

- i) Insulin: By Pancreas
- ii) Thyroxin: By Thyroid Gland
- iii) Adrenalin: By Adrenal Gland
- iv) Oestrogen: Ovaries
- v) Testosterone: Testes
- vi) Cortisol: Adrenal Gland
- vii) Melatonin: Pineal Gland
- viii) Glucagon: Pancreas
- ix) Aldosterone: Adrenal Gland
- x) Renin: Adrenal Gland

#### **Exocrine Glands:**

Exocrine glands are the glands which do not pour their secretions directly into blood (like endocrine glands) but into a duct. These are the glands with ducts and the effect of their secretions is not generalized on all tissues of the body but specialized.

#### **Example:**

- i) Salivary Glands
- ii) Exocrine Pancreas
- iii) Lacrimal Gland
- iv) Bile Producing Cells of Liver
- v) Secretory Cells of Stomach and Intestine

#### **Exocrine Pancreas:**

Pancreas secrete pancreatic juice which contains a large number of digestive enzymes. Pancreatic juice goes to the intestine through a pancreatic duct and performs the function of digestion inside the intestine.

#### **Mammary Glands:**

Mammary glands are also exocrine glands which secrete milk or colostrum. Milk is collected by a series of ducts and secreted outside the body.

#### **Salivary Glands:**

Salivary glands are present inside the jaw. These secrete saliva which comes to the mouth (oral cavity) through salivary duct. Saliva is responsible for lubrication of food and early digestion of starch.

#### **Lacrimal Gland:**

Lacrimal is the gland which is present in the eye. Its secretion is the lachrymal secretion in the form of tears. Lachrymal secretion washes the eye and the lysozyme enzyme present in this secretion kills bacteria to protect the eye.

#### **Bile Producing Cells Of Liver:**

The liver produces bile then it is stored in the gall bladder until needed to digest fatty foods.

#### **Secretory Cells Of Stomach And Intestine:**

Secretory cells of the stomach secrete gastric juice which is poured into the stomach. Gastric juice contains enzymes like pepsin which digest proteins. Similarly, secretory cells of the intestine secrete intestinal juice which contains many digestive enzymes.

#### **Exocrine Glands And Their Secretions:**

- i) Lacrimal Gland: Tears
- ii) Sweat Gland: Sweat
- iii) Salivary Gland: Saliva
- iv) Mammary Glands: Milk
- v) Liver: Bile
- vi) Sebaceous Gland: Sebum
- ii) Hormones:

Hormones are the chemical substances secreted by the endocrine glands. They carry electro-chemical messages to different parts of the body. Hormones are circulated in the body through blood. The function

of endocrine system depends upon these hormones. These hormones work in the similar way as the nervous system works in the body. Insulin, glucagon, thyroxin and testosterone are few kinds of hormones. Hormones play an important role in a living organism. A small amount of hormones in the blood produces specific effects in the body. Several dozen hormones travel through the blood stream and influence different kinds of target cells, modifying their activity in a variety of ways.

**iv) Antibody:**

- Antibody is a protein produced by white blood cells that help to destroy bacteria.
- Antibodies react with the antigens and inactivate or destroy them.
- A large number of antibodies are produced in blood which are targeted against various types of antigens.
- Antigens are foreign molecules, cells, bacteria, viruses or fungi which enter the body usually a disease causing microorganisms.
- Antibodies are the integral part of the defence mechanism of human body.
- They are also involved in immunity against disease.

**vi) Haemophilia**

- It is a disease in which the person has prolonged blood clotting time resulting in excessive bleeding from injury.
  - It is due to the deficiency of vitamin K.
  - It is a semi lethal disease controlled by recessive gene.
  - It is less common in women than in men.