

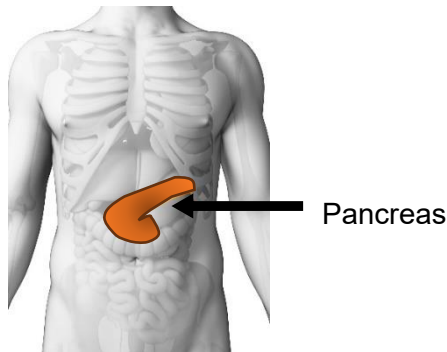
Eating Well After a Total Pancreatectomy

What is a total pancreatectomy

A total pancreatectomy is surgery that removes your entire pancreas.

The pancreas is an organ in your body that makes:

- enzymes to help break down food
- hormones, like insulin, help keep your blood sugar levels stable and store energy from your food.



After surgery

You will need to take pancreatic enzymes as your body won't be able to make them without a pancreas. You may also need to take insulin.

Pancreatic enzymes

You will need to take pancreatic enzymes each time you eat and with certain drinks. These help your body break down what you eat to get nutrients.



Without pancreatic enzymes, nutrition from your food may not get absorbed. This puts you at risk of dehydration and malnutrition.

The type and amount of pancreatic enzymes you need can change over time. Regular visits with your healthcare team can help you find what works best for you.

Insulin

Insulin helps your body use glucose (sugar) from your food for energy. It is made by your pancreas.

Your healthcare team will tell you if you need to take insulin to manage your blood sugar levels. Whether you need to take insulin depends on the type of surgery you had.

If you need insulin, your healthcare team will show you how to take it safely and how to monitor your blood sugar levels.



Importance of nutrition

Getting enough nutrition daily helps you to:

- heal, recover, and fight infection
- maintain muscle and prevent muscle loss
- support your immune system

This handout has information to help you get enough nutrition and manage side effects after surgery.

Visit ahs.ca/NutritionHandouts to learn more about:

- Taking pancreatic enzymes
- Managing your blood sugar levels (diabetes)
- Managing side effects
- Getting more calories and protein

Tips to get enough nutrition

- Eat 5–6 small meals during the day instead of larger meals.
- Include protein foods at every meal and snack. Foods with protein include:
 - beef, pork, poultry, eggs, and wild game
 - fish, shellfish, and seafood
 - lentils, beans, chickpeas, and split peas (may cause gas and bloating if you aren't used to eating them)
 - milk, cheese, and Greek or Icelandic yogurt (Skyr)
 - protein powders and nutrition supplement drinks (see details in section below)
 - soy foods, like tofu and fortified soy beverage
- Drink enough fluids daily: at least 9–12 cups (2.25–3 L). Fluids include water, milk, fortified soy beverage, coffee, tea, broth, and soup.
- Avoid alcohol and tobacco. These can make side effects worse.
- If your appetite is poor or you don't feel like eating, choose food and drinks that have more calories and protein.
 - For example, drink milk instead of water. The milk gives you more calories and protein than the same amount of water.

Nutrition supplement drinks and protein powders

If you have a poor appetite or are losing weight, a nutrition supplement drink may help. They can give you extra calories, protein, vitamins, and minerals.

- Choose a nutrition supplement drink that is high in protein like Ensure[®] Advance, Resource[®] 2.0, and Boost[®] High Protein or Protein+.
- If you have been told to have lower sugar options to help with blood sugar control, choose diabetes-friendly products, like Glucerna[®] or Boost[®] Carb Smart.
- There are protein powders that are unflavoured. You can blend unflavoured protein powder into smoothies, or add it to mashed potatoes, soups, oatmeal, or casseroles without changing the taste of these foods.
- Store-brand products usually have as much nutrition as other brands but may cost less.

Vitamin and minerals

After your surgery, you may not be able to absorb some nutrients from food as well as you did before.

- Take a daily multivitamin/mineral pill.
 - Choose one that has calcium, iron, selenium, zinc, and vitamins A, D, E, and K in it.

Your doctor or healthcare team can order blood tests to check if you need extra vitamins and minerals.

My supplement(s):

Managing side effects

Because of the changes to your body, you may notice:

- you feel full quickly
- you have gas and feel bloated
- there is fat in your poop (looks greasy)
- food and drinks leave your stomach faster (dumping syndrome) or more slowly (gastroparesis) causing pain or discomfort
- you feel tired often and easily
- you lose weight without trying

Try the tips for the side effects you have.

Fat in your poop

When your pancreas is removed, your body won't be able to absorb the fat from the food you eat. Taking pancreatic enzymes helps your body break down food.

If you don't take enough pancreatic enzymes, you may feel your stomach is upset or have pain after eating. You may have looser poop, diarrhea, or bulky and greasy poop that floats.

Take pancreatic enzymes:

- as prescribed by your healthcare team
- with all meals, snacks, and drinks that have fat or protein in them

If you keep having fat in your poop even when taking your pancreatic enzymes, let your healthcare team know. You may need changes to your medication or dose.

High blood sugar levels

You may have high blood sugar levels after your surgery. Most people after having their pancreas removed will need to take insulin.

- If your blood sugar levels are high, you may need changes to your medicine or insulin.
- Watch for symptoms of poor blood sugar control, like being unusually thirsty or hungry, and needing to pee more often than normal

Talk to your healthcare team if you have these symptoms. They can refer you to a diabetes specialist.



High blood sugar levels can be dangerous. Go to the emergency department if you have:

- confusion
- flushed, warm, dry skin
- nausea
- rapid or weak pulse
- trouble breathing

Losing weight

Losing some weight is common after surgery.

Keep track of your weight. Weigh yourself every week and write it down.

If you don't have a scale, you may be able to tell if you are losing weight by how your clothes fit. If they get looser, you may be losing weight.

- You may need to eat more food or eat more often.
- Try to eat foods higher in calories and protein.
- If you have a low appetite or don't feel like eating, try a smoothie or a nutrition supplement drink in between meals.
 - See the “Nutrition supplement drinks and protein powders” section for details.

If you are worried about your weight or are having trouble maintaining your weight, talk to your healthcare team.

Food stays in your stomach longer

Delayed gastric emptying, or gastroparesis, means your stomach takes longer than usual to empty.

After surgery, this can happen because of inflammation (swelling) in the area. Gastroparesis gets better as swelling goes down about 6–8 weeks after surgery.

You may:

- feel full after only eating a few bites
- belch or burp
- feel bloated in your stomach area (abdomen)
- feel nauseous
- vomit
- have acid reflux or heartburn

Tips to try:

- Eat 5–6 small meals during the day. Smaller meals keep you from feeling too full and digest more quickly than larger amounts of food.
- Chew your food well. This helps your stomach digest food more quickly.
- Avoid foods that are hard to chew, like corn, popcorn, nuts, and seeds.
- Choose foods that are lower in fibre. Fibre stays in your stomach longer. It can also make you feel full quicker.
 - Remove the skins, peels, and seeds from fruits and vegetables before eating them
- Choose foods lower in fat. Higher fat foods take longer to move out of your stomach.
- Liquids, pureed, and minced foods tend to digest quicker than solid foods. This means they don't stay in your stomach as long and may make you feel more comfortable.
- Avoid alcohol and tobacco which slow digestion.
- Sit upright when eating and wait 2–3 hours after eating before laying down.

Gas and bloating

Bloating is from a buildup of gas in your body usually after eating or drinking.

Sometimes certain foods, fluids, or actions cause gas and bloating. While gas and bloating are normal, they may cause you pain and discomfort.

If a food doesn't bother you, you don't need to avoid it.

To manage bloating, limit or avoid:

- beans, split peas, and lentils (canned or dry)
- beer
- broccoli, cabbage, cauliflower, garlic, and onion
- chewing gum and sucking on candy or ice cubes
- fizzy drinks such as pop and sparkling water
- gulping fluids and drinking fast
- using drinking straws and bottles with spouts or small openings

If your gas and bloating don't improve, talk to your doctor or healthcare team. You may need a change to your pancreatic enzymes.

Food leaves your stomach quickly

Dumping syndrome is when food leaves ('dumps' from) the stomach too quickly. It can happen as early as 30 minutes after eating, and up to 3 hours after.

Signs of dumping syndrome:

- diarrhea, stomach pain, or cramping
- difficulty concentrating
- drop in blood pressure
- faster heartbeat
- feeling:
 - bloated or full
 - like you need to lie down right away
 - nervous or shaky
 - weak or dizzy
- flushing or sweating
- nausea or vomiting

If you have signs of dumping syndrome, let your doctor or healthcare team know.

Feeling full quickly

While eating you may feel full quickly. After eating, you may have stomach pain, nausea, or you may vomit. This may be because there is too much food in your stomach.

- Eat 5–6 small meals each day. Smaller meals will help your stomach be less full.
- Eat foods high in protein first at meals and snacks. Protein helps you heal.
- Try to eat in a relaxed setting during meals.
- Eat slowly: Take small bites and chew your food well.
- If eating solid foods:
 - Drink liquids 30 minutes before or after you eat solid food.
 - If you need to drink liquids during your meals, take only small sips.

If you feel fuller later in the day, try having drinks, blended foods, or soft foods. These are easier to digest than solid foods, so you may be ready to eat more sooner.

More information

- Visit ahs.ca/NutritionHandouts, and search other side effects like:

- constipation
- nausea and vomiting

Search by topic filters:

- after surgery
- cancer

More support



- Talk to your healthcare team.
- Call Health Link at 811 and ask to talk to a dietitian or complete a [self-referral form](#) on ahs.ca/811.
- Visit ahs.ca/Nutrition.

