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## Short Bowel Syndrome - Your guide to eating and drinking when you have your colon



*Name:* \_\_\_\_\_

*Date:* \_\_\_\_\_

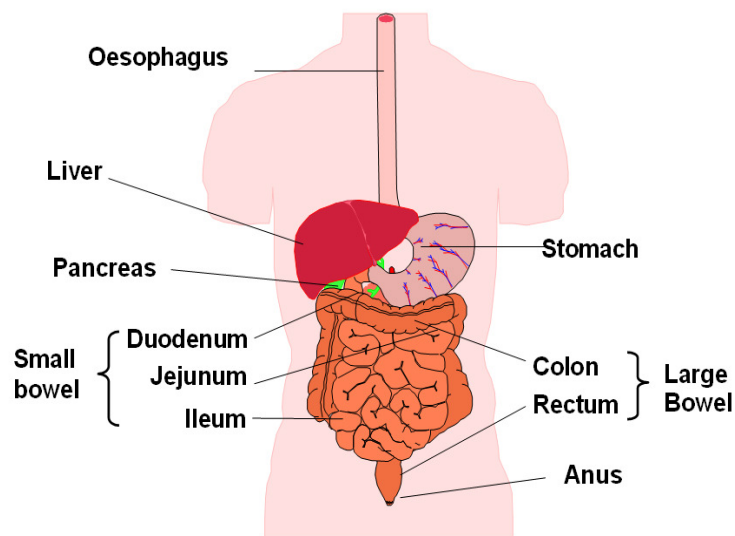
*Dietitian:* \_\_\_\_\_

## What is short bowel syndrome?

Short bowel syndrome is a rare condition in which

- a) the small intestine is unable to digest and absorb the correct amounts of nutrients.
- b) the body does not reabsorb fluids, including digestive juices, produced normally by the intestines (gut).

This can lead to problems such as malnutrition, weight loss, diarrhoea and dehydration. To understand why this happens, it is important to consider what happens in a person without short bowel syndrome.



**DIGESTIVE SYSTEM**

## Useful addresses

### **PINNT (Patients on Intravenous and Nasogastric Nutrition Therapy)**

PO Box 3126  
Christchurch  
Dorset  
BH23 2XS  
[www.pinnt.com](http://www.pinnt.com)

### **St Mark's Hospital**

Department of Clinical Nutrition  
Telephone: 02082354120

This booklet has been produced by the Dietitians at St Mark's Hospital which is part of the North West London Hospital Trust. Please contact us for more information on 02088692666 between 9am and 5pm Monday to Friday.

**The team at St Mark's are always happy to advise health care professionals regarding the treatment of short bowel syndrome.**

For a translation of this leaflet or for an English version in large print, audio or Braille, please ask a member of staff or call 08007834372. The North West London Hospitals' Patient Advice and Liaison Service (PALS) is a confidential service for people who would like information, help, or advice about the services provided by any of our hospitals. Please call 08007834372 or email [pals@nwlh.nhs.uk](mailto:pals@nwlh.nhs.uk) between 9am and 5pm.



## Guide to eating and drinking

Eating is important and helps keep the inside of the bowel healthy. When you have had a part of your intestine removed, your body may not absorb all the nutrition you need to maintain health. Therefore you may need to eat more food than you used to.

However, having your colon in continuity is helpful because it:

- Absorbs fluid and salt
- Slows the movement of food through the bowel allowing more time for nutrition to be absorbed
- Absorbs energy from the breakdown of starchy foods in the colon

## Reintroducing food after surgery

After surgery you may initially experience some abdominal pain, bloating and diarrhoea and you can reduce these symptoms by:

- Eating small regular meals and snacks
- Choosing soft, low fibre foods
- Chewing your food well

The doctors may prescribe medications that reduce the amount of acid produced by your stomach (anti-secretory) or that slow down the time taken for food to travel through your gut (anti-diarrhoeal) to reduce the number of times you open your bowels.

Over time, these symptoms may reduce as the bowel adapts and your body is able to digest food better.

If you think you are dehydrated, a **random urinary sodium** is the best test and you should ask your GP to check this for you. If it is below 20 you are dehydrated and should contact the St Mark's team as soon as possible.

Please show this leaflet to any other health professionals you may come into contact with, such as your GP or district nurse. You may find that you are given incorrect advice by people who are not used to caring for people with short bowel syndrome.

If you ever need to seek treatment elsewhere it is important to let whoever is caring for you know that you have short bowel syndrome and are a patient at St Mark's Hospital.

## Long term monitoring

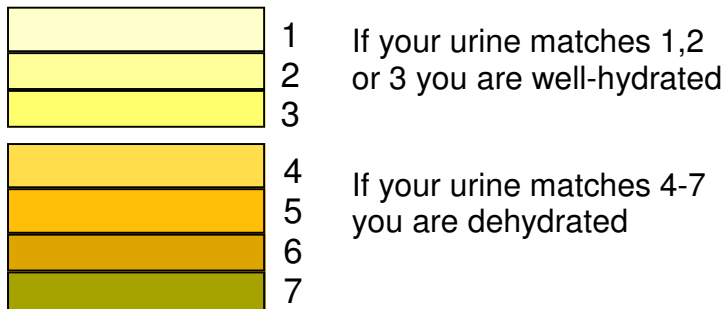
The treatment you are offered and advice given in this leaflet may help prevent you becoming malnourished and dehydrated. It is important that your progress is monitored regularly. When you attend the outpatients clinic you will be weighed, have blood taken and be asked for a urine sample to help us monitor your condition.

### Weight

Your weight is important because it tells us how well nourished you are. Your weight will fluctuate daily due to the amount of fluid in your body. It is important that you weigh yourself once a week at home and if you are losing weight please contact a member of the St Mark's team on the contact numbers at the end of this leaflet.

### Urine

Your urine is important because it tells us if you are dehydrated. The colour of your urine is a good guide to see how well hydrated you are and the guide below will help you assess this.



## Long term diet changes

To maintain weight and health you should choose a nutritious diet. Following the guidelines in the next few pages will help you to choose the right foods to increase nutrient absorption and reduce diarrhoea. Your diet needs to be:

- **High protein and energy**
- **Moderate in fat**
- **High in carbohydrate**
- **Low in fibre**
- **Low in oxalate**

### High protein and high energy

Eating foods high in energy (calories) and protein will help you recover from surgery and maintain your weight.

- Include a portion of protein at each meal for healing. For example; meat, fish, eggs, cheese, yogurt and pulses (if vegetarian)
- Include starchy carbohydrate for energy. For example white bread or chapattis, potatoes, white rice, noodles, pasta or low fibre breakfast cereal at each meal
- In between meals, snack on foods such as sandwiches, cereal, crackers, milky drinks, yogurts, plain biscuits, cakes or crisps. Try toast, crumpets or muffins
- Try adding sugar to drinks, cereals and puddings
- Spread jam, marmalade, honey or syrup thickly on bread or add to milk puddings, porridge and yogurt
- Eat scones with butter and jam
- Include desserts such as milk puddings, custard, mousse, ice cream, yogurt or cheese
- Try adding custard or ice cream to puddings for extra energy

## Fat

Fat is a good source of energy to help you gain weight. Some people have difficulty digesting fat. If you notice that your stools are pale in colour, look oily, float on the surface and are difficult to flush away, then you may need to decrease your fat intake to help reduce this problem.

### Ways to decrease your fat intake

- Choose a low fat spread rather than butter, or margarine and spread it thinly
- Switch from whole milk to semi-skimmed milk
- Choose low fat yoghurt or fromage frais for dessert, snacks, to make creamy sauces for pasta or as a topping for jacket potatoes
- Use half fat hard cheese instead of full fat varieties or use less of the strongly flavoured full fat cheese. Low fat cottage cheese or low fat soft cheese can be used instead of cream cheese in sandwiches
- Make salad dressing with low fat natural yoghurt, herbs, spices, tomato juice, vinegar or lemon juice or use low fat salad cream or mayonnaise
- Limit crisps, chocolate, pastries, rich cakes and biscuits or choose lower fat options such as scones, tea cake, ginger bread, Jaffa cakes and Rich Tea biscuits
- Buy lean cuts of meat and trim off any visible fat.
- Microwave, steam, poach, boil, grill or stir fry foods rather than frying

## Medicines used in short bowel syndrome

The medicines prescribed for people with short bowel syndrome work in one of two ways, either slowing down the passage of food and drink in the intestines (anti-motility) or reducing the amount of acid produced by your stomach (anti-secretory).

### Anti-motility medications

- Loperamide
- Codeine Phosphate

**These need to be taken 30-60 minutes before food to work best. These medications are usually prescribed in much higher doses than for someone who does not have short bowel syndrome. Your GP will be advised of this.**

### Anti-secretory medications

- Omeprazole
- Ranitidine
- Lansoprazole

Any fluid used to take your medicine should come from your fluid allowance so you may find it helpful to take your medications with electrolyte mix.

It is important that you do not take any other medicine from a chemist or health food shop without discussing it first with your doctor or pharmacist as they may interfere with your prescribed medications.

If you have had the last part of your small bowel (ileum) removed you will require vitamin B12 injections every three months to prevent anaemia.

## Salt

Each day if you experience diarrhoea you will lose a lot of salt (sodium) and it is important to try and replace these losses by following a diet high in salt.

- Salt should be added when cooking potatoes, rice, pasta and vegetables
- Salt should be added to your meals at the table
- Flavour foods with soya sauce, garlic or celery salt
- Use tomato ketchup or brown sauce with meals

The following foods are high in salt and should be eaten regularly:

- Cheese, bacon, ham, gammon, grilled sausages and burgers
- Smoked fish such as kippers, salmon and mackerel
- Canned fish such as tuna, sardines, salmon, pilchards, mackerel in brine
- Meat and fish pastes
- Tinned foods such as spaghetti and ravioli
- Use Oxo, Bovril, gravy granules or stock cubes to add flavour and make sauces/gravy
- Yeast extracts such as Marmite and Vegemite
- Salty crisps, savoury biscuits and crackers
- Pot noodles and packet savoury rice

## Carbohydrate

Carbohydrates or starchy foods are a good source of energy and an important part of everyone's diet. These foods may help you gain or maintain weight because your colon can get energy from the breakdown of starchy foods.

### Ways to increase carbohydrate intake

- Try to include a starch food such as bread, chapattis, potatoes, rice, noodles, pasta, or cereal at each meal
- In between meals, snack on starchy foods such as a small sandwich, cereal, crackers, plain biscuits and cakes or crisps
- Try toast, crumpets, scones or muffins as a snack
- Try adding sugar to drinks, cereals and puddings
- Spread jam, marmalade, honey or syrup thickly on bread or add to milk puddings, porridge and yogurts
- Try high energy desserts such as ice cream, sponge puddings, fruit crumbles and milk puddings.
- If fruit is tolerated, include it as a dessert or snack removing the skins, seeds and pips if necessary
- If vegetables are tolerated try carrot, parsnip, swede and turnip

If you are finding it difficult to eat the amount of food recommended then your dietitian may suggest high energy supplements. Your dietitian will advise you if these need to be included in your daily fluid allowance. These supplements are available on prescription from your GP.

Supplement	Frequency

## Fibre

Foods high in fibre include cereals, fruit and vegetables. Fibre is not completely digested by the body. Foods high in fibre pass through your gut quickly and changing to foods lower in fibre may reduce your bowel frequency.

### Ways to limit your fibre intake

- Use white bread instead of brown or wholemeal
- Use refined breakfast cereals such as Cornflakes, Rice Krispies or porridge instead of high fibre varieties such as All bran, Bran flakes, Weetabix, Shredded Wheat or Muesli
- Use white pasta and rice instead of brown varieties
- Try not to eat the skin on potatoes
- Eat biscuits made with white flour such as Rich Tea, Marie, malted milk, Nice rather than wholemeal biscuits like Digestives or Hobnobs. Try to avoid biscuits with fruit or nuts such as Garibaldi, figs rolls and fruit shortbread
- Eat crackers made with white flour such as cream crackers, Ritz biscuits, water biscuits and breadsticks instead of Krackerwheat, Ryvita or Hovis biscuits
- Limit your intake of pulses (beans, peas or lentils) unless you are a vegetarian when you should include one portion a day for protein
- You may include small portions of cooked vegetables but avoid skins, stalks, or seeds if necessary
- You may include small portions of fruit but avoid skins, pips, seeds and piths if necessary. For example, tinned fruit, stewed fruit and peeled fruit
- Avoid nuts and dried fruit

### Tips to help you take your electrolyte mix

- The electrolyte mix is best served chilled
- It can be frozen and taken as a slush
- Try drinking it through a straw
- You may wish to add a **small amount** of squash, fruit juice or cordial to improve the taste. This is best added while making up the solution rather than adding to each glass so that the salt content remains high
- Fresh lemon or lime juice may be added

When it is hot we sweat and lose salt and fluid from the body. People with short bowel syndrome are more likely to get dehydrated when it is hot and you may find you need to drink more electrolyte mix to replace these losses.

### Tips to help you stick to your fluid restriction

- Sip all fluids, including your electrolyte mix, slowly throughout the day
- Use smaller cups and glasses
- Suck boiled sweets or mints
- Suck ice cubes or ice lollies as part of your fluid allowance
- Try to keep busy so you are not thinking about feeling thirsty

## Alcohol

Any alcohol you wish to drink must be included in your fluid allowance. Some medications should not be taken with alcohol, please discuss this with your doctor or pharmacist.

## St Mark's electrolyte mix

### How to make electrolyte mix

You will need to make up the solution fresh each day.

Mix six level 5ml spoons of glucose

One level 5ml spoon of sodium chloride

One heaped 2.5ml spoon of sodium bicarbonate

mixed in 1 litre (1000ml) of tap water

You can buy the powders from any pharmacy and some supermarkets or prescribed from your GP.

Sodium chloride is table salt and sodium bicarbonate is also known as bicarbonate of soda or baking soda.

If you need to get electrolyte mix prescribed, please show your GP this leaflet. They will need to prescribe it in the following way in order for the community pharmacist to be able to supply them to you.

Rx St Mark's Electrolyte Mix

Formula: - Glucose	20g
Sodium chloride	3.5g
Sodium bicarbonate	2.5g

## Oxalate

Oxalate is a substance found in foods and produced by your body during digestion. It normally attaches to calcium and is passed in the stool. However, following a small bowel resection, unabsorbed fats enter the colon and attach to calcium releasing oxalate to be passed in the urine. This increases your risk of developing kidney stones.

This risk may be reduced by:

- Reducing your oxalate intake
- Taking a moderate fat diet (see previous section)
- Increasing your calcium intake

### Foods high in oxalate to reduce your intake of include:

- Spinach, nuts, sesame seeds, strong black tea, chocolate, cocoa, beetroot, bran-containing breakfast cereals, wholemeal bread, rhubarb, beans (including baked beans in tomato sauce), soybeans and soy products

### Ensure an adequate calcium intake:

- Aim for 300-600ml of milk each day or its equivalent from cheese or yoghurt
- 200ml of milk contains the same amount of calcium as one small carton of yogurt (150ml) or a matchbox (30g) portion of cheese

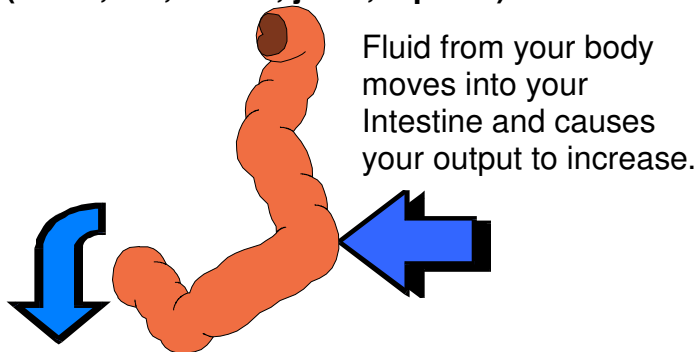
## Drinking

Your colon absorbs fluid and salt so people with their colon do not usually have problems with dehydration unless part of the colon has been removed. If you have had surgery to rejoin your small bowel to your colon you may initially experience diarrhoea. Over time your colon will get better at absorbing fluid and salt and your bowel frequency should improve. However if your bowel frequency does not improve then you may be at risk of becoming dehydrated.

**To stop you becoming dehydrated you have to drink less not more. The more you drink the more fluid and salt you will lose which will cause you to become more dehydrated.**

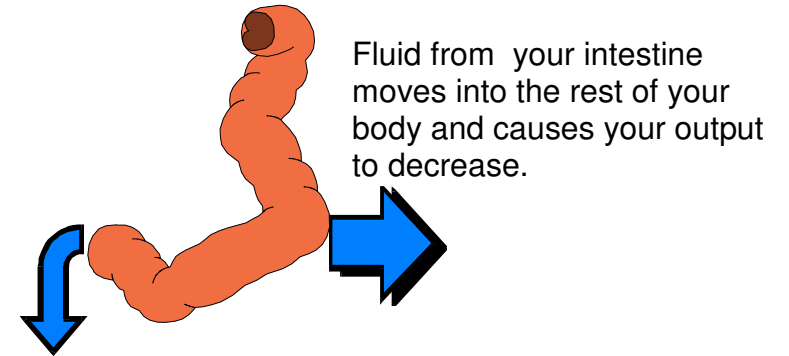
It is important to remember that this **only** happens to people with short bowel syndrome. In a person without short bowel syndrome if they feel thirsty and drink more, they will not become dehydrated. If you become dehydrated regularly you may be advised to restrict your fluid intake and to drink a salty solution known as St Mark's Electrolyte Mix. Drinks low in salt will cause fluid to move from the rest of your body into your intestine and will cause dehydration.

### Drinks low in salt (water, tea, coffee, juice, squash)



Drinks high in salt will cause fluid to move from inside your intestine into the rest of your body. This may reduce your output and help prevent you becoming dehydrated.

### Electrolyte mix (high in salt)



### Your fluid allowance

It is recommended that you drink \_\_\_\_\_ ml of electrolyte mix each day. Please try and restrict all other fluids to \_\_\_\_\_ ml each day.

## Dehydration

It is very important that you learn to recognise the signs of dehydration. You may experience thirst, a reduction in how much urine you pass, tiredness, cramps, dizziness on standing up, dry skin, or notice dark circles under your eyes. If you think that you are dehydrated please contact a member of the St Mark's team. Our contact details are on the back of this leaflet.