

# UNIT 7 - ENDOCRINE SYSTEM

## Diseases and Disorders of the Endocrine System

### A. **Acromegaly**

Acromegaly is a hypersecretion of the growth hormone during adulthood. Characteristics of this disease include enlargement of the bones of the hands, feet, jaws, and cheeks. A prominent forehead and large nose are also typical features of this disease.

### B. **Cretinism**

Cretinism is the hyposecretion of the thyroid hormones during infancy and childhood which results in low metabolism, retarded growth, and often mental retardation. It is treated with synthetic hormones which prevent the onset of symptoms.

### C. **Diabetes Mellitus**

Diabetes mellitus is the inability of the body to regulate one's blood glucose level. Type 1 diabetes mellitus occurs when the body fails to produce sufficient insulin. Type 2 diabetes mellitus occurs when the body cells become resistant to the effects of insulin. The most common reasons diabetes mellitus occurs in the United States are poor nutrition, inadequate exercise, and increasing obesity rates. The major symptoms include polydipsia, polyphagia, and polyuria. Type 1 diabetes mellitus is controlled with insulin injections and diet. Type 2 diabetes mellitus is controlled with diet, weight loss, pills to improve the effect of insulin, and sometimes insulin injections.

### D. **Dwarfism**

Dwarfism is due to a hyposecretion of the growth hormone during childhood resulting in a small person who has a body frame of normal proportions.

### E. **Gigantism**

Gigantism is due to a hypersecretion of the growth hormone during childhood resulting in a person who grows to a very large size.

### F. **Hyperthyroidism**

Hyperthyroidism is due to the hypersecretion of the thyroid hormones. There is a dramatic increase in the metabolic rate which results in weight loss, increased appetite, irritability, restless, and active. Many patients have characteristic protruding eyeballs or exophthalmia. It is treated with medications to reduce the production of the thyroid hormone or sometimes radiation to destroy part of the thyroid gland reducing its secretions.

**G. Hypothyroidism / Myxedema**

Hypothyroidism is due to the hyposecretion of the thyroid hormones. It may be the result of inadequate iodine intake or unknown causes. The adult form of hypothyroidism is called myxedema which leads to reduced mental and physical energy, loss of hair, swelling, and weight gain. It is treated with a synthetic thyroid hormone.