Anatomy 101: The Pancreas
Patient Education

What Is the Pancreas?
The pancreas lies deep in the abdomen between the stomach and the spine. This gland produces hormones and juices that aid digestion. The stomach, liver, intestine, and other organs surround the pancreas.

About six inches long and shaped like a flattened pear, the pancreas connects at its widest part (or head) to the upper end of the small intestine. The head of the pancreas is on the right side of the abdomen. The middle section is called the body, and the narrow end (or tail) extends to the left.

What Does the Pancreas Do?
The pancreas makes insulin and other hormones. These hormones enter the bloodstream and travel through the body. They help the body use or store the energy that comes from food. For example, insulin helps control the amount of sugar in the blood.

The pancreas also makes pancreatic juices. These juices contain enzymes that help digest food. The pancreas releases the juices into ducts leading to the common bile duct. The common bile duct empties into the first section of the small intestine called the duodenum.

Cancer and the Pancreas
Throughout the body, new cells form to replace old, dead cells all the time. Sometimes new cells form in the pancreas when they are not needed, or old cells do not die when they should. Extra cells can build up and form a mass of tissue called a growth or tumor. Tumors can be benign or malignant.

**Benign tumors** are not cancer. Usually, doctors can remove them. In most cases, benign tumors do not come back after they are removed. Their cells do not spread to tissues around them or to other parts of the body. Most important, benign tumors are rarely a threat to life.

**Malignant tumors** are cancer. They are usually more serious and may be life-threatening. Cancer cells can invade nearby tissues and organs. Cancer cells can also break away from the tumor and enter the bloodstream or lymphatic system. That is how they spread from the original (primary) tumor to form new tumors in other organs. The spread of cancer is called metastasis.

Finding Pancreas Cancer Early
The best time for treatment is when pancreatic cancer is found early. Pancreatic cancer is sometimes called a “silent disease” because there are usually few signs before it has spread to other parts of the body. Finding it can be hard to do.

As the cancer grows, some of the following signs may appear:

- Pain in the upper abdomen or upper back
- Yellow skin and eyes, and dark urine from jaundice
- Weakness
- Loss of appetite
- Nausea and vomiting
- Weight loss

These are not sure signs of pancreatic cancer. An infection or other problem could also be the source of these problems, and only a doctor can diagnose the cause. Anyone with these symptoms should see a doctor and get treatment as soon as possible.