

Patient Advice and Liaison Service (PALS)

Please contact us if you need general information or advice about Trust services. www.bartshealth.nhs.uk/pals

Large print and other languages

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Te informacje mogą zostać na żądanie przedstawione w formatach alternatywnych, takich jak łatwy do czytania lub duża czcionka, i w różnych językach. Prosimy o kontakt pod numerem 02082238934.

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Bu bilgiler, okuması kolay veya büyük baskılar gibi alternatif biçimlerde ve talep üzerine alternatif dillerde de sunulabilir. İrtibat için lütfen 02082238934 numaralı telefondan ulaşın.

اس معلومات کو متبادل شکل، جیسے، پڑھنے میں آسان یا بڑے حروف، میں دستیاب کرایا جاسکتا ہے، اور درخواست کرنے پر اسے متبادل زبان میں بھی دستیاب کرایا جاسکتا ہے۔ براہ مہربانی 02082238934 پر رابطہ کریں۔

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Reference: BH/PIN/617

Publication date: May 2017

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Patient information

Pancreatic enzymes for pancreatic insufficiency

An individual guide to pancreatic enzymes

Nutrition and Dietetics Department



Name:

Date:

Dietitian:

Contact Number:

Hospital Site:



What does the pancreas do?

The pancreas is part of your digestive system. It produces a fluid containing digestive enzymes. These digestive enzymes help us breakdown and absorb the food we eat. Your pancreas also produces a hormone called insulin which helps to control the amount of glucose (sugar) in your blood.

How do I know that I need pancreatic enzymes?

Sometimes your pancreas does not make enough enzymes. This is known as pancreatic insufficiency. This can be due to:

- swelling of the pancreas that lasts a long time (chronic pancreatitis);
- removal of some or all of the pancreas (pancreatectomy);
- pancreatic cancer.

When this happens important fats and nutrients cannot be extracted and absorbed from the food we eat and are instead passed through the body as waste. This can result in symptoms including:

- Pale, orange or yellow coloured stools which may float and be difficult to flush. They may be oily and foul-smelling.
- Frequent bowel movements and your stools may be loose.
- You may experience bloating, abdominal pain, cramping and excessive wind.

These symptoms tell us that you need to take pancreatic enzymes. These treatments are called PERTs – Pancreatic Enzyme Replacement Therapies.

Your meal plan

Suggested starting dose:

- 25,000 enzyme capsule with a snack/small meal.
- 50,000 enzyme capsule (or two 25,000 capsules) with a meal.

This may need to be increased.

Breakfast

Enzyme Dose_____

Lunch

Enzyme Dose_____

Supper

Enzyme Dose_____

Snacks

Enzyme Dose_____

Supplements

Enzyme Dose_____

Other important information

As the enzymes are natural products they are affected by heat and will denature (break down) if not stored correctly. It is therefore recommended to keep them below 25°C and not store them in warm places such as the window sill, glove box of a car or in your pocket.

If you eat out do not forget to take your enzymes with you. It is always a good idea to have a supply on you at all times as you cannot always plan when you might eat or drink.

All pancreatic enzymes are made from the pancreas of pigs. Special dispensation may be granted for those who do not eat pork for religious reasons as the enzymes are classed as a medicine.

Remember PERT is a long-term therapy.

If your symptoms improve it means that you are taking the correct dose of enzymes. You should not stop taking your enzymes as your symptoms will reappear.

Types of pancreatic enzymes

There are a few different brands of enzymes that may be prescribed including Creon, Nutrizym, Pancrease HL or Pancrex. Most come in capsule form.

Each capsule contains a mixture of enzymes:

- lipase to digest fat
- amylase to digest carbohydrate
- protease to digest protein.

They come in different strengths. The number shows the amount of lipase in each capsule. So each 40,000 capsule contains more lipase than a 25,000 capsule. The higher the strength, the larger the capsule size.

| <u>Brand</u> | <u>Strengths available</u> |
|----------------|---|
| Creon | Creon 10,000 Creon 25,000 Creon 40,000 |
| Pancrease HL | Pancrease HL (25,000) |
| Nutrizym | Nutrizym 22 (22,000) |
| Pancrex Powder | Pancrex V (25,000 units lipase per 1g/2.5 ml) |

Taking the capsules enables you to absorb the nutrients from your food. Your bowel motions should normalise (formed brown stools) and you should have less stomach symptoms. Your nutritional status will also improve.

How and when do I take pancreatic enzymes?

- Take your enzyme capsules with all meals, snacks and nutritional drinks (such as milkshakes or oral nutritional supplements e.g. Fortsip/Ensure Plus/Fresubin energy).
- *Capsules should be swallowed whole with a couple of sips of cold water immediately before your meal, snack or nutritious drink.*
- For larger meals (lasting longer than 30 minutes) take half your enzyme dose at the start of your meal and half in the middle of your meal.
- Swallowing them with a hot drink can make them less effective.
- The granules inside the capsule **must not** be crushed or chewed.
- If you are struggling swallowing your enzyme, open it and mix the contents with a teaspoon of soft acidic food e.g. apple sauce or banana. Again, you should not chew it and it should be swallowed straight away.
- You may need a higher enzyme dose with meals containing more fat (see examples below). Your dietitian can advise you on how many enzyme capsules to take.

High fat foods that may require extra enzymes:

Fried foods (e.g. fried eggs, crisps, chips, sausages), deep fried foods (e.g. samosa, pakora, battered fish, popadums), pastries, croissants, doughnuts, pasties, most takeaways and foods containing cheese or chocolate.

Examples of foods that may not require enzymes:

Fruit and dried fruits, sweets (e.g. chewing gum, mints, jelly babies, marshmallows, fruit pastilles, wine gums), jelly and juice based nutritional supplements.

Can I vary the dose of Creon?

Yes, you know your symptoms best so it may be appropriate for you to alter the dose for yourself. Failure to gain weight and persistent loose bowel motions are the main reasons you may need to increase the dose, please discuss this with your dietitian, specialist nurse, hospital clinician or GP.

Can I take too much enzymes?

No, if you take too much enzymes for the food you've eaten they pass through the bowel and are excreted in your stools. Too much enzymes may cause side effects of constipation, nausea and irritation around your anus (bottom). It is good to know your body produces a large amount of enzymes. During a meal a healthy pancreas will release between 360,000-720,000 lipase units .

Do I have to restrict my diet?

No, you should eat a healthy balanced diet. However, you may find that certain foods, especially those with a lot of fat in them, cause your motions to be loose and smelly. If that is the case you may need to take a higher dose of enzymes with those meals/snacks.

What happens if I don't take the enzymes?

It can be difficult remembering to take your enzymes with every meal, but if you do not take them your bowel symptoms will continue and may become worse. You will find it more difficult to maintain a stable weight. If you stop taking them for a long time you will not absorb some of the vitamins that your body needs (particularly vitamins A, D, E and K).