

Component 3-Terminology in Healthcare and Public Health Settings

Unit 7- Endocrine System
Lecture 7a-Overview of the Endocrine
System, Adrenal Glands and Pancreas

This material was developed by The University of Alabama at Birmingham, funded by the Department of Health and Human Services,
Office of the National Coordinator for Health Information Technology under Award Number 1U24OC000023.

Endocrine System Objectives

- Define, understand and correctly pronounce medical terms related to the endocrine system
- Describe the following related to the endocrine system
 - common diseases and conditions
 - laboratory and diagnostic procedure
 - medical and surgical procedures
 - medications

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Endocrine System - Overview

- Composed of eight endocrine glands
- Functions in the regulation of our body's activities
- Glands are in various locations in body
- Acts through chemical messengers called "hormones"

SEER Training Modules, Anatomy & Physiology, U.S. National Institutes of Health, National Cancer Institute. 6/27/2010
<http://training.seer.cancer.gov/anatomy/endocrine/glands>

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Endocrine System - Overview

- The eight endocrine glands are:
 - Adrenal glands
 - Pancreas (Islets of Langerhans)
 - Pituitary gland
 - Pineal gland
 - Ovary(ies)
 - Testicle(s)
 - Thyroid gland
 - Thymus gland

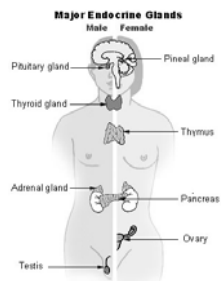
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Endocrine Glands

- Thyroid gland
- Thymus
- Adrenal gland
- Testis
- Ovary
- Pineal gland
- Pituitary gland
- Pancreas



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Endocrine System - Overview

- Hormones
 - Act as messengers
 - Travel in our bloodstream to tissues or organs
 - Can act in varying amounts of time (minutes, hours or even weeks)
 - Affect our body's processes and functions
 - Growth and development
 - Metabolic processes
 - Sexual function
 - Reproduction
 - Mood

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Endocrine System - Overview

- Hormone Disorders
 - Levels too high
 - Levels too low
 - Other factors
 - Stress
 - Infections
 - Changes in levels of blood and body fluids
- Hormone Diseases
 - When your body does not respond as it should to the presence of the hormone
- Most common endocrine disease
 - Diabetes

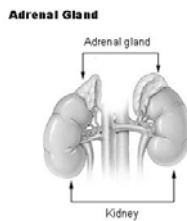
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Adrenal Gland Overview

- Adrenal gland(s)
 - also called the “suprarenal” gland
 - located above your kidneys
 - paired organs
 - composed of two layers
 - Outer cortex
 - Three Hormones
 - Inner medulla
 - Two Hormones



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Adrenal Gland Diseases

- Addison's Disease
 - Symptoms
 - Diagnostic Tests
 - Treatment

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Adrenal Gland Cancers

- Adrenal Gland Cancers
 - Adrenocortical carcinoma
 - Neuroblastoma
 - Pheochromocytoma

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Pancreas – Islets of Langerhans

- Pancreas
 - Soft organ
 - Located transversely in front of the spine
 - Exocrine and endocrine function
 - Pancreatic islets
 - alpha cells secrete glucagons
 - beta cells secrete insulin



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Pancreatic Disorders

- Diabetes
 - Type 1
 - Type 2
- Symptoms
- Diagnostic Tests
- Treatments
 - Type 1
 - Insulin
 - Islet Cell transplantation
 - Type 2
 - Exercise and weight control
 - Oral medications

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Pancreatic Diseases

- **Pancreatitis**
 - **Definition**
 - Acute pancreatitis
 - Chronic pancreatitis
 - Symptoms
 - Acute pancreatitis
 - Chronic pancreatitis
 - Diagnostic Tests
 - Treatment

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Pancreatic Diseases

- **Pancreatitis**
 - Definition
 - Acute pancreatitis
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 - **Symptoms**
 - Acute pancreatitis
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 - Treatment

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Pancreatic Diseases

- **Pancreatitis**
 - Definition
 - Acute pancreatitis
 - Chronic pancreatitis
 - Symptoms
 - Acute pancreatitis
 - Chronic pancreatitis
 - **Diagnostic Tests**
 - Treatment

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Pancreatic Diseases

- **Pancreatitis**
 - Definition
 - Acute pancreatitis
 - Chronic pancreatitis
 - Symptoms
 - Acute pancreatitis
 - Chronic pancreatitis
 - Diagnostic Tests
 - **Treatment**

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Pancreatic Diseases

- **Cystic fibrosis**
 - Definition
 - Symptoms
 - Diagnostic Tests
 - Treatment

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Pancreatic Cancer

- **Location of tumors**
 - **Exocrine cells**
 - **Endocrine**
- **Risk Factors**
- Symptoms
- Diagnostic Tests
- Treatment

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Pancreatic Cancer

- Location of tumors
 - exocrine cells
 - endocrine
- Risk Factors
- **Symptoms**
- **Diagnostic Tests**
- **Treatment**

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Unit 7—Lecture 7a

Tell me, Detective

- A neonatologist is called to the newborn nursery to evaluate a baby. What is a likely diagnosis given the following facts?
 - Baby is a Caucasian male
 - Baby experienced no bowel movements in the first 24-48 hours, abdomen bloated
 - Physician orders a sweat chloride test



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For additional information on content covered in this unit, please visit:

<<http://www.nlm.nih.gov/medlineplus/endocrinesystem.html>>

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