Nutritional advice for people undergoing pancreatic surgery

Introduction
This leaflet is for people who are due to have pancreatic surgery. It is designed to give you ideas of what you can do to optimise your fitness between now and when you have your surgery. This is because the fitter you are before your operation, the easier the recovery will be afterwards.

If you have been losing weight recently, then it is likely that you have been losing muscle stores. Eating less, being less active and not digesting your food fully all contribute to this and can occur when you are unwell. Helping to maintain or build up your muscles will make you fitter for your operation. The ways you can do this are described below.

We recommend following the above advice from today until your operation.

Increasing activity levels
It may be that you are active and regularly exercise. However many people understandably become less active when they are unwell. It is important not to over-exert yourself or push yourself too far. Moving about regularly helps to maintain your muscle stores. It is important to also stop and rest when you need a break. Your level of activity will depend on how well you feel and on your previous level of fitness. It is better to have regular moderate activity than to be relatively inactive for long periods with short bursts of intensive activity.

For many people suitable activities would be walking, housework, gardening or gentle swimming. If this seems too much for you at the moment, then let your physiotherapist, specialist nurse or dietitian know and they can give you information on exercises you can do in a bed or chair.

Getting enough nutrition
It may be that your portion sizes are smaller than they used to be or your appetite is reduced. If you are not able to eat the volumes of food you used to, then it is important to focus on the foods higher in protein and calories. If your body does not get the calories and protein it needs from your diet, it will take them from your muscles leading to muscle loss. Below are some ideas on how to add more calories and protein to your diet.
• Nourishing snacks – try to include some of the following snacks between your meals to get extra nutrition in the day. Suggestions include; crème caramel, rice pudding, custard pot, thick and creamy yoghurt, nuts, cheese with crackers, olives, crisps with dips, mini pork pies, scotch eggs or sausage rolls.

• Nourishing drinks – try to include some nutritious drinks throughout the day. Good choices include; milk, milkshakes, smoothies, hot chocolate, milky coffees, Horlicks, Ovaltine or other malted milk drinks.

• Fortify your food – you can add extra calories and protein to your food by fortifying them. For example you can add four tablespoons of dried skimmed milk powder to one pint of milk. You can add extra butter, margarine, oil, cream, cheese, crème fraîche or pesto into savoury foods. You can also add extra ice cream, cream, custard, evaporated milk, syrup or honey into sweet foods.

If your appetite is not reduced and you are eating a full balanced diet without losing weight, then continue to eat as you are doing.

**Good digestion**

One of the jobs of your pancreas is to produce pancreatic enzymes which are released into your bowel. Their role is to break down what you have eaten into pieces small enough to be absorbed through the wall of your bowel, where it can then be used. When there is a tumour in the head of your pancreas you are not able to secrete enough of these enzymes to fully digest what you have eaten. So some of what you have eaten is not absorbed and you are not nourished by it.

However you can take replacement enzymes in a capsule with your food to enable you to fully digest what you have eaten so it is absorbed and nourishes you. These capsules are called Creon 25,000, Nutrizym 22 or Pancrease HL. If you are not already taking one of these, then you will be given more information about them, how and when to take them, and a prescription.

**Blood glucose levels**

If your blood glucose level is regularly above 10mmol/l you will not be able to make use of all the nutrition you consume and are more likely to have muscle loss. If you check your blood glucose levels and they are often over 10mmol/l, please speak to your diabetes specialist nurse or GP about advice on how to reduce them.

If you do not have diabetes but notice any of the following symptoms, please ask your doctor or nurse to check your blood glucose level.

- passing more urine than usual
- dry mouth/ feeling very thirsty
- blurred vision
- feeling very tired
- poor wound healing
- unexplained weight loss
If it is higher than the normal range, you will benefit from treatment to bring it down into the normal range.

**After your operation**
Following your operation you will initially be allowed sips of water, progressing to full drinks, and then a light diet usually by the end of the first day after your surgery. When you start eating again or having milky drinks, you will start taking your pancreatic enzymes again. The day after your operation you will be encouraged to get out of bed and breathe deeply. This will aid your recovery.

**Contacts/ Further information**
If you have any questions about the information in this leaflet, your diet or pancreatic enzyme supplements, please contact the pancreatic dietitians on 01223 216655.

For questions on exercise and activity contact the physiotherapists on 01223 216773.

For questions about what will happen in the operation or afterwards call the specialist nurses on 01223 256147.

**Privacy & Dignity**
Same sex bays and bathrooms are offered in all wards except critical care and theatre recovery areas where the use of high-tech equipment and/or specialist one to one care is required.

We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.
For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

**Other formats:**
If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

**Document history**
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Contact number 01223 245151
Publish/Review date June 2017/June 2020
File name Nutritional_advice_for_people_undergoing_pancreatic_surgery.doc
Version number/Ref 1/100346