

Useful information during and after radiotherapy for head and neck cancer

Cancer Services

A self-help guide to eating, drinking and swallowing

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Introduction

This leaflet will provide information about the normal swallowing process and how radiotherapy can impact how you swallow.

Radiotherapy has side effects that will affect your eating, drinking and swallowing. These side effects depend on the area treated with radiation and the treatment dose you receive.

The Speech and Language Therapist Team (SLT), Clinical Nurse Specialists (CNS) and dietitians are part of the team caring for you during your cancer treatment. The SLT team will support you with your swallowing on treatment and offer advice to help you.

The advice over the next few pages will not be suitable to all and you may find your own solutions and remedies to the side effects you experience. If you wish to discuss any concerns you have during treatment please speak to a member of your team.

Side effects can be unpleasant, but they are a normal part of radiotherapy treatment. Treating them early is the key to helping you manage them effectively. Telling your health care team how you are getting on is the best way of getting the treatment you need. You might want to involve your family and friends in this.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

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To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

HOW DO WE SWALLOW?

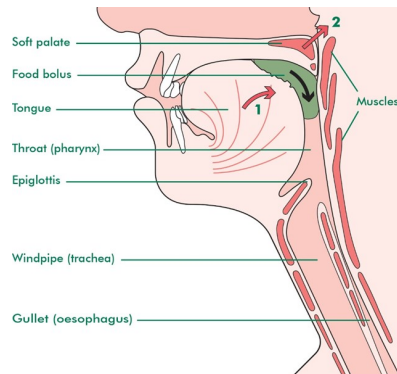
There are three key stages of swallowing, which happen in the mouth, throat and food pipe.

Mouth (oral) stage of swallowing

Chewing prepares food in the mouth to make it easier to swallow. You put food in your mouth and close your lips to keep it in. The tongue moves the food around in the mouth. Saliva moistens the food and your teeth break it down until it forms a soft, moist ball that is ready to swallow. The moist ball of food is called a bolus.

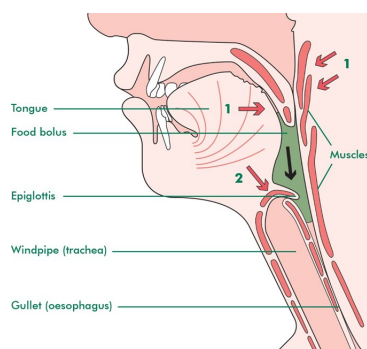
We have used numbers to show what happens at each point. The food bolus is shown as **green** in the diagrams.

1. When the food bolus is ready to be swallowed, the tip of the tongue squeezes against the roof of the mouth. This moves the food to the back of the throat (pharynx).
2. The soft palate moves up, closing the gap between the nose and mouth. This stops food from passing into the nose.



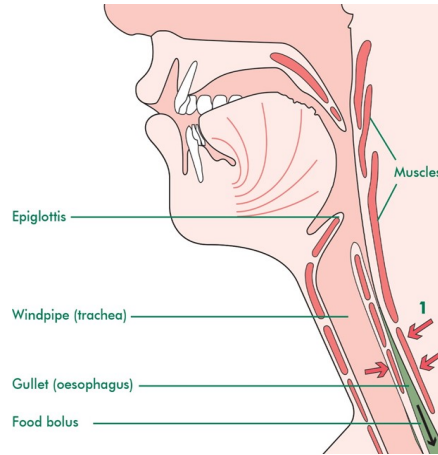
Throat (pharyngeal) stage of swallowing

1. As food moves into the throat, the muscles in the base of the tongue and throat (pharynx) squeeze together. This moves the bolus of food down.
2. Your voice box (the larynx) lifts in your throat. A leaf like structure called the epiglottis tilts over to close the airway. This stops food going into the airway and lungs. The vocal cords close and the voice box moves upwards to further protect the airway. The food pipe (oesophagus) then opens.



Food pipe (oesophageal) stage of swallowing]

1. Muscles in the food pipe squeeze and relax, pushing food down towards the stomach.



Swallowing is a complex process which needs to work in sequence to allow efficient swallowing.

HOW RADIOTHERAPY TO THE HEAD AND NECK EFFECTS YOUR SWALLOWING:

Dysphagia is a medical term used to describe a difficulty with swallowing. Radiotherapy can cause dysphagia as it affects the muscles and nerves that control the lips, tongue and other parts of your mouth and throat. This can make it difficult to sense and control food and fluid for you to be able to swallow.

Dysphagia can cause food or drink to go down the wrong way into the windpipe. This is called aspiration. It can cause coughing and/or choking and may lead to chest infections.

Radiotherapy may make muscles and tissues in the mouth, throat and food pipe weaker and less stretchy. This can make it harder to swallow some types of food. It can also cause some foods to stick in the throat. If nerves that control the muscles in the food pipe are affected, this can also weaken and damage the muscles. This means they are less able to move food downwards for swallowing.

The upper part of the food pipe may become narrower after radiotherapy affecting how well food/fluid goes down into the stomach.

Possible side effects in the first three weeks

It is unusual to have side effects during the first two weeks of radiotherapy treatment but after this you might have some of the side effects listed below.

Problem	Suggestions
Redness of the skin around the area being treated: this may feel tight and sore.	Using the cream provided twice daily can help to soothe the redness. Use non-scented toiletries.
Dry, sore or sensitive mouth.	You will be provided with mouthwash before you start treatment: prevention is better than cure, so begin to use this four days before you start treatment and use it four times each day.
Altered taste or sense of smell. This may be worse if you are also having chemotherapy. Radiotherapy to your mouth can affect your taste. Foods may taste different or you may dislike the taste of certain foods. Some people can taste the first few bites of food and then find that the taste gets weaker. These changes can lower your desire to eat and drink, and affect your appetite.	It can be helpful to try food which is very bland in taste, such as potatoes, rice, pasta, chicken and fish. (As you expect the taste of these foods to be bland you are less disappointed if it does not taste of anything.)
Pain when chewing and/or swallowing. Radiotherapy will cause a degree of pain which will worsen as the treatment progresses. This happens because tissues and nerves become damaged and painful ulcers develop.	Taking painkillers regularly during the day, particularly before you eat can be helpful. Do not leave it until the pain is severe and let your healthcare team know so they can provide adequate pain relief for you.
Nausea (feeling sick).	Let your consultant or CNS know if you are feeling sick they can provide you with medication to help with this.
Loss of appetite, leading to weight loss.	Tell your dietitian about this: you will be given supplement drinks that can help when eating is difficult.

Possible side effects after the first three weeks

After three weeks of radiotherapy you may notice that side effects get worse. Some of the possible side effects are listed below:

Problem	Suggestions
Tiredness and shortness of breath.	Taking regular rest during treatment can help with the tiredness. If you notice any shortness of breath please discuss this with your consultant
Painful throat, mouth sores, oral thrush.	Use your mouthwash up to ten times each day as needed. Take regular painkillers as needed and advised. Medication for oral thrush can be prescribed if you need it.
Reduced jaw opening due to the effects of radiotherapy can cause jaw stiffness or lockjaw. This is called trismus. Jaw stiffness can develop a few weeks or sometimes months after treatment. The amount of stiffness varies from person to person. Jaw stiffness can affect your ability to chew and the amount of food that you can place in your mouth.	An easy way to check how wide your mouth can open is to try to put 3 fingers vertically between your lower and upper front teeth. If you can only manage 1 or 2 fingers, you may have a stiff jaw. You will be shown jaw exercises by the SLT to help with this. Taking regular painkillers can also help.
Further problems with your taste which can further affect your eating and drinking.	Continuing with the previous advice can help. Regular mouth care can also help by removing any coating on the tongue.
Dry mouth with thick sticky secretions. Radiotherapy can affect your salivary glands. Your saliva may become thicker and stickier. This may cause you to be sick and gag when trying to eat.	Increasing how often you use your mouthwash and drinking plenty of water can help. Steam inhalation may also help to loosen the secretions.
Difficulty chewing and / or swallowing.	Taking regular painkillers can help with pain. Discuss the use of your feeding tube (if you have one) with your dietitian. You may need to try a liquid diet. Continue to do your swallowing exercises if you can.
Acid reflux can become a problem. It is expected that you will experience acid reflux to some degree. This is when acid in the stomach comes up in to the food pipe or throat. This can cause heartburn, coughing, a sore throat, the sensation of having something in your throat and a hoarse voice.	Avoid acidic food. Eat regularly. Anti reflux medication can help. Your consultant will be able to advise you about medication.

Side effects after treatment has finished

Your radiotherapy treatment will last up to six weeks. However, it is normal for the side effects to continue beyond the end of treatment and to get worse before they improve. You should **not** have any **new** side effects and must contact your team if you become unwell.

Helpful hints:

- Remember to continue with regular pain relief during this time, taking it twenty minutes before eating or drinking and before doing your swallowing/jaw exercises
- Steam inhalations might help if you have thick, sticky secretions
- Have plenty of fluids by mouth and/or via your feeding tube if you have one
- Keep your mouth clean and follow a regular oral hygiene routine, including brushing your teeth and using mouthwash. Artificial saliva and mouth gels can be prescribed. Caphasol mouthwash cannot be prescribed by your GP but the following mouthwash will have the same effect:

1/4 teaspoon of bicarbonate of soda

1/4 teaspoon of salt

100mls warm water

It can take several weeks for the side effects to begin to settle making it easier for you to eat and drink. Pain will begin to lessen, your sense of taste may begin to return and your secretions should be less sticky.

Please contact a member of your health care team if you have any of the side effects mentioned and need any further advice, reassurance or support (contact details at the back of this leaflet).

Are the side effects permanent?

Whilst you will find that most of your side effects improve over time you may be left with some long term side effects of treatment. There are several radiotherapy side effects that can cause dysphagia.

These can include:

Stiffness and Swelling

Stiffness can lead to scarring of the tissues causing the muscles to become tight and hard. This is called fibrosis. Radiotherapy can lead to stiffness and swelling making it harder to manage food/fluid in your mouth and throat. Sometimes swallowing problems develop months or years after radiotherapy related to these issues.

Swelling is caused by a build-up of fluid around the tissues and muscles causing a blockage to the lymphatic system. This is called lymphedema.

Dry mouth

You may need to have regular sips of water (carrying a bottle of water with you is advisable). Saliva replacement products can also be prescribed.

Altered taste

Your taste may not return to normal after treatment and you may find it can take up to a year before you know how your taste will be affected in the long term, keep trying different flavours on a regular basis.

Are the side effects permanent? (continued)

Muscle problems

These are caused by scar tissue forming and affecting the muscles involved in eating, drinking and swallowing. These muscles help to move liquids and food through your mouth and your throat safely. The problems may mean that you take longer to eat your meals and you may need to have a drink to help with swallowing your food. You may need food that is softer and more moist.

Reduced jaw opening

You may have difficulty putting food in your mouth, moving it around in your mouth and chewing. You should cut food into small pieces and change the texture of your food as required. Discuss this with your SLT as they can give you exercises to help improve your jaw opening.

It is important to:

- Try techniques to improve your ability to swallow, as advised by your SLT
- Try different consistencies of food.
- Do your swallowing/jaw exercises.
- Take pain relief as required.

Further advice

You might have stopped eating and drinking during or after treatment due to the side effects you have had. If your side effects are reducing you may feel ready to start eating and/or drinking. Try easier textures after pain relief (if this is required). For example, try food that is softer and moister and of one consistency, and have a drink with food to manage a dry mouth. Continue with or restart your swallowing/jaw exercises.

If you have been advised not to have anything by mouth (nil-by-mouth) do not try to eat or drink until you have been advised that it is safe to do so by your SLT.

When to contact your speech and language therapist (SLT)

Tell your speech and language therapist (SLT) if you have difficulty swallowing or if you are experiencing.

- drooling or dribbling when eating
- food getting trapped in one side of your mouth
- food coming down your nose
- food sticking in your throat
- choking or coughing when eating or drinking
- a wet, or gurgly-sounding voice
- repeated chest infections

The SLT will be able to advise you about your swallowing and offer you advice/support.

Contact details

If you have any further questions please feel free to contact us:

Head and Neck Specialist Speech and Language Therapists contact details:

Mobile: 07900 714 472

Office: 0116 258 5363

Email: HeadandNeckCancerSALT@uhl-tr.nhs.uk

Clinical Nurse Specialists (Key workers):

Laura Shields mobile: 07960 500 043

Kelly Bools mobile: 07950 967983

Dietitians:

Nicola McGuinness / Catherine Hanlon Office: 0116 258 5400

(Monday to Friday 8.30am to 4.30pm except Bank Holidays)

اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔
على هذه المعلومات بلغة أخرى، الرجاء الاتصال على رقم الهاتف الذي يظهر في الأسفل
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