



# CLINICAL PATHOLOGY



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An organ is a group of tissues in a living organism that have been adapted to perform a specific function. An organ system is a group of organs that work together as a biological system to perform one or more functions.

Our bodies made up of 11 basic organ systems. They manage all the essential body functions. These systems can become out of tune while interdependent. Once one isn't functioning properly, the others can conceive to correct the problem.

All the systems can work along to try to create what is known as homeostasis or a state of balance within the body.

The human body consists of eleven organ systems, each of which contains several specific organs. The eleven organ systems are the nervous system, cardiovascular or circulatory system, respiratory system, integumentary system, muscular system, skeletal system, lymphatic system, excretory or urinary system, digestive system, endocrine system, and reproductive system.

**Now we will learn about some of the major functions of our major organ systems**

System	Organs in the System	Some Major Functions of the System
<b>Nervous System</b>	<ul style="list-style-type: none"> <li>• Brain</li> <li>• Spinal cord</li> <li>• Nerves (both those that carry impulses to the brain and those that carry impulses from the brain to muscles and organs)</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinates activities of other organ systems</li> <li>• Responds to sensations</li> </ul>
<b>Cardiovascular System Or Circulatory System</b>	<ul style="list-style-type: none"> <li>• Heart</li> <li>• Blood</li> <li>• Blood vessels (arteries, capillaries, veins)</li> </ul>	<ul style="list-style-type: none"> <li>• Transports oxygen from the lungs and nutrients from the digestive system to the cells throughout the body. (Transports oxygen and nutrients to the cells)</li> <li>• Equalizes body temperature and transports endocrine hormones to cells in the body</li> <li>• Removes waste products</li> </ul>
<b>Respiratory</b>	<ul style="list-style-type: none"> <li>• Lungs</li> <li>• Trachea</li> <li>• Larynx</li> <li>• Nasal cavities</li> <li>• Pharynx</li> </ul>	<ul style="list-style-type: none"> <li>• Oxygen and carbon dioxide exchange</li> </ul>

MAJOR ORGAN SYSTEMS

<p><b>Integumentary System</b></p>	<ul style="list-style-type: none"> <li>• Skin</li> <li>• Hair</li> <li>• Subcutaneous tissue</li> </ul>	<ul style="list-style-type: none"> <li>• Provides the barrier protection between the inside of the body and external environment.</li> <li>• Helps to regulate the body temperature and eliminate wastes in sweat</li> </ul>
<p><b>Muscular System</b></p>	<ul style="list-style-type: none"> <li>• Muscles</li> <li>• Tendons</li> </ul>	<ul style="list-style-type: none"> <li>• Locomotion</li> <li>• Heat production</li> </ul>
<p><b>Skeletal System</b></p>	<ul style="list-style-type: none"> <li>• Bones</li> <li>• Cartilage</li> <li>• Ligaments</li> <li>• Bone marrow</li> </ul>	<ul style="list-style-type: none"> <li>• Supports and moves the body</li> <li>• Protects internal organs</li> <li>• Mineral storage</li> <li>• Blood formation</li> </ul>
<p><b>Lymphatic System</b></p>	<ul style="list-style-type: none"> <li>• Spleen</li> <li>• Lymph nodes</li> <li>• Thymus</li> <li>• Lymphatic vessels</li> </ul>	<ul style="list-style-type: none"> <li>• Returns tissue fluid to blood</li> <li>• Defends against foreign organisms</li> </ul>
<p><b>Urinary System or Excretory System</b></p>	<ul style="list-style-type: none"> <li>• Kidneys</li> <li>• Ureters</li> <li>• Bladder</li> <li>• Urethra</li> </ul>	<ul style="list-style-type: none"> <li>• Elimination of wastes</li> <li>• Regulates pH and volume of blood</li> </ul>
<p><b>Digestive System</b></p>	<ul style="list-style-type: none"> <li>• Mouth</li> <li>• Esophagus</li> <li>• Stomach</li> <li>• Small intestine</li> <li>• Large intestine</li> <li>• Rectum</li> <li>• Anus</li> <li>• Liver</li> <li>• Gallbladder</li> <li>• Pancreas (the part that produces enzymes)</li> <li>• Appendix</li> </ul>	<ul style="list-style-type: none"> <li>• Extracts nutrients from foods.</li> <li>• Excretes waste products from the body</li> </ul>
<p><b>Reproductive System</b></p>	<ul style="list-style-type: none"> <li>• Ovaries</li> <li>• Uterus</li> <li>• Mammary glands</li> <li>• Testes</li> <li>• Prostate gland</li> <li>• External genitalia</li> </ul>	<ul style="list-style-type: none"> <li>• Produces germ cells (eggs and sperm)</li> <li>• Environment for growth of fetus (female)</li> </ul>

<p><b>Endocrine System</b></p>	<ul style="list-style-type: none"> <li>• Thyroid gland</li> <li>• Parathyroid gland</li> <li>• Adrenal glands</li> <li>• Pituitary gland</li> <li>• Pancreas (the part that produces insulin and other hormones)</li> <li>• Stomach (the cells that produce gastrin)</li> <li>• Pineal gland</li> <li>• Ovaries</li> <li>• Testes</li> </ul>	<ul style="list-style-type: none"> <li>• Produces chemical messengers carried in the blood, which direct the activities of different organ systems.</li> <li>• In short, Regulates body functions by the chemicals (hormones).</li> </ul>
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