

ENDOCRINE SYSTEM:

This system integrates organ function through chemicals that are secreted from endocrine tissues or "glands" into extracellular fluid. These chemicals are called hormones and are carried through the blood to distant target tissues when they are recognized by specific high affinity receptors.

ENDOCRINE GLANDS:

Endocrine glands are ductless glands which pour their secretion into the blood vessels and through systemic circulation are carried to distant target tissues. The major endocrine glands of the body are

1. Pituitary
2. The thyroid
3. The parathyroid
4. The testes
5. The ovaries
6. The adrenal (cortex and medulla)
7. The endocrine pancreas

TYPES OF HORMONES

1. Endocrine hormone:

These are the hormones secreted by endocrine glands and carry signal from a secretory gland to a target tissue across a large distance.

2. Paracrine hormones:

These are the hormones secreted by specialized cells (that are not a part of the endocrine glands) into the extracellular fluid and affect neighboring cells. Examples are lymphokines and platelet derived growth factor.

3. Autocrine glands:

These are secreted by cells into the extracellular fluid and affect the function of the same cells that produced them by binding to cell surface receptors.

CLASSIFICATION OF ENDOCRINE HORMONES

There are three classes of hormones

I. Proteins and polypeptide hormone: