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NHS Foundation Trust

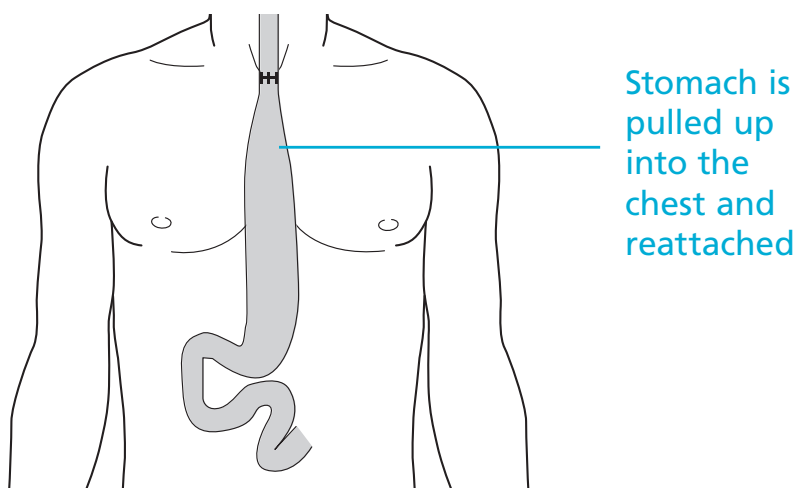
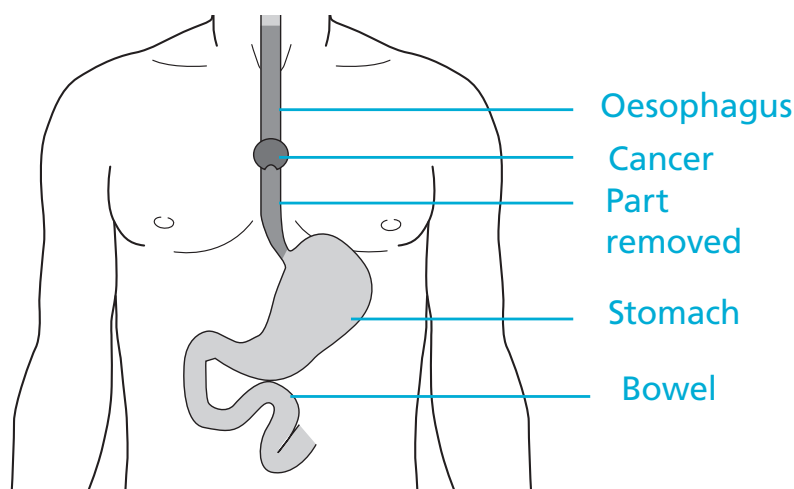


# Eating after your Oesophagectomy

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During your surgery you will have had most of your oesophagus (gullet) and the upper part of your stomach removed. This is called an oesophagectomy. The part of your stomach which has not been removed will have been narrowed and lengthened into a tube. This tube will have been brought up into your chest and attached to the remaining part of your oesophagus. This will affect what you eat and how you eat as the stomach can no longer accommodate large portions of food.



**Diagram showing before and after a total oesophagectomy**

It usually takes a few months to adapt to changes after your surgery but it is very important that you maintain a nutritious diet to ensure your wounds heal and to help with your recovery. The following information gives you a step by step guide as to how to change your diet as you progress through your recovery.

## **Enteral (tube) feeding**

As part of your operation you may have had a small feeding tube placed into your bowel; this is called a jejunostomy or JEJ tube. A liquid feed will be used to feed you liquids to ensure you receive the nutrition you need whilst your oral intake is re-established. When you are ready to go home, you will most likely be feeding using a combination of both enteral (tube) and oral (via the mouth) intake.

Enteral feeding begins soon after your operation and most often continues after you are discharged from hospital. You will be taught how to use the pump and care for the tube before you go home. The amount of time you will need the enteral feed for varies from person to person.

You need to continue taking enteral feeds until you are able to meet all your nutritional needs by mouth. Your dietitian/ surgeon will review this and advise accordingly. Please see separate instructions on your feed plan and care instructions.

## **Diet one – pureed diet (level 4)**

It is recommended that you follow a pureed diet for 14 days after you have been discharged from the Queen Elizabeth Hospital, Birmingham. However you might be advised by your dietitian or consultant to progress onto diet two before this length of time.

There are two important factors you must consider when following a pureed diet;

1. **Texture:** all foods should be smooth and moist, with no solid pieces. Use a blender or food processor to help achieve the correct consistency.
2. **Amount:** eat very small amounts at a time, no more than one cup or a small bowl per hour.

### **Recommended foods for a pureed diet;**

- Smooth/pureed foods
- Food that does not contain any lumps

In most cases, this can be the same meal your family is eating, but yours will have to be put through blender or food processor until it is of the right consistency.

**Dairy foods:** milk (including soya and rice milk), custard, yogurt, mousses, smooth ice creams and milkshakes.

If weight loss is a concern or you are keen to gain some weight, you should choose the highest calorie options that you can find. If you have diabetes and your blood sugars are high then low sugar options should be chosen. Please liaise with your diabetes specialist nurse if required.

**Cereal/starchy foods:** any smooth cereals such as porridge/ ready-brek or weetabix. Mashed potatoes.

**Vegetables and fruit:** any fruit juice, or pureed fruit. Well cooked soft vegetables, which are mashed or pureed. Be aware that acidic fruits such as lemons, oranges, pineapples, may cause reflux. \* If you have Diabetes it is best to avoid fruit juices as they are high in sugar.

**Meats:** any meat must be pureed, either in the food processor or blender.

### **Foods to avoid;**

- Foods difficult to puree for example: peas, sweetcorn and tomatoes due to the presence of skin/husks
- Fruits and vegetables that are stringy or pithy
- Carbonated drinks such as coke and lemonade

**Fluids:** drinking is important and you should make sure that you drink plenty of fluids. However, you should not fill yourself up with fluids before or during your meal. You should not drink for 30 minutes before or after a meal.

### **Key tips for following a pureed diet;**

- Equipment: using a hand blender is the simplest way of producing pureed foods.
- Taking foods little and often may be more manageable. Aim for small frequent meals and snacks
- Pureed foods can look more appetising if they are presented separately (e.g. separating a pureed meat casserole from the vegetables and potatoes)
- Colour is also important, for example, try serving brighter coloured vegetables such as pureed carrots with mashed potato and pureed chicken
- Cooked foods should be cut into small pieces then liquidised, blended or mashed and if necessary sieved to achieve a smooth consistency
- Most foods will need extra liquid to be added before or after they have been pureed. To improve the taste and nutritional value; add full fat milk, creamy soup or fruit/vegetable juice instead of water
- Remove tough skins and large seeds before blending foods.

### **Meal suggestions for a pureed diet;**

The goal is to eat small and frequent meals; you should aim for 6 meals a day. You should not eat more than one cup or small bowl at a time.

### **Breakfast**

- Smooth porridge
- Wheat biscuits soaked in milk
- Pureed sweetened fruit – tinned pears, stewed fruit, fruit compote
- Full fat smooth yoghurt or fromage frais
- Glass of fruit juice/ milkshake/ smoothie

## Lunch and dinner

### Meat and meat alternatives;

- Puree cooked meat before adding liquid, to avoid grainy texture and then add sauces such as cranberry sauce, apple sauce and tomato sauce to enhance flavour
- Chopped cooked meat such as ham can be added to sauces before blending
- Fish with white sauce, parsley sauce, cheese sauce or tartar sauce
- Pureed pulses (e.g. lentils, sieved beans or chick peas). Try adding to a tomato or curry sauce, soups and casseroles
- Eggs (e.g. savoury egg custard or scrambled egg) well cooked with added grated cheese
- Use full fat milk when preparing sauces or blending foods and try adding grated cheese into dishes such as fish pie or mashed potato. Plain yoghurt or cream cheese can also be stirred into soups or vegetables after blending

### Starchy foods and vegetables;

- Creamy soup
- Potatoes, sweet potato, and butternut squash: cook and mash with butter, yoghurt, grated cheese and/or full fat milk or add to stews and soups before blending
- Puree or mash vegetables with a sauce or a little extra liquid.

### Dessert

- Milk puddings (e.g. custard, rice pudding, semolina or tapioca)
- Blancmange, mousse, fruit fool, milk jelly or instant whip
- Tinned and stewed fruit or fruit crumble blended with cream or custard
- Smooth yoghurt, fromage frais, egg custard or crème caramel
- Ice cream/sorbet

## Snacks

You should choose 'full fat' products for extra nutrition.

- 'Dunked' biscuits in a warm milky drink
- Ready-made smooth desserts such as chocolate mousse or rice pudding
- Bowl of cereal (e.g. wheat biscuits or cornflakes soaked in milk)
- Bowl of creamy soup
- Corn snacks or light crackers that 'melt in the mouth' (e.g. Skips, Wotsits, Quavers, Ritz crackers, Tuc biscuits) and dips (e.g. sour cream or hummus)

## Drinks

- Cold milk, milkshake or yoghurt drinks
- Hot milky drinks (e.g. hot chocolate or malted milk)
- Fruit juices or smoothies
- Nutritional supplements If advised by your dietitian

## Diet two – soft diet

It is recommended you follow this diet for approximately 2–4 months after you are off the pureed diet. You will be monitored by a dietitian to assess your progress and decide when you can change to diet three. You may be advised to continue diet two for longer depending on how well your recovery is progressing.

Take your time with your meals. Make sure you chew your food well; food should be the consistency of apple sauce when it leaves your mouth. Do not over eat; continue to eat small portions, aiming for 6 small meals per day.

It can still be difficult to get all the calories that you need from your diet if you are eating small portions. You may have to continue to choose foods that are high in calories.

## Recommended foods for a soft diet

**Cereals and grains:** porridge, cornflakes, rice crispies, pasta and rice. Crackers, crumbly biscuits, bread sticks and cheese straws. Soft sponge or cake with cream or custard.

**Meat and meat alternatives:** baked or poached tender fish, minced beef with gravy, eggs, creamy peanut butter, corned beef, cooked dried beans, lentils and tofu. Pasta dishes, such as tuna pasta or macaroni cheese or casseroles. You should use lots of sauces and gravy to keep the food moist.

**Fruit and vegetables:** soft texture is important. If you can mash your foods with a fork, it is soft enough. Examples include: tinned fruit, ripe bananas, well-cooked vegetables, potatoes (no skins) and vegetable juices.

**Dairy:** All dairy foods including milkshakes, smoothies.

### Foods to avoid:

- All bread and pasties should be avoided
- Any tough meats
- No uncooked raw vegetables, nuts, popcorn or any other food with a hard consistency. You should avoid stringy foods such as green beans and bacon. Tough skins (e.g. jacket potato skin) and crispy coatings should also be avoided

**Feeding jejunostomy:** you may need to continue to be fed by your feeding jejunostomy. The rate and timing will be decided between you and your dietitian.

### Key tips for following a soft diet

- Eating foods little and often. Aim for small frequent meals and snacks
- Using sauces, butter, gravy, cream or custard can help to soften



foods and keep them moist

- Foods can be softened by chopping, mincing and mashing
- Try to make sure you chew foods well
- Only have small quantities of high fibre foods such as vegetables with your meals, these are important in your diet but are low in calories so can fill you up without helping weight gain
- Fortify (increase calorie content) your meals by adding extra butter, margarine, oil, cream or grated cheese to foods such as mashed potato, soup, porridge or sauces

## Meal suggestions for a soft diet

### Breakfast

- Porridge or Ready Brek
- Wheat biscuits or 'soggy' cereal (e.g. cornflakes soaked in full fat milk)
- Pureed sweetened fruit such as tinned pears or stewed fruit
- Full fat smooth yoghurt or fromage frais
- Glass of fruit juice, milkshake or smoothie (be careful of the sugar content)
- Scrambled egg or an omelette
- Well chopped skinless sausages
- Baked beans

### Lunch and dinner

#### Meat and meat alternatives:

- Shepherds pie, cottage pie or corned beef hash
- Minced cooked meats with gravy or sauce
- Small pieces of tender meat (e.g. meat or fish in a casserole, stew or hotpot)
- Poached fish in sauce or fish pie (check for bones)
- Tinned fish (tuna or salmon) with mayonnaise or sauce

- Scrambled egg, cheese omelette or egg mayonnaise
- Meals with a cheese sauce such as cauliflower cheese, macaroni cheese, or carbonara

### **Starchy foods and vegetables:**

- Mashed or boiled potatoes/sweet potatoes
- Mash the inside of a jacket potato with butter and filling
- Mashed or soft vegetables such as broccoli, carrots, cauliflower, suede, butternut squash or parsnips
- Mushy peas
- Tinned tomatoes or fresh tomatoes skinned & chopped
- Creamy soup

### **Dessert**

- Milk puddings (e.g. custard, rice pudding or semolina)
- Sponge pudding or cake
- Blancmange, mousse, fruit fool, trifle or milk jelly
- Stewed fruit or fruit crumble
- Full fat smooth yoghurt, fromage frais or egg custard
- Ice cream or sorbet

### **Snacks**

- 'Dunked' biscuits in a warm milky drink
- Sponge cake with cream
- Ready-made smooth desserts, chocolate mousse or rice pudding
- Bowl of cereal (e.g. wheat biscuits or cornflakes soaked in milk)
- Bowl of creamy soup
- Cheese spread or cream cheese with digestive biscuits
- Peanut butter or pate on crackers
- Cheese triangles
- Corn snacks or crisps (e.g. Skips, Wotsits or Quavers)
- Light crackers (e.g. Ritz crackers, Tuc biscuits or bread sticks) and dips (e.g. sour cream, hummus or salsa)

## Drinks

- Cold milk, milkshake or yoghurt drinks
- Hot milky drinks (e.g. latté, hot chocolate, cocoa or malted milk)
- Squash or cordial added to water
- Fruit juices or smoothies
- Nesquik or Complan shakes
- High calorie/protein shakes (e.g. Meritene or Nourishment) may be indicated, please discuss with your dietitian if you are concerned
- Creamy soups

Try not to fill yourself up with fluids. Do not drink fluids for 30 minutes before and after a meal.

## Diet three – all textures of food

After a few months on a soft diet you should be able to manage most foods. The volume may still be restricted however; you may find you can manage slightly larger portions as the months go on.

Bread and leafy salad items are the hardest foods to process through your new digestive system and may continue to be difficult for your body to break down. You should try a small amount, however if they leave you feeling overly full for a long period of time you should avoid them.

**Iron:** this will not be absorbed as easily following your treatment, so it is important to eat iron rich foods such as red meat, eggs, green vegetables, fortified breakfast cereals and oily fish. Try drinking fruit juice with iron rich foods because this can help your body absorb the iron.

**Calcium:** this will also not be absorbed as easily. A lack of calcium can reduce bone density so you should include high calcium foods and drinks such as milk, yoghurt, cheese and calcium enriched soya milk in your daily diet.

**Vitamin supplements:** due to your surgery it can be difficult for your body to process and absorb all the vitamins and minerals that it needs from your diet alone. We therefore recommend that you take a general multivitamin and mineral supplement. Choose one which contains vitamin C, D and folic acid. If unsure discuss this with your dietitian, they can also be prescribed by your GP.

### **Key tips to following diet three**

- Continue to follow the little and often meal pattern
- Sit upright, eat slowly and chew your food well
- Avoid drinking fluids for 30 minutes before and after eating
- Try to relax after eating
- Try to eat a wide variety of foods
- Take a daily multivitamin
- If you have any concerns contact the team on the number listed at the end of this leaflet

It can take up to a year, and sometimes longer, for the digestive system to adapt after surgery. When you feel fully recovered, your weight has stabilised and you are more fit and active, it may be appropriate for you to focus more on a healthy lifestyle.

This should include following a healthy, balanced diet which is high in fibre, low in saturated fat, and includes more fruit and vegetables.

Some patients find it difficult to gain weight for up to one year after surgery. If you are still losing weight you will need to continue with high calorie food choices.

### **Problems you may experience following your oesophagectomy**

An oesophagectomy significantly changes your gastro–intestinal tract (digestive tube) and can cause some short and long term changes. If you are experiencing any symptoms you are concerned about you discuss these with the team.

## Swallowing

After surgery, scar tissue at the join in your oesophagus, may restrict the flow of food or feel like a lump in your throat. This can be worrying and remind you of your original symptoms. The problem can be treated by dilating (stretching) the surgical join during an endoscopy. This is a routine procedure but may need to be repeated a few times in the early months after your treatment. Do not allow the problem to persist for too long. Contact your specialist nurse to arrange an outpatient clinic appointment if you experience persistent or worsening difficulty in swallowing, to discuss an endoscopy and contact your dietitian for dietary advice.

## Dumping syndrome

Your altered digestive system affects the rate that food passes through. Food may pass through more quickly causing a number of possible symptoms, these can include; bloating, nausea, palpitations, flushing, sweating, faintness, tiredness, loose stools or diarrhoea. It can be unpleasant and distressing, but it is not serious and generally the frequency of attacks become less.

If you experience these symptoms contact your dietitian for further advice. There are two types of dumping syndrome; early (15 to 30 minutes after eating) and late (1.5–3 hours after eating). Management of dumping syndrome can be discussed further with your dietitian but if you feel you are experiencing dumping please follow the recommendations below;

1. Limit high sugar foods such as cakes, biscuits and chocolate
2. Try to include foods higher in fat and protein at meal times such as cheese, butter, pies, cream, etc – this can slow down stomach emptying
3. Eat small, frequent meals regularly throughout the day
4. Take time to relax at mealtimes, eat slowly
5. Chew your food well
6. Reduce fluids 30 minutes before meals and avoid fluids with meals

## Change in bowel habit

It is very common to experience changes in your bowel function following this surgery. Patients often report episodes of diarrhoea, often in the morning which can be severe at times. You can experience normal stools for a few days or weeks and then have a day or two days when you experience episodes of diarrhoea.

This is very unlikely to be related to the food you are eating or your feed, as long as you are following the advice given to you by your dietitian. It can be managed by medication such as ioperamide (Imodium), which slows down the gut function. If your stools are pale or floating, let the team know, it may be because you are not digesting the fat in your food properly. This will lead to weight loss and nutritional problems as you will not be able to absorb all the vital vitamins you need. You will need some medication and dietary advice to manage this problem.

## Loss of appetite

Most patients who have had an oesophagectomy report loss of appetite and loss of interest in food at some point during their recovery. This can last a few weeks or years. Appetite stimulation is a complex process, but it is partly controlled by the production of hormones produced in the top part of your stomach. As this part has been removed it is possible you won't get the same 'brain messages' to say you are hungry.

Just because you are not feeling hungry does not mean you do not need the calories from your food. Try to eat by the clock (every 1–2 hours) rather than waiting until you are hungry.

## Tips to stimulate your appetite:

- Go for a short walk or get some fresh air before your meal
- Relax and avoid rushing meals
- Try using a smaller plate and serve meals which are attractive and colourful

- If you are too tired to prepare a meal, have a ready meal instead
- If food has no taste, try stronger flavours such as seasoned or marinated foods
- Make the most of the foods that you enjoy
- Avoid drinking large amounts of fluids, particularly before or after a meal, this can leave you feeling full and reduce the capacity for food.

If you are keen to try and gain some weight, consider choosing higher fat alternatives (ie full fat milk) and fortify food and drinks by adding things like skimmed milk powder, grated cheese/a tablespoon of butter/cream/mayonnaise or oil to your food. This can add extra calories without increasing the overall amount you are eating.

Eating calorie and protein rich snacks in between can also help aid weight gain.

## Acid reflux

Reflux of acid occurs in every patient after surgery. It occurs most commonly at night or early in the morning. The symptoms can be a burning feeling in the stomach or throat, gastric pain, an unpleasant taste in the mouth or coughing on waking.

You will need to take an acid suppressant tablet (for example lansoprazole or omeprazole) for the rest of your life to reduce the amount of acid your stomach produces to prevent reflux symptoms. Please let your specialist nurse, doctor, or dietitian know if you have not been given a prescription for these tablets.

Extra pillows or raising your bed head by about 4–6 inches with blocks of wood, books or a pillow wedge can be beneficial, and a pillow under the knee area may prevent you slipping down during the night. You should also avoid eating a full meal after 7pm in the evening. After 7pm only eat a small snack and limit the amount of fluids you drink.

## Contacts

If you have any further questions about the information in this leaflet, please contact the Upper GI Dietitian at QEHB:

Telephone: **0121 371 3485**

For patients being followed up by the Heartlands team, you can contact the Macmillan dietitian on **0121 424 2673**.

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