



Chronic pancreatitis: high energy and high protein advice

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Introduction

If you have chronic pancreatitis your pancreas is damaged, and may sometimes be inflamed. This can cause pain which can lead to a reduced appetite, discomfort, pain during eating, and feeling full or bloated after meals. This often results in eating less. Weight loss and difficulty gaining weight are common symptoms for people with chronic pancreatitis.

One of the main functions of the pancreas is to produce substances called **enzymes** which help to break down our food so that we can absorb the nutrients within it. A pancreas damaged by chronic pancreatitis may be unable to provide enough of these enzymes for adequate digestion. Therefore, you may absorb fewer nutrients into your body (known as malabsorption) which contributes to weight loss / difficulty to gain weight.

The enzymes needed for digestion can be replaced with a capsule. These enzyme capsules help your body to absorb as much of the nutrients as possible from the food that you eat. Pancreatic enzyme replacement is discussed in more detail in a separate leaflet which will be given to you by your dietitian or other health care professional, if needed.

It is important to remember that if you are **increasing** the amount you eat through some of the suggestions in this leaflet your enzyme dose may need to be **increased** too.

Discuss this with your dietitian, specialist nurse or doctor.

This leaflet aims to help you if you are experiencing, or have recently experienced, any of the following;

- Weight loss
- Difficulty gaining weight
- Decreased intake of food (because of reduced appetite or pain)
- You are at risk of losing weight
- Your body needs more nutrients than usual

STOP!

Important note

It is important to remember that everyone is different, many people do not find that their symptoms change with the type of food that they eat, but some patients do.

In some cases some people are unable to tolerate higher fat food products. Usually this can be addressed by changing your enzymes, but if this is not effective or you experience worsening pain by fortifying your diet, then the information in this booklet is not suitable for you. Please speak to your dietitian about alternative advice.

There are many factors that can affect how the body tolerates food. If you find that changing your diet changes your symptoms or makes them worse, speak to your doctor or dietitian. If you have ongoing symptoms it is important that your medical team look for other causes for your bowel symptoms. Conditions like bile acid diarrhoea and small intestinal bacterial overgrowth are not unusual in people with chronic pancreatitis.

It is helpful to write a list of foods that you find seem to make your symptoms worse, and what symptoms you have. Be aware that some symptoms can occur the day after you have eaten something that your body does not tolerate. This can help your dietitian identify the problem.

If you have diabetes, please monitor your sugar levels closely, as your medication may need to be altered. Avoid adding simple sugars to your food (sugar / honey / jam) and focus on the other source of energy listed in this booklet instead. You will see high sugar options marked with a * to help you identify them.

What are the consequences of unintentional weight loss?

Unintentional weight loss can have a negative effect on your body and health. People who are overweight or obese have the same risks from weight loss as those who have a healthy weight, or are underweight. This is because you lose muscle mass more easily than fat mass. The main problems associated with unintentional weight loss include:

- Increased risk of getting an infection
- Loss of muscle mass and loss of strength
- Feeling weak and tired
- Lower bone density (osteoporosis or brittle bones)
- Physical activity including normal daily tasks becoming more difficult
- Slower healing
- Increased risk of pressure ulcers
- Hair loss
- Dry skin
- Vitamin and mineral deficiencies

Suggestions to help

- Avoid eating large meals or large amounts of food at any one sitting
- Eat little and often aiming to have a small meal or snack every 2-3 hours throughout the day.
- Eat nourishing or higher calorie foods whenever you can
- Choose meals and snacks that are easy to prepare
- Try to have more nourishing fluids like milk or smoothies*(with yoghurt/milk/ice cream) rather than just water, tea, coffee or diet/low calorie drinks. (*If you are diabetic discuss with your dietitian which smoothies would be best for you)
- Avoid drinking much before or with your meals. Have drinks at least half an hour before meals or after (except any drinks you need to swallow your medication with).
- Chose small portions of fruit and vegetables to flavour your meals, but remember these do not contain any protein, so do not fill up on fruit and vegetables.

Food fortification

Foods that you enjoy or normally eat can be fortified or enriched. This can make the food or snack more nourishing by adding more calories, nutrients or protein while keeping the portion the same size.

Food	How to fortify
Potatoes and vegetables	Add skimmed milk powder You could add small amounts of cheese, cream cheese, butter or cream
Rice	Mix a whisked egg with the rice and fry in a little vegetable oil
Soup and sauces	Make up with milk, add skimmed milk powder or a small amount of cheese, butter or cream
Milk	Fortify with skimmed-milk powder, see recipe on page 5 for high protein milk
Bread	Add full fat butter, margarine, mayonnaise, honey*, cream cheese, jam* or peanut butter.
Dessert	Add cream, evaporated milk, nuts, condensed milk*, sugar*, jam or honey*
Breakfast cereals	Add yoghurt, cream, high protein milk, honey, dried fruit, nuts or sugar*
Fruit – tinned or fresh	Chop and serve with yoghurt, cream, custard, ice cream or make into a milkshake/smoothie – see recipe at the end of this leaflet

- *If you have diabetes it is not recommended that you fortify food with sugar, honey or condensed milk.
- Very low fat diets and specialist low fat foods should be avoided as these can contribute further to weight loss and malabsorption. It is more beneficial to take “normal” foods and **increase** your dose of pancreatic enzyme replacement medication if needed
- Nutritional supplements are also an option for you should the suggestions in this section not be enough to help you gain weight. These should be discussed with your dietitian.

Sample menu

Breakfast

- Cereal + fortified milk + sugar* (*if you do not have diabetes)
- Bread/toast or pancake / crumpet with butter and jam / chocolate spread / peanut butter / cream cheese
- Grilled bacon and / or poached egg roll
- Scrambled egg on toast with extra butter added
- Omelettes made with fortified milk
- Omelettes with ham, tuna or cheese added

Mid-morning

- Snack and/or nourishing drink – see lists below
 - for example scone with butter and jam with a milky coffee

(Don't forget to take your enzymes with snacks too)

Mid-day meal

- Sandwiches made with butter, mayonnaise or dressing filled with:
 - Egg / tuna or grated / sliced cheese
 - Tinned oily fish
 - Cold meats / cream cheese
- Baked potatoes with the above fillings or baked beans with grated cheese for extra calories and protein.

(Use two or more fillings when possible i.e. ham and cheese or chicken and egg)

Mid-afternoon

- Snack and/or nourishing drink
 - for example cheese and crackers with butter and a glass of high protein milk (see page 5 for recipe)

Evening meal

- Ready meals like macaroni cheese, stew, curries, chilli or spaghetti bolognese
- Homemade pasta dish with meat / chicken / fish / quorn and extra grated cheese / in a cream or cheese based sauce
- Curry (with lentils) with fried rice or buttered naan bread
- Meat / chicken / fish / eggs / quorn dishes with buttered potatoes or chips and vegetables.

Supper

- Snack and/or nourishing drink for example hot chocolate made with high protein milk (see page 5 for recipe) and a couple of biscuits

It doesn't matter if you fancy a main course at 10am and breakfast cereal at 5pm, or if you prefer to have your pudding first.

Remember to take your **enzymes** with your food.

Suggestions for snacks

- Crackers and cheese
- Scone with butter and jam
- Yogurt
- Trifle
- Mousse
- Breakfast cereal with milk
- Milk pudding/ custard
- Bagel with cream cheese
- Croissant / pastry
- Houmous and vegetable sticks
- Chocolate bar / cereal bar
- Eggs: scrambled / poached / fried / boiled
- 3-4 biscuits
- Slice of cake
- Breadsticks & houmous
- Cheese straws with a dip
- Crisps/nuts
- Toast with butter and jam / cheese
- Bread with peanut butter

Nourishing drinks

- Milk – full fat
- High protein milk – see recipe below
- Milkshakes – see recipe
- Cartons / tins / packet soup. Make with milk instead of water and add cream
- Yogurt drinks for example: Yop, Yazoo, Fruiji and smoothies etc.
- Horlicks, Ovaltine, drinking chocolate or cocoa made with milk instead of water

High protein milk recipe

- 600mls / one pint skimmed or semi-skimmed milk
- 4 dessertspoons of skimmed milk powder for example: Marvel / Dawn / Supermarket own brand

Add a small amount of milk to the powder and mix until dissolved.

Add the remainder of the milk.

Use for all drinks and in cooking (for example: milk pudding, custard, omelettes, soup, and mashed potatoes)

Milkshake recipe

- 300mls full fat milk
- 60g (1 scoop) ice cream
- 2 dessertspoons of Complan / Meritene / Skimmed Milk Powder
- ½ mashed banana or another fruit or 1 full fat yoghurt

Add the milk to the Complan, Meritene or Milk Powder.

Whisk in the ice cream, banana or yoghurt. Serve chilled

Questions to ask your healthcare team:

- Is there a specialist dietitian as part of the team?
 - Can I be referred to a dietitian? And how soon can I see them?
 - Would pancreatic enzyme supplements benefit me?
 - How do I take pancreatic enzyme supplements?
 - Should I be taking nutritional supplements?
 - How often should I have the vitamin and mineral levels in my blood checked?
 - How often should I have my blood sugars checked?
 - Do I need a bone density scan?
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The information in this booklet does not replace the advice given to you by your Dietitian/Doctor/Nurse Specialist.

The advice in this booklet is suitable for most people, but everyone is different.

The contents of this booklet may differ to the information given to you by your medical team as their advice is specific to you, and your condition.

Other leaflets available in this series with more information on specific areas are:

- Pancreatic enzyme replacement therapy
- Type 3c diabetes (pancreatogenic diabetes)
- Pancreatic disease and physical activity
- Nutrition and acute pancreatitis
- Chronic pancreatitis and your diet
- Chronic pancreatitis: advice to help with constipation

Useful contacts:

Pancreatitis supporters network : www.pancreatitis.org.uk

Pancreatitis Forum: www.pancreatitis-forum.org.uk

Core: <http://corecharity.org.uk/>

www.nhs.org.uk

Diabetes UK – 0345 1232399 www.diabetes.org.uk

Alcohol concern - helpline (UK) 0300 1231110 www.alcoholconcern.org.uk

Alcoholics Anonymous – helpline (UK) 0845 7697555 www.alcoholics-anonymous.org.uk

Al-Anon Family groups – helpline (UK) 020 74030888 www.al-anonuk.org.uk

Smoke free national helpline (UK) 0300 1231044

These websites are separate organisations, and the authors of this booklet have no control over their contents

Always be careful with information obtained from the internet, when carrying out internet searches try and stick to accredited sites.

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