Making Meals Make Sense: A cookbook and guide for people following head and neck cancer treatment
Eating and drinking is essential to everyday life. Whether it’s preparing a home-cooked meal, meeting friends and family for dinner, or celebrating a special occasion – food is at the centre of nearly everything we do. For head and neck cancer survivors, the ability to eat and drink is often severely affected by both the physical and psychological side effects of head and neck cancer treatment.

This *Making Meals Make Sense* cookbook, produced by the *Make Sense* campaign, has been created by survivors, with the goal to support patients, survivors and caregivers by providing information on nutrition and guidance on cooking tasty, nutritious meals. All of the recipes included have been used by those who have undergone head and neck cancer treatment. You will also read real-life experiences and challenges faced by head and neck cancer patients, including physical and psychological difficulties. They have also included their own advice and ‘top tips’ on how to overcome these challenges.
In recent years, the head and neck cancer treatment landscape has evolved, with new therapies and innovative surgical procedures greatly altering outcomes for patients. Head and neck cancer patients now live longer post-treatment, resulting in more people who are faced with the physical and psychological side effects from their treatment, which can be long lasting.

There is no ‘normal’ case of head and neck cancer. It is an extremely diverse disease with a wide range of treatments and no experience is typical. Side effects depend on the severity of the treatment and the area of the head or neck being treated, and can differ from patient to patient. While many side effects associated with treatment will gradually improve, there is no guarantee that eating and drinking will return to normal.

Some of the challenges that may be expected after the completion of treatment are described on the following pages.
Difficulty chewing

A common side effect of surgery, chemotherapy and/or radiotherapy is difficulties in chewing. Many survivors will experience swelling, soreness and difficulty opening their mouth (trismus), which can make chewing a struggle and can lead to a number of issues, including:

- Dribbling when eating
- Food getting stuck at the side of the mouth
- An increased chance of biting the tongue or side of the cheeks

Difficulties swallowing

As food can inadvertently be directed down the windpipe or into the nasal cavity, difficulties in swallowing may arise. Issues with swallowing can manifest in a number of ways, including:

- Food coming out of the nose
- The feeling of overproducing saliva
- Repeated chest infections
- Unexplained weight loss
- Food sticking to the back of the throat
- Coughing or spluttering when eating or drinking
- Experiencing a gurgling sound when speaking
Chemotherapy and radiotherapy can lead to a condition known as dry mouth or xerostomia, a consequence of not producing enough saliva. Again, the severity will vary, although, in many people it can be a permanent condition. This can lead to an uncomfortable feeling when eating and drinking. Dry mouth is unpreventable, but symptoms can be managed in several different ways, including:

- Sipping water regularly
- Attending regular dental checkups
- Maintaining good oral hygiene
- Having a moist diet by adding plenty of sauces to food

Many survivors will need to consume a soft or liquid food diet following treatment, and the length of time that is necessary will vary between people. The inability to eat solid foods can cause a decrease in the desire to eat and, if not carefully monitored, can result in reduced calorie intake and malnutrition. Depending on the severity of treatment, some survivors will have to visit the hospital to have a feeding tube administered in order to receive the necessary nutrition. Many people will experience weight loss following treatment, so it’s important to increase calorie intake by switching to higher calorie versions of normal foods. Additionally, avoid eating spicy foods initially as this can lead to inflammation of the mouth or digestive tract.
The psychological side effects of head and neck cancer treatment are not visible, but they can be long lasting and equally impactful. Consuming food and drink is a big part of many social interactions, and lacking the confidence to eat in front of others can have a detrimental effect on a person’s return to an active social life.

**Loss of taste**

Some treatments can affect the ability to taste and smell. Radiotherapy and chemotherapy can damage taste buds and salivary glands, altering the ability to taste. Food may have a metallic, bitter or salty taste, accompanied by a stinging or burning sensation that makes eating and drinking unpleasant. While changes in taste will often improve in the weeks and months following treatment, the sense of taste may not return to normal if the salivary glands are damaged.

**Psychological impact**

The psychological side effects of head and neck cancer treatment are not visible, but they can be long lasting and equally impactful. Consuming food and drink is a big part of many social interactions, and lacking the confidence to eat in front of others can have a detrimental effect on a person’s return to an active social life.
Although good nutrition is important after all major surgeries or treatments, it is especially vital for head and neck cancer patients. The aim should be to get back to as normal a diet as possible quickly after treatment, but this is often not an easy adjustment for head and neck cancer patients for a number of reasons.

Many head and neck cancer patients will experience a degree of malnutrition at the time of diagnosis, because of their symptoms, which is to be likely exacerbated by treatment. As well as the physical impact of treatment, the emotional stress that patients are also undergoing can lead to a reduction in eating and drinking. It is therefore essential to maximise the amount of energy and protein in the diet during treatment to maintain energy levels.

Research has shown that low calorie and low protein intake are associated with poor treatment outcomes and a reduced quality of life. Ensuring appropriate support to maintain a good diet is crucial to improve outcomes.

Post-treatment, a nourishing diet with additional calories and protein is necessary to aid the healing of surgical wounds and assist recovery. However, as previously discussed, side effects are often long lasting after the completion of treatment. Consulting a dietician, as part of the multidisciplinary team (MDT) approach to care, is vital to ensure appropriate support with regards to nutrition. People may not recognise that they are suffering from malnutrition, so it’s important they receive regular nutritional assessments. Caregivers also have an important role in monitoring diet.
Tips to Improve Your Diet

How can I ensure I am getting a balanced nutritional diet?

- **Puréeing, blending or incorporating naturally smooth foods such as yoghurt, can make them easier to swallow**

- **Choosing higher-fat alternatives such as whole milk, grated cheese, high-fat yoghurts, extra virgin olive oil and fruit juices, will introduce additional calories and nutrients**

- **Soups and smoothies are an excellent way to maintain calorie intake and consume plenty of fresh fruit and vegetables**

- **Softer foods, including flaky fish, casseroled meats, soft-cooked vegetables and bananas can be easily mashed**

- **Work with a healthcare professional to incorporate the necessary nutritional supplements into a regular diet, to ensure an adequate intake of nutrients**
What are some ways to help me adjust after treatment?

“Take your time, and be patient. I found incorporating a routine helped me adapt to the changes I experienced, and making adjustments then became much easier.”

“The foods you choose will depend a lot on the degree of difficulty eating. However, soups are easy to eat and can be extremely nutritious.”

“If you require a feeding peg following treatment as I did, try not to solely rely on it when using nutritional drinks for longer than a couple of months, if possible. Otherwise you will risk becoming reliant on it.”

“After my treatment food tasted strange and often appeared to have a metallic flavour. I found adding spices to dishes helped me recover my sense of taste.”
“Don’t be afraid to ask for alternatives; I have yet to find a restaurant, pub or café which will not make minor adjustments if you explain why”

“Immediately following my treatment I used a straw to try to get liquids as far down my throat as possible. The more you practice, the easier it becomes, and eventually you will no longer need it”

“Speaking to a nutritionist about appropriate solutions is very important. For me, it was asking what additional ingredients I could add to dishes to help with difficulties eating, due to a lack of saliva”

“Do not push yourself to go out to dinners when you are not ready”

“Try anything! Your taste buds will change over time but if you can’t eat it, leave it. Don’t worry what other people think, it’s their problem, not yours”
The following delicious recipes were submitted by head and neck cancer survivors from across Europe, after they helped them adjust to their new diet after completing treatment.*

*We recommend checking with your care team to ensure the following recipes are suitable for your diet. They can be adapted to suit your personalised needs.

**Carrot curry soup; Magali, Belgium**

**Ratatouille soup; Anke, Germany**

**Carob pie with almond butter; Sara, Portugal**

**Smoked haddock florentine; Chris, United Kingdom**

**Butternut squash and sweetcorn soup; Cath, United Kingdom**

**Roast salmon with turmeric, black pepper and lime juice; Alison, United Kingdom**
Carrot curry soup

Ingredients

- 4 x (411 g) cans chicken broth or 4 x (411 g) cans vegetable broth (use vegetable broth for vegetarian or vegan version)
- 8 large carrots, cleaned and cut into 2 inch lengths
- 1 large onion, chopped
- 1 tablespoon butter (or oil for vegans)
- 2 1/2 tablespoons curry powder
- 1/2 teaspoon turmeric
- 1/4 teaspoon ground ginger
- 1/8 teaspoon cayenne pepper
- 180 ml of cream (optional)
- Salt and pepper

Cooking instructions

1. In a large pot, sautée the onion with the butter until translucent
2. Add the broth and carrots and bring to a boil
3. Add all the spices and continue to boil until the carrots are cooked through
4. In a food processor or blender, purée the soup until the texture is smooth. You will need to do this in batches so that it doesn’t overflow
5. Return to the pot and stir, adjusting the salt and pepper to taste
6. For a creamy and indulgent version, mix in the cream
7. Serve hot

Recipe Credit – This recipe was provided by C. Taylor and is available on geniuskitchen.com:
http://www.geniuskitchen.com/recipe/curried-carrot-soup-303883#activity-feed

Initially I experienced difficulty chewing and swallowing, and at times dribbled when drinking. Over time I found new ways to help with eating and drinking. I adapted my diet by eating foods that melted in my mouth, such as pasta. When eating in public, I would ask for small portions so that I could eat slowly, and I often ate soup before going out, to prevent hunger.”

Magali
Belgium

This dish is easy to prepare, delicious and also contains a number of important nutrients.
**Ratatouille soup**

**Serves 2 – 3**

**Preparation time:** 20 mins  
**Cooking time:** 30 mins

**Ingredients**

- 4 tablespoons olive oil
- 1 large onion, chopped
- 3-4 cloves of garlic, finely chopped
- 1 red chilli pepper, finely chopped (amount to taste)
- 1 aubergine, diced
- 4 tablespoons of tomato purée
- 2 bell peppers, one red, one yellow, diced
- 1 courgette diced
- 1 medium-sized can of tomatoes, chopped, including juice
- Fresh oregano and/or thyme, chopped
- 1 L vegetable broth
- 100 ml heavy cream
- Sea salt and freshly ground black pepper
- 2-3 teaspoons white sugar
- Freshly ground nutmeg
- 1-2 bay leaves
- 1 teaspoon smoked pepper/Pimentón de la Vera picante
- 4-5 tablespoons mascarpone, sour cream or crème fraîche
- Serve with toasted bread/baguette and an extra dollop of mascarpone

**Cooking instructions**

1. Heat the olive oil in a large pot (medium to high heat), then add finely chopped onions, garlic cloves and chilli peppers
2. Cook until onions become translucent then add the tomato purée and aubergine, and sauté for 2-3 minutes, stirring occasionally
3. Add the bell peppers and courgette, the fresh herbs, and roast for a couple of minutes, while stirring occasionally
4. Deglaze the pan with the canned, chopped tomatoes, without stems and their juice, and add the hot vegetable broth and heavy cream
5. Add the spices: sea salt, black pepper, smoked pepper, sugar, nutmeg and simmer for 20-30 minutes, or until all vegetables are softened
6. Lift the pot off the stove and mash the mix with a handheld blender
7. Add the mascarpone, then pass through a fine-mesh sieve
8. Place the pot back onto the stove and add one or two bay leaves
9. Let the soup simmer for a few more minutes, and season to taste
10. Discard the bay leaves and serve with a generous dollop of either mascarpone, sour cream or crème fraîche, and a slice of toasted bread

**Recipe Credit** – This recipe was provided by Nicole Stich and is available on deliciousdays.com:  
http://www.deliciousdays.com/archives/2006/12/06/ratatouille-goes-soup/
Carob pie with almond butter

Serves 8  ⏹️  Preparation time: 15mins  Cooking time: 15mins

Ingredients

Juice of 2 oranges
5 eggs
2 tablespoons of rice flour
2 tablespoons of carob flour
50 g brown sugar
50 g coconut sugar
Olive oil to coat the square/rectangular mould
Almond butter

Note: You can replace the coconut sugar with the brown sugar or apple/banana purée (100 g total)

Cooking instructions

1. Preheat the oven to 180°C
2. Grease the rectangular or square mould (rectangular is preferable) with olive oil
3. Grease the parchment paper with olive oil
4. Add and beat the eggs with the sugar for 5 minutes
5. Add and beat the flour with the orange juice, to the same mixture. The flour should be spooned and alternated with the orange juice for 5 minutes
6. Put the mixture into the mould and place in the oven for 10 minutes
7. Rest something heavy on top to apply pressure for 5 minutes
8. Remove from the oven and allow the cake to cool for 5 minutes
9. Spread several tablespoons of almond butter over the cake with the help of parchment paper and serve

The recipe is easy to make and takes little time. To aid swallowing, this dish can be accompanied by a drink, such as chocolate milk or fruit juice

“Adapting to eating was a gradual process for me due to the impact of my treatment, as I experienced pain and sensitivity in my teeth, gums and tongue. While I used to find it embarrassing to eat in public, over time I have strengthened my jaw muscles, and as things began to return to normal I was able to start eating and talking as I had before.”

Sara
Portugal

Recipe Credit – This recipe was created in collaboration with nutritionist Dr. Simone Fernandes
Cooking instructions

1. Poach haddock in boiling water for approximately 20 minutes in a saucepan
2. Melt butter in a separate pan, add flour and cook over a low heat, stirring for 2 minutes but do not allow mixture to brown
3. Stir in the milk gradually to make sauce and cook until sauce comes to the boil and thickens, stirring regularly
4. Add fish to sauce and simmer gently for 3 minutes
5. Add 50 g grated cheese, salt and pepper and stir
6. Steam spinach for 4 minutes, drain well and place in the base of a greased dish
7. Cover spinach with fish sauce
8. Sprinkle remaining 25 g of cheese on top
9. Place under grill until the cheese has melted
10. Garnish with parsley and serve

Ingredients

- Large smoked haddock fillet
- 2 handfuls of spinach
- 75 g cheddar cheese
- 30 g butter
- 30 g plain flour
- 284 ml semi-skimmed milk
- 1/4 teaspoon of salt
- Ground pepper
- Fresh parsley

“Initially, I was restricted to a liquid diet, as I was unable to use my lower jaw following my operation. As a consequence, I had to use my tongue as a substitute for my lower jaw for approximately nine months. Food was liquidised for me at first, and later I cut food into small pieces that I could swallow whole. I still have no feeling in my upper jaw, and am still prone to dribbling even now, six years after my surgery, but my ability to eat has improved over time.”

Chris
United Kingdom

The soft haddock and spinach are easy to eat and provide essential vitamins and fatty acids. The cheese and butter provide calories and add flavour.

Smoked haddock florentine

Serves 2
Preparation time: 5mins
Cooking time: 30mins
Butternut squash and sweetcorn soup

Serves 4
Preparation time: 10mins  
Cooking time: 30mins

Ingredients

1 onion, chopped
500 g butternut squash, peeled, seeded and cubed
150 g sweetcorn kernels
600 ml vegetable stock
Salt and pepper

Cooking instructions

Using a soup maker
1. Add the onion, butternut squash, sweetcorn, salt and pepper to the soup maker, and the vegetable stock to the maximum level
2. Place the lid on the soup maker and select the ‘Smooth’ setting

Without a soup maker
1. Cook the butternut squash, onion and sweetcorn kernels in a pan for approximately 5 minutes on a moderate heat
2. Add the vegetable stock, bring to the boil and reduce the heat
3. Cover the pot and leave to simmer for approximately 45 minutes, or until the squash is soft enough to be blended
4. Blend until smooth
5. Add salt and pepper to taste and serve hot

As I can no longer eat corn on the cob, I chose this recipe so that I’m able to taste the sweetcorn. The soup is also a smooth consistency so it’s easy to swallow.

“My diet has improved so much in the last five years. I am now able to eat 75% of what I ate before my surgery, in which 80% of my tongue was removed. This is mainly because of my electric mincer. Cooked food can be processed through the mincer, which helps me to have as varied a diet as possible. Psychological challenges will always be there for you to overcome, especially when you see yourself in the mirror, but slowly and surely surviving cancer can make you a stronger person.”

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Cath
United Kingdom
Roast salmon with turmeric, black pepper and lime juice

Serves 2
Preparation time: 5 mins  Cooking time: 45 mins

**Ingredients**

- 2 salmon steaks
- 1/2 teaspoon turmeric
- 1/4 teaspoon black pepper
- Juice of 1 lime

**Cooking instructions**

1. Wash salmon and place on cooking foil
2. Sprinkle turmeric, black pepper and lime juice on the top
3. Fold over foil so that salmon is completely enclosed
4. Place in the oven and bake at 180°C for 45 minutes
5. Remove from foil and serve

The benefits are the fish oils and the potential anti-cancer qualities of turmeric and black pepper

“Initially, the challenges I faced were in getting sufficient nutrition from soups and yoghurts, and once my mouth healed I was able to start eating soft foods. Occasionally, when abroad on holiday, I had to ask for a main meal to be puréed, but generally there was sufficient choice to manage. This resulted in some weight loss, which was mainly due to the amount of time it took to eat.”

Alison
United Kingdom
## Nutritional Information

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Thank you and sponsors

We hope that this *Making Meals Make Sense* cookbook will prove to be a useful resource for patients, survivors and caregivers. In our efforts to continue increasing awareness and understanding of head and neck cancer, we continue to strive to improve outcomes for patients and survivors, at every stage of their disease.

Thank you to everyone who took the time to share tips and recipes. Your experiences are vital as we aim to increase awareness of the physical and psychological challenges that head and neck cancer survivors face as a part of their daily lives.

The *Make Sense* campaign is run by:

-European Head & Neck Society-

European support for the *Make Sense* campaign is provided by:

-Merck Norgine Bristol-Myers Squibb-

If you are interested in sharing a recipe please get in touch:

-www.makesensecampaign.eu-
-@MakeSenseCmpn-
-Secretariat@makesensecampaign.eu-
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