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## [Islet Cell Tumor - Overview](#) [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 06/2015

**ON THIS PAGE:** You will find some basic information about this disease and the parts of the body it may affect. This is the first page of Cancer.Net's Guide to Islet Cell Tumor. To see other pages, use the menu on the side of your screen. Think of that menu as a roadmap to this full guide.

### **About the pancreas**

The pancreas is a pear-shaped gland located in the abdomen between the stomach and the spine. It is about six inches long and is made up of two major components:

- **Exocrine component.** This component is made up of ducts with small sacs called acini at the end. It produces specialized proteins called enzymes that are released into the small intestine to help the body digest and break down food, particularly fats.
- **Endocrine component.** This part of the pancreas is made up of specialized cells clustered together in islands within the organ, called islets of Langerhans. These cells make hormones, specifically insulin. Insulin is the substance that helps control the amount of sugar in the blood.

### **About pancreatic cancer**

Cancer begins when healthy cells change and grow uncontrollably, forming a mass called a tumor. A tumor can be cancerous or benign. A cancerous tumor is malignant, meaning it can

grow and spread to other parts of the body. A benign tumor means the tumor can grow but will not spread.

The most common type of pancreatic cancer is called ductal adenocarcinoma, or simply, adenocarcinoma. This type of pancreatic cancer begins in the exocrine component. Learn more about [adenocarcinoma of the pancreas](#) [3].

Much less commonly, a tumor can develop in the islets of Langerhans, the endocrine component. These tumors may be referred to as islet cell tumors, pancreatic islet cell tumors, pancreatic endocrine tumors, Islet of Langerhans tumors, or pancreatic [neuroendocrine tumors](#) [4]. The rest of this section focuses on islet cell tumors.

## Subtypes of islet cell tumors

An islet cell tumor can be either benign or cancerous. An islet cell tumor may also be classified as either functioning or nonfunctioning. The cells in a functioning islet cell tumor produce hormones that cause specific symptoms, while a nonfunctioning islet cell tumor does not cause hormonal symptoms. Most islet cell tumors are nonfunctioning. Because of a lack of symptoms, these tumors are usually diagnosed at a more advanced stage.

There are five major classifications of functioning islet cell tumors that are based on the hormone the cells normally make. However, some tumors can make two or more of these hormones at the same time.

- **Gastrinoma.** A gastrinoma is an islet cell tumor that makes too much gastrin, a hormone that causes acid production in the stomach. Too much stomach acid can cause severe ulcers, a condition called Zollinger-Ellison syndrome.
- **Insulinoma.** This type of tumor makes too much insulin, causing hypoglycemia, also known as low blood sugar. An insulinoma is more likely to be noncancerous. Only 10% become cancerous.
- **Glucagonoma.** A glucagonoma is an islet cell tumor that makes too much of the hormone glucagon. Unlike an insulinoma, a glucagonoma causes hyperglycemia, a condition where there is too much sugar in the blood.
- **VIPoma.** A VIPoma starts in the cells in the pancreas that make vasoactive intestinal peptide (VIP), a hormone that helps move water into the intestines. Too much VIP can cause chronic, watery diarrhea, which causes a condition called Verner-Morrison syndrome.

- **Somatostatinoma.** A somatostatinoma usually develops in the head of the pancreas. A somatostatinoma may make somatostatin, a hormone that stops the production of several other hormones, such as growth hormone, insulin, and gastrin.

The [next section in this guide is Statistics](#) [5], and it helps explain how many people are diagnosed with this type of tumor and general survival rates. Or, use the menu on the side of your screen to choose another section to continue reading this guide.

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#### **Links**

[1] <http://www.cancer.net/cancer-types/islet-cell-tumor/overview>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/31388>

[4] <http://www.cancer.net/node/31394>

[5] <http://www.cancer.net/node/18942>