

# How to manage problems with digestion using pancreatic enzyme replacement therapy (PERT)

This fact sheet is for anyone with pancreatic cancer. Your family may also find it helpful. It explains how to manage problems with digestion, using **pancreatic enzyme replacement therapy (PERT)**.

Problems with digestion are common if you have pancreatic cancer. This fact sheet explains how to take PERT.

Speak to your dietitian, doctor or nurse for support with digestion problems and PERT.

You can also speak to our specialist nurses on our confidential Support Line. Call free on **0808 801 0707** or email **[nurse@pancreaticcancer.org.uk](mailto:nurse@pancreaticcancer.org.uk)**

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# How does pancreatic cancer affect digestion?

The pancreas plays an important role in digestion, as it produces enzymes that help to break down food. Nutrients from the food can then be absorbed into the blood and used by the body. Different pancreatic enzymes help to break down foods containing fat, protein and carbohydrate.

Pancreatic cancer and surgery to remove all or part of the pancreas may affect the number of enzymes that the pancreas makes. The cancer can also block the enzymes from getting to the duodenum (the first part of the small intestine), where they are needed for digestion. This means that food is not properly digested, and the nutrients in the food are not absorbed. This is called **malabsorption**.

# What is pancreatic enzyme replacement therapy (PERT)?

**Pancreatic enzyme replacement therapy (PERT)** replaces the enzymes that your pancreas would normally make. PERT comes as capsules that you take when you eat. These help you to digest your food.

Most people with pancreatic cancer will need to take PERT. If you need PERT, you will need to take it for the rest of your life as your pancreas will not start making enzymes again.

Taking PERT can help manage the symptoms caused by problems with digestion. Symptoms include:

- losing your appetite
- losing weight, or struggling to put weight back on
- indigestion or heartburn
- frequent runny poo (diarrhoea)
- finding it harder to poo (constipation)
- pale, oily, floating poo (steatorrhoea)
- tummy pain or discomfort
- bloating or wind
- feeling full up quickly
- feeling sick
- needing to poo quickly, especially after eating.

PERT can help you cope better with treatments, such as chemotherapy or surgery. Managing problems with digestion can also make a big difference to how you feel.

**If you haven't been told about PERT, ask your doctor, nurse or dietitian about it.** You could show them this fact sheet.

If you have any problems getting PERT, you can speak to our specialist nurses on our free Support Line for information.

We have more information and tips for managing weight loss and the other symptoms in our booklet: [Diet and pancreatic cancer](#)

Or on our website at: [pancreaticcancer.org.uk/diet](https://pancreaticcancer.org.uk/diet)

## Support from a dietitian

**If you have problems with digestion or are losing weight, you should see a dietitian.** Dietitians give expert advice about diet and nutrition. They can help you deal with any problems with your diet, eat as well as possible, and manage weight loss. This can improve your quality of life, which may help you feel better.

## What brands of PERT are available?

Different brands of PERT are available in the UK:

- Creon®
- Nutrizym®
- Pancrex®

All pancreatic enzymes are made from pork products, and there is no alternative. You may see vegetarian enzymes in shops or online, but these are not used for pancreatic cancer as there is no evidence that they work. Organisations representing Jewish and Muslim communities have said that it is acceptable to use pork based treatments. The Vegetarian Society and Vegan Society have also said that they are acceptable. Talk to your doctor or dietitian if you are allergic to pork products or have concerns about taking enzymes.

# How much PERT should I take?

Some brands of PERT have a number after the name, which shows the dose of enzymes in each capsule. For example, a capsule of Creon 25,000 contains 25,000 units and Nutrizym 22 contains 22,000 units. We have used these brands as an example, but you may be given a different brand.

There is no set dose of PERT for each day. Take as much as you need. You might start with a dose of at least 50,000 or 75,000 units for a main meal, and 25,000 or 50,000 units for a snack or milky drink. For example, you might take two or three capsules containing Creon 25,000 with a main meal, and one or two capsules with a snack.

This may sound like a lot of enzymes, but it's not as much as your pancreas would normally make. A healthy pancreas would normally make about 720,000 units for a small meal.

## Getting the dose right

Most people will need to increase how much PERT they take from the starting dose. Your dietitian, doctor or nurse can tell you how to work out the best dose of PERT for you. They should review the dose regularly.

- You will need to take more PERT for larger meals and for fatty foods, as these need more enzymes to digest them.
- Don't change what you eat to try to manage your symptoms as you may not get all the nutrients you need. Just make sure you take enough PERT for what you are eating.
- For example, don't try to cut out fat. Just take more enzymes if you are eating fatty foods.
- Speak to your doctor or dietitian before making any major changes to your diet.

It may take a few days to notice an effect when you first start to take PERT. For the first few weeks, you may find it helpful to keep a diet diary. Note down what you eat, the dose of PERT, and if it helps your symptoms. This can help you work out if you are taking enough PERT with different foods. Download our **Diet diary** at: [pancreaticcancer.org.uk/diet](https://pancreaticcancer.org.uk/diet)

Once problems with your digestion start to improve, you may start to eat more and you may need more PERT.

“The most obvious sign for me that insufficient enzymes have been taken is runny poo.”

## How do I take PERT?

PERT normally comes as capsules that you swallow with food. It is also available as granules if you find it hard to swallow capsules (see page 7).

Make sure you take PERT properly, so it works well.

### Tips for taking PERT

#### Do

- Take PERT with all meals and snacks. You should also take it with drinks that are more than half milk.
- Swallow the capsules whole, with a couple of sips of a cool drink. The PERT won't work properly if you take it with hot drinks. Read about what to do if you struggle to swallow capsules on page 7.
- Take half the capsules with the first few mouthfuls of food. Spread the other half out during the meal.
- You will need more PERT for larger meals or meals with several courses. You will also need more for fatty food. For example, take extra capsules with takeaways, roasted or fried food, puddings, or food with lots of cheese or chocolate.
- If you take nutritional supplements, you will need to take PERT with these as well.

“I find that I do not need to take any enzymes with fruit – as advised by a dietitian.”

## Do not

- Do not chew the capsules as this can cause a sore mouth.
- Don't worry if you forget to take your PERT. Just take the usual dose with your next meal or snack. You may get some symptoms but keep taking your PERT and this will soon improve.
- Do not store the capsules in hot places as this can stop them working properly. For example, do not leave them in your car in summer, near radiators, in direct sunlight, or in pockets.
- You don't need to take the capsules if you are not eating or drinking. They only work when taken with food.

There are some foods and drinks that you do not need to take PERT with. These include:

- drinks with only a splash of milk (including tea or coffee)
- fruit juice, fruit squashes, or fizzy drinks (except fruit smoothies)
- alcoholic drinks, unless they contain milk or egg
- small amounts of fruit or dried fruit
- small amounts of plain vegetables (except potatoes, beans, avocados and pulses such as lentils)
- sugary sweets like jelly babies, wine gums, mints, fruit pastilles or marshmallows.

**If you have any questions about how to take PERT, speak to your medical team.**

"I suggest that people carry a small quantity of the capsules when going out for the day. It means that food can be consumed even when not planned."

## What if I find it hard to swallow the capsules?

The capsules work best if you take them whole. If you find them hard to swallow, speak to your doctor, nurse or dietitian. There may be smaller capsules available. You will have to take more of these to make up the dose.

### What can I do if I find it hard to swallow the capsules?

- You can open the capsules and mix the granules inside with a teaspoon of cold, soft, acidic food such as smooth apple sauce, fruit puree, apricot jam or yoghurt.
- Swallow this straight away, then rinse your mouth with a small amount of a cool drink. This is to make sure you swallow all the granules. If the granules are not swallowed quickly, they might get stuck around your gums or mouth and could cause ulcers.
- Do not chew the granules.
- Do not mix the granules with hot foods or drinks, as this will stop the PERT working. You should not sprinkle the granules on a plate of food, as they won't work this way either.

## What if PERT does not help?

PERT only works when it is taken with food and taken properly. See page 6 for some tips. If you are taking enough, your symptoms should get better. For some people the symptoms may go.

If you still have symptoms or you are losing weight, speak to your dietitian, nurse or doctor. They can check if you are taking enough PERT, and make sure you are taking it properly. They may also look at whether anything else is causing your symptoms (see page 9). Some people need to change the brand of PERT they take.

### Proton pump inhibitors (PPIs)

Sometimes, the doctor will give you medicines called proton pump inhibitors (PPIs). PPIs include omeprazole and lansoprazole. They stop the stomach from producing too much acid, which can affect how well the PERT works. Usually, PPIs are tablets or capsules that you take once or twice a day. Speak to your doctor about these medicines and ask if they would help.



## Other causes of symptoms

If you are taking PERT and you still have symptoms, there may be other causes for these. For example, opioid painkillers (such as morphine), antibiotics, iron supplements, some anti-sickness medicines or chemotherapy can all cause changes to your poo.

Speak to your medical team about your symptoms and what might be causing them.

# Does PERT have any side effects?

Side effects from PERT are not common. Some people get tummy pain, wind, or they may feel or be sick. This is often because the dose of PERT is too low, rather than a side effect.

Increasing the dose may help. Try keeping a food diary for a few days to see what dose helps. Or your doctor may need to change the brand of PERT you take.

Some people may have constipation (when you find it harder to poo). There could be many reasons for this. If you had runny poo because of digestion problems, taking PERT may stop this, and you might feel constipated. Other medicines, such as opioid painkillers, can cause constipation. You may need to take a medicine called a laxative if you take opioids.

If you have constipation, speak to your doctor or nurse. They can work out what is causing it and how to manage it. Do not stop taking your PERT.

## What happens if I take too many enzymes?

Any extra enzymes you take will pass through your body and come out in your poo. They won't cause any harm. If you take lots more than you need it may cause some itching around your anus (bottom). This is nothing to worry about.

If you feel unwell, speak to your doctor or nurse. Make sure you take your PERT at your next meal as usual.

## If you go into hospital

If you go into hospital, tell the staff that you need to take PERT to help you digest your food. Sometimes hospital staff only give PERT when they give other medicines, but this might not be at mealtimes.

Explain that PERT only works if you take it when you eat, and that you need more if you are eating more. Ask the hospital staff if you can keep PERT with you to take with any food, including snacks and milky drinks. Some hospitals may let you do this. You could show them this fact sheet. If they don't let you keep it, speak to your medical team or dietitian as they may be able to help.

“My experience after 3 years of taking Creon indicates that a normal healthy diet and eating and drinking habits can be maintained with them.”

# Get support with PERT

PERT can make a big difference to how you feel, but it can sometimes be hard to work out how to get the right dose. Speak to your dietitian, nurse or doctor with any questions.

We also provide a lot of support to help you make sure you are taking it properly and deal with digestion problems.

You can speak to our specialist nurses on our free Support Line with any questions about PERT or your symptoms.

We also run our diet webinar, where dietitians explain more about diet and PERT and you can ask questions. You can watch previous webinars or sign up to attend one.

Find out more about the support we offer at:

[pancreaticcancer.org.uk/support](http://pancreaticcancer.org.uk/support)

We also have more information and tips for managing diet and digestion symptoms in our booklet: [Diet and pancreatic cancer](#)

Or on our website at: [pancreaticcancer.org.uk/diet](http://pancreaticcancer.org.uk/diet)

# More information and support

## We are here for you

If you or someone you care about has pancreatic cancer, we are here to help.

Find out more at: **[pancreaticcancer.org.uk/support](https://pancreaticcancer.org.uk/support)**

## Our specialist nurse Support Line

Our specialist nurses are experts in pancreatic cancer. They can talk for as long as you need, as often as you like. Whether you have a long list of questions or don't know where to start, they will provide practical, honest information to help you make the right choice for you.

Call free on **0808 801 0707** or email **[nurse@pancreaticcancer.org.uk](mailto:nurse@pancreaticcancer.org.uk)**

## Information about pancreatic cancer

Our website, videos and publications can answer your questions. The information can help you understand what you have heard from your medical team and make decisions about your treatment and care.

Go to: **[pancreaticcancer.org.uk/information](https://pancreaticcancer.org.uk/information)**

Download or order our free publications at:

**[pancreaticcancer.org.uk/publications](https://pancreaticcancer.org.uk/publications)** or call **0808 801 0707**

## Real life stories

Whether you want to read other people's stories or tell your own, sharing experiences of pancreatic cancer could help.

Go to: **[pancreaticcancer.org.uk/stories](https://pancreaticcancer.org.uk/stories)**

## Webinars

Our regular webinars cover topics including diet, wellbeing and treatment. They are hosted by our friendly nurses and other experts, are informal, and you can ask questions. You can look back at previous sessions or sign up to one.

Go to: **[pancreaticcancer.org.uk/webinars](https://pancreaticcancer.org.uk/webinars)**

**This fact sheet has been produced by the Support and Information Team at Pancreatic Cancer UK.**

We make every effort to make sure that our services provide up-to-date, accurate information about pancreatic cancer. We hope this will add to the medical advice you have had, and help you make decisions about treatment and care. This information should not replace advice from the medical team – please speak to them about any questions.

Email us at [publications@pancreaticcancer.org.uk](mailto:publications@pancreaticcancer.org.uk) for the sources used to write this fact sheet.

**Give us your feedback**

We hope you have found this information helpful. We are always keen to improve our information, so let us know if you have any comments or suggestions. Email us at [publications@pancreaticcancer.org.uk](mailto:publications@pancreaticcancer.org.uk) or write to our Information Manager at the address below.

**Pancreatic Cancer UK**

Queen Elizabeth House  
4 St Dunstan's Hill  
London EC3R 8AD

**020 3535 7090**

**[enquiries@pancreaticcancer.org.uk](mailto:enquiries@pancreaticcancer.org.uk)**

**[pancreaticcancer.org.uk](http://pancreaticcancer.org.uk)**