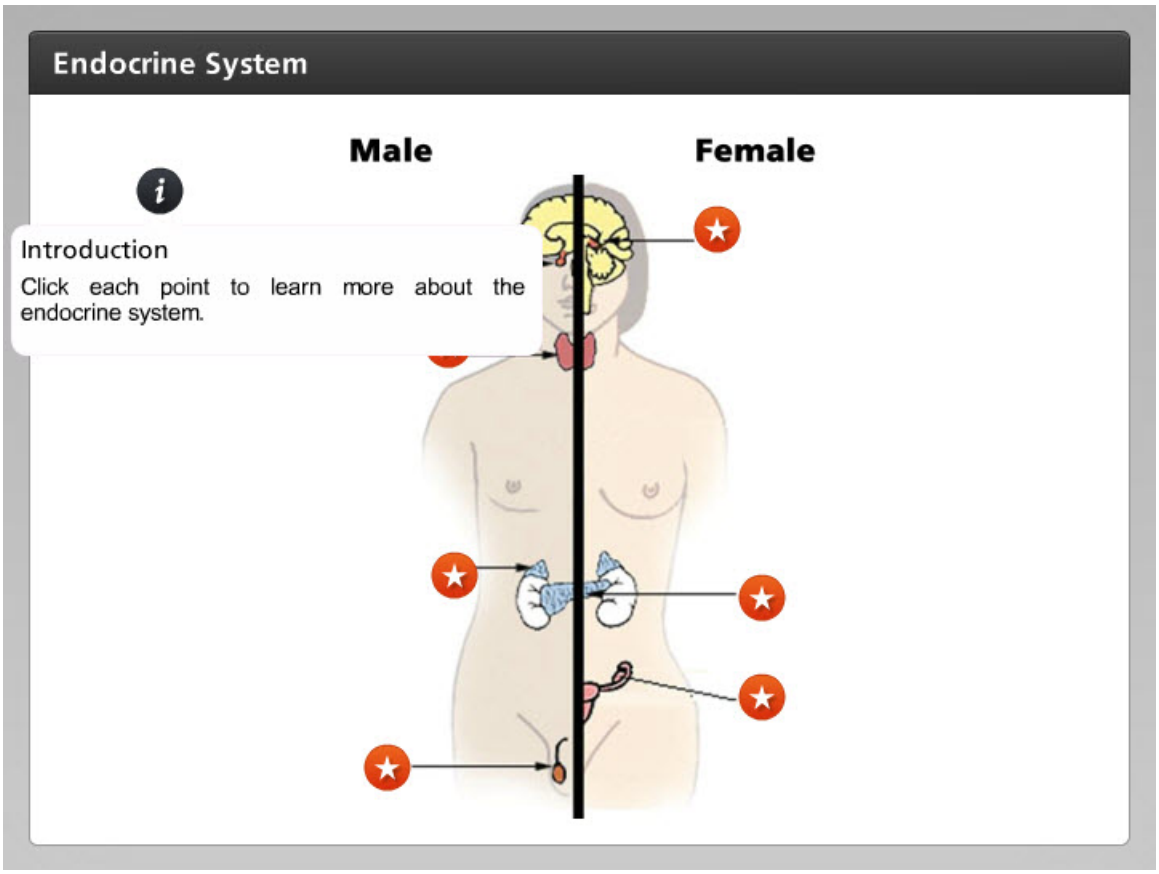
Module 2: Biological Basis of Behavior
Topic 2 Content: The Endocrine System

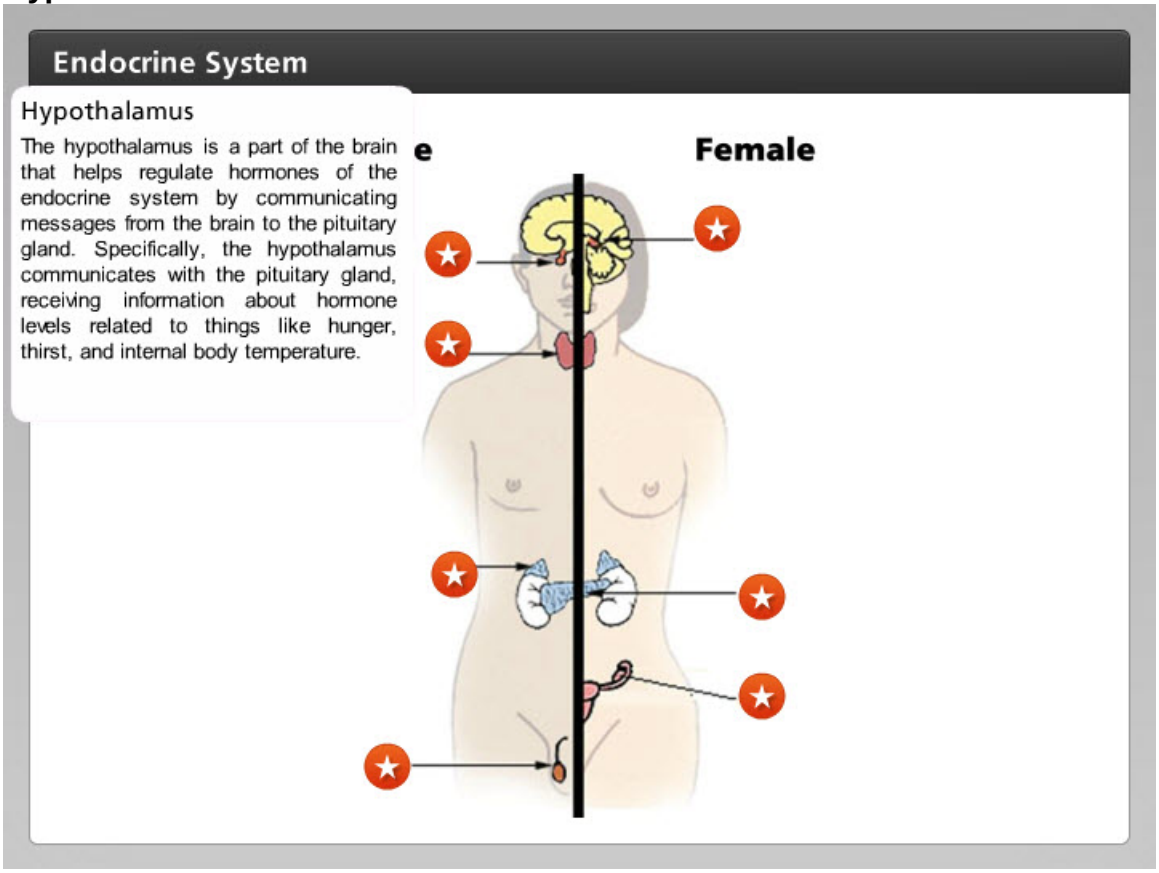
Introduction



Click each point to learn more about the endocrine system.

Module 2: Biological Basis of Behavior
Topic 2 Content: The Endocrine System

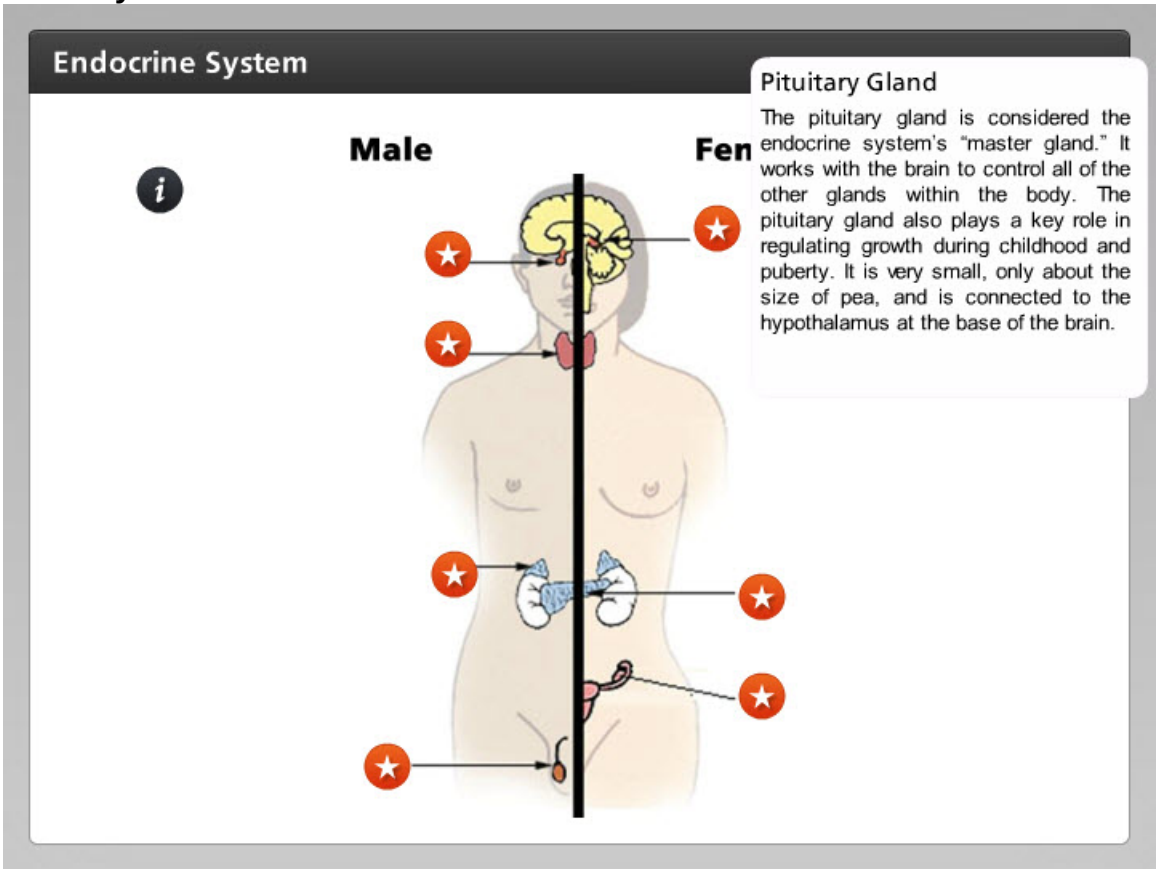
Hypothalamus



The hypothalamus is a part of the brain that helps regulate hormones of the endocrine system by communicating messages from the brain to the pituitary gland. Specifically, the hypothalamus communicates with the pituitary gland, receiving information about hormone levels related to things like hunger, thirst, and internal body temperature.

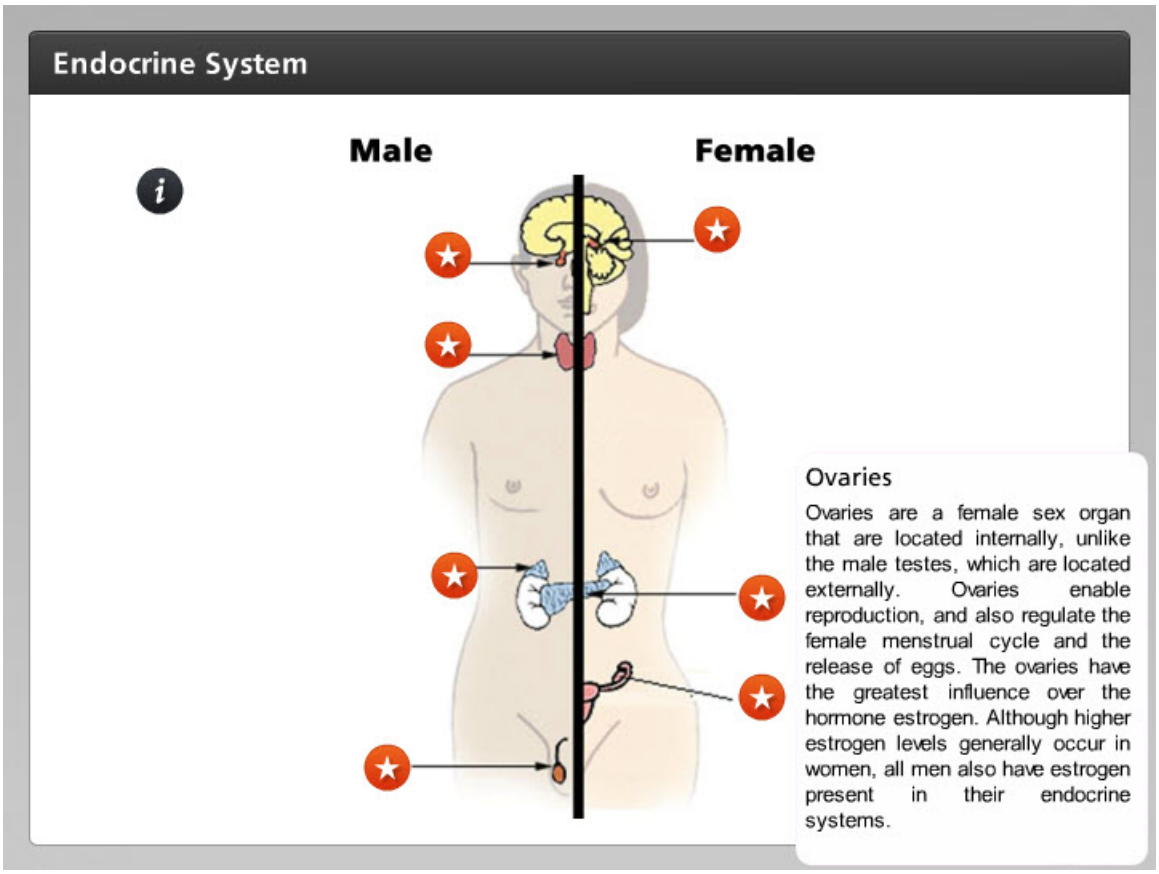
Module 2: Biological Basis of Behavior
Topic 2 Content: The Endocrine System

Pituitary Gland



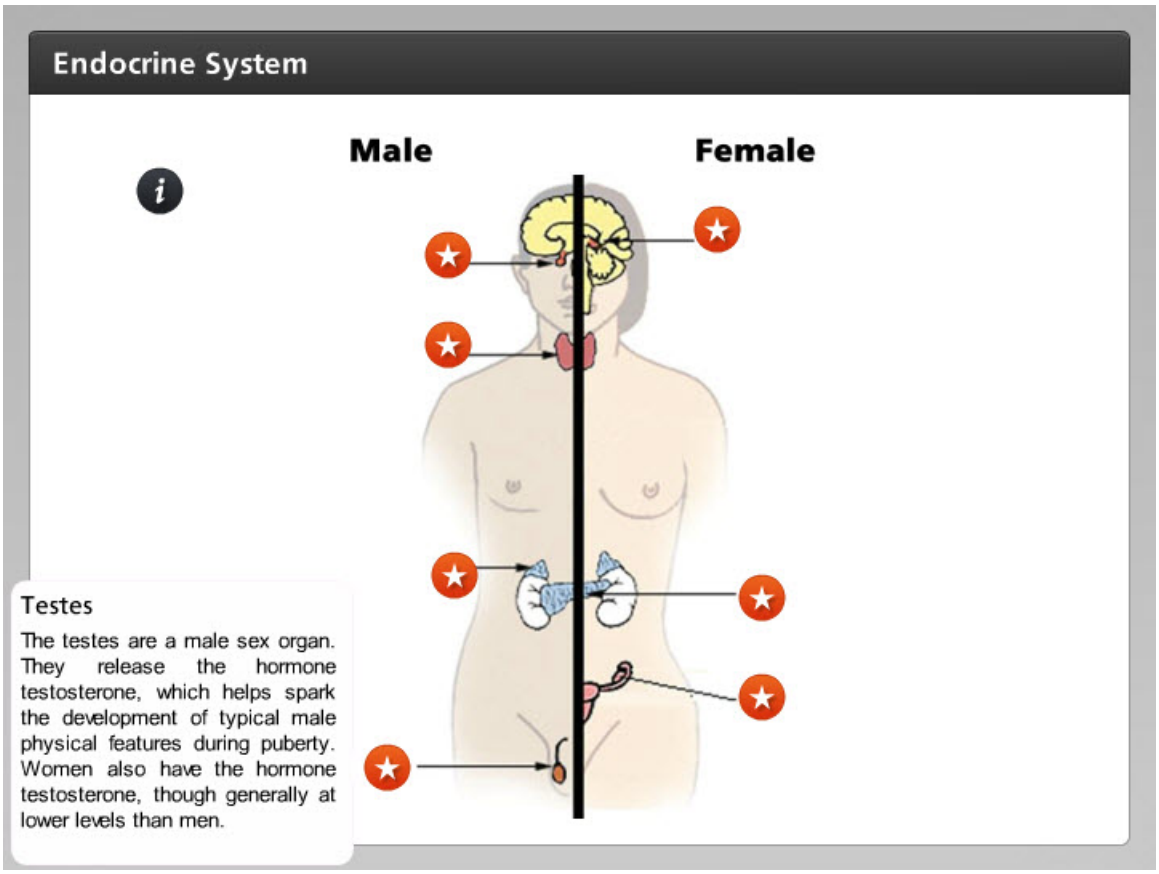
The pituitary gland is considered the endocrine system's "master gland." It works with the brain to control all of the other glands within the body. The pituitary gland also plays a key role in regulating growth during childhood and puberty. It is very small, only about the size of a pea, and is connected to the hypothalamus at the base of the brain.

Ovaries



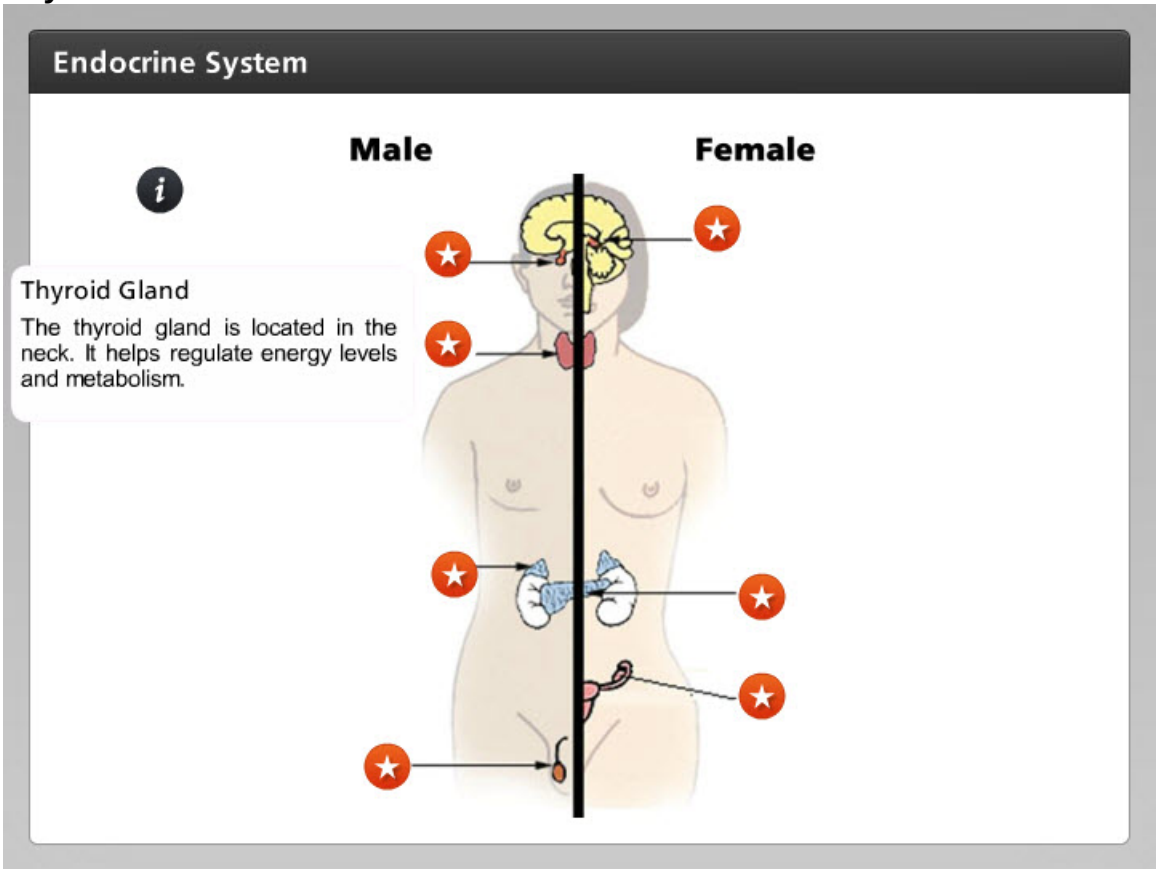
Ovaries are a female sex organ that are located internally, unlike the male testes, which are located externally. Ovaries enable reproduction, and also regulate the female menstrual cycle and the release of eggs. The ovaries have the greatest influence over the hormone estrogen. Although higher estrogen levels generally occur in women, all men also have estrogen present in their endocrine systems.

Testes



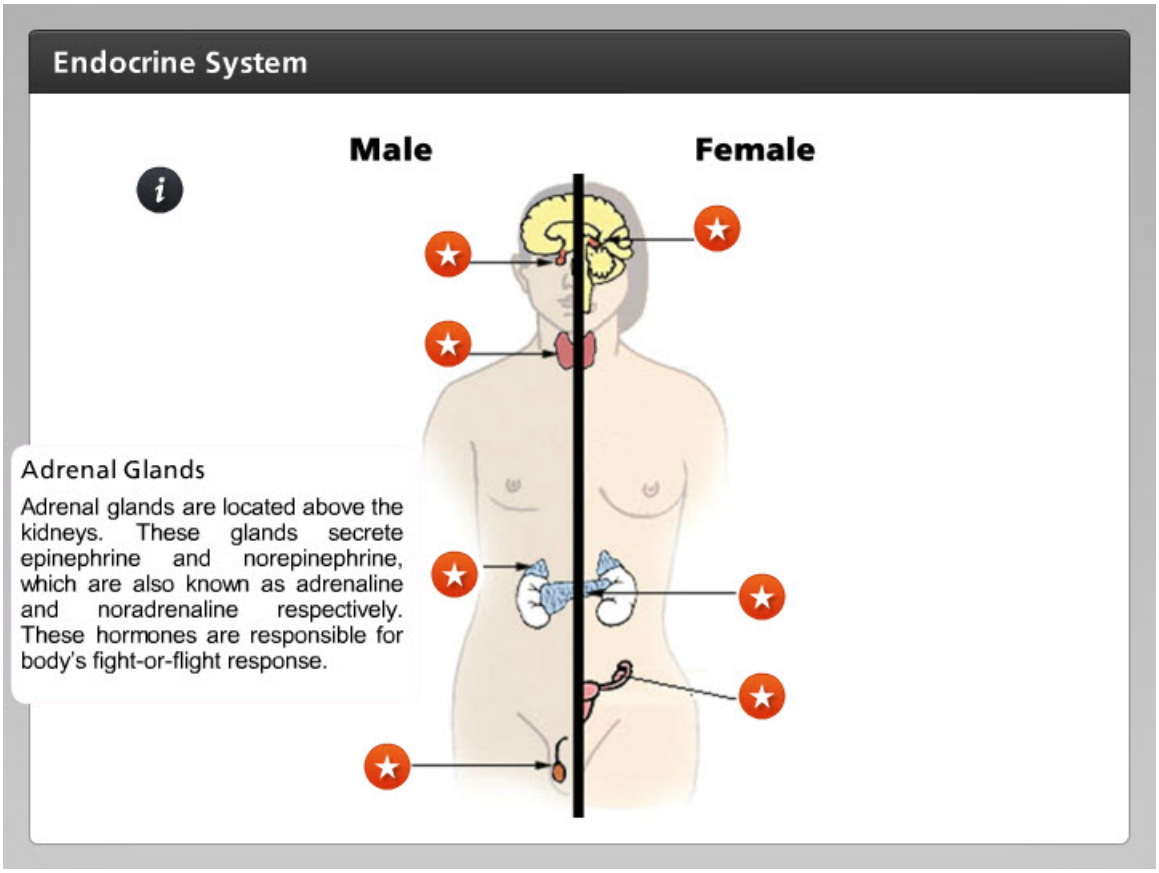
The testes are a male sex organ. They release the hormone testosterone, which helps spark the development of typical male physical features during puberty. Women also have the hormone testosterone, though generally at lower levels than men.

Thyroid Gland



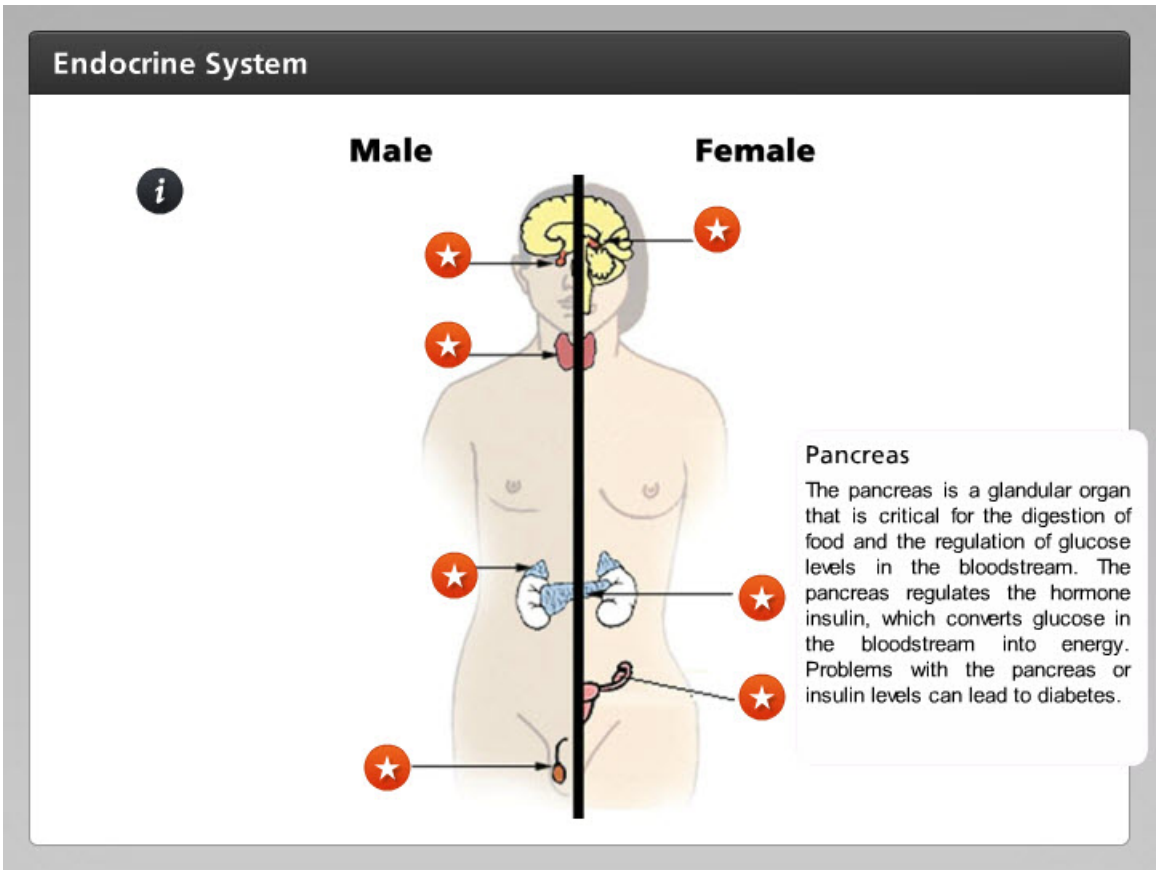
The thyroid gland is located in the neck. It helps regulate energy levels and metabolism.

Adrenal Glands



Adrenal glands are located above the kidneys. These glands secrete epinephrine and norepinephrine, which are also known as adrenaline and noradrenaline respectively. These hormones are responsible for the body's fight-or-flight response.

Pancreas



The pancreas is a glandular organ that is critical for the digestion of food and the regulation of glucose levels in the bloodstream. The pancreas regulates the hormone insulin, which converts glucose in the bloodstream into energy. Problems with the pancreas or insulin levels can lead to diabetes.