

-Endocrine Communication:

Endocrine system: a communication system using hormones as signaling molecules

Hormones: molecules that are released by endocrine glands directly into the blood

Target cells: cells that possess a specific receptor on their plasma membrane which is complementary to the shape of a hormone molecule

Types of hormones:

- Proteins and peptide hormones (adrenaline, insulin and glucagon)
- Steroid hormones (oestrogen and testosterone)

Proteins are not soluble in the phospholipid bilayer therefore do not enter the cell. Proteins need to bind to the cell surface membrane and release a second messenger.

However steroid hormones can pass through the phospholipid bilayer and enter the cell and nucleus and bind to DNA.

Define term endocrine and exocrine glands:

Endocrine gland secretes hormones directly into the blood capillaries running through the gland's tissue also have no ducts.

Exocrine gland that secrete useful molecules into a duct that carries the molecules to where they are used.

Effect of non-steroid hormones