



Dietetics

Dietary advice following a gastrectomy

This information is for adult patients who have had surgery to remove part or all of their stomach (gastrectomy).

What is a gastrectomy?

A gastrectomy is the surgical removal of part or all of the stomach. It is performed usually for cancerous or benign tumours or stomach ulcers.

If all of your stomach is removed, this is called a total gastrectomy.

If part of your stomach is removed, this is called a **partial or subtotal gastrectomy.**

The stomach acts as a storage place for food. When part of your stomach is removed, it reduces the space available for food.

It can also affect how food is emptied into your gut. You may have a poor appetite, feel full very quickly and have difficulty maintaining or regaining your weight.

Eating after a gastrectomy

This leaflet aims to help you reduce any discomfort you may feel when eating. It also aims to help you regain some of the weight you may have lost.



There are no set rules for people after having gastric (stomach) surgery - what works for one person may not for another.

If you're feeling full

You will need to eat little and often, especially after a sub-total or total gastrectomy. Aim for 5 to 6 small meals or nourishing snacks per day.

Try to increase the size of your portions gradually. This will help you get used to how much you can manage comfortably.

Eat slowly and chew your food well. This will help with digestion and prevent you from feeling overfull too quickly.

You do not have to finish everything on your plate - listen to your body. You may want to use a smaller plate.

Save your pudding until later when you feel less full.

Very high fibre foods may make you feel uncomfortably full (for example, wholemeal bread, wholemeal pasta, green salads, beans, pulses).

Avoid having liquids (drinks or soup) with meals. These can fill you up and prevent you from eating enough food.

What types of food should I be eating?

A few days after your operation you will be able to start on liquids and slowly build up to a soft diet. You should then follow a diet of moist, soft foods for the next **4 weeks**.

You shouldn't need to puree or liquidise your food. But your food should be soft enough to mash with a fork.

Adding extra gravy or sauces may make it easier to chew and swallow your meals.

Avoid bread, toast and tough meat (such as steak and chops) during this period.

Try to have a variety of different foods each day. No one food group has all the nutrients necessary to maintain health.

Meal ideas

The following soft foods would be suitable in the first few weeks after your surgery:

Breakfasts

- Porridge, Ready Brek or other instant oat cereal
- Weetabix, Cornflakes, Rice Krispies, Branflakes softened with warm milk
- Yogurt or Fromage Frais
- Scrambled, poached or boiled egg with tinned chopped tomato
- Skinless sausage and baked beans
- Soft fruit such as tinned pears, peaches, stewed apple, mashed banana

Light meals

- Omelettes, plain or cheese
- Poached, scrambled or boiled egg with baked beans or tinned plum tomatoes
- Soup make up packets with milk instead of water and add cream or skimmed milk powder
- Tinned pasta such as spaghetti in tomato sauce, ravioli, macaroni cheese with extra grated cheese
- Jacket potato without the skin with one of the following fillings:
 - Cream cheese or grated hard cheese
 - Meat or fish paste, pate or corned beef
 - Sardines or pilchards (remove any bones)
 - Taramasalata or other fish roe
 - Tuna or mashed hard boiled eggs mixed with mayonnaise
 - Baked beans

Crackers/crisp breads such as Ryvita Crackerbread, Tuc biscuits.
 Cheddars with moist toppings such as cheese spread, tuna/egg mayonnaise, smooth peanut butter, hummus, mashed avocado, pate, taramasalata

Main meal ideas

- Corned beef hash
- Shepherd's or cottage pie
- Faggots and thick gravy
- Fisherman's pie
- Fish with a white or butter sauce
- Stew or casseroles or curries using minced beef, lamb, pork, chicken or root vegetables
- Finely chopped chicken or vegetables cooked in a jar or packet of sauce, crème fraiche, fromage frais, or condensed soup
- Cheese and potato bake
- Cauliflower cheese (well-cooked) or macaroni cheese
- Spaghetti bolognaise, lasagne or meat balls
- Lentil dhal or Aloo gobi
- Risotto

Serve with mashed potato, sweet potato or parsnip, jacket potato without the skin or soft roast potato (soaked in gravy) together with vegetables. These can be any root vegetables, broccoli, cauliflower, sprouts, marrow, courgette, sautéed onion or tinned tomatoes.

Puddings/snacks

- Jelly or Milk jelly (use evaporated milk or nutritional supplements i.e. Fortisip instead of water)
- Rice pudding, semolina, sago, custard
- Mousse, Instant Whip, Fruit fool, Trifle, Crème caramel
- Tinned sponge pudding or swiss roll and custard
- Chocolate gateau, dairy cream sponge

- Ice cream, sorbet, frozen yoghurt
- Tinned, stewed or soft fresh fruit with custard, cream, evaporated milk or ice-cream
- Biscuits dunked in hot drinks to help soften them
- Jaffa cakes
- Soft chocolate or fudge
- Bowl of cereal with hot or cold milk
- Crisps such as Quavers, Skips, Wotsits
- Square of cheese

Getting back to a normal diet

After the soft diet period, you can start to introduce your normal foods back into your diet.

You need to make sure that you are eating small, frequent meals and snacks to help maintain a healthy weight.

Be sure to include the following nutrients in your diet: Calcium

Calcium rich food such as milk and dairy products, fish with soft bones (pilchards, sardines), green leafy vegetables, pulses.

After a gastrectomy your body may not absorb enough calcium. Calcium is important for strong teeth and bones.

If you feel that you are no longer tolerating milk well, try non-dairy forms such as soya, almond, rice milk but make sure that they are 'fortified with calcium and vitamin D'.

Vitamin D

Vitamin D rich foods include margarine, oily fish (pilchards, sardines, herrings, trout, mackerel, and kippers), cereals and eggs. Sunlight is also a good source.

Vitamin D helps your body to absorb calcium to maintain healthy bones. Your doctor may prescribe a calcium and vitamin D supplement.

Iron

Iron rich foods such as red meat, liver, fish, egg yolk, green leafy vegetables, pulses, dried fruits, nuts and seeds.

After a gastrectomy you may develop iron deficiency anaemia. This is because your body is less able to absorb enough iron from food.

Iron forms part of haemoglobin, a protein in your blood which carries oxygen around the body.

Folic acid and vitamin B₁₂

Folic acid and vitamin B₁₂ are required to make new red blood cells and are also important to prevent anaemia.

After a total gastrectomy your body will not be able to produce a protein called 'intrinsic factor'. This is needed to absorb vitamin B₁₂ and folic acid from your food.

Your doctor will give you 3 monthly vitamin B₁₂ injections.

Rich sources of folic acid are liver, yeast, green leafy vegetables, pulses and fortified breakfast cereals.

What to do if you are losing weight

It is quite common to lose weight after a gastrectomy.

It is especially common to lose weight after a total gastrectomy. Your body needs to adapt to the surgery and you get used to your new pattern of eating.

If your appetite remains poor or you are not able to maintain your weight, the following ideas may be useful:

Enriching your food and drinks

Fortified milk

You can use in place of milk or water to make coffee, hot chocolate, packet soups, milk puddings, custard, cereals and sauces.

Ingredients:

- 1 pint full cream milk
- 2 to 4 tablespoons skimmed milk powder
- Whisk together and refrigerate until used

Double cream, evaporated milk, ice cream

- Add to milkshakes
- Use cream or evaporated milk in sauces, soups, mashed potato, cereals, custard, puddings, or on jellies.

Cream cheese / cheese spread

- Try to use the full fat varieties
- Add to mashed potatoes, soup, white sauces

Sugar, syrup, honey or seedless jam

 Add to suitable cereals and puddings, such as rice puddings and custard

Yoghurt

- Use full fat smooth or thick and creamy varieties
- Add to pureed fruit or use to make yoghurt drinks.

Butter, margarine, oil, salad cream or mayonnaise

 Add to mashed potato, tinned tuna, mashed boiled eggs or use butter or oil to fry soft foods

Other

- Biscuits, yoghurts, cheese, savoury biscuits, cakes, crisps, dried fruit, chocolates and sweets are useful high calorie snacks. Take care with sweet foods however if you experience dumping type symptoms.
- If you have more foods which contain sugar, it's important to brush your teeth twice a day. This is to prevent tooth decay.
- Drink nutritious drinks between your meals. Examples include a glass of milk, a mug of Ovaltine, hot chocolate or cocoa, soup ('cream of' varieties). Other options you may wish to try are Meritene soups or shakes, or Complan Shakes which are available from the chemist or supermarket.
- You could try a small sherry or whisky before meals to help increase your appetite. If you are taking any medications, please check with your doctor that it is OK to have alcohol.

Nutritional supplement drinks

If you are unable to eat enough food to maintain your body weight your Dietitian may suggest you try a sip feed. These are useful to improve your nutritional intake and help you gain weight. They should not replace meals or snacks, unless your appetite is very poor.

Your Dietitian will advise your GP to prescribe these if needed.

Vitamin & mineral supplements

After surgery to your stomach or gullet (oesophagus), it will be more difficult to absorb the vitamins and minerals you need to keep healthy.

This can be due to the direct effects of the surgery, and also some of the medications that you may be taking.

We recommend a daily complete vitamin and mineral supplement.

Make sure that the supplement you choose is 'complete' and contains the full range of vitamins and minerals, including iron (at least 14mg per tablet). Here are some examples of suitable vitamin and mineral tablets:

- Forceval or Forceval soluble
- Lloyds Pharmacy A-Z Complete
- Superdrug A-Z Multivitamin and Mineral
- Sanatogen A-Z complete
- Boots A-Z Multivitamin and Mineral
- Tesco A-Z Multivitamin and Mineral

If you are still on an overnight jejunostomy tube feed, you won't need to start taking a vitamin and mineral supplement until this has stopped.

Other possible side effects of surgery Diarrhoea

- Loose, watery poo can be a problem for some people after this type of surgery. This can last for the first few months after the operation.
- This is unlikely to be due to any particular food you are eating. Try not to exclude foods from your diet unless a certain food causes these symptoms.
- Ask your doctor about anti-diarrhoeal medication if the problem lasts.
- It is important to make sure you drink plenty of fluid to replace any lost through diarrhoea. This will prevent you becoming dehydrated.
- If your stools are consistently pale in colour, have an oily appearance and are difficult to flush away, contact your dietitian or specialist nurse.
- Further information is available from the Health Information Centre, titled "Diet and cancer care: diarrhoea"

Heartburn

This can happen beacuse backflow of stomach acid and juices into your oesophagus (gullet). This can cause soreness and inflammation. You can reduce this by:

Sitting upright during meals

- Avoid bending or lying down for about 45 minutes after eating
- Avoid eating or drinking late in the evening. Sleep propped up with 2 to 3 pillows under your head
- Avoid tight clothing and belts

Your doctor may prescribe some medication to help prevent this such as omeprazole.

If you have had a total gastrectomy, you will not experience any acid reflux as you no longer have a stomach to produce acid.

But you could experience bile reflux. This won't be relieved by anti-acid medication. Contact you specialist nurse or dietitian for further advice.

Dumping syndrome

This is when the food in your remaining stomach is "dumped" too quickly into your intestine. Usually, your stomach acts like a reservoir to slowly let your food go into the intestine.

This happens occasionally after surgery when part or all of your stomach and vagus nerve are removed.

There are two types of dumping:

- Early: can usually happen within 30 minutes of eating
- Late: can happen 2 to 3 hours after eating

Early dumping (within 30 minutes of eating)

This is the most common form of dumping after oesophageal/gastric surgery. It happens soon after eating when food quickly enters the small intestine.

The high concentration of food draws in water from surrounding tissues. This causes a drop in blood pressure and increased blood flow to the small intestines.

Symptoms of early dumping:

- nausea and vomiting weak, dizzy, sweating
- abdominal cramps
- high pulse rate
- anxiety
- shortness of breath
- fainting
- decreased blood pressure
- abdominal pain followed by diarrhoea
- feeling warm

You can reduce symptoms by:

- Sitting or lying down for 15 to 30 minutes after eating, until symptoms pass
- Chewing well and eating slowly
- Eating 5 or 6 small meals a day rather than 3 large meals
- Avoid liquids with meals liquids should be taken 30 to 60 minutes after meal
- Avoid too much sugar, sugary foods and drinks. Use an artificial sweetener instead
- Increasing the fat and protein content of your meals can help slow down food passing through the gut

Late dumping (2 to 3 hours after eating or when a meal has been missed)

This is less common. Late dumping happens when the stomach releases a high concentration of carbohydrate into the intestine.

This carbohydrate is then broken down into glucose. As this glucose is absorbed into the blood, too much insulin is produced to reduce the blood glucose level.

It's this high insulin level and resulting low blood glucose which can cause these symptoms.

Symptoms of late dumping

- Dizziness
- Cold Sweats
- Anxiety
- Low blood pressure
- Low blood sugar
- Faintness
- Tiredness
- Headache

You can reduce symptoms by:

- Following the advice for preventing early dumping syndrome
- Chewing glucose tablets once the dizziness starts may help to reduce the symptoms.

Further information

If you have any other questions or require further information, please use the contact details below.

Coventry Dietitians: Telephone: 024 7696 6161

Upper Gastrointestinal

Specialist Nurses: Telephone: 024 7696 6475

Cancer Information Centre: Main entrance of University Hospital,

Coventry Clifford Bridge Road,

Coventry CV2 2DX

www.macmillan.org.uk

Telephone: 024 7696 6052

Monday to Friday 9.00am to 4.00pm

Cancer Research UK

020 7121 6699

www.cancerresearchuk.org

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