Introduction

This information leaflet has been written for people who are having radiotherapy or chemo-radiotherapy to the head and neck region. It aims to help prepare you for how the treatment will change your eating and drinking and what can be done to help.

How will my treatment affect me?

During radiotherapy the inside of your throat can become dry, inflamed and sore which can make swallowing difficult. Chemotherapy can cause nausea, vomiting, sore mouth and taste changes which also affect how well you eat. If you are unable to eat your normal diet you may find you lose weight easily.

In addition, the treatment can often make you feel tired and you may also be travelling considerable distances to and fro on a daily basis. This may change your usual pattern of eating or might make you feel less inclined to prepare meals, both of which can contribute to weight loss.

However, it is very important that you are well nourished during your treatment and that weight loss is kept to a minimum.

Why is it important to be well nourished?

By keeping well nourished you will be able to:

- Reduce the risk of infections
- Heal more quickly
- Maintain your strength and energy levels
- Maintain your quality of life
- Cope better with your treatment
- Prevent your treatment being delayed or re-planned because your mask doesn’t fit properly.

### How do I stay well nourished during treatment?

- By eating a diet high in protein and energy (calories) in the weeks before, during, and immediately after your treatment, you can help to prevent these problems. Putting a few pounds on prior to your radiotherapy will help build you up and prepare you.

- By taking small, frequent meals, snacks and nourishing drinks.

- By using full fat and high energy foods rather than the low fat or low calorie alternatives.

If you are having difficulties with eating and drinking, the dietitian will see you to discuss your diet and make suggestions to help prevent you from losing too much weight so that your treatment can carry on without interruptions.

### When can I expect the symptoms to start and stop?

Usually you will not experience any problems with eating and drinking during the first two weeks of radiotherapy. Some patients may be aware of a dryness in the throat and a sensation of having to swallow past something ‘stuck’ in your throat. As the treatment progresses, it may become more painful to swallow and you may notice that foods do not taste the same.
Once you have finished treatment, some side effects you have experienced can carry on for at least two weeks. You should then start to feel as if your throat is recovering. However, it is important to remember that you are an individual and that you will react differently to someone else having the same treatment.

You should find that within six weeks of the treatment finishing you are eating better. However, the majority of patients never really return to eating and drinking in same way after completing radiotherapy. Some individuals may find that if they experienced taste changes, a dry mouth or difficulty swallowing, these symptoms may persist for much longer.

What changes am I likely to have to make to my diet during treatment?

As your throat becomes drier and more painful, you will find that you will want to avoid acidic foods such as vinegar, citrus juices and spirits and rough or hard foods such as crisps, chips and toast. Foods such as bread will become more difficult to swallow and your diet will become softer, blander and more milk-based. Sometimes you will need to have a diet based solely on fluids, such as milk, milkshakes, sloppy breakfast cereals, soup and milk puddings.

It may take you more time to eat your meals and making time for meals can be difficult when travelling to and fro for treatment and if using all the mouthwashes advised.

Your dietitian may recommend that you need ‘nutritional supplement drinks’. This may be a milkshake style drink that has
been fortified with a full range of vitamins and minerals. It is high in protein and calories and if taken in the right quantities, will help to maintain your weight and nutrition until you are able to eat normally again. If you are drinking these supplement drinks, you may find it useful to take these drinks with you when travelling or waiting for your treatment.

Sometimes eating and drinking can become so difficult that a feeding tube needs to be placed into your stomach. Usually we can predict which treatments are going to cause the worst problems with eating and drinking and if this is the case the doctors will talk to you about putting in a feeding tube before your treatment starts. If you need a feeding tube, the dietitian will give you all the information you need.

Are there any other tips that can help?

- Very hot foods/fluids can be painful to swallow. Wait until foods have cooled down slightly before you take them.
- Cool drinks and foods help to soothe your throat but icy cold foods/fluids can be just as painful to swallow as hot foods/ fluids.
- If your throat is getting dry, you will need to drink plenty of fluids.
- Take small mouthfuls of food and chew really well before swallowing. Having a drink at hand to help wash the food down is helpful.
- You may want to blend/puree your food but don’t feel that you have to.
- If you are struggling with eating, becoming dependant on liquid foods and have lost weight you may discuss the option
of trying nutritional supplement drinks with the dietitian.

- If you smoke, do try to stop as smoking will make your symptoms worse.
- Follow the advice given to you on caring for your mouth as this can help prevent some of the problems which makes eating and drinking difficult.
- If you are taking medications, talk to your doctor about having them changed to soluble/liquid forms.
- If your pain is controlled then you will be able to keep eating.
- Don’t wait for your weekly review to tell us about a problem. We are happy to see you when you need to be seen.

What should I do if I am losing weight?

- Eating small, frequent meals and including snacks in your diet can help increase your calorie and protein intake. Try to eat or drink something nourishing every two to three hours.
- If you are finding it difficult to swallow you may find soft snack choices easier to manage.

Snack Ideas

If you can manage bread/more solid foods:
Quiche, sandwiches, cheese on toast, sausage rolls, cheese and crackers, nuts, crisps, crumpets, toasted teacakes.

If you can manage soft/liquid type foods:
Breakfast cereals, soups, instant whip, ice cream, custard, rice pudding, thick and creamy yoghurts, crème caramel, tiramisu, trifle, cake.

- Choose the full fat versions of foods such as whole milk, full fat cheese and creamy yoghurts.
Try nourishing drinks such as full cream milk, milkshakes, hot chocolate, smoothies, milky coffee or fruit juices.

Try adding extra energy and protein to your regular foods and drinks by using some of the following:

<table>
<thead>
<tr>
<th>Food Type</th>
<th>Quantity for Serving</th>
<th>Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double cream</td>
<td>2 tablespoons</td>
<td>140 calories</td>
</tr>
<tr>
<td>Hard Cheese</td>
<td>40g</td>
<td>165 calories</td>
</tr>
<tr>
<td>Skimmed milk powder</td>
<td>25g</td>
<td>125 calories</td>
</tr>
<tr>
<td>Butter or margarine</td>
<td>1 heaped teaspoon</td>
<td>75 calories</td>
</tr>
<tr>
<td>Oil</td>
<td>1 tablespoon</td>
<td>100 calories</td>
</tr>
<tr>
<td>Full cream milk</td>
<td>200mls or 1/3 pint</td>
<td>135 calories</td>
</tr>
<tr>
<td>Jam, Honey, Marmalade</td>
<td>1 heaped teaspoon</td>
<td>50 calories</td>
</tr>
<tr>
<td>Sugar</td>
<td>1 heaped teaspoon</td>
<td>25 calories</td>
</tr>
</tbody>
</table>

Fortified Milk

This is a high calorie, high protein drink that can be used in the following ways:

- as a drink
- added to tea and coffee
- added to recipes, such as sauces and puddings
- added to breakfast cereals.

Fortified Milk

1 pint full cream milk
4 tablespoons (about 25g) milk powder

Mix the milk powder with a small quantity of milk to make a smooth runny paste, add this to the remainder of the milk and mix.

Calorie and protein content:

1 pint full cream milk = 386kcal, 19g protein
1 pint fortified milk = 473kcal, 28g protein (by using recipe above).
Convenience foods

If you're feeling tired preparing meals can be an effort. Using convenience foods can make life a bit easier for you, but still be nourishing.

*If you can’t face a cooked meal regular hot or cold snacks can be just as nourishing. The following ideas may be helpful:*

- breakfast cereals can be eaten at any time of the day
- tinned soups, meats and fish
- tins or packets of pasta in sauce
- powdered potato
- tinned milk puddings such as custard, semolina and rice pudding
- tinned fruit, long life fruit pots, ready prepared fresh fruit
- long-life products such as UHT milk, cream, fruit juice, yoghurts, ready made custard or jelly pots
- powdered hot drinks e.g. ‘Horlicks’, ‘Ovaltine’, ‘Cocoa’, and drinking chocolate
- packet mousses, instant whip and jelly
- tinned cream, evaporated and condensed milk
- frozen or chilled ready meals.
Recipes: Nourishing drinks

The following recipes are easy to make with household ingredients and provide an important source of nourishment.

### Milkshake – Serves 1

- 200ml Fortified Milk
- Milkshake powder/syrup to taste e.g. Crusha or Nesquik

Mix in the milkshake powder or liquid in to the milk and stir well.

Approximately 220 calories per drink

**Variations:**
- Add 1 scoop of ice cream (extra 115 calories)
- Add 1 tablespoon of double cream (extra 70 calories)

### Complan/Build Up Milkshake – Serves 1

- 1 sachet of Complan or Build Up
- 200ml full cream milk

Add the Complan or Build Up sachet to either a shaker, or in the liquidiser and shake or blend the powder and the milk together, until it is a smooth consistency.

Approximately 320 - 380 calories per drink

### Hot Chocolate – Serves 1

- 150ml of full cream milk
- 1 heaped tablespoon (approx 10g) of milk powder
- 2 tablespoons of whipping or double cream
- 3 tablespoons of hot chocolate powder

Heat all the ingredients together until simmering in a saucepan or microwave.

Approximately 400 calories per drink

**Variations:**
- Top with aerosol cream and a chocolate flake (extra 150 calories)
**Yoghurt Drink – Serves 1**

150mls full cream milk  
1 pot of thick and creamy fruit yoghurt  
1 heaped tablespoon (approx 10g) milk powder

Blend all the ingredients together in a liquidiser. Serve.

Approximately 300 calories per drink

**Variations:**

Pineapple – add 3 rings of fresh pineapple before liquidising.  
Banana – add 1 medium size banana chopped and 1 teaspoon of sugar and blend together with the other ingredients in the liquidiser.

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**Iced Coffee – Serves 1**

(try if you can tolerate cold liquids)

150ml full cream milk  
1 generous scoop of vanilla or coffee ice cream  
1-2 tsp coffee essence or 1 tsp coffee granules dissolved in 2 tsp boiling water cooled  
3 ice cubes

Blend all the ingredients in a liquidiser until the ice cubes are crushed.

Approximately 210 calories per drink

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**Mint Choc-Chip Milkshake – Serves 1**

2 tablespoons chocolate drinking powder or liquid  
1 generous scoop of mint choc-chip ice cream  
200ml full cream milk

Blend all the ingredients together in a liquidiser. Pour into a glass and serve.

Approximately 350 calories per drink
We are keen to know if this leaflet gives you the information you need in a way that is easy to understand. Please tell us if you think we can improve it by contacting us at the address or telephone number on the back.
This leaflet has been produced by the Sussex Cancer Network dietitians and should only be given to a client by a dietitian. The information in this leaflet is accurate at the time of writing.

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The information in this leaflet is for guidance purposes only and is in no way intended to replace professional clinical advice by a qualified practitioner.

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