


Anatomic Reference Systems:

Anatomy and Physiology Defined -

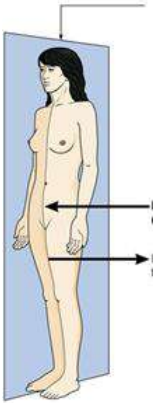
Anatomy:

Physiology:

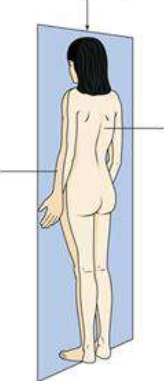
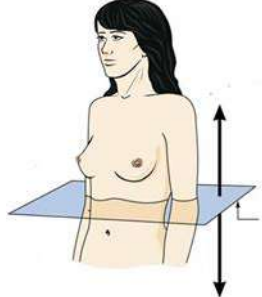
The Anatomic Position - Descriptions of the body are based on the anatomic position. In this position, the individual is:

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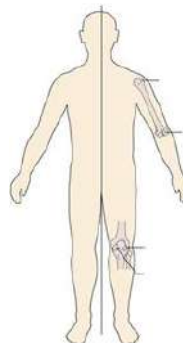
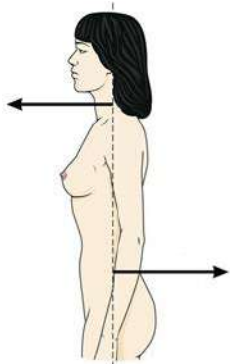
Body Planes - imaginary vertical and horizontal lines used to divide the body into sections for descriptive purposes.

	<ul style="list-style-type: none">• Vertical Planes -<ul style="list-style-type: none">• <u>Midsagittal Plane (midline):</u>• <u>Sagittal Plane:</u>
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	<ul style="list-style-type: none"> • <u>Coronal/Frontal Plane</u>:
	<ul style="list-style-type: none"> • Horizontal Planes - <ul style="list-style-type: none"> • <u>Transverse (horizontal) Plane</u>:

Body Directions - The relative location of the whole body or an organ is described through the use of pairs of contrasting body direction terms.



Terms Used to Describe Body Direction	
Ventral -	Dorsal -
Anterior -	Posterior -
Superior -	Inferior -
Cephalic -	Caudal -
Proximal -	Distal -
Medial -	Lateral -

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Major Body Cavities:

A body cavity is a space within the body that contains and protects the internal organs

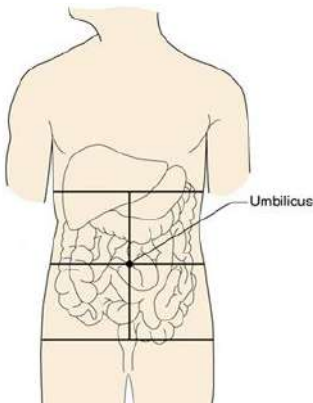
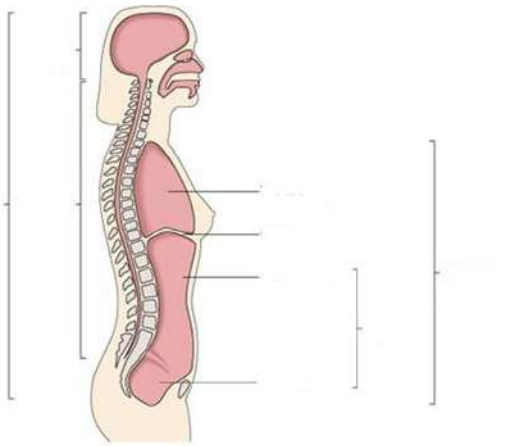
The Dorsal Cavity - divided into 2 parts and protects the structures of the nervous system that coordinate the bodily functions

- Cranial Cavity -
- Spinal Cavity -

The Ventral Cavity - divided into 3 parts and protects the organs that maintain homeostasis.

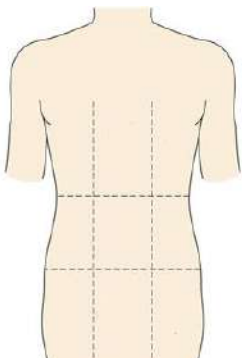
**Homeostasis - maintaining a constant internal environment

- Thoracic Cavity -
- Abdominal Cavity -
- Pelvic Cavity -



Divisions of the Abdomen - helps to describe where an organ or a pain is located. Divided into 4 quadrants

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Regions of the Thorax and Abdomen - system that divides the abdomen and lower portion of the thorax into 9 regions.

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Peritoneum - the membrane that protects and supports the organs located in the abdominal cavity

- Parietal peritoneum -
- Visceral peritoneum -
- Mesentery -
- Retroperitoneal -
- Peritonitis -
- Ascites -

Laparoscopic Procedures - visual examination of the interior of the abdomen with the use of a laparoscope

Cytology:

The study of the formation, structure and function of cells.

- Cell membrane
- Cytoplasm
- Nucleus

Chromosomes -

- Sex Cells (gametes) - 23 single chromosomes.

DNA -

- Genes -

Terms Related to Genetics -

- Genetics -
- Geneticist
- Genetic Engineering -
- Genetic Mutation -
- Somatic cell mutation -
- Gametic cell mutation -

Genetic Disorders (hereditary disorders) - caused by a defective gene; can be manifested at any time in life.

- Cystic Fibrosis -
- Down Syndrome (trisomy 21) -
- Hemophilia -
- Huntington's disease (HD)/Huntington's Chorea (HC) -
- Muscular dystrophy (MD) -
- Phenylketonuria (PKU) -

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- Sickle cell anemia -
- Tay-Sachs disease (TSD) -

Genetic Counseling - the ability to look at your genes and determine if there are certain genetic disorders.

Congenital Disorders:

- - Developmental disorders -
 - Prenatal influence -
 - Birth injuries -

Histology:

Study of the structures, composition and function of tissues

- **Stem Cells (precursor cells)** -

Types of Tissues -

- Epithelial Tissues -
 - Epithelium -
 - Endothelium -
- Connective Tissues -
 - Dense connective tissue
 - Adipose tissue (fat) -
 - Loose connective tissue -
 - Liquid connective tissue -
- Muscle Tissue -
- Nerve Tissue -

Pathology of Tissue Formation -

- Aplasia -
- Hypoplasia -
- Hyperplasia -
- Dysplasia -
- Anaplasia -

Glands:

A gland is a group of specialized epithelial cells that form secretions.

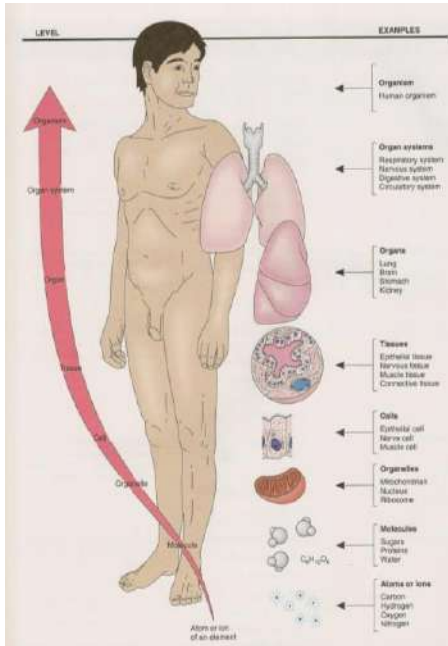
- Exocrine gland -
- Endocrine glands -

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Pathology and Procedures of the Glands -

- Adenectomy -
- Adenitis -
- Adenoma -
- Adenomalacia -
- Adenosis -

Organs and Body Systems:



Pathology:

Is the study of structural and functional changes caused by disease; also means a condition caused by disease

- Pathologist -
- Etiology -

Disease Transmission -

- Communicable disease (contagious) -
- Contaminated -
- Bloodborne transmission -
- Sexually transmitted diseases (STDs) venereal disease -
- Airborne transmission -
- Foodborne and waterborne transmission (fecal/oral) -

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Types of Diseases -

- Infectious disease -
- Idiopathic disorder -
- Organic disorder -

- Functional disorder -

- Iatrogenic illness -

- Nosocomial infection -

Outbreaks of Diseases -

- Epidemiologist -
- Endemic -
- Epidemic -
- Pandemic -

Career Opportunities:

Medical Assistant

Nurse assistant

Nurse's aide

Patient Care Technician (PCT)

Orderly

Registered Nurse (RN)

Licensed Practical Nurse (LPN)

Licensed Vocational Nurse (LVN)

Nurse Practitioner (NP)

Physician's Assistant (PA)

Medical Translator