

Nutrition after your pancreaticoduodenectomy (Whipple procedure)

People who have had a Whipple procedure may have different nutritional problems.

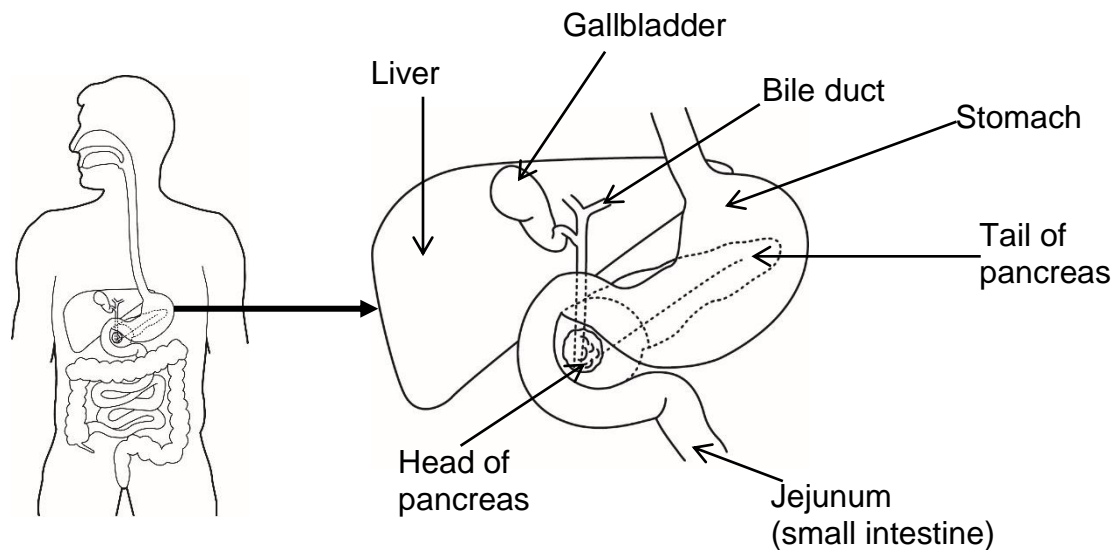
This handout will help you identify and manage common nutrition issues you may have after this procedure.

What is the procedure?

A pancreaticoduodenectomy is also known as the Whipple procedure. It involves removing:

- the head of the pancreas,
- part of the duodenum (small intestine),
- the lower bile duct, and
- the gallbladder.

Your surgeon may do the procedure in one of two ways:



☐ Standard (classic) procedure	☐ Pylorus preserving procedure

Possible nutrition problems

Gastroparesis	What To Do
<p>What is it? A condition where food moves through your stomach slower than normal and takes longer to digest.</p> <p>This is most likely to occur within the first 4 to 6 weeks after the procedure.</p> <p>Symptoms:</p> <ul style="list-style-type: none">• nausea• bloating• vomiting• fullness• decreased appetite	<p>Eat 6 to 8 meals or snacks each day.</p> <p>Chew food well.</p> <p>Choose low fibre and easy to digest foods.</p> <p>Avoid foods high in fibre, such as:</p> <ul style="list-style-type: none">• legumes and beans such as chick peas, kidney beans and lentils• whole grain breads and cereals• nuts and seeds• dried fruits• popcorn• raw fruits such as berries, cherries and grapes• raw vegetables and salads• high fibre vegetables such as corn, peas, broccoli, Brussels sprouts and cabbage <p>Reduce intake of high fat, greasy or deep fried foods.</p> <p>Choose lean proteins, such as:</p> <ul style="list-style-type: none">• poultry and fish• lean red meat• tofu• eggs• dairy products (milk, cheese, cottage cheese and yogurt)• nut butters <p>Choose liquid meal replacements, such as:</p> <ul style="list-style-type: none">• high protein drinks or supplements• fruit and vegetable smoothies <p>Try to sit upright for at least 1 hour after eating.</p>

Dumping Syndrome	What To Do
<p>Dumping syndrome is most likely to occur 4 weeks after the procedure. There are 2 types of dumping syndrome.</p> <p>What is Early Dumping Syndrome? Food and fluid passes too quickly into the small intestine. This happens 15 to 30 minutes after a meal.</p> <p>Symptoms:</p> <ul style="list-style-type: none"> • flushing • nausea • dizzy or faint • diarrhea • weak • stomach cramps • bloating • fast heart beat • vomiting • strong desire to lie down <p>What is Late Dumping Syndrome? Sugar is absorbed too quickly into the blood and can cause hypoglycemia (low blood sugar). This happens 1 to 3 hours after a meal.</p> <p>Symptoms:</p> <ul style="list-style-type: none"> • sweating • weak • shaky • fast heart rate • hungry • difficulty concentrating 	<p>These tips apply to both types of dumping syndromes ...</p> <p>Eat 6 to 8 meals or snacks each day.</p> <p>Chew food well and eat slowly.</p> <p>Combine starch and protein foods to each meal or snack, such as:</p> <ul style="list-style-type: none"> • half a sandwich (such as egg salad, turkey, ham and cheese.) • cheese and crackers • pita and hummus • yogurt with granola • tuna and crackers • English muffin with peanut butter <p>Drink liquids 30 to 60 minutes <u>before</u> or <u>after</u> eating:</p> <ul style="list-style-type: none"> • sip small amounts of fluids (up to 4 oz or 125 ml) during meal times. <p>Avoid liquids high in sugar, such as:</p> <ul style="list-style-type: none"> • juice, regular pop, sports drinks, iced tea, Koolaid® and lemonade <p>Talk to your doctor about whether you need to take pancreatic enzymes.</p>

Unintentional Weight Loss	What To Do
<p>What is it? Losing weight without trying. This can happen because your body's energy (calorie) and protein needs are high and your appetite may be low.</p> <p>It is normal to have a poor appetite after surgery. Some weight loss can be expected.</p> <p>Symptoms:</p> <ul style="list-style-type: none"> • loose-fitting clothes • low energy level 	<p>Eat 6 to 8 meals or snacks each day.</p> <p>Eat more when your appetite is good.</p> <p>Include protein-containing foods at every meal or snack, such as:</p> <ul style="list-style-type: none"> • poultry, meat, and fish • eggs • tofu • dairy products (milk, cheese, cottage cheese and yogurt) • nut butters (peanut, almond or cashew) <p>Avoid filling up on drinks that are low in calories, such as:</p> <ul style="list-style-type: none"> • coffee, tea, diet pop, water <p>Drink fluids that contain calories, such as:</p> <ul style="list-style-type: none"> • milk, • fruit juice, and smoothies • high protein drinks or supplements <p>Keep easy to prepare foods on hand, such as:</p> <ul style="list-style-type: none"> • frozen dinners, canned foods, eggs <p>Bring snacks when you are out, such as:</p> <ul style="list-style-type: none"> • cheese and crackers • protein bars

Pancreatic Exocrine Insufficiency	What To Do
<p>What is it? Decreased production of pancreatic enzymes used to digest food.</p> <p>Symptoms:</p> <ul style="list-style-type: none"> • diarrhea • greasy/oily stools • floating stool • stools that smell more than usual • weight loss • weakness • fatigue 	<p>Eat 6 to 8 small meals or snacks per day.</p> <p>Limit the amount of fried, deep fried or greasy food that you eat.</p> <p>Talk to your doctor about whether you need to take pancreatic enzymes.</p> <p>Talk to your doctor, dietitian or pharmacist about taking a multivitamin and/or mineral supplement.</p>

Pancreatic Endocrine Insufficiency (Diabetes)	What To Do
<p>What is it? Loss of pancreatic tissue can cause decreased insulin production. This leads to abnormal blood sugar levels.</p> <p>Symptoms:</p> <ul style="list-style-type: none"> • feeling very thirsty • feeling very hungry • feeling tired • urinating more often • losing weight 	<p>Talk to your doctor if you have symptoms.</p> <p>Limit foods high in simple sugars such as:</p> <ul style="list-style-type: none"> • candy • sugar (brown and white) • regular pop • juice • jams and jellies • white bread • desserts such as cookies, pastries, pudding, and ice cream