



Study Of The Human Body: Anatomy, Facts & Functions A Review

¹Shruti Gubbawar, Research Scholar, PPMGV, Ghot, Gadchiroli, Maharashtra

²Dr. Sukla Sharma, CSJM University, Kanpur

Introduction : The human body is made up of cells, tissues, organs and organ systems. Each system is made up of its own specialized cells, tissues and organs, which in turn work together to perform specific functions. The functions of some systems overlap, while others are unique to a particular body system. The basic parts of the human body are the head, neck, torso, arms and legs.



© JRPS International Journal for Research Publication & Seminar

The human body is made up of many different organ systems that together bring in the chemicals it needs and delivers them to its cells. In other words, the different organ systems do for the body what a single-celled organism can do for itself. This means that each human cell needs the other cells in the body to survive. Some cells work to bring in oxygen, others work to bring in water, salt, sugar, and other important chemicals, and still others work to deliver these chemicals to where they are needed.

Facts Relating to Human Body :

- The human body contains nearly 100 trillion cells.
- There are at least 10 times as many bacteria in the human body as cells.
- The average adult takes over 20,000 breaths a day.
- Each day, the kidneys process about 200 quarts (50 gallons) of blood to filter out about 2 quarts of waste and water
- Adults excrete about a quarter and a half (1.42 liters) of urine each day.
- The human brain contains about 100 billion nerve cells
- Water makes up more than 50 percent of the average adult's body weight

Body systems

Our bodies consist of a number of biological systems that carry out specific functions necessary for everyday living. Human body is governed by various systems such as :

- Circulatory System
- Digestive System
- Endocrine System



- Immune System
- Lymphatic System
- Nervous System
- Muscular System
- Reproductive System
- Skeletal System
- Respiratory System
- Urinary System
- Skin, Or Integumentary System

Circulatory System : The job of the circulatory system is to move blood, nutrients, oxygen, carbon dioxide, and hormones, around the body. It consists of the heart, blood, blood vessels, arteries and veins.

Digestive System : The digestive system consists of a series of connected organs that together, allow the body to break down and absorb food, and remove waste. It includes the mouth, esophagus, stomach, small intestine, large intestine, rectum, and anus. The liver and pancreas also play a role in the digestive system because they produce digestive juices.

Endocrine System : The endocrine system consists of eight major glands that secrete hormones into the blood. These hormones, in turn, travel to different tissues and regulate various bodily functions, such as metabolism, growth and sexual function.

Immune System : The immune system is the body's defense against bacteria, viruses and other pathogens that may be harmful. It includes lymph nodes, the spleen, bone marrow, lymphocytes (including B-cells and T-cells), the thymus and leukocytes, which are white blood cells.

Lymphatic System : The lymphatic system includes lymph nodes, lymph ducts and lymph vessels, and also plays a role in the body's defenses. Its main job is to make and move lymph, a clear fluid that contains white blood cells, which help the body fight infection. The lymphatic system also removes excess lymph fluid from bodily tissues, and returns it to the blood.

Nervous System : The nervous system controls both voluntary action (like conscious movement) and involuntary actions (like breathing), and sends signals to different parts of the



body. The central nervous system includes the brain and spinal cord. The peripheral nervous system consists of nerves that connect every other part of the body to the central nervous system.

Muscular System : The body's muscular system consists of about 650 muscles that aid in movement, blood flow and other bodily functions. There are three types of muscle: skeletal muscle which is connected to bone and helps with voluntary movement, smooth muscle which is found inside organs and helps to move substances through organs, and cardiac muscle which is found in the heart and helps pump blood.

Reproductive System : The reproductive system allows humans to reproduce. The male reproductive system includes the penis and the testes, which produce sperm. The female reproductive system consists of the vagina, the uterus and the ovaries, which produce eggs. During conception, a sperm cell fuses with an egg cell, which creates a fertilized egg that implants and grows in the uterus.

Skeletal System : Our bodies are supported by the skeletal system, which consists of 206 bones that are connected by tendons, ligaments and cartilage. The skeleton not only helps us move, but it's also involved in the production of blood cells and the storage of calcium. The teeth are also part of the skeletal system, but they aren't considered bones.

Respiratory System : The respiratory system allows us to take in vital oxygen and expel carbon dioxide in a process we call breathing. It consists mainly of the trachea, the diaphragm and the lungs.

Urinary System : The urinary system helps eliminate a waste product called urea from the body, which is produced when certain foods are broken down. The whole system includes two kidneys, two ureters, the bladder, two sphincter muscles and the urethra. Urine produced by the kidneys travels down the ureters to the bladder, and exits the body through the urethra.

Skin, Or Integumentary System : The skin, or integumentary system, is the body's largest organ. It protects us from the outside world, and is our first defense against bacteria, viruses and other pathogens. Our skin also helps regulate body temperature and eliminate waste through perspiration. In addition to skin, the integumentary system includes hair and nails.

Vital organs

Humans have five vital organs that are essential for survival. These are the brain, heart, kidneys, liver and lungs.



The human brain is the body's control center, receiving and sending signals to other organs through the nervous system and through secreted hormones. It is responsible for our thoughts, feelings, memory storage and general perception of the world.

The human heart is responsible for pumping blood throughout our body.

The job of the kidneys is to remove waste and extra fluid from the blood. The kidneys take urea out of the blood and combine it with water and other substances to make urine.

The liver has many functions, including detoxifying of harmful chemicals, breakdown of drugs, filtering of blood, secretion of bile and production of blood-clotting proteins.

The lungs are responsible for removing oxygen from the air we breathe and transferring it to our blood where it can be sent to our cells. The lungs also remove carbon dioxide, which we exhale.

References :

- [1]. <http://www.iflscience.com/health-and-medicine/organisms-make-us-who-we-are/>
- [2]. <http://www.livescience.com/37009-human-body.html>
- [3]. <http://staff.norman.k12.ok.us/~amcamis/Cells%20Tissues%20Etc.htm>
- [4]. <http://www.bioedonline.org/lessons-and-more/lessons-by-topic/human-organism/>
- [5]. <http://www.bioedonline.org/slides/content-slides/human-organism/human-body-systems/>
- [6]. <http://oerpub.github.io/epubjs-demo-book/content/m45985.xhtml>
- [7]. <http://study.com/academy/lesson/levels-of-structural-organization-in-the-human-body.html>