swelling, which will help you eat more comfortably.

The radiotherapy head and neck team will advise you about increasing or changing your pain relief, as needed, to keep you as comfortable as possible throughout your treatment.

### Please see our leaflet about pain relief for further advice.

Some painkillers (e.g. those that contain codeine or morphine) can cause constipation or sickness, so it is important to take regular laxatives or anti-sickness drugs while you are taking this medication. Let the team know if you are not opening your bowels regularly.

### **Difficulty Swallowing**

Radiotherapy can affect the movement of the muscles for swallowing. This can sometimes cause you to cough after eating and drinking. This is an indication that food or drink may be going down the wrong way ("aspiration") and will need further assessment and advice.

### Dry mouth and throat

You may notice that your throat also becomes dry, and your saliva becomes sticky and thick. Sipping drinks throughout the day can help to keep your mouth and throat moist and loosen thick saliva. You may want to carry a bottle of water, to sip from regularly. Salt water mouthwashes may help make your saliva easier to clear. The care team can also discuss other products for you to try.

Breathing in warm steam when you are in a steamy bathroom or kitchen, or from a mug of hot water, may be helpful in loosening thick saliva. Nebulisers, which send moist air through your airway, may be beneficial if you are still having difficulties clearing thick saliva. These are sometimes available from the radiotherapy review team to borrow during your treatment, or your family doctor may have one they can lend you. Your oncologist can prescribe mouthwashes and protective gels that coat the lining of the mouth and can also help with the discomfort.

Foods that are soft and moist may be easier to chew and swallow when you have a dry mouth, rather than dry, hard and rough textures such as toast, cereals, crackers or salad. You may also find potato, bread and meat the most difficult foods to chew and swallow. Adding extra gravy or sauce to your food and chewing all food well before swallowing will make eating easier.

If you have a feeding tube and find that you are drinking less, you can give extra water flushes via the feeding tube; this will help to keep your body hydrated. Please discuss this with your care team or dietitian for further advice.

Oral thrush is common when your mouth is dry. You may notice a white coating in your mouth and soreness. This can be easily treated with medication. Thrush can be painful and so may affect how well you can eat and drink.

### Nutrition

Due to most of the reasons above, it can be very hard to eat and drink enough to maintain good nutrition. Here are some suggestions to increase nutrition intake when treatment side effects start to affect your ability to eat.

### **Reduced** appetite

It can be normal to lose your appetite during treatment, especially as the side effects of sore and dry mouth, taste changes, difficulty swallowing, thick and sticky saliva, nausea and tiredness gradually worsen. The following may help optimise your nutrition intake when you have a reduced appetite.

- Take advantage of the times when you do have an appetite
- Eat more frequent meals and snacks as large meals can be off putting
- Choose full fat products
- Avoid low sugar alternatives
- Choose nourishing drinks such as full fat milk, milkshakes, high energy and protein smoothies
- Choose meals that are quick and easy to prepare like convenience ready meals or making up meals in advance

### How to fortify food and drink

You can add additional energy to everyday food and drinks by adding high calorie ingredients.

You can choose one or more ingredients from the lists below to fortify your food.

Milk	Add 5 tablespoons of milk powder to 1 pint of full fat milk. Mix the milk powder with a small amount of milk to make a paste and then add the rest of the milk and mix well until the milk powder is completely dissolved. This will add an extra 200 calories to each pint of milk. You can add fortified milk in anything you make or eat.
Soups, Casseroles, Curries etc	Cream, full fat milk, coconut milk, grated cheese, pureed beans or lentils, rice or small pasta, root vegetables, potatoes, soaked croutons, eggs, pesto, whole or ground nuts and seeds
Eggs – Scrambled & omelettes	Butter/oil, full fat milk, grated cheese or soft cheese, fish, meat or vegetables
Sauces	Butter, Cream, full fat milk, full fat yoghurt, grated cheese or soft cheese, ground nuts, pesto
Mashed Potato/root vegetables	Butter, full fat milk, cream, vegetable oils, grated cheese or cream cheese, mayonnaise

Vegetables	Butter/vegetable oils, grated cheese, mayonnaise/salad cream, cheese sauce
Puddings	Custard, ice cream, cream, evaporated milk, full fat yoghurts, coconut milk honey, sugar, syrup, jam, ground nuts, chocolate spread or chocolate
Breakfast cereals	Full fat milk or fortified milk, full fat yoghurt, cream, coconut milk, syrup, sugar, honey, pureed fruit, bananas, whole or ground nuts & seeds

# Home-made high energy and protein drinks

You can make up nourishing drinks using the following ingredients and you can choose the ingredients or flavours you prefer. It is a good idea to choose at least 1 or 2 ingredients from each section below to make up a smoothie. As side effects from treatment can change weekly as you go through treatment you may need to adapt the ingredients you choose according to tolerance. There are also lots of high energy and protein milkshakes/smoothies that are readily available in all supermarkets as well.

<ul> <li>Liquid</li> <li>Cow's milk or dairy free milk</li> <li>Fruit or vegetable juice</li> </ul>	<ul> <li>Protein and calorie foods</li> <li>Yoghurt or dairy free yoghurt</li> <li>Cream</li> <li>Crème fraiche</li> <li>Cream cheese</li> <li>Evaporated milk</li> <li>Ice cream</li> <li>Silken tofu</li> <li>Smooth peanut butter/peanut powder</li> <li>Soaked nuts in milk or water overnight</li> <li>Soaked oats overnight in milk or water</li> <li>Milk powder</li> <li>Protein powders</li> </ul>	Calories and flavour • Avocado • Fruit – fresh, tinned or frozen • Bananas • Vegetables • Green leafy vegetables • Chocolate or chocolate spread
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### **Nutritional supplement drinks**

Your team may suggest supplementing your food intake with specialised high energy and protein drinks which are fortified with vitamins and minerals. These are available to buy or they can be given on prescription. These can be used to supplement for food intake or in place of your meals and your Dietitian will advise you on dosage and how long you may need to use them for.

## Adapting your diet when your mouth and throat is sore and dry

You may need if adapt your meals when soreness and dryness on chewing and swallowing make eating more challenging. Spicy, acidic, hard and crispy foods may make soreness worse. Dry, crumbly and sticky foods may be difficult to eat when dryness is a problem. You may need to temporarily avoid these types of foods and flavours. Choosing softer options, adding extra sauces to meals and taking extra sips of water with meals will help with dry mouth and throat. As your symptoms settle you should be able to reintroduce these foods but in the medium to long term you may finds certain acidic and spicy flavours may always be uncomfortable and you may need softer options and/or extra liquids with meals. Here are some ideas on how you can make some alternative choices that may make it easier.

Breakfasts	<ul> <li>Breakfast cereal soaked in milk</li> <li>Smooth bland cereals in extra milk such as porridge, ready brek<sup>™</sup> or weetabix<sup>™</sup></li> <li>Adding extra milk, cream, yoghurt to cereals as you eat to give extra liquid</li> <li>Eggs – soft boiled, poached, scrambled with extra milk, omelettes</li> <li>Skinless sausages</li> <li>Full fat yoghurt with soft fruit or fruit pureed</li> <li>Smoothies</li> </ul>
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Lunch or Evening meal	<ul> <li>Soups with soft lumps or blended with soaked crustless bread</li> </ul>
ideas	<ul> <li>Eggs – soft boiled, poached, scrambled, omelette on soft crustless toast</li> </ul>
	• Baked beans or tinned spaghetti on soft
	crustless toast • Souffles
	<ul> <li>Baked potato with butter and cheese or tuna</li> </ul>
	mayonnaise or egg mayonnaise
	Shepherds or Cottage pie
	<ul> <li>Minced meat with gravy</li> <li>Faggots with gravy and mashed potato</li> </ul>
	<ul> <li>Slow cooked casseroles with smaller pieces of</li> </ul>
	meat and vegetables or lentils
	Cauliflower cheese
	<ul><li>Macaroni cheese</li><li>Ratatouille</li></ul>
	Pasta with sauce
	· Tasta with sauce
	Protein foods
	<ul> <li>Leg or thigh meat can be less dry than breast meat</li> </ul>
	Mince meat
	Skinless sausages
	Boneless fish
	<ul> <li>Meat substitutes like quorn<sup>™</sup> can be softer and easier</li> </ul>
	• Tofu – silken or firm
	<ul> <li>Beans, lentils and pulses</li> </ul>
	• Dips e.g. hummus
	Pesto     Face any way a gradehold hollad acrombled
	<ul> <li>Eggs any way e.g. poached, boiled, scrambled, omelette, souffle, quiche</li> </ul>

Lunch or Evening meal ideas (continued)	<ul> <li>Starchy foods</li> <li>Pasta cooked a little longer to make it softer or smaller shape pasta e.g. minestrone pasta or orzo</li> <li>Noodles</li> <li>Mashed potato with extra butter, milk or cream. Adding other roots vegetable to mash such as carrots, sweet potato, swede, squash or cauliflower can sometimes make mash easier to eat</li> <li>Well cooked rice or risotto with extra liquid or cream</li> <li>Waxy potatoes such as new potatoes can some be easier to manage than floury potatoes (e.g. Maris Piper or King Edward)</li> <li>Light toasted bread may be easier than fresh bread</li> <li>Sandwiches dipped in soup</li> <li>Vegetables</li> <li>Peel vegetables where you can</li> <li>Cook vegetables for longer until soft and mashable</li> <li>Using salad dressings/creams, mayonnaise,</li> </ul>
	<ul> <li>Sandwiches dipped in soup</li> <li>Vegetables</li> <li>Peel vegetables where you can</li> <li>Cook vegetables for longer until soft and mashable</li> </ul>

	<ul> <li>Most fruit can be difficult to manage when your mouth is sore, and bananas can also make the stinging worse. These options may be easier:</li> <li>Soft fruit without the skin</li> <li>Tinned fruit in syrup such as tinned peaches, pears, mango may feel a little less acidic</li> <li>Soaked dried fruit</li> <li>Adding cream, ice cream, custard or evaporated milk to soft fruit may make it easier to manage</li> <li>Mashed avocado</li> </ul>
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Desserts	<ul> <li>Rice pudding, Tapioca, Semolina</li> </ul>
	Custard
	• Egg custard
	<ul> <li>Sponge cake or tinned or stewed fruit with cream, evaporated milk, ice cream or custard</li> </ul>
	Mousse or instant whip
	Crème caramel
	• Ice cream
	• Trifle
	• Jelly
	Yoghurt with honey
	<ul> <li>Bread and butter pudding with custard or</li> </ul>
	cream
	• Tiramisu

### **Taste changes**

Radiotherapy can affect your taste and people can experience taste changes in different ways. You may not be able to taste a particular flavour such as sweet or salty or they may appear stronger than normal or you may lose your sense of taste altogether. Sometimes food and drink may taste metallic.

- Go along with food cravings and try to enjoy the foods you can taste
- Cold foods may be more palatable than warm foods
- Experiment as much as possible with different foods and flavours
- Retry foods you previously did not enjoy or taste
- Try stronger tasting foods
- Sometime plastic cutlery can help reduce the intensity of metallic taste changes
- Continue with dental hygiene and mouthwashes as recommended

As radiotherapy side effects settle your taste should start to improve but sometimes it may take several months for your taste to improve.

### Nausea (feeling sick)

If you suffer with nausea, we can give you anti-sickness tablets to take before each treatment. It is important to continue to eat and drink; try eating small meals more frequently. If you continue to feel sick, or you are vomiting (being sick) despite taking anti-sickness medication, then tell the radiotherapy review team.

### Tiredness

You may feel tired, especially toward the end of treatment. Listen to your body and, if necessary, allow yourself extra time to rest and sleep. While your energy levels are low you may want to avoid strenuous activities and do only what you feel is manageable. You may need to consider reducing or stopping your work commitments for a short period of time. Your oncologist may be able to give you a sick note, if needed. Tiredness can take several months to improve, and may last for up to a year after the treatment ends.

Feeling too tired to eat and drink is also very common. It may help to make meals in bulk and freeze into individual portions. Take a portion from the freezer the day before you want to eat it and place it in the fridge. Reheat until piping hot and then cool to room temperature before eating, if you suffer with soreness when eating.

Some supermarkets sell frozen or fresh pre-prepared individual portions of vegetables, such as mashed potatoes, spinach, and mixed vegetables. Try buying fresh or packet sauces and add these to meals to help moisten them, if you have a dry mouth. Ready-made desserts, high calorie smoothies, ready meals, tinned soup, packet sauces, malted drinks (e.g. Ovaltine<sup>™</sup>, Horlicks<sup>™</sup>), tinned milk puddings (e.g. custard, creamed rice, semolina or tapioca), and cereals (e.g. Ready Brek<sup>™</sup>, Weetabix<sup>™</sup>, Oats so Simple<sup>™</sup>) are some store cupboard ideas that may be helpful.

### Low mood

Having periods of low mood during and after your treatment is common. If you have any concerns or worries, please speak to a member of your medical team. The Maggie's Centre at the Churchill site can also provide free practical, emotional and social support for you, your family and friends. There is no need to make an appointment, drop in Monday to Friday between 9.00 am and 5.00pm. Their contact details can be found at the end of this leaflet.

### Speaking

If the treatment has included your voice box, you may find that you lose your voice. Try to use your voice gently and quietly (but avoid whispering as this can strain the voice further). It might be helpful to carry a paper and pen with you so you can write messages rather than speak, if needed. Your voice will gradually return and you may be referred to the speech and language therapist for advice. **Please ask for the leaflet about voice care during radiotherapy to the larynx (voice box)**. If you notice that your breathing becomes noisy, please tell your care team or call the triage service (contact details can be found at the end of this leaflet).

If you have had a laryngectomy operation before starting radiotherapy, you can continue to use your voice valve if you have one, as long as you are able. If the skin becomes sore around the stoma you may find it difficult to use the valve. You will be given advice about managing your valve and stoma tube by the speech and language therapists, as you go through treatment.

### Difficulty opening your mouth

Radiotherapy and some operations carried out before starting radiotherapy treatment may cause tightening of the muscles that open your mouth, making your jaw tighter and more difficult to open. This is called trismus. It is important that you practice the exercises that the speech and language therapists have given to you regularly throughout the day. It may be more comfortable to do these exercises after taking your painkillers. **Please ask for the leaflet about trismus** if you have not been shown how to do these exercises. Page **21** 

#### Important advice during treatment

Smoking while you are having treatment can cause the side effects to develop earlier, possibly be worse than usual and be harder for you to cope with. We strongly recommend that you try to give up smoking before starting radiotherapy. We know this is often difficult and we can help you contact services who can advise and support you – please talk to your treatment team or family doctor.

Alcohol can also make the side effects of radiotherapy worse. We recommend that you don't drink alcohol during your course of radiotherapy. If you have any questions about this please speak with your treatment team or family doctor.

It is very important that you come for all your treatment appointments. Any missed treatments have the potential to reduce the success of the radiotherapy. If for any reason you are unable to come for treatment, please inform us at the earliest opportunity. We may be able to make suggestions so that you can still come or will arrange for you to make up for the missing treatment.

### Possible long term side effects

Long term side effects can occur many months to years after radiotherapy has finished. These are called 'late effects' and are hard to predict. Unfortunately, if they do occur they can be permanent. We plan the treatment to avoid the surrounding areas around the tumour as much as possible, to reduce these side effects.

### Swallowing and taste

As you recover from the side effects of radiotherapy treatment, eating, drinking and talking should gradually become easier. Everybody is different and the length of time it takes can depend on where you had your radiotherapy treatment, the severity of radiotherapy side effects, how easily you could swallow before radiotherapy and whether you were able to continue swallowing during treatment. There may be a small chance that your swallowing may not recover completely and you might need a long term feeding tube. The speech and language therapists and dietitians will aim to help you work on swallowing as much as possible after treatment.

Your taste can take several months to recover and some foods may not taste the same as you remember them. It is important to retry foods regularly and perhaps try foods that you disliked before treatment. Swallowing may also be different after treatment and may not completely recover back to "normal". You may find that you need to eat softer foods with extra sauce or gravy, particularly if you suffer with a dry mouth and throat.

### Mouth and dental problems

Following your treatment you may be advised to see a dental therapist. Teeth that needed to be removed before treatment may be replaced over a series of visits with the consultant of restorative dentistry. As saliva normally protects your teeth from dental decay and your mouth from infections, it is important that you take extra care to keep your mouth clean. It may continue to be sore and it may take a long time for your tongue and the lining of your mouth to heal. Your mouth may become more difficult to open over the months after treatment. You may need to be reviewed and given a long term exercise programme from speech and language therapy.

### A dry cough

A dry tickly cough can occur as the reaction to radiotherapy settles. This may be eased by sipping drinks. Some people find a simple cough medicine helps. The irritation caused by the radiotherapy should settle within a few weeks of completing your treatment. If you develop a persistent cough, contact your family doctor. If the cough happens when you eat or drink you should ask to see the speech and language therapist for a swallowing assessment

### Skin colour changes

Following treatment, the area of your skin that has been treated can remain darker (generally or in patches) or you may notice tiny blood vessels – this is rare.

### **Tight neck and throat**

Your neck and food pipe may continue to feel tight and may affect your swallowing. Your treatment team may refer you to the speech and language therapist for assessment and advice.

### Dry mouth and throat

Radiotherapy may cause you to have a permanently dry mouth as it can damage your salivary glands. You may find that using the products you used during treatment and modifying your diet (taking regular sips of water and choosing softer foods with extra sauce or gravy) is helpful in the long term.

### Speech and voice

As the side effects of treatment reduce, your speech and voice will become clearer. If you continue to find it difficult to speak words clearly and precisely, the speech and language therapist can give you further advice and exercises. If the treatment area has included your larynx (voice box), your voice may remain permanently weaker or huskier. Please ask for the **caring for the voice after radiotherapy** leaflet for further advice.

If you have a laryngectomy and it became difficult to use your voice valve during treatment, you can now start to use this again, as your skin and stoma recover. Speech and language therapists will guide you through the equipment to get the best voice, and will change the valve when it leaks.

### Weight loss

It may be difficult to get back to your normal weight after treatment, even though you feel that you have re-gained your appetite and are able to eat good amounts. This is normal, but if you lose more weight after your treatment has finished it is important to tell the care team when you have your follow-up appointments.

### Lymphoedema

Lymphoedema is a build-up of lymph fluid that causes swelling in an area of the body. This may occur because the lymph drainage channels or lymph nodes are blocked or may have been removed if you had surgery. Not everyone who has treatment develops lymphoedema, but your doctor should discuss with you whether this is a possibility. They will refer you within the hospital or to a hospital in your local area to help manage this if necessary.

### **Bones and cartilage**

Radiotherapy can make the jaw bone brittle. It is important to discuss with your dentist that you have had radiotherapy treatment and if you need any future dental extractions, as there is a risk that your jaw bone may not heal well afterwards. The cartilage in your voice box can also be affected if this area has been treated. This is rare but may be more common if you smoke during treatment. Please let the doctors know of any changes in your mouth when you come for your follow-up appointments.

### Hormones

If your treatment has included the thyroid gland in your neck or the pituitary gland at the back of your nose, it may affect hormone production. Hormone levels can be checked with a blood test and your doctors will discuss this with you if necessary.

### After treatment

You will be asked to return to the outpatient clinic to be seen by your oncology team. Radiotherapy takes time to work, so at this appointment your doctor will assess and discuss your progress and any continuing side effects with you and will plan future appointments.

Your oncologist will assess you every week until the side effects after radiotherapy are settled. Once they are happy with your progress, your appointments will be booked at Blenheim outpatient department, where you will see your ENT or Maxillo-facial surgeon for follow-up.

You may be anxious to know if the treatment has been effective. However, it is important to wait until all the inflammation caused by radiotherapy has settled before we carry out any scans. This may be approximately three months after the treatment has finished. Your oncologist will book the scan for you, when appropriate.

We do not recommend that you book a holiday for at least six weeks after the completion of your radiotherapy treatment, to make sure you feel well enough to enjoy it.

You may want to make some notes of the advice you have been given at your weekly reviews during treatment.

Date	Medications	Nutrition and swallowing

### How to contact us

If you have any queries during your radiotherapy or in the month afterwards, please speak to a member of staff treating you or the radiotherapy nurse practitioners.

#### **Radiotherapy reception**

Tel: **01865 235 465** (Monday to Friday, 8.00am to 6.30pm)

#### **Radiotherapy review team**

Tel: **01865 235 472** (Monday to Friday, 8.00am to 6.30pm)

Outside of these hours, please contact the **Oxford triage assessment team** 

Tel: **01865 572 192** (24 hours)

After your treatment has finished you can also contact the **Macmillan Head and Neck Nurse Practitioners** on

### 01865 234 346

(Monday to Friday, 8.30am to 4.00pm)

### Maggie's Centre – Oxford

This is located opposite the Cancer and Haematology Centre, just off Roosevelt Drive, next to the Julia Durbin nursery. It is open Monday to Friday, from 9.00am to 5.00pm. No referral is required, just drop in.

#### Tel: 01865 751 882

Website: www.maggiescentres.org

### **Useful website**

### Heads2gether

Oxford based head and neck cancer support group.

Website: www.heads2gether.net

#### Tel: 0800 0234 550

### **Further information**

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Author: Head and Neck Radiotherapy Team October 2021 Review: October 2024 Oxford University Hospitals NHS Foundation Trust www.ouh.nhs.uk/information



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