Nutrition and Pancreatic Cancer

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Introduction

80% of patients diagnosed present with cancer cachexia

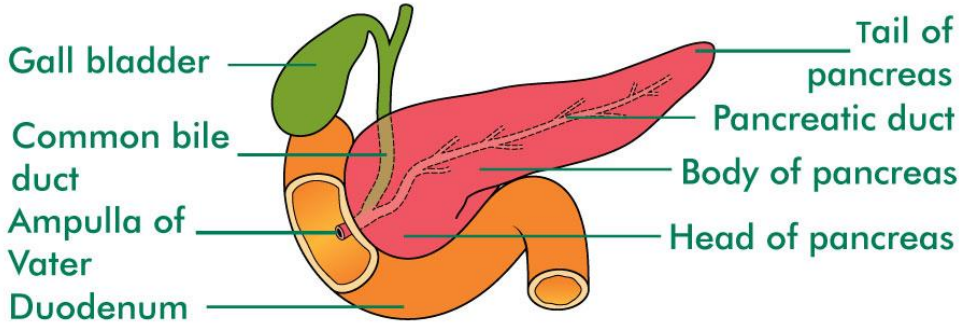
Increased REE	Malabsorption	Reduced appetite	Protein catabolism	Taste/smell changes	Restrictive diets
Mucositis	Nausea and vomiting	Jaundice	Hyperglycaemia	Gastric outlet obstruction	Emotional burden

Cachexia is associated with:

- Reduced QoL
- Decreased survival
- Treatment interruptions
- Treatment failure

Shukla et al., 2014
Pancreatic Cancer Action, 2017

Pancreas Function



EXOCRINE

Head of pancreas

Enzyme secretion

- Lipase- fats
- Protease- proteins
- Amylase- starch/polysaccharides

Optimal function at pH 6.5

ENDOCRINE

Throughout the pancreas

Secretes 4 hormones from the islets of langerhans

- Insulin
- Glucagon
- Somatostatin
- Pancreatic polypeptide

Pancreatic Exocrine Insufficiency (PEI)

Diagnosis- Faecal elastase, Imaging, Symptoms, Nutritional status

Symptoms

- Steatorrhoea- yellow/pale/floating/oily/difficult to flush
- Bloating and wind
- Urgency
- Pain on eating
- Weight loss
- Fatigue
- Hypoglycaemia

Consider

- Medications e.g. antidiarrhoeals, opiates, iron replacement
- Dietary restriction

Pancreatic Enzyme Replacement Therapy (PERT)

Enteric coated

- Creon- micro, 10,000, 25,000
- Nutrizym 22,000
- Pancrex V Capsules 8,000
- Pancrease HL 25,000
- Pancrex granules

Pancrex V powder

All Porcine- consent

No vegetarian options

Dosing

Starting dose for all patients with Pancreatic Cancer

- Snacks 25,000-50,000 units
- Meals 75,000 units
- Supplements/milky drinks 25,000- 50,000 units

Up to 150,000-200,000 units with meals/snacks

Swallow whole

Split dose

Take with a cold drink

PPI

Considerations

Early dietitian support

Temperature <25C

Avoid hot drinks

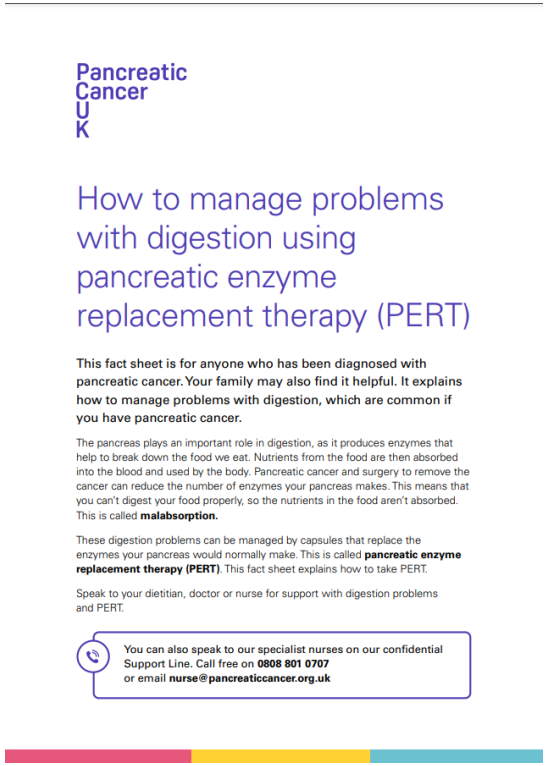
Timing

Gastric emptying

Emptying capsules- acidic food

Dietary intake- meal/snack sizes

Accessibility



Pancreatic Cancer UK

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

This fact sheet is for anyone who has been diagnosed with pancreatic cancer. Your family may also find it helpful. It explains how to manage problems with digestion, which are common if you have pancreatic cancer.

The pancreas plays an important role in digestion, as it produces enzymes that help to break down the food we eat. Nutrients from the food are then absorbed into the blood and used by the body. Pancreatic cancer and surgery to remove the cancer can reduce the number of enzymes your pancreas makes. This means that you can't digest your food properly, so the nutrients in the food aren't absorbed. This is called **malabsorption.**

These digestion problems can be managed by capsules that replace the enzymes your pancreas would normally make. This is called **pancreatic enzyme replacement therapy (PERT)**. 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**

Type 3c Diabetes

Results from damage to the Pancreas

Hypo and hyperglycaemia

Erratic

Optimised pancreatic enzymes may worsen glycaemic control

Benefits of improved glycaemic control:

- Minimising weight loss
- Improved quality of life
- Improved tolerance to treatment

Case Study (2018)

54 year old diagnosed with PC 3 months ago presented in A&E- Gen. unwell, poor oral intake, weight loss

Was awaiting surgical assessment for PPPD/ total pancreatectomy

Weight 63.9kg BMI 22.1kg/m2

8 months ago 95kg (32.7% weight loss)

Minimal oral intake due to early satiety and nausea

Hypoglycaemic episodes

NGT inserted and feeding commenced

Patient declining PERT

Weight stabilised and oral intake improved- NG out

Discharged from hospital after 6/52

MRI→ Progression of pancreatic mass with liver and lung mets

Conclusion

Malnutrition, PEI and Type 3c Diabetes are all common

Early management can improve QoL, symptoms, survival and treatment outcomes

PERT should be offered for all patients with pancreatic cancer

Dietetic input can be helpful to manage nutritional problems associated with pancreatic cancer