

# CF Guidelines - Pancreatic Enzyme Advice For Patients

## A Guide for Patients to Pancreatic Enzyme Supplements:

In most people with CF, the pancreas is affected. One of the roles of the pancreas is to aid digestion and absorption of protein, fats and carbohydrates by releasing enzymes to help break food down. Not all pancreatic enzymes are the same. They are available in different strengths, ranging from 5,000 to 40,000 units of lipase - enzymes that help break down fat - per capsule. It is important that the patient is taking the correct amount of enzymes at the correct time to ensure they receive all of the nutrients from the food they consume. Not taking enough enzymes or taking them at the incorrect time could result in weight loss, prevent weight gain and can also cause unpleasant bowel symptoms.

## Taking Pancreatic Enzymes:

- Pancreatic enzymes should be taken with every meal.
- Take before and during the food.
- Not needed with squash, fizzy drinks, fruit or fruit juice, boiled sweets, jelly.
- Enzymes should not be crushed or chewed.
- Drink plenty of fluid when taking the enzymes

## Enzymes available in the UK:

- Creon
- Pancrease
- Nutrizym

## Enzyme Storage:

The enzymes should be stored in a cool dry place out of direct sunlight. Make sure the supply has not passed its expiry date.

## Guide to adjusting Enzyme dosage:

There is no standard dose of enzymes. The correct dose is that which controls bowel symptoms. This is a general guide to adjusting the enzyme intake according to the quantity of fat in food. Everyone has individual needs and these can be discussed with the doctor or dietician at clinic. To make it easier, meals and snacks have been divided into groups - according to the quantity of fat they contain.

Low	Medium	High
Cereal and milk Toast Porridge Doughnut Cake Beans on toast Chocolate bar Tea and biscuits Sandwich Yoghurt Soup Packet crisps, twiglets etc Slice of cheese on toast Cereal bar Small bag of roasted salted nuts Pot Noodle Snackpots	Chicken, mash and vegetables Pie, mash and vegetables Spaghetti bolognese Pizza Chop, boiled potatoes and veg Quiche, potatoes and salad Macaroni cheese Chicken Kiev with potatoes and veg Chilli con Carne and rice/pasta Meat stew, potatoes and veg Sausage roll Scotch egg Stirfry with rice Cornish Pastie Pastry tart and custard	Fried breakfast Burger and chips Pizza and chips Chicken nuggets Meat pie and chips MacDonalds meal Sunday dinner and pudding Take-aways: Indian Chinese Fish and chips

Taking too few enzymes or taking them at the wrong time can result in malabsorption. That is, food is not completely absorbed and fat is present when you

open your bowels. This means that patients do not retain all of the calories you have eaten. It is important to be aware of the symptoms of malabsorption in an attempt to correct the problem.

### **Symptoms of malabsorption:**

- Loose, fatty, floating stools that are pale in colour.
- Opening of the bowels more than twice a day.
- Abdominal pain or bloating associated with eating.

### **What happens when to many enzymes are consumed?**

Taking too many enzymes can lead to a thickening of the bowel wall which can result in constipation or a blockage of the bowel. If you suffer from constipation it is important to discuss this with your doctor or dietician because constipation can also occur because you are not drinking enough fluid or eating enough fibre. Your doctor or dietician will be able to advise you on the best course of treatment.

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