

Department of Nutrition and Dietetics

# Dietary advice and pseudomyxoma peritonei (PMP)

A guide for patients living with PMP

## Introduction

- One of the most common problems caused by PMP is a change in bowel habit due to the disease pressing on the bowel, which can prevent the absorption of food.
- The accumulation of mucin in the abdomen can also cause you to lose your appetite and feel full more quickly. This can lead to weight gain around the abdomen caused by the disease, but at the same time, weight loss from the face, arms and legs.
- Weight loss, especially over a short period of time, can cause you to lose muscle mass, have reduced strength and low energy levels.
- PMP may make it difficult to get all the energy your body needs, so you may need to eat foods that are higher in calories than normally recommended for a healthy diet.
- Including enough protein in your diet is also important as proteins are one of the building blocks of body tissue and are essential for growth and repair.
- This information sheet is designed for patients and relatives with concerns about eating and drinking. It offers advice on ways to change your diet at a time when you may be concerned about losing your appetite or losing weight.
- By eating as well as you can, you will give your body the energy and nutrients it needs to either rebuild your muscle mass or minimise any muscle loss. It may also improve your energy levels and help you to fight infection.

## Lost your appetite or losing weight?

- Enriching your diet can help you to minimise muscle loss or regain any weight that you may have lost.
- If you are finding it difficult to manage all your meals and/or have lost your appetite, here are some useful tips.
  - If you find that you are overwhelmed by large meals then eat smaller amounts but try to eat more frequently. Eat little and often, grazing through the day on nutritious drinks and snacks. See pages 2 - 5 for ideas.
  - Try having your food from a smaller plate as a very large plate of food can seem like too much and put you off eating.
  - Make the most of the times that you feel most hungry. For example, if mornings are best, try having a cooked breakfast.



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- You may find soft and bite sized foods are much easier to manage as they require less effort to chew.
- Make the food you eat as nourishing as possible by enriching it. You can find suggestions on how to do this on pages 2 - 3. If you don't feel you can face solid food, then try a nourishing drink and refer to page 5 for some ideas.
- Keep meals simple and let other people help you with the cooking and shopping. You may find it useful to use ready-made meals or convenience foods at this time. You could consider using one of the companies that deliver meals directly to your door for example: Wiltshire Farm Foods; Oakhouse Foods or Parsley Box. These can be ordered online or over the telephone. Alternatively, do your food shopping on the internet as this can save you time and energy.
- Foods such as fruit and vegetables can fill you up so just keep to small portions or enrich them whilst your appetite is small.
- A small alcoholic drink, such as a glass of wine, beer, lager or sherry before a meal may boost your appetite – but just check with your doctor to make sure it's allowed.
- Try to relax and enjoy what you eat. Take your time and chew your food well.
- Some people find that a short walk before a meal, or just a few breaths of fresh air, helps to give them more of an appetite.

## Feeling full?

- If your disease affects the stomach and bowel you may need to change the amount of food and the times you eat.
- If you feel full after eating only a small amount of food, the disease could be pressing on your stomach preventing you eating your regular portion sizes.
- It is quite common to feel full even after small amounts of food and this can be very uncomfortable.

### You may find these tips helpful

- It may be better to eat 5 - 6 small meals throughout the day, rather than focusing on 3 meals a day.
- Liquids, especially fizzy drinks can fill you up so try to avoid taking drinks with food or just before meals.
- Cold food and drinks, for example yogurts, ice cream, mousse and iced drinks can be easier to take.
- A little gentle exercise, such as a short walk after meals can be helpful.
- Wind can make you feel very full and bloated so avoid fizzy drinks, sugar free mints and sweets and large amounts of fibre which can make the problem worse. Some people find peppermint tea, cordial or mints helpful at relieving trapped wind.

**\*If you are experiencing bowel symptoms and have been advised to follow a low fibre diet some of the foods listed on pages 3-5 marked with \* may not be suitable. Omit or choose lower fibre varieties of these foods. More information on low fibre diet can be found on page 5.**

## Ways to enrich food and drinks

### Milk and dairy:

These can be used to add energy and protein to food, for example:

- use full fat dairy produce, such as full cream milk and full fat yoghurt in place of low fat varieties
- (yoghurt may be labelled 'luxury' or 'thick and creamy' rather than 'light', 'diet' or 'low fat').
- if you prefer, use non-dairy milk alternatives such as soya, almond, rice or oat milks. Choose full fat varieties and ones that are fortified with vitamins and minerals.
- keep a box of grated cheese ready in the fridge to add to sauces, sprinkle onto soup or pasta, add extra to pizza, use to fill sandwiches, have with crackers and butter or mix into mashed potato.
- serve evaporated milk, yoghurt, cream or fromage frais with cereals, puddings and fruit pies or add to

soups, sauces and desserts. Also use when making jellies or instant puddings.

- use full cream milk or evaporated milk to make milk jellies, and instant whips.
- make fortified milk by mixing 4 tablespoons of skimmed milk powder with 1 pint of whole, full fat milk. This doubles the protein content. Use whenever you would use ordinary milk in drinks or with foods and use within 24 hours.
- add milk powder or Complan Original™ to soups, sauces, milky puddings and custards.
- replace cups of tea and glasses of water with milky drinks such as hot chocolate, malted milk and milky coffee – also lattes, cappuccinos and flat whites. Try drinking these between meals and at suppertime.

### **Fats:**

These can be used to add extra energy to food, for example:

- put plenty of butter or margarine on bread, toast, scones, crumpets, malt loaf\*, fruit teacakes\*, crackers, jacket potatoes\*, mashed potatoes and vegetables\*.
- use mayonnaise, cream cheese, sour cream, salad cream, hummus\* and oil-based salad dressings in sandwiches, in salads\*, on jacket potatoes\*, on bread or use as a dip.
- be generous with the amount of ghee, olive oil, butter or margarine that you use in cooking.
- stir cream, full cream yogurt, grated cheese, mascarpone cheese or crème fraiche into soups, sauces, casseroles, cereals or milk puddings.
- spread large amounts of chocolate spread, peanut butter\* or lemon curd on bread, toast, crackers, oat cakes\*, crumpets, pancakes or pitta bread.
- snack on nuts\*, seeds\* and chocolate.
- If you want to reduce the amount of saturated fats while still keeping you calories high, you can swap butter for oil or oil based spreads (such as olive oil or vegetable based).

### **Sugars:**

These can also be used to add extra energy to food. Examples of sugars include:

- white or brown sugar
- jam, marmalade\* and lemon curd
- honey, syrup, molasses or treacle

These can be added to drinks, stirred into puddings or sprinkled over cereals

## **Food ideas**

Below are some suggestions for foods you might like to try. Keep the ones that you fancy to hand so that you can snack or graze on them whenever you feel hungry.

### **Savoury snack/small meal suggestions**

- crisps
- nuts – peanuts, cashews, pistachios, brazil, walnuts etc\*
- tortilla chips or nachos – try eating with guacamole\*, salsa\* or sour cream
- prawn crackers
- small sandwiches or rolls – remove the crusts and have with a filling such as egg mayonnaise, tuna mayonnaise, cream cheese or peanut butter\*
- cheese – grated or cubed, also cheese slices, cream cheese and cheese triangles – eaten with crackers, oatcakes\* or toast
- small sausage rolls, cocktail sausages, pasties\* or pork pies, scotch eggs, boiled eggs
- cereal and milk
- toast, crumpets, pikelets, fruit tea-cakes\* or malt loaf\*
- baked potato\*
- small pieces of pizza or flan

- spring rolls\* or sesame toast\* – try dipping into sweet chilli sauce\*
- samosas\*, pakoras\* or onion bhajis\*
- poppadoms with chutney\*
- tamarind balls\*
- satay\*
- falafel\*
- hummus\* or taramasalata with pitta bread or breadsticks/vegetable sticks\*
- feta cheese and olives\*
- chips and mayonnaise, vinegar or tomato sauce
- crackers, savoury biscuits

### **Sweet snack suggestions**

- dried fruit mixtures\*, for example raisins, cranberries, apricots, dates, figs, sultanas
- chocolate biscuits or mini chocolate bars
- cereal bars\*, flapjacks\*, nut bars\*, oat bars\*, granola\*
- popcorn\*
- fruit loaf\* with a spread or butter
- ready-made desserts such as yogurt, fromage frais, crème caramel, mousse, cheese cake, trifle (especially individual-size portions).
- croissants, fruit teacakes\*, hot cross buns\* or malt loaf\*
- ice cream, sorbet or frozen yogurt
- fresh fruit\* or tinned fruit\*

### **Breakfast suggestions**

- porridge\* or instant oat cereal\* made using full cream milk. Try adding in some cream, also some sugar, honey or syrup to sweeten it
- cereal with full cream milk and sugar, or full fat yogurt – try topped with a sliced banana
- full fat Greek or soya yogurt with fruits such as banana, strawberries, raspberries or blueberries – or stewed fruit such as apples, rhubarb or apricots\*.
- croissants, pain-au-chocolat, pancakes
- buttered toast or bagels with jam, peanut butter or chocolate spread
- scrambled, poached or boiled eggs, also omelette, fried eggs or French toast (bread dipped in beaten egg and fried)
- smoothies\* – made by blending fruits together with milk and yogurt
- cheese or baked beans on toast
- cooked breakfast

### **Meal suggestions**

- omelettes or frittatas filled with cheese, ham or mushrooms\*
- eggs – scrambled, poached, boiled or fried – try having with fingers of buttered toast
- beans\* or tinned spaghetti on toast topped with grated cheese
- sardines or pilchards on buttered toast
- soup made with beans\* or lentils\* served with croutons and a buttered roll
- fish poached, grilled or fried, also fish fingers, fish in batter, fish cakes and fisherman's pie – served with chips or bread and butter
- casseroles\*, stews\* or hotpots made using meat or beans and topped maybe with a dumpling
- quiches, flans or pies
- pizza topped with extra cheese

- toasted sandwiches or cheese on toast
- jacket potatoes – try mashing the flesh of the potato with butter and cream and extra cheese
- cottage pie, shepherd's pie, spaghetti bolognese, chilli con carne, lasagne or moussaka – these can also be made using soya mince or Quorn™. Try topping with extra grated cheese to make even more nourishing\*
- cauliflower cheese\* or macaroni cheese
- korma, tikka masala, channa curry or dahl\* served with rice, naan bread or chapatti – even tastier if served with brinjal pickle or mango chutney\*
- Thai curry\* served with basmati or sticky rice
- meat, fish, tofu or Quorn™ – stir fried and served with noodles or rice and maybe a stir-fry sauce
- sausages (meat or vegetarian) with mashed potato and gravy

### **pudding suggestions**

- milky puddings such as custard, rice pudding and semolina, instant whips and milk jelly.
- egg custard
- desserts such as yogurt, fromage frais, crème caramel, mousse, cheesecake, soya desserts and trifles. Buying these in small, individual sized pots from a supermarket is often easier and less wasteful
- ice-cream, sorbet or frozen yogurt
- fruit, tinned or fresh e.g. bananas and peaches – try serving with cream, ice-cream, evaporated milk, kulfi or custard
- meringues, vanilla slices, fruit tarts and slices of cake
- sponge pudding, sticky toffee pudding\* or bread and butter pudding, topped with custard, cream or ice cream.

### **Ideas for drinks:**

These may be easier to prepare and manage than solid food:

- hot milky drinks, for example, Horlicks™, Ovaltine™, hot chocolate, cocoa and milky coffees such as latte, cappuccino, flat white etc.
- cold milk shakes with added ice-cream
- \*fruit juices or vegetable juices
- Packet soups – make these up with milk rather than water
- smoothies made with milk or yogurt
- alternative milks (e.g. soya, rice, oat, almond or coconut) – make sure they are calcium enriched
- lassi
- special powdered nutritional supplement drinks such as Complan™ can be made up with full cream milk and come in a range of sweet and savoury (soup) flavours. They can be bought at most chemists or supermarkets. Try a variety to find the ones you enjoy the most.

There is a wide range of other special nutritional products available to help supplement your intake when eating or maintaining your weight is difficult. Many are only available on prescription. Your hospital doctor, dietitian or GP will assess whether you need nutritional supplement drinks on prescription and will advise you on the quantities to take. Ask your specialist nurse for a copy of The Christie information booklet 'Nutritional products: availability of nutritional drinks, powders and puddings – A guide for patients and carers' for more information.

### **Low fibre diet**

Your bowel may become slower at moving food through your system because of the disease pressing on it. This can sometimes cause abdominal pain or discomfort as the bowel tries to push food along. Higher fibre foods may cause an increase in bowel irritation and discomfort as the bowel may need to work harder to move food through. Dietary fibre is the part of cereals, pulses, vegetables and fruits which is not digested and continues to pass down the bowel. A diet low in fibre may reduce the amount of gas

produced and bulk passing through your bowel. This should help to reduce symptoms such as bloating or abdominal discomfort and may also reduce the risk of your bowel becoming obstructed.

Your doctor, specialist nurse or dietitian may recommend you follow a low fibre diet to try to minimise any adverse symptoms.

The following table lists examples of foods which are lower in fibre and suitable for you to include in your diet and those which may make your symptoms worse. All the foods listed under 'Foods low in fibre' may be eaten freely.

Food group	Foods high in fibre that may make your symptoms worse	Foods low in fibre (can be eaten freely)
<b>Meat, fish and protein alternatives</b>	Peas Beans Lentils, dhal, chickpeas	Meat Poultry Ham, bacon, sausages Fish Eggs Tofu Quorn™: quantities allowed per day:- 1 x Quorn™ sausage Or 50g Quorn™ pieces Or 50g Quorn™ mince Or 5 x Quorn™ meatballs
<b>Breads and flours</b>	Wholemeal, granary or multigrain bread High-fibre white bread Fruit bread Fruit teacakes Hot cross buns Wholemeal chapatti made with flour no.2-4 Wholemeal pitta bread Wholemeal / besan flours Wholemeal puri Pakoras / bhajis Wholewheat crackers Matzos Paratha	White bread and flour Bread sticks Rice cakes Crumpets White chapatti made with flour no.1 White pitta bread White bagels White naan bread made with flour no.1 White flour puri Cream crackers White muffins Croissants Pancakes Poppadums Food containing cornflour, tapioca or semolina
<b>Cereals</b>	Wholewheat cereal biscuits Shredded Wheat cereals containing dried fruit/nuts Muesli Fruit and Fibre Bran and oat cereals Porridge	Puffed rice cereals Frosted flakes Corn flakes Chocolate coated puffed rice cereals
<b>Rice and pasta</b>	Brown rice Wholewheat pasta and spaghetti Wholewheat noodles	White rice White pasta and spaghetti White noodles Couscous Gnocchi
<b>Cakes and biscuits</b>	Biscuits and cakes made with whole-meal flour, oats or dried fruit or nuts e.g. flapjack, dried fruit biscuits, mince pies, plain or chocolate digestives, oat biscuits Fruit scones Laddu Mesub Fruit pies	Biscuits and cakes made with white flour e.g. Rich tea, custard creams, shortbread, chocolate coated plain biscuits, Madeira cake, sponge cake Jam tarts, custard tarts Plain or cheese scones Doughnuts Eclairs Lemon meringue pie

Food group	Foods high in fibre that may make your symptoms worse	Foods low in fibre (can be eaten freely)
<b>Milk and dairy products</b>	Cheese / cottage cheese with added fruit and nuts. Fruit yogurt or fromage frais with added fruit/cereal/nuts Kulfi with dried fruit/nuts	Milk Cheese Plain cottage cheese Cheese spreads Paneer Plain smooth yogurt or fromage frais Ice cream / ice-lollies / sorbet Kulfi Cream Evaporated and condensed milk Milk jelly Instant whips Crème caramel Milk puddings Custard Blancmange
<b>Miscellaneous</b>	Whole-meal savoury snacks Bombay Mix / chevdo Snacks with besan flour Bonda Falafel Nuts Seeds Popcorn Soups – lentil and vegetable Miso Marmalade or jam with peel or pips Peanut butter, chocolate spread with nuts Chutney, pickles Coconut / besan barfi Cardamom pods Cinnamon sticks Olives	Crisps Shredless marmalade, jelly jam, honey, lemon curd, treacle, syrup Tomato sauce, brown sauce, yeast extract Soy sauce Worcester sauce Stock cubes Mayonnaise Soups – ‘cream of’ tomato, chicken or oxtail Sausage rolls Meat pies Plain or milk chocolate Boiled sweets, toffee, fudges, wine gums, mints Jalebi Gulab jamun
<b>Nutritional supplement drinks</b>	Check with your doctor, dietitian or pharmacist that your supplement does not contain fibre.	

In addition to these foods you may like to include **up to 3 portions** of suitable fruits and vegetables as listed below under **'Foods low in fibre'** into your diet throughout the day. However if your symptoms worsen you may need to reduce your intake of these foods.

Food group	Foods high in fibre that may make your symptoms worse	Foods low in fibre (Amount per portion below)
<b>Vegetables</b>	<p>All vegetables except those listed in the 'Foods low in fibre' list in next column</p> <p>Vegetable skins and pips</p> <p>Potato skins</p> <p>Salad/lettuce</p> <p>Sweetcorn</p> <p>Peppers</p> <p>Onions</p> <p>Leeks</p> <p>Karela</p> <p>Okra</p> <p>Cabbage</p> <p>Green beans</p>	<p>All freshly cooked potatoes without skins (boiled, mashed, roasted, chipped)</p> <p><b>All skin to be removed:</b></p> <p>2.5cm piece courgette</p> <p>2.5cm piece cucumber</p> <p>¼ of an aubergine</p> <p>1-2 heaped tbsp turnip</p> <p>1-2 heaped tbsp plantain</p> <p>1-2 heaped tbsp yam</p> <p>1-2 heaped tbsp pumpkin</p> <p>1-2 heaped tbsp butternut squash</p> <p>1-2 heaped tbsp carrot</p> <p>1-2 heaped tbsp swede</p> <p>1 small beetroot</p> <p>200g passata</p> <p>100ml smooth vegetable juice</p> <p>(tbsp = tablespoon)</p>
<b>Fruit</b>	<p>All fruit except those listed in the 'Foods low in fibre' list in next column</p> <p>Fruit with pips, peel or skin</p> <p>Strawberries, blackcurrants, passion fruit, kiwi fruit</p> <p>Coconut</p> <p>Dried fruit</p> <p>Fruit juice 'with bits'</p> <p>Prune juice</p> <p>Tomato juice</p>	<p><b>All pips, peel, pith or skin to be removed:</b></p> <p>1 small banana</p> <p>½ grapefruit</p> <p>½ apple</p> <p>½ custard apple</p> <p>½ pear</p> <p>¼ small mango</p> <p>¼ small melon</p> <p>6 grapes</p> <p>3 lychees</p> <p>6 cherries</p> <p>1-2 heaped tbsp tinned peaches</p> <p>1-2 heaped tbsp tinned mandarin oranges</p> <p>1-2 heaped tbsp tinned orange segments</p> <p>1-2 heaped tbsp tinned pawpaw</p> <p>1-2 heaped tbsp tinned fruit cocktail</p> <p>100ml smooth fruit juice</p> <p>(tbsp = tablespoon)</p>

## Questions and answers

### **What shall I do if I am still worried about my appetite and am losing weight?**

Ask your doctor or specialist nurse about oral nutritional supplements and to refer you to a dietitian for further advice.

### **Where can I find suitable low fibre recipes if my doctor has advised me to follow a low fibre diet?**

You can find some low fibre recipes in The Christie dietary information booklet 'Eating well when following a low fibre diet – A guide for patients and their carers'. This is available from your specialist nurse.

### **If you have any queries about your diet please contact:**

Department of nutrition and dietetics on **0161 446 3729**.

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

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