



Pancreatic Cancer

Pancreatic cancer is a rare disease, affecting less than 0.0002% of the population each year, yet it is the third most common cause of cancer-related deaths in Canada. It has a devastatingly low five-year survival rate of only 8%, which is one of the lowest of all cancer types. It is a disease that tends to affect seniors, and it often presents with non-specific symptoms that make it very difficult to screen for or diagnose early enough for adequate treatment.

The pancreas is a vital organ, which produces enzymes that break food down into absorbable components. It also makes insulin and other hormones involved in keeping blood sugar balanced. It is located behind your stomach in the abdomen and is around 15-20 cm (6-8") long. Pancreatic cancer occurs when cells in the pancreas grow out of control.

Symptoms

Common symptoms include weight loss, nausea, diarrhea, and abdominal and mid back pain. Other potential symptoms include yellowing of the skin or eyes (jaundice), loss of appetite, vomiting, flatulence, and sudden onset of diabetes or glucose intolerance. However, since these symptoms are common in other diseases and disorders and pancreatic cancer is relatively rare, it is possible that a physician might not initially consider pancreatic cancer as the cause. Your symptoms might support a diagnosis of a different gastrointestinal condition, such as irritable bowel syndrome or dyspepsia.

Risk Factors

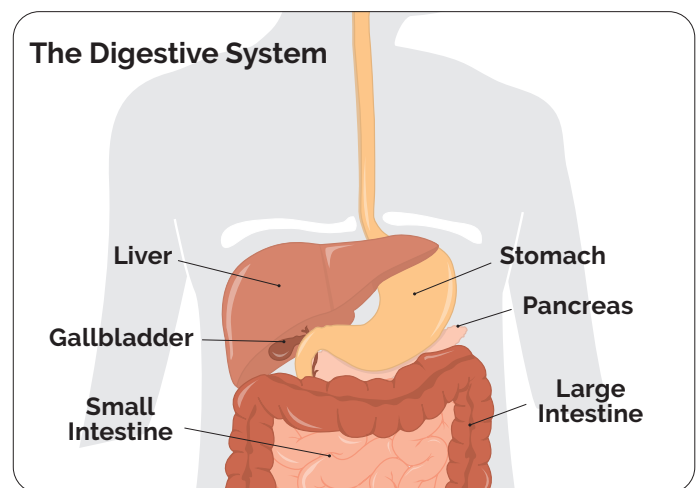
Certain genetic, environmental, and lifestyle factors can affect the likelihood of developing pancreatic cancer. If you have a family history of this disease or an inherited genetic syndrome associated with pancreatic cancer (such as BRCA1 or BRCA2), you could have an increased risk. The more members

of your immediate family who have this cancer, or other types of cancer, the greater the risk that you will also develop it. Age is another significant factor, with about 80% of cases occurring in those who are 60 years of age or older. Males also tend to get pancreatic cancer slightly more often than females and it is more common in those of African or Ashkenazi Jewish descent. Chronic diseases such as obesity, diabetes, and pancreatitis can increase your risk.

Controllable lifestyle factors that can contribute to the development of pancreatic cancer include smoking cigarettes, eating a diet high in saturated fats, and consuming large quantities of red meat.

Diagnosis

Since it is rare for symptoms to point to pancreatic cancer at an early stage, a diagnosis typically comes after the cancer has already spread to other parts of the body (metastasized).



However, some routine lab tests might provide early warnings.

Your physician will likely start the diagnosis process by asking you about your symptoms and your personal and family medical history and give you a physical exam to look for signs of the disease, such as jaundice and unusual swelling or lumps in the abdomen. Using a combination of blood tests, ultrasound, computed tomography (CT) scans, and/or magnetic resonance imaging (MRI), along with biopsy, your physician can either rule out pancreatic cancer or make a diagnosis. Biopsy is the most useful tool as it can differentiate the type of tumour and help the physician determine an appropriate treatment. Sadly, the time necessary to perform these tests can result in treatment delays and disease progression.

The stage of pancreatic cancer will depend on the location of the tumour, its size, and whether it has spread to the lymph nodes, major blood vessels, or other parts of the body.

Treatment and Management

Although the survival rate is low, it is good news to learn that some individuals can enter remission. If the stages of your disease progressively worsen, then your healthcare team might focus on management efforts that can help make you more comfortable.

Treatment will depend on the diagnosis you receive and involves a combination of medical interventions along with lifestyle changes. To ensure you receive complete information about the treatment options available, we recommend that you speak with your medical oncologist.

Surgery

If you receive a diagnosis of pancreatic cancer in its early stages, then your healthcare team should refer you to a HPB (hepato-pancreatico-biliary) surgeon to remove the cancerous tissue. Typically, surgical options include pancreatectomy, which involves removing all or part of the pancreas, or the Whipple procedure (pancreaticoduodenectomy), in which a surgeon will remove the head of the pancreas along with most of the duodenum, the gallbladder, part of the bile duct, and lymph nodes around the pancreas, and then attach the stomach and the remainder of the pancreas and bile ducts to the small intestine.

Chemotherapy and Radiation

Chemotherapy and radiation therapies are available for individuals with metastatic or advanced disease. These can treat the cancer itself and/or relieve symptoms to improve your quality of life. Individuals may also receive a combination of chemotherapy and radiation therapy called chemoradiation.

Your healthcare provider might recommend chemotherapy after surgery (adjuvant chemotherapy), but you can also receive it as your first line of treatment against the disease or before surgery as an attempt to shrink the tumour to make it easier to remove. Chemotherapy drugs can be used alone or in combination for pancreatic cancer, and may include gemcitabine (Gemzar®), 5-fluorouracil (Adrucil®, 5-FU), nab-paclitaxel (Abraxane®), folinic acid (Leucovorin®), irinotecan (Camptosar®), and oxaliplatin

Your healthcare team will recommend the best treatment options for you based on your diagnosis and medical history. After your treatment(s), they will schedule regular follow-up visits for up to three years so that they can monitor the disease and symptoms.

Symptom Management

Your care team will monitor symptoms from the cancer itself as well as side effects from treatments. These can be ongoing and last for months or years after treatment has ended. Symptoms might include nausea, anxiety, fatigue, diarrhea, constipation, and others. Some patients find that the use of medical cannabis may help reduce frequency of nausea and vomiting caused by cancer or chemotherapy.

Dumping syndrome, or rapid gastric emptying, may occur after surgery. Symptoms include bloating and bowel cramps, as well as diarrhea, nausea, and vomiting. As a result, you may also experience nutritional deficiencies. There are tests that can diagnose dumping syndrome and medications to reduce the impact of this condition. Fortunately, it is typically a temporary effect of surgery and resolves on its own within a few months.

Your healthcare provider will work with you to establish a care plan, which might involve pain management and working with a registered dietitian and a palliative care specialist.

Dietary and Lifestyle Modifications

Treatments for pancreatic cancer, along with the cancer itself, can impact your body in ways that make it difficult to maintain proper nutrition. Side effects can include loss of appetite, nausea, diarrhea, and even a reduction in your body's ability to digest nutrients and produce the hormones your body needs. Since the pancreas produces insulin, cancer in this organ can lead to diabetes, so it is important to monitor your blood sugar.

It's crucial that you get proper nutrition throughout your care because adequate nutrition is vital for healing, wellness, and quality of life, and there are steps you can take to do so. The most important thing is making an appointment with a registered dietitian, who can help by creating a personalized

nutrition plan to meet your goals.

Since the pancreas is the body's primary producer of digestive enzymes, your healthcare team will recommend taking supplemental pancreatic enzymes (lipase, protease, and amylase) combined, called pancrelipase (Cotazym®, Creon®, Pancrease® MT). These supplements are an extremely important part of your treatment plan because they allow your body to better digest fats, proteins, and carbohydrates from the foods you eat. If you are taking digestive enzymes, then your body will be able to tolerate fat better, and you won't need to follow a restrictive low-fat diet.

While each individual's nutrition plan might be a bit different, depending on the severity of your disease, the other treatments you are taking, your age, sex, and other factors, there are some tips that are helpful for those who have pancreatic cancer.

Focus on hydration

Water is extremely important for overall health. If you don't consume enough fluids, then you are at risk of dehydration, which can further complicate your treatment. Drink water when you can, but you can also meet your fluid needs through other liquids. If you have chronic diarrhea, you might need to drink electrolyte drinks or an oral rehydration solution. It's best to drink most fluids in between meals rather than with food, to avoid bloating and an upset stomach. Sips with meals are ok.

Stick to nutritious foods

When it is difficult for you to eat, it is important to make each bite count. Fruits and vegetables, whole grains, lean proteins (e.g., egg, chicken, tofu, fish), and healthy fats (e.g., olive oil, fish, avocados) should make up the majority of your meals and snacks. Try to avoid processed foods, including sugary drinks, desserts, and fried foods, as these are both lacking in nutrients and likely to increase unpleasant digestive symptoms.

Eat frequent, small meals

Instead of having 2-3 large meals per day, you might find it easier to eat 5-6 smaller ones.

Space meals 2-3 hours apart

This helps give your body time to properly digest and process the foods that you have eaten and may help you have a better appetite at mealtime.

Choose easy-to-digest options

Peeling your vegetables and eating them cooked rather than raw can make them easier to digest. Choosing smoothies or soups for some meals is another way to consume valuable

nutrients when you aren't feeling well. Consider adding vegetables, such as spinach, to a smoothie.

Choose high protein and calorie foods

This could include smoothies made with 2% milk, 2% Greek yogurt, cucumber slices topped with tuna, whole grain crackers with hummus, sourdough bread with avocado, a chicken salad wrap, or liquid nutrition drinks.

If nauseated, avoid hot foods

You may tolerate cold or room temperature foods better (e.g., cereal, half a sandwich) as well as simple dry foods (e.g., crackers). Avoid your favourite foods when you're feeling really nauseated as this can create an aversion to these foods.

Avoid alcohol

This may trigger gut symptoms and prevent you from getting the nutrient-dense liquids and foods that you need to optimize your current health.

Other tips

You might find it useful to keep a journal for tracking what you eat and your symptoms. This can help you figure out which foods work for you and which make you feel worse. It is also important to eat slowly and chew well; eating too quickly can upset your stomach. Smoking cessation, a healthy diet, weight management, and exercise are all important for improving your overall health and managing your symptoms.

Outlook

Pancreatic cancer can take a long time to develop, and while there are currently no effective methods to diagnose this disease early on, timely intervention is crucial in improving your survival and quality of life. If you have a family history of this disease, or believe you may be at risk, please contact your doctor.

For more information about pancreatic cancer, go to www.badgut.org or www.craigscare.ca.

