A quick guide for patients with

Exocrine Pancreatic Insufficiency

ESSENTIALS OF EPI
Exocrine Pancreatic Insufficiency

Exocrine Pancreatic Insufficiency or **EPI** occurs when the pancreas (a large gland behind the stomach) doesn't make enough digestive enzymes, which are needed to break down and absorb nutrients from food. This can happen if the pancreas is damaged or not functioning correctly due to certain health conditions, such as pancreatitis, cystic fibrosis, certain surgeries, pancreatic cancer, celiac disease, Crohn's disease, or diabetes. In some cases, the cause of EPI might be unknown.

EPI Symptoms

People with EPI have a particularly difficult time breaking down food and absorbing fats, which can lead to:

- **Gas and/or bloating**
- **Abdominal pain**
- **Diarrhea**
- **Fatty stools (stinky, oily poop that floats)**
- **Unexplained weight loss**

Management and Treatment of EPI

Pancreatic Enzyme Replacement Therapy (PERT)

Your provider may prescribe PERT to help treat your EPI.

Diet and Lifestyle Changes

Your provider or dietitian can share tips for eating well to manage EPI.

- Eating smaller meals more frequently may help
- Continue eating healthy fats

Your provider may ask you to avoid alcohol or stop smoking.

Vitamin Supplements

Your provider may ask you to take supplements to increase vitamin levels in your body, especially the fat-soluble vitamins (A, D, E, and K).

Why EPI Treatment Is Important

If left untreated, EPI can lead to:

- Complications related to fat malabsorption and malnutrition
- Negative impact on quality of life
- Decreased overall survival

Your healthcare provider can help find the right treatment plan for you.

PERT Facts

What is PERT?

PERT is a prescription medication that contains a mixture of digestive enzymes including lipases, proteases, and amylases. The pancreas normally releases these enzymes into the upper part of the small intestine (the duodenum) to help break down food.

- **Lipase breaks down fats**
- **Protease breaks down proteins**
- **Amylase breaks down carbohydrates**

Who may need to take PERT?

Anyone who has EPI and can't digest food normally may need PERT. Your provider may prescribe PERT based on your symptoms, medical history, physical exam, and results from a stool test.

When and how should you take PERT?

Follow your healthcare provider's instructions for taking PERT. Do not crush or chew PERT. Take it every time you eat a meal or snack. Always take PERT with food.

What should you look out for while on PERT?

Call your provider right away if you have any unusual or severe abdominal pain, bloating, trouble passing stool, nausea, vomiting, or diarrhea.

Why is it important to follow up with your provider after starting PERT?

Make sure to follow up with your provider 1 to 2 weeks after starting PERT. Your provider may change how much PERT you take based on how it's working for you and the amount of fat you consume per day. This is also a time to ask any additional questions about EPI or PERT.

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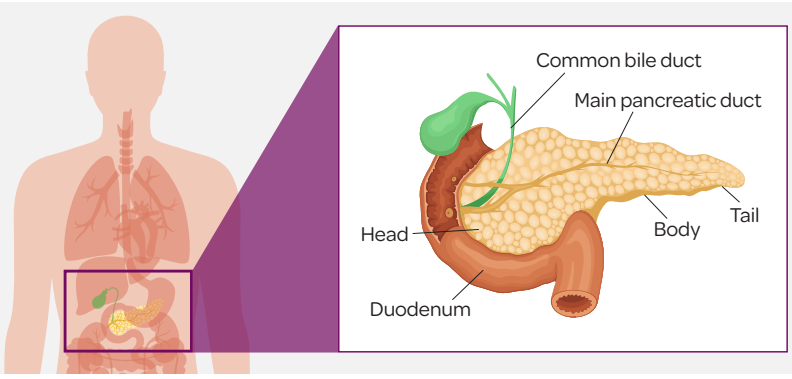
The Pancreas

The pancreas is a large gland located behind the stomach.



The pancreas serves two main functions in the body

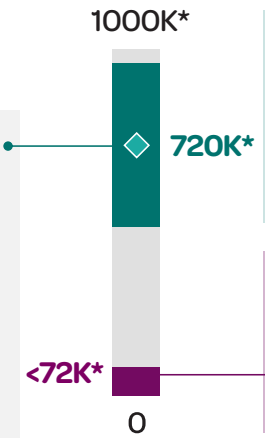
- **Exocrine function:** The pancreas makes and releases digestive enzymes into the upper part of the small intestine (the duodenum) to help break down food
- **Endocrine function:** The pancreas makes and releases hormones that control blood sugar

The Correct PERT Dose is Essential for Effective EPI Treatment

Dosing varies depending on your body weight and the fat content of your meal.

Average Output 720,000 units/meal

A healthy pancreas releases on average about 720,000 units of lipase, an enzyme that helps digest fats, with each meal. The amount released can change based on the type and amount of food eaten.

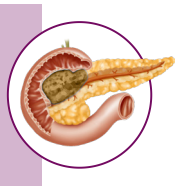


Pancreatic Enzyme Replacement Therapy (PERT)

PERT is a prescription medication that contains a mixture of enzymes (lipase, protease, amylase) needed to support normal fat digestion and nutrient absorption when food isn't being properly digested.

Fat Malabsorption <72,000 units/meal

Fat malabsorption often happens when the pancreas releases **<10% of its usual amount of lipase.** This means it can occur when <72,000 units of lipase are released per meal.



- **A healthy pancreas releases between 480,000 and 960,000 units of lipase per meal, averaging about 720,000 units of lipase per meal.**
- The amount of pancreatic enzymes released can change based on what and how much you eat.
- For normal digestion, the timing of when nutrients reach the small intestine and when the pancreas releases its enzymes is important.
- To maintain normal digestion, about 10% (72,000 units) of the usual lipase output is needed per meal.
- PERT is a prescription medication designed to provide the right amount and mix of enzymes, released at the right time, to help with digestion. Ask your doctor when and how much PERT you should take.

*K=1,000

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