



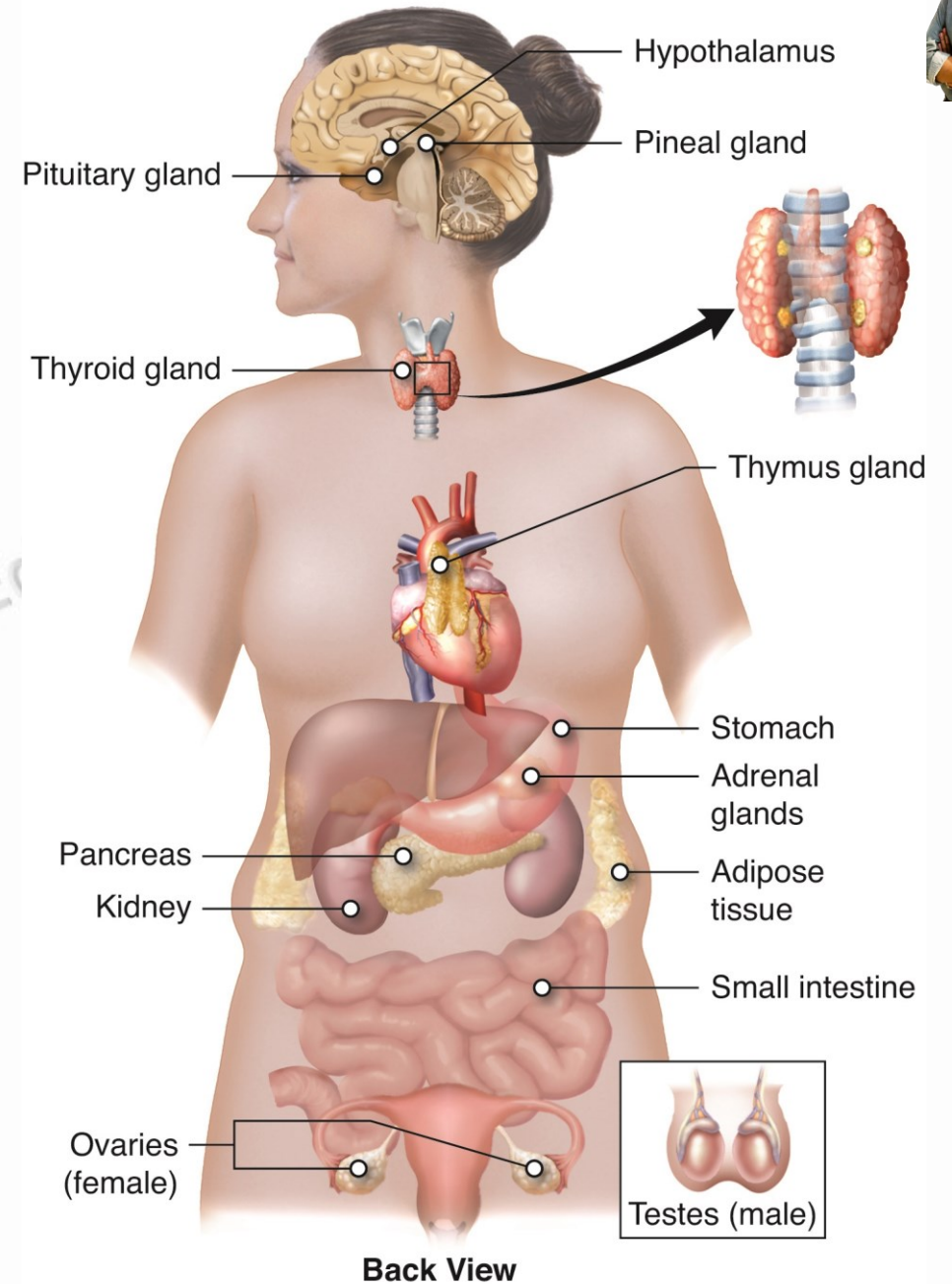
# Sports & Physical Education



# Endocrine System

# Glands

- Glands are important organs located throughout the body. They produce and release substances` such as hormones, digestive juices, sweat, tears, saliva, or milk. that perform certain functions.





# Glands



## Exocrine Glands

- Enzyme Secretion
- Duct Gland

- Sweat Gland
- Salivary Gland
- Mammary Gland
- Lacrimal Gland
- Sebaceous Gland
- Gastric Gland
- Cerumen Gland
- Meibomian Gland

## Endocrine Glands

- Hormone Secretion
- Ductless Gland

- Pineal Gland
- Pituitary Gland
- Thyroid Gland
- Parathyroid Gland
- Thymus Gland
- Adrenal Gland
- Gonads Glands

## Mixed Glands

- Hormone & Enzyme Secretion

- Pancreas Gland
- Liver

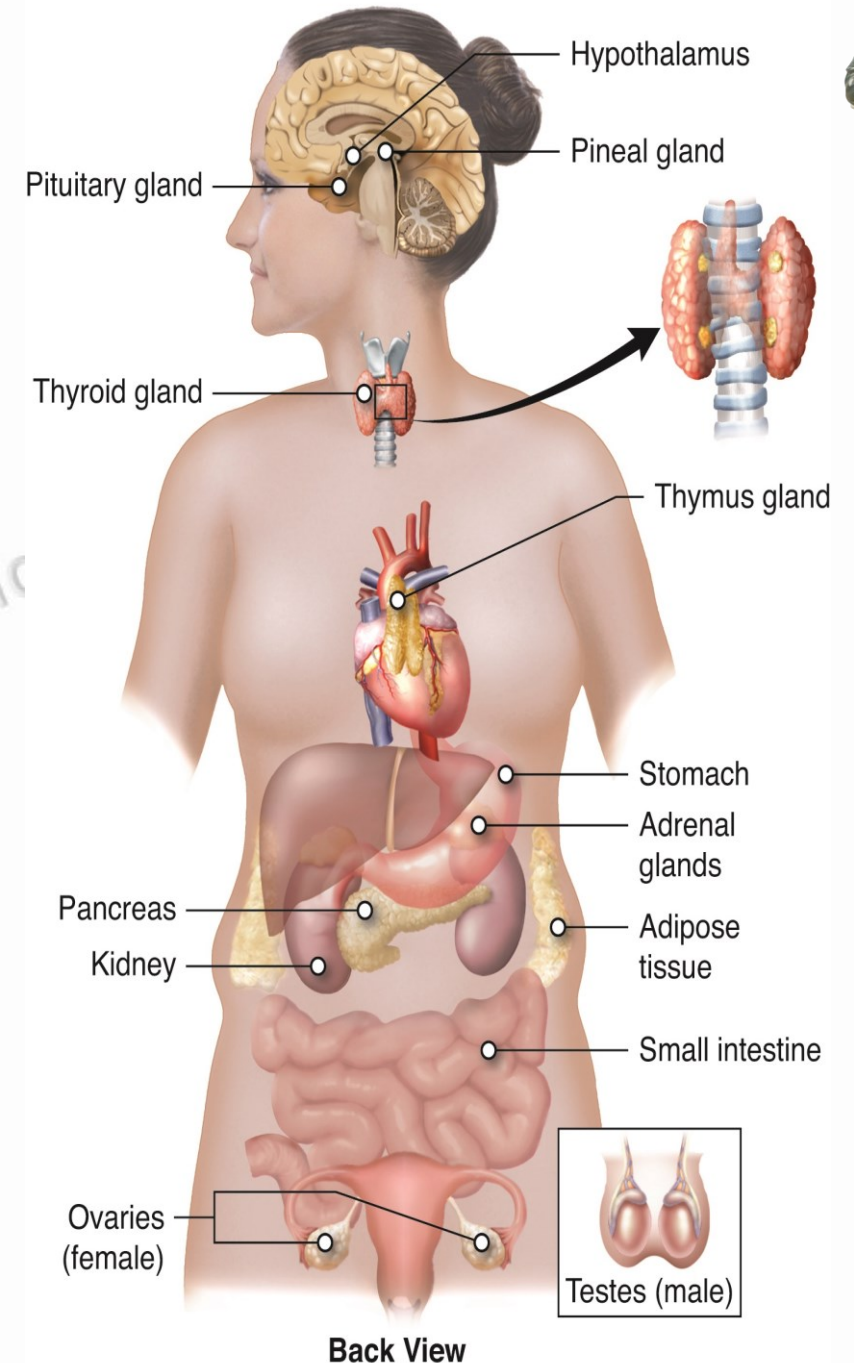
# Endocrine Glands

## 1. Pineal Gland

- **Smallest Gland**

*(0.3 inches long and weighs 0.1 grams.)*

Pineal gland is located deep in the center of your brain. It secretes and regulates certain hormones, including **melatonin**. Melatonin helps regulate your sleep patterns, which are also known as **circadian rhythms**.

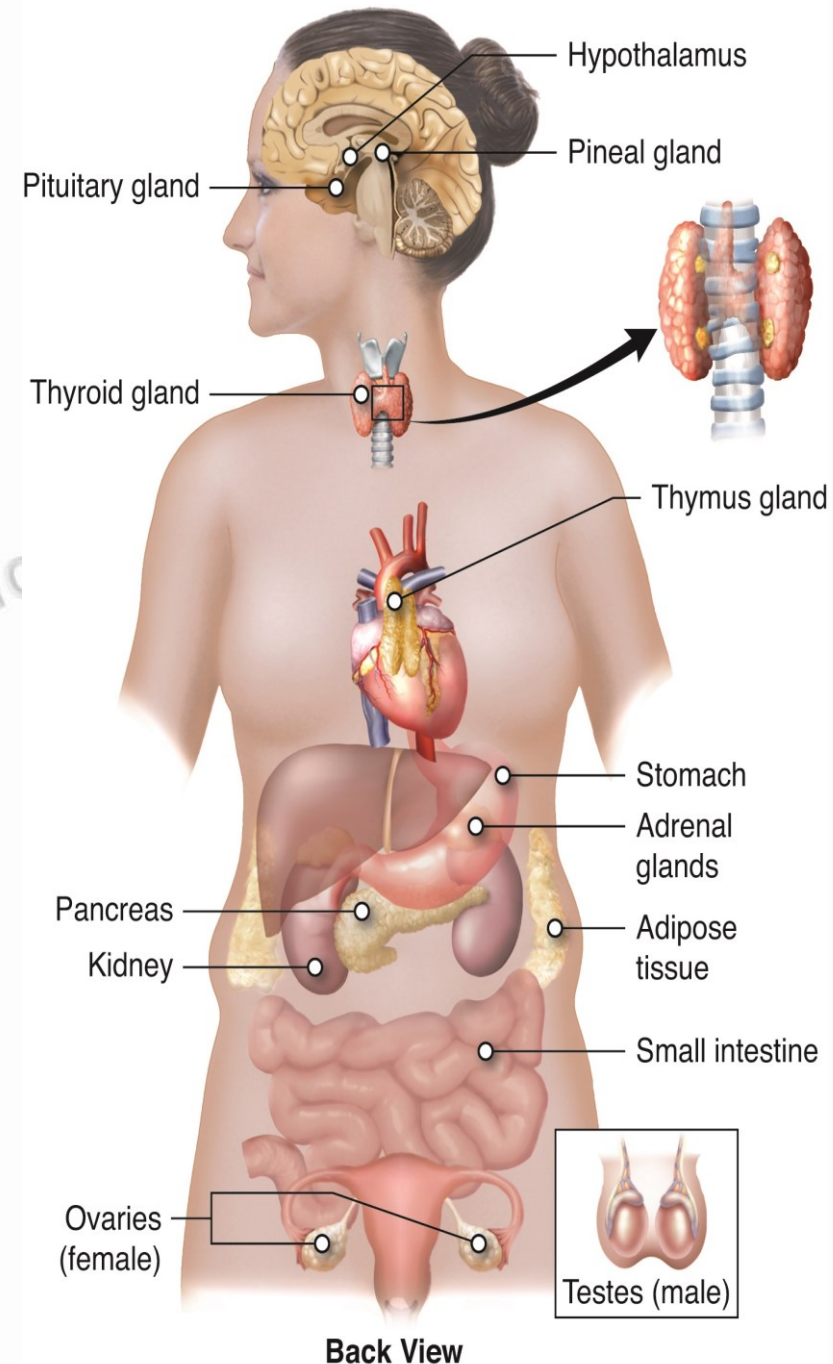


# Endocrine Glands

## 2. Pituitary Gland

*Size of Pea, weight-0.5 grams.)*

- **Master Gland**
- **Hypophysis**
- **Sphenoid Bone**





# Pituitary Gland

## Anterior Lobe

## Posterior Lobe

1. Somatotrophic(SH) /Growth Hormone
2. Thyrotropic Hormone(TH)
3. Adrenocorticotropic Hormone(ACTH)
4. Gonadotropic Hormones(GH)
  - a) Follicle Stimulating Hormone(FSH)
  - b) Luteinising Hormone(LH)
  - c) Prolactin Hormone(PH)

1. Antidiuretic Hormone(ADH) or Arginine Vasopressin
2. Oxytocin Hormone

# Endocrine Glands

## 3. Thyroid Gland

( weight-30-60 grams.)

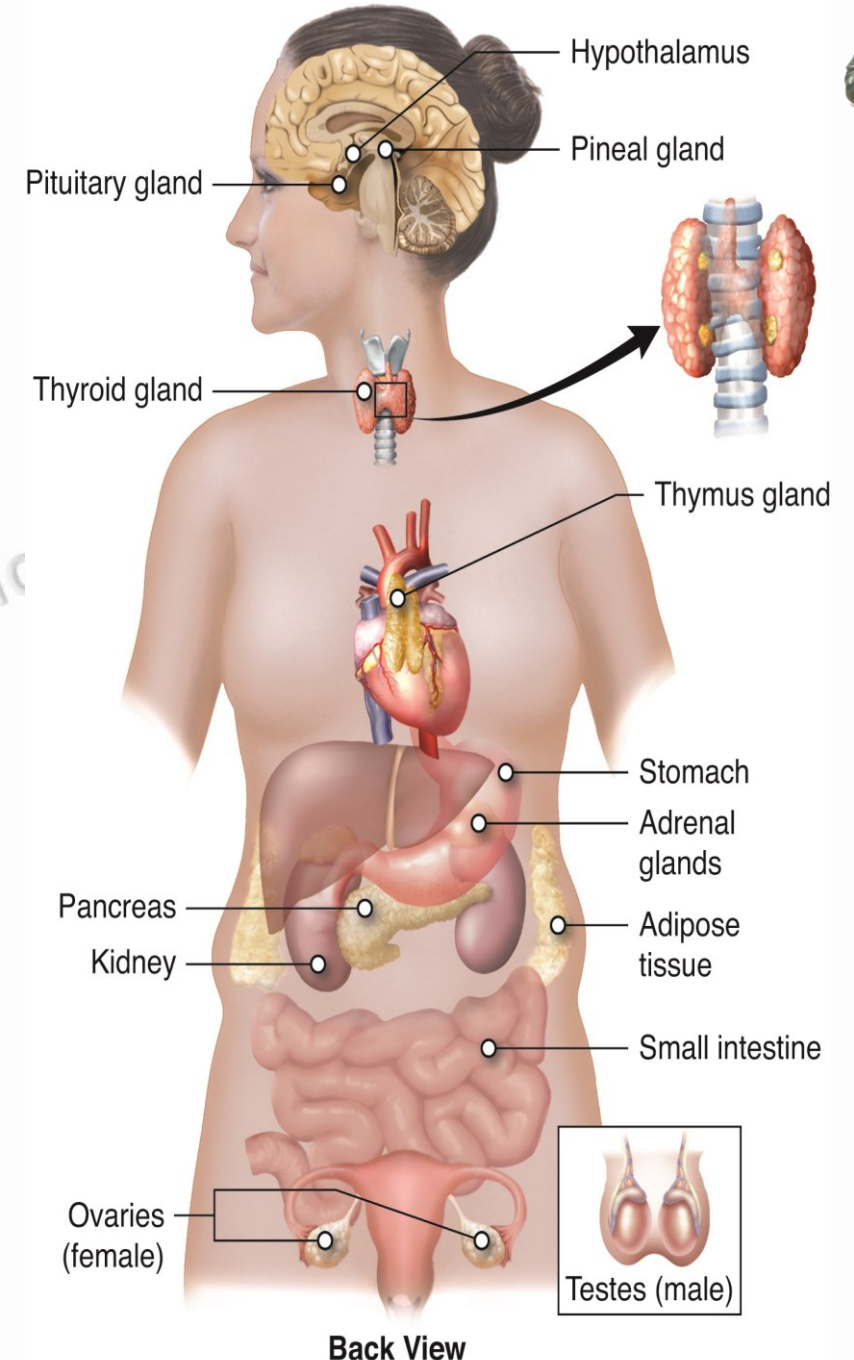
- **Largest Endocrine Gland**

➤ **Function of Thyroid Gland-**

**Secrete Two Hormones-**

1. **Triiodothyronine (T3) hormone**
2. **Thyroxine hormone (T4).**

- Digestion
- Metabolism
- Heart and muscle function
- Brain development
- Maintenance of bones.



Back View

# Endocrine Glands

## 4. Parathyroid Gland

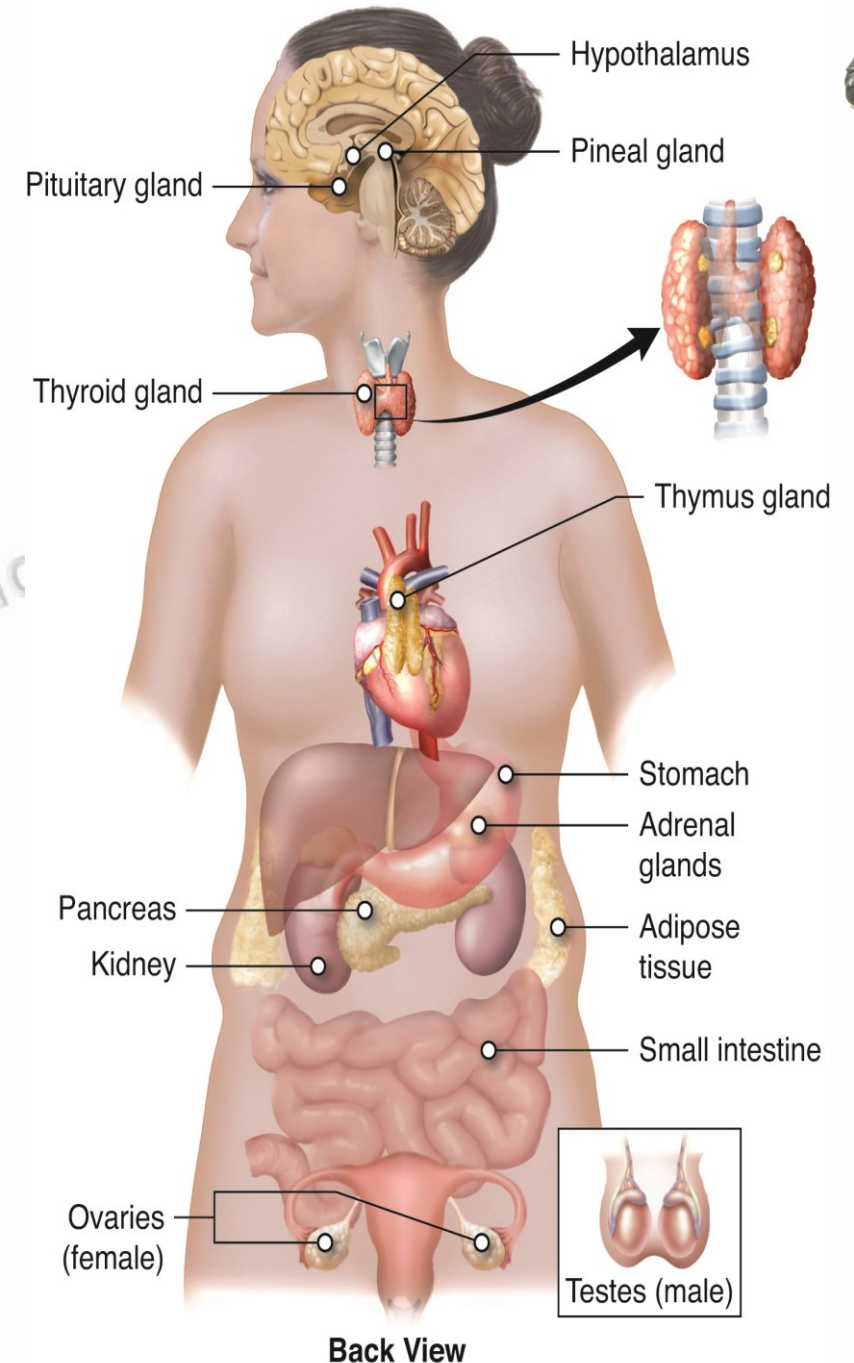
( *weight-30mg, Diameter-3-4mm* )

Secrete – Two Hormone

- **Parathormone or Parathyroid Hormone**
- **Calcitonin Hormone**

➤ **Function-**

- Controls the level of calcium in the blood and bones.





# Endocrine Glands

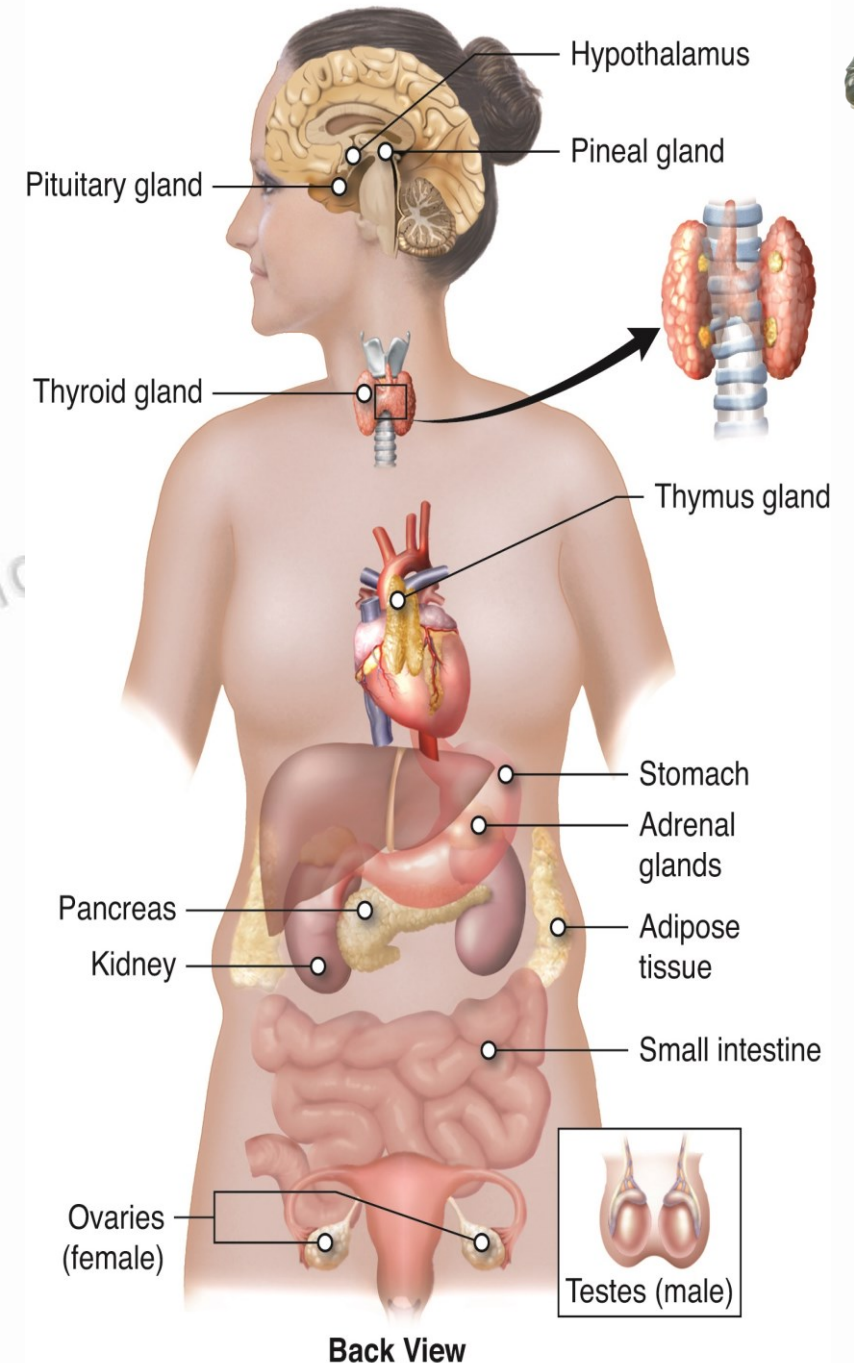
## 5. Thymus Gland

( weight-10g at the time of born, Teenage-30-40g)

Secrete – **Thymosin Hormone**

### ➤ Function-

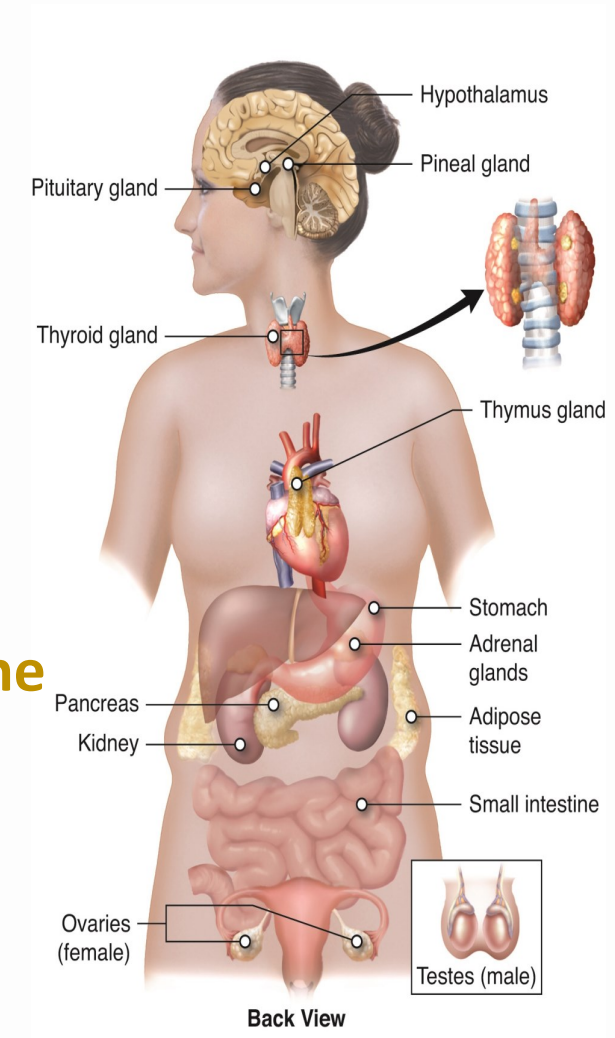
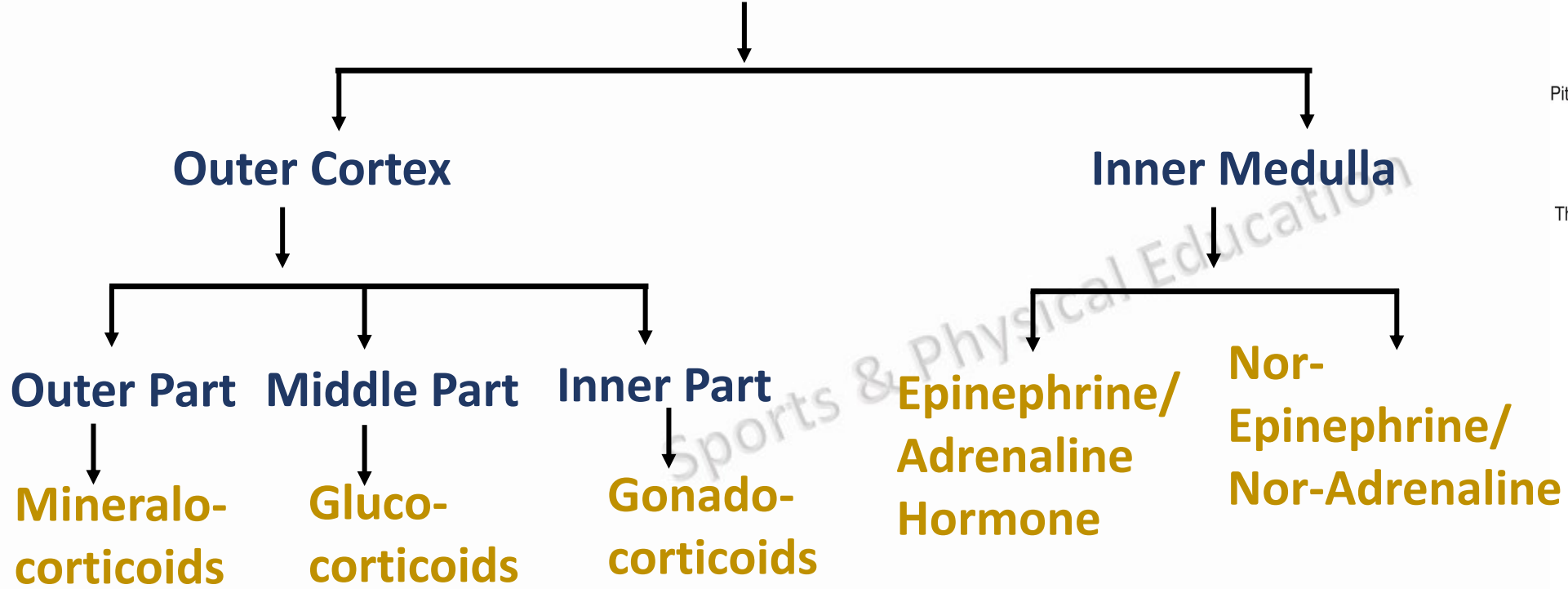
- Makes and trains special white blood cells called T-cells.
- The T-cells help your immune system fight disease and infection.





# Endocrine Glands

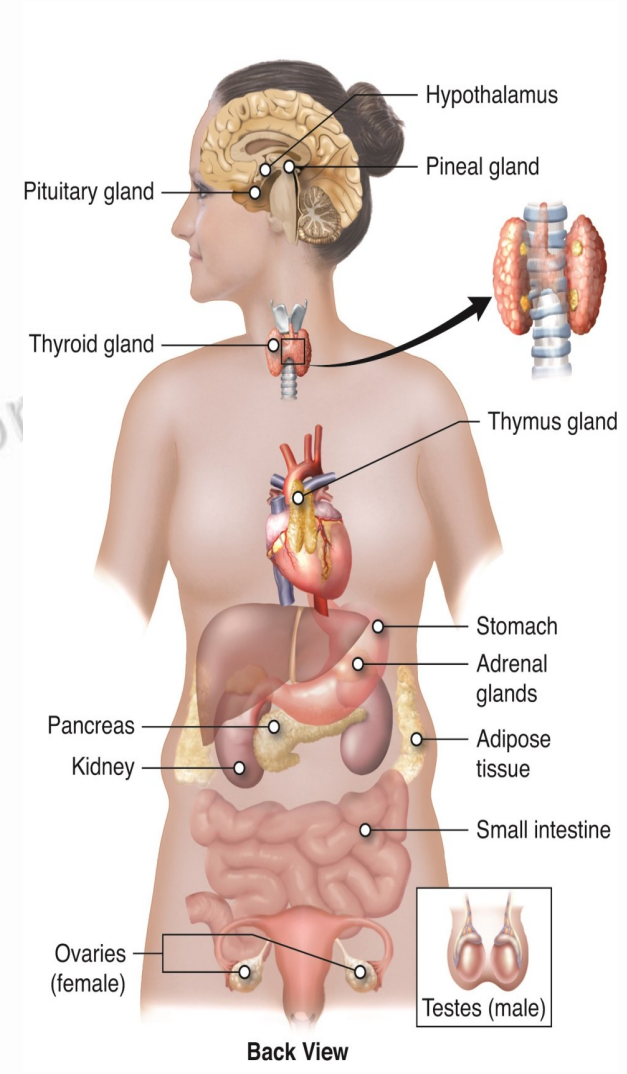
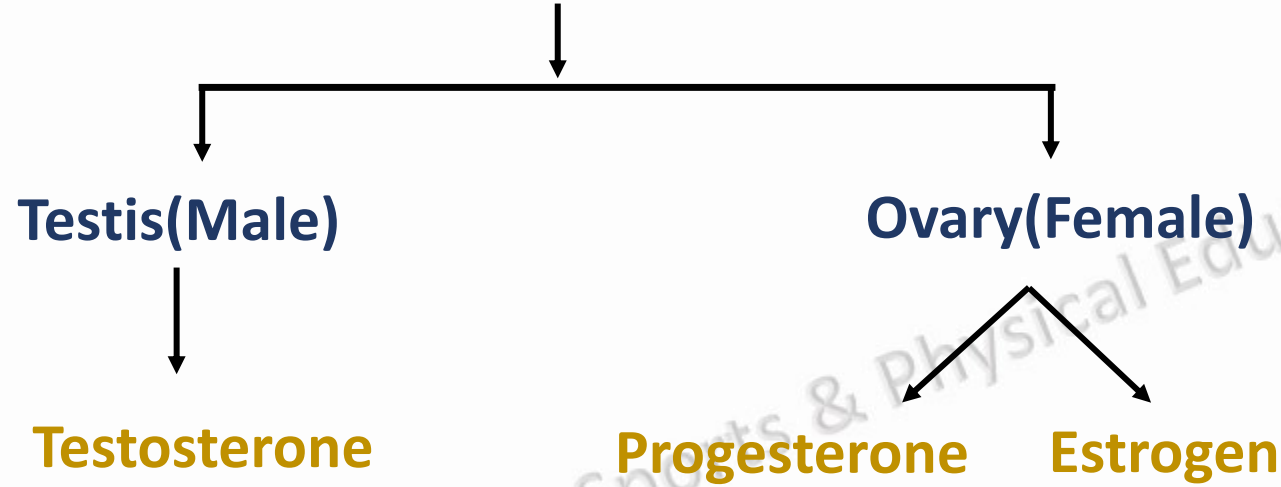
## 6. Adrenal Gland



# Endocrine Glands



## 7. Gonad Gland





# Thank You for Watching



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