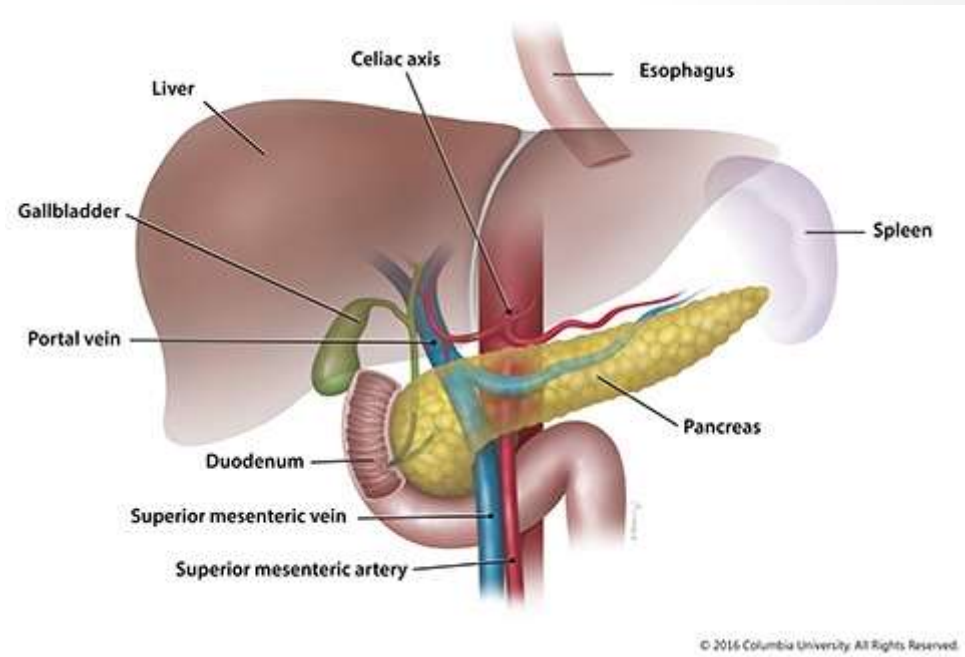


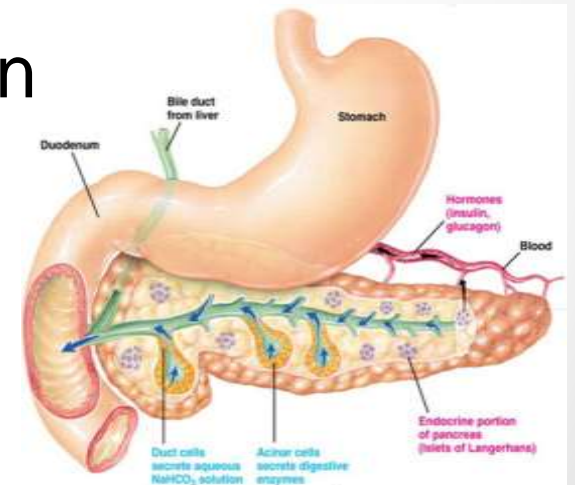
Pancreas and Diabetes

EQ: Why are there different types of diabetes?



Pancreas

- The pancreas is a large gland behind your stomach that helps the body to maintain healthy **blood sugar (glucose) levels**.
- Contains islands of cells called the **Islets of Langerhans** which secrete glucagon and insulin
- **Glucagon**
 - stimulates the liver to break down glycogen, raises blood sugar concentration
- **Insulin**
 - decreases blood sugar concentrations, affects the uptake of glucose by cells



Diabetes

- Diabetes Mellitus
 - results from an **insulin deficiency**
 - blood sugar rises (hypoglycemia) and excess is excreted in the urine.
- Type I
 - insulin dependent diabetes mellitus or juvenile onset diabetes
 - often caused by inherited immune disorder that destroys pancreatic cells



- Type II

- mature onset diabetes (usually after the age of 40)
- often individuals are overweight
- can be controlled with diet and exercise



Hypoglycemia

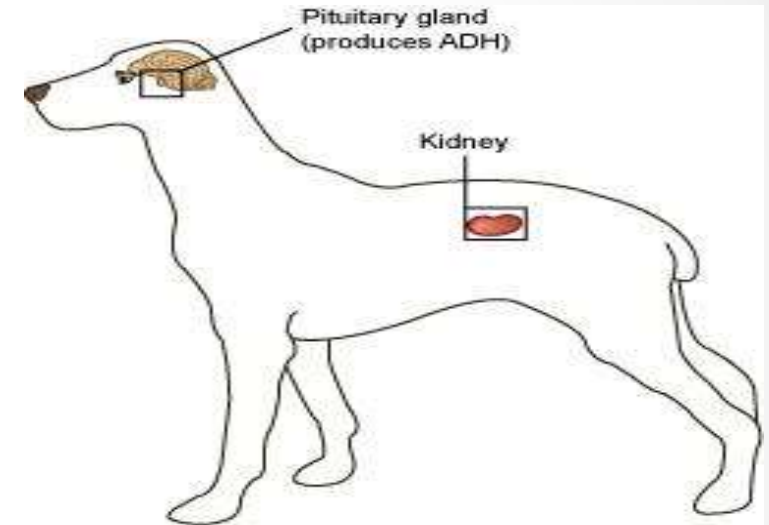
- can occur if levels become too low
- can be cured with direct injection of glucose or with eating something high in sugar
- This is why diabetics often have candy.



Diabetes Insipidus

Diabetes insipidus (DI)

- an uncommon condition that occurs when the kidneys are unable to conserve water as they perform their function of filtering blood.



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Symptoms

Excessive thirst

---May be intense or uncontrollable

----May involve a craving for ice water

Excessive urine volume