

Cholangiocarcinoma and your Diet

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Introduction

- Disease and/or treatment can affect appetite and enjoyment of food.
- Nutritional recommendations for people with cancer can be very confusing.
- Emphasis around building up and maintaining your strength. This will help manage the effect of cancer and it's treatment on the body.

Eating a balanced diet will help you to:

- 1. start treatment with reserves
 - 2. prevent body tissues from breaking down
 - 3. rebuild tissues more easily
 - 4. maintain defenses against infection.
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- Nutrition in Cholangiocarcinoma is based around managing symptoms from the disease and/or the treatment you receive eg., chemo/surgery.

The Eat Well Plate



Source: Public Health England in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland

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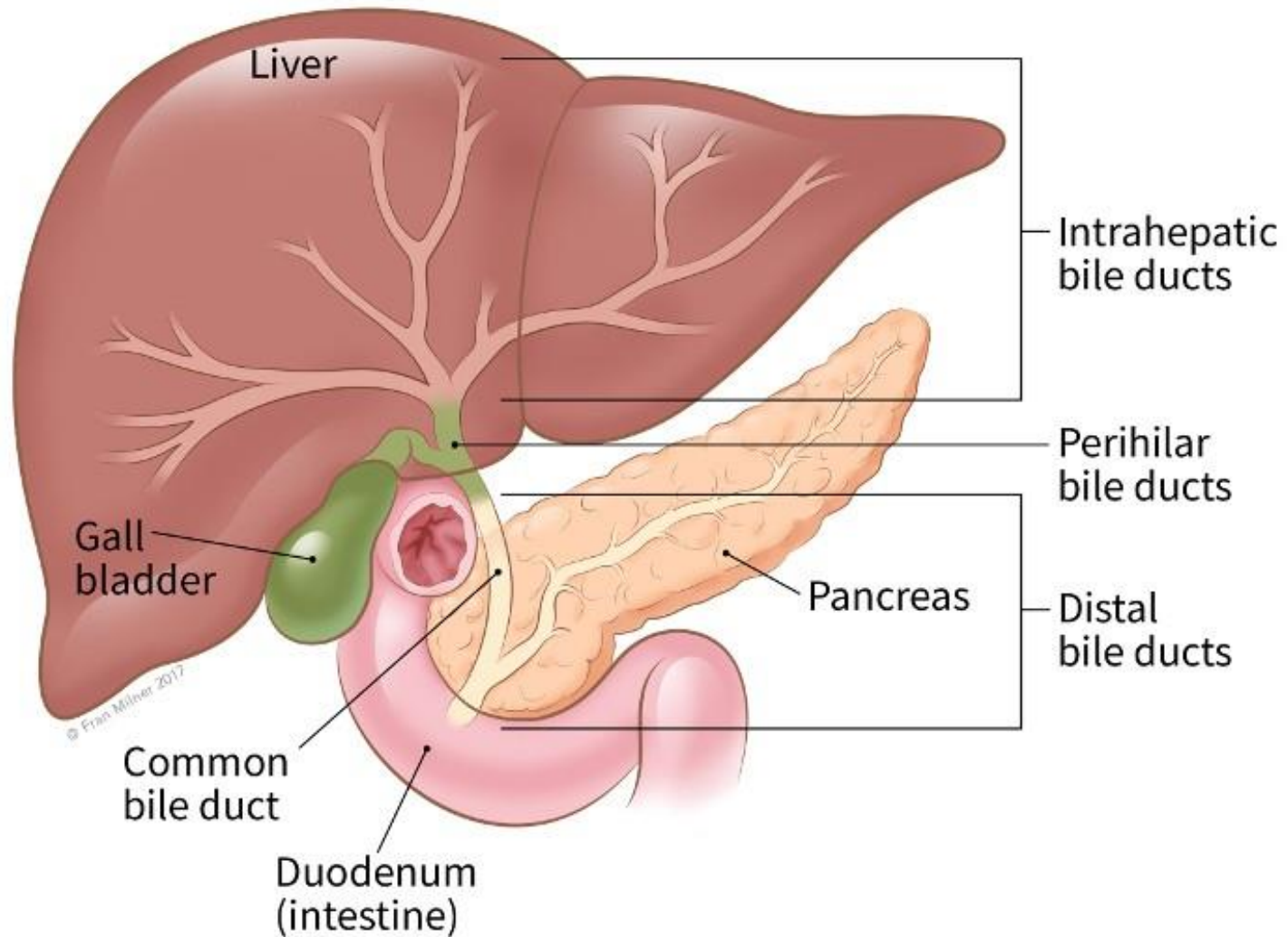
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Treatment options for Cholangiocarcinoma

- Surgery
- Chemotherapy
- Radiotherapy

Surgery

- Removal of bile ducts
- Partial liver resection
- Whipple procedure
- Surgery to relieve obstruction (blockage)
- Liver transplantation (USA only)
- Stent insertion



Whipples Procedure

What is a Whipples procedure?

- Also known as a pancreaticoduodenectomy
- Removal of the head of the pancreas, a portion of the bile duct, gallbladder and the duodenum, usually with part of the stomach.

What does the pancreas do?

- Large gland that lies at the back of the upper abdomen. It has two main functions:
- **Produces digestive enzymes**: pancreatic juice and bile mix with food in the intestine to digest food into nutrients used by the body.
- **Produces hormones**: such as insulin, which controls the level of sugar in the blood.

Considerations following Surgery

- Delayed gastric emptying- stomach takes longer than normal to empty- can cause nausea, early satiety and vomiting.
- Diabetes- as a large portion of pancreas removed, risk of developing diabetes.
- Malabsorption- pancreas makes digestive enzymes which help the body break down food.

- Removal of all or part of the pancreas affects the amount of pancreatic enzymes that are produced
- Affects the body's ability to digest food, particularly fat and absorb vital nutrients

Diet following Whipples

Post surgery common side effects include:

- Poor appetite
- Early satiety
- Nausea
- Abdominal discomfort e.g bloating, cramping, wind, flatulence, reflux
- Weight loss
- Diarrhoea/Steatorrhea

Guidelines for eating and drinking:

- Start with clear fluids/liquids & progress to a low Residue diet.
- Eat small meals every 2–3 hours rather than three large meals.
- Have nourishing meals & snacks; include protein source at every meal e.g. meat, chicken, fish, dairy products, eggs, tofu.
- Small sips of fluids between meals rather than with meals.
- Limit foods that produce wind (gas) and carbonated (gassy) drinks.

Diet following Whipples continued.

- Multivitamin supplement and/or a vitamin B12 and fat-soluble vitamin supplement.
- Ensure correct dose of pancreatic enzyme is taken (Creon/Nutrizyme)
- Limit very fatty, greasy or fried foods if these cause discomfort, even when taking adequate pancreatic enzymes.
- Nutritional supplements drinks, Fortisip compact/Fortijuce/Vital 1.5 are high in energy and protein and have important vitamins and minerals. These may be prescribed after surgery.

Pancreatic enzyme replacement.

Signs of PEI (pancreatic enzyme insufficiency) include:

- abdominal pain
- Bloating
- excessive wind
- diarrhoea or fatty bowel movements (stools) that are pale in colour, frothy, loose and difficult to flush
- weight loss.

Who Needs Pancreatic Enzymes?

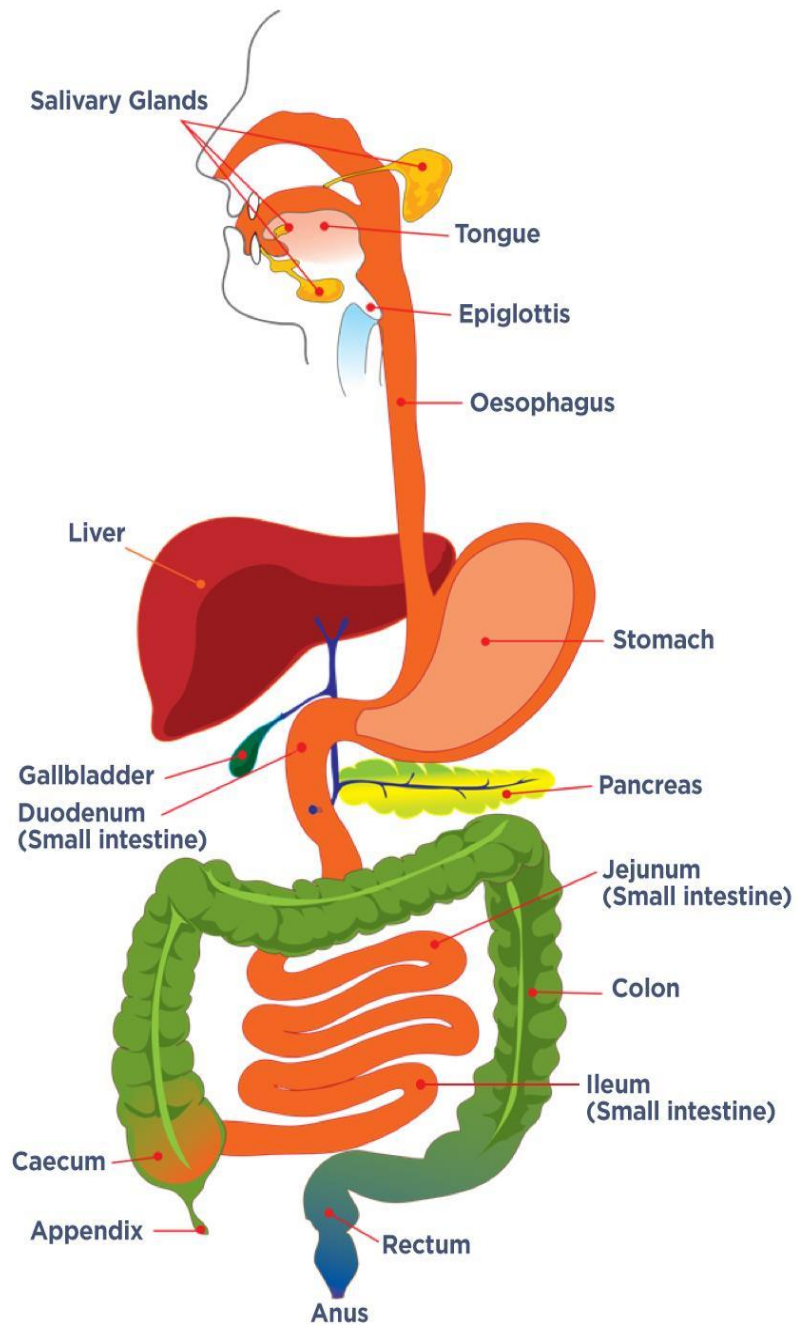
- Tumours in the pancreas
- Following pancreatic surgery
 - Whipple Procedure
 - Total Pancreatectomy
- Obstruction of pancreatic or biliary duct

Pancreatic enzyme replacement cont.

- PERT must be taken with all meals and snacks containing protein and fat.
- NB: Take with a cold drink.
- Meal higher in fat = more enzymes to be taken
- Divide doses throughout meal times
- Do not crush or chew
- Do not take with iron supplement
- Fruit juice, black tea and coffee do not need Enzymes
- What is my dose?- Dependent on numerous factors. Starting dose likely to increase incrementally until symptoms controlled. Doctor/Dietitian will help adjust dosage.
- What if I take too many? – Constipation – Abdominal cramping – Nausea

Bile Acid Malabsorption (BAM)

- Bile is produced in the liver, stored in the gallbladder & released into small intestine when food is eaten.
- 1. Breaks down & absorbs fats & vitamins
- 2. Removes waste products.
- 97% of bile acids are re-absorbed in the small intestine & returned to liver.
- If the final section of your small intestine becomes diseased/removed during surgery/ damaged eg radiotherapy.
- Not enough of the bile salts are absorbed back into the body.
- This causes too much bile salt to reach your colon & causes fluid to be pumped into the colon causing diarrhoea.



Causes of BAM

- **Type 1:**

Small intestine resections/ inflammation eg Crohn's disease or cancer treatment

- **Type 2:**

Primary BAM

- **Type 3:**

Secondary to GI diseases eg gallbladder removal, coeliac disease, chronic pancreatitis, radiotherapy or small bowel bacteria overgrowth

- Diagnosis is done using a SeHCAT scan.

Symptoms of BAM

Diarrhoea:

- Can be frequent
- Pale & greasy and hard to flush away or may be unusually coloured.
- Smelly wind & erratic bowel movements
- Loss of weight due to excessive loss of bile salts

Stomach Problems:

- Bloating, cramping, abdominal pain and excessive wind
- Mimics IBS & can be misdiagnosed

- Also Vit B12 deficient, very tired and short of breath.

Treatment of BAM

Medications:

- Colestyramine and colestipol –only come in powder form. Can be unpalatable and cause constipation if dose too high.
- Colesevelam –newer medication and comes in a tablet form.
- Codeine phosphate or Loperamide

	LOW per 100g Less than...	MEDIUM per 100g	HIGH per 100g More than...	HIGH per Portion More than...
Fat	3g	3g - 17.5g	17.5g	21g
Saturates	1.5g	1.5g - 5g	5g	6g
Sugars	5g	5g - 22.5g	22.5g	27g
Salt	0.3g	0.3g - 1.5g	1.5g	1.8g

Diet:

- Strict low fat diet (40g fat per day)
- Low fat product: 3g or less per 100g
- Reduce intake of fried, greasy foods, margarine, butter, mayo, baked goods, full fat dairy products, processed meats.

Monitoring BAM

- Medications for BAM can lower levels of fat soluble vitamins (A, D, E & K)
- Can also lead to increase in triglycerides.
- Recommend regular blood test to monitor above.
- Monitor for weight loss, stool frequency & consistency.
- Medication dose may need adjusting.
- May require supplementation of B12 and fat soluble vitamins.

Nutrition following Chemotherapy or Radiotherapy

Managing your Symptoms

Poor appetite and/or weight loss

- Little & often approach. Aim for 6 small meals.
- Eat when your appetite is at its best.
- Try using small plates.
- Choose easy to eat foods eg soft foods rather than foods that require lots of chewing.
- Some steroids may assist in increasing your appetite eg. Dexamethasone/ metoclopramide.
- Eat foods high in protein & energy.
- Fortify meals: full fat milk/yogurt, butter, oil, margarine, mayonnaise, cheese, cream, skimmed milk powder to full fat milk, packet soups, sauces, adding lentils/beans to soups and casseroles.
- Snacks: cheese & crackers, toast with peanut butter/avo, muffins, full fat yogurt, milky coffees, biscuits, small piece of cake, crisps, rice puddings, smoothies
- Nutritional supplements eg Fortisip, Ensure, Fortijuce.

Managing your symptoms cont.

Nausea

- Eat when you feel least nauseas & less likely to be sick
- Eat slowly- do not eat in a hurry
- Stay active
- Try not to lie down soon after eating
- Try dry & 'bland' food: toast, crackers, plain biscuits, pretzels, crisps, rice cakes
- Aim for small, frequent meals- every 2-3 hours.
- Ginger containing foods can reduce nausea: ginger tea, ginger ale, ginger biscuits
- Sips fluids throughout day rather than with your meal: water, lemonade, soda water & sip through straw
- Peppermint tea can relax the stomach muscles & reduce nausea. Avoid strong coffee or tea.
- If you are vomiting, drink plenty of fluids; try sports drink & fruit dinks
- Avoid spicy, greasy, fatty or fried foods or foods with a strong smell eg fish/ blue cheese
- Ask your doctor about medications: cyclizine, metoclopramide, ondansetron.

Managing your symptoms cont.

Diarrhoea:

- Avoid fatty & spicy foods, fried foods, fatty meats and have oil/margarine in moderation
- Avoid alcohol and caffeine (can cause dehydration)
- Yogurt, cheese & custard may be better tolerated than milk as they contain less lactose.
- Avoid gas-producing foods & drinks eg. beans, carbonated drinks, beer, cabbage, spouts or broccoli.
- Avoid very fibrous foods that may contribute to diarrhoea, eg fruits & vegetables with hard/tough skins, seeds & pips
- Opt for low fibre foods eg white bread, white pasta, white rice
- Slowly increase fibre once diarrhoea has settled.
- Probiotic drinks can ease diarrhoea caused by antibiotics by replacing healthy bacteria.
Note, do not take if neutropenic.
- Drink 1.5-2L water/day (unless fluid restricted)

Summary

- Dietary advice/recommendations can be very confusing and overwhelming.
- If in doubt, speak to your doctor and ask for a referral to a dietitian.
- Follow nutrition guidelines which are evidence based and have had studies done to prove its efficacy.
- Avoid diet fads/ advice that promises unrealistic results.
- Eat according to your symptom.
- opt for high protein and high calorie foods and snacks, and nutritional drinks eg Ensure/Fortijuce/Fortisip Compact.
- Knowledge is Power.

Thank You.

Questions?

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