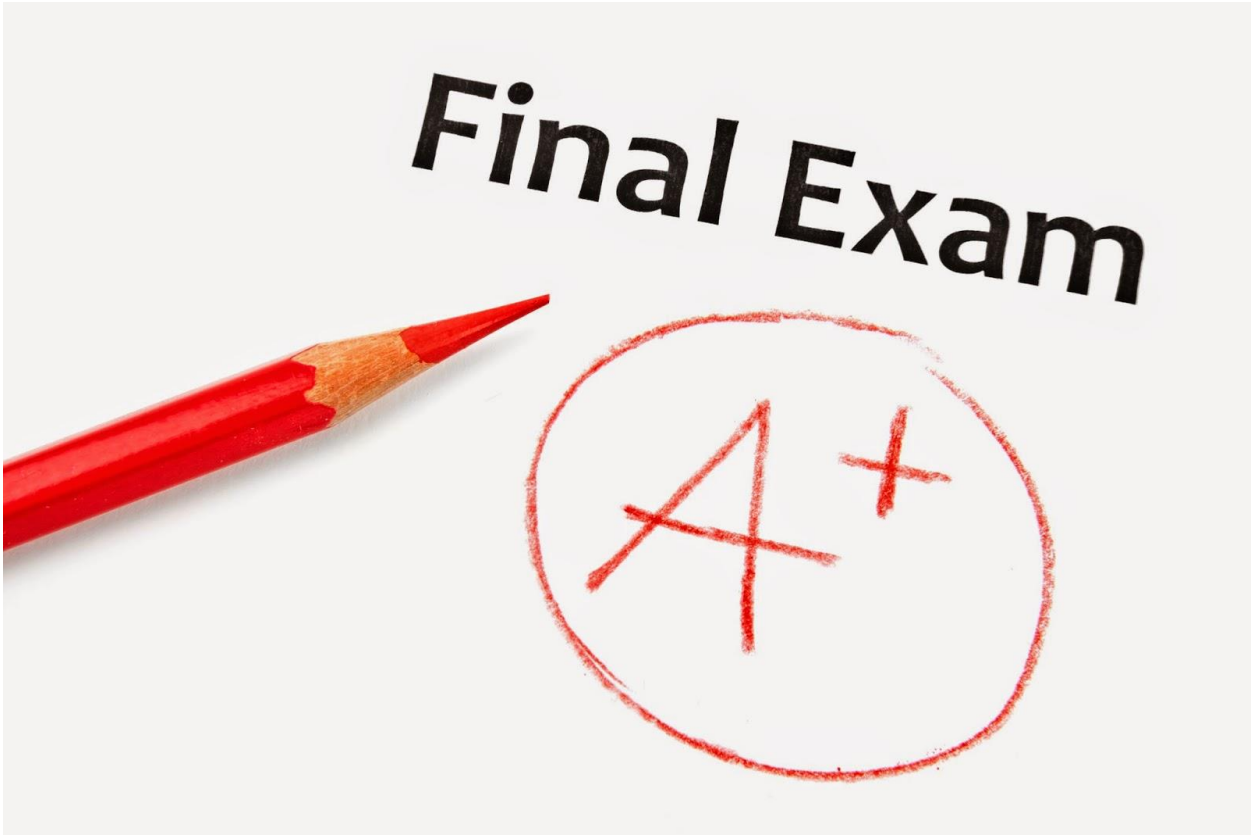
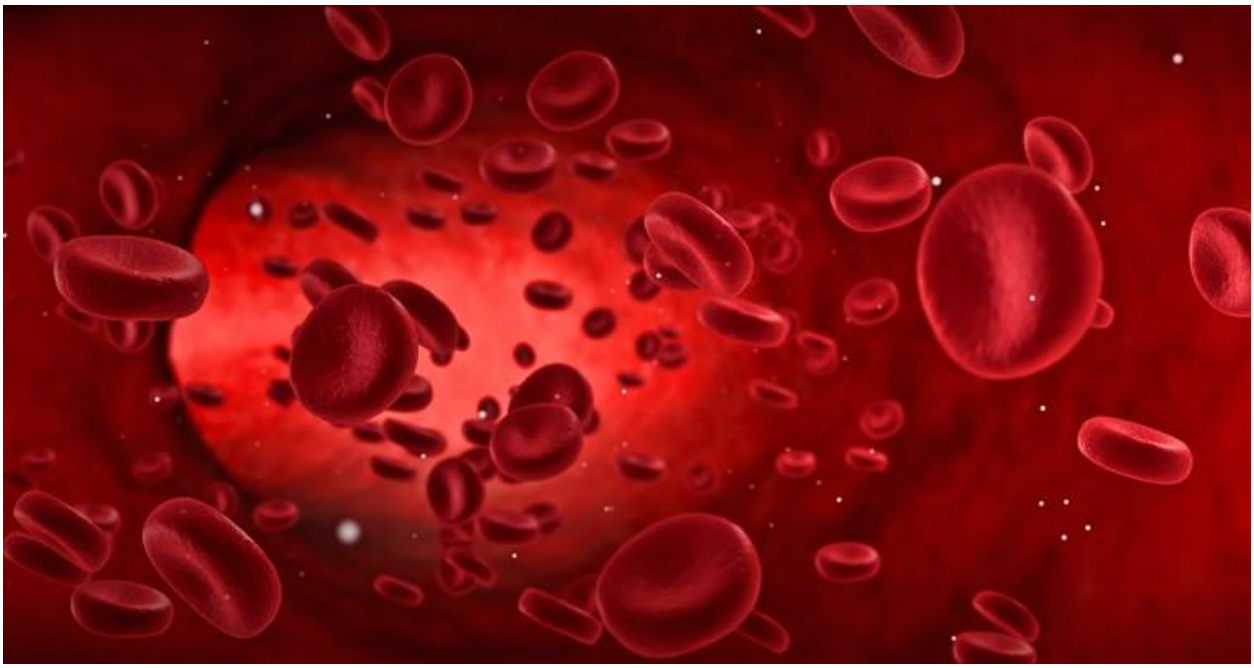
Medical Terminology Final Exam



Included in the final lesson, you will find VITAL information pertaining to the Endocrine, Respiratory, and Cardiovascular Systems; Mental Health and Phobias; Hematology and Autoimmune Disorders. These past 4 Sessions has included advanced knowledge in the realm of Medical Terminology and has prepared you for any healthcare setting. GOOD LUCK!

BLOOD



Blood is the fluid tissue in the body. It is composed of 55% liquid plasma and 45% formed elements.

Plasma is a straw colored fluid that contains nutrients, hormones, and waste products. Plasma is 91% water. The remaining 9% consists mainly of proteins, including the clotting proteins.

SERUM (SEER-um) **is plasma fluid after the blood cells and the clotting proteins have been removed.**

FIBRRINOGEN (figh-BRIN-oh-jen) **clotting proteins found in plasma. They have an important role in clot formation to control bleeding.**

FORMED ELEMENTS OF THE BLOOD

The formed elements of blood include erythrocytes, leukocytes, and thrombocytes.

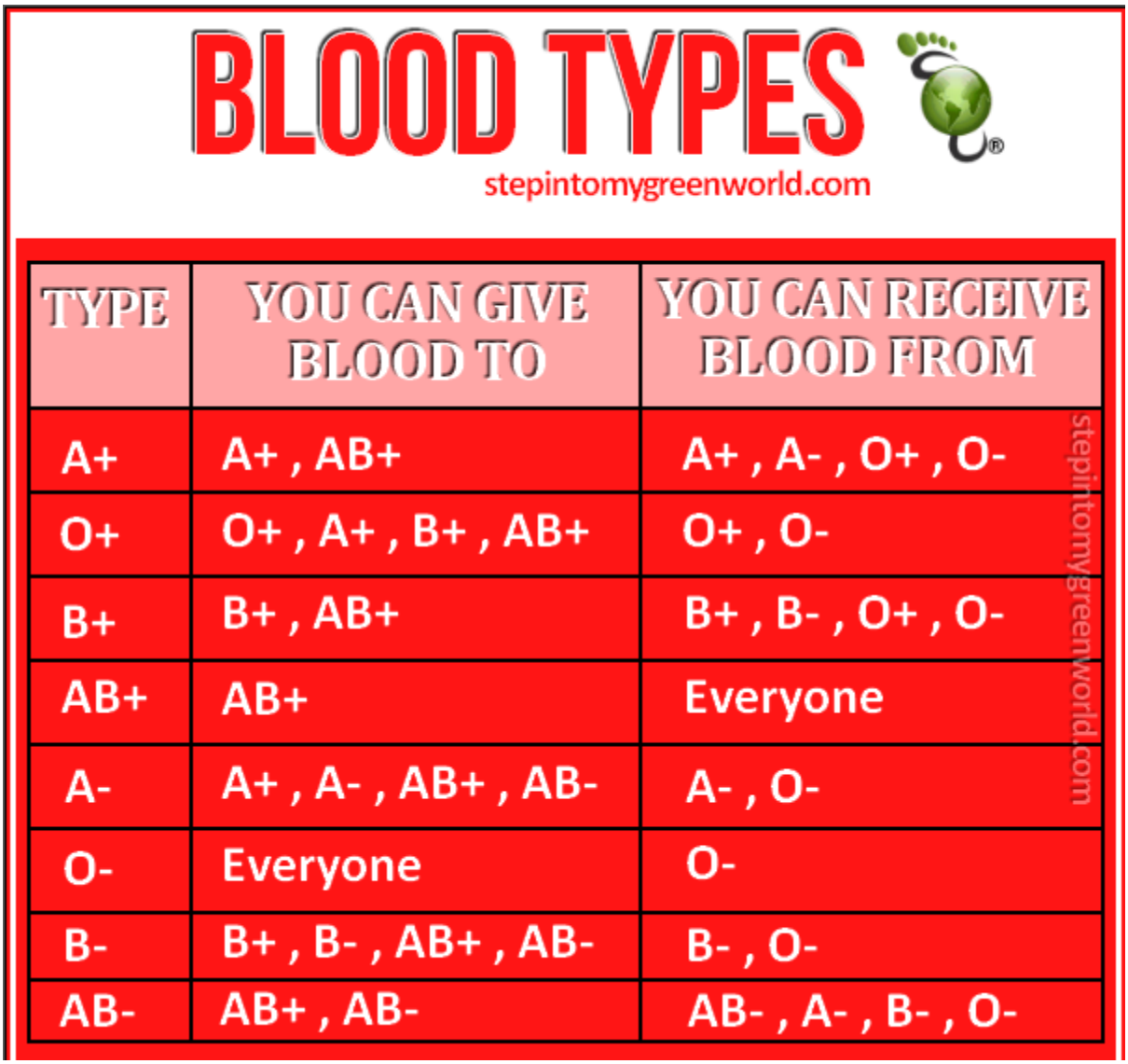
Erythrocytes (eh-RITH-roh-sights)	also known as RED BLOOD CELLS (RBCs), are mature red blood cells produced by the red bone marrow (erthyr/o means RED, -cytes means CELLS).
Leukocytes (LOO-koh-sights)	also known as WHITE BLOOD CELLS (WBCs), are the blood cells involved in defending the body against infective organisms and foreign substances (leuk/o means white, and -cytes means. The following are the major groups of leukocytes: NEUTROPHILIS, BASOPHILIS, EOSINOPHILIS, LYMPHOCYTES, MONOCYTES.
BLOOD TYPES	are the presence or absence of certain antigens. An antigen is any substances that the body regards as being foreign. Traditionally blood type is listed as type followed by Rh factor. The four blood types are A, AB, B, O. The A, AB, and B groups based on the presence of the A and/ or B antigens on the RED BLOOD CELLS. In contrast, in type O blood both the A and B antigens are absent.

BLOOD GASES are gases that are normally dissolved in the liquid portion of blood. The major blood gases are oxygen, carbon dioxide, and nitrogen.

MEDICAL SPECIALITIES RELATED TO THE CARDIOVASCULAR SYSTEM

- Cardiologist is a physician who specializes in diagnosing and treating abnormalities, diseases, and disorders of the heart.
- Hematologist is a physician who specializes in diagnosing and treating abnormalities, diseases, and disorders of the blood and blood forming tissues.
- A vascular surgeon is a physician who specializes in the diagnosis, medical management, and surgical treatment of disorders of the blood vessels.

HEART CONDITIONS CAD (Coronary Artery Disease), Atherosclerosis (hardening of the arteries caused by a build up of cholesterol plague on interior walls of arteries), Ischemia, Angina, Myocardial Infarction (heart attack), Carditis, Atrial Fibrillations



HYPERtension (HTN) commonly known as HIGH blood pressure, opposite of HYPOtension.

Rh FACTOR defines the presence or the absence of the Rh antigen on red blood cells. The Rh factor was so named because this antigen was first found in rhesus monkeys.

- **About 85% of Americans have the Rh antigen, and these individuals are described as being Rh positive (Rh+).**
- **The remaining 15% of Americans do not have the Rh antigen, and these individuals are described as being Rh negative (Rh-).**
- **The Rh factor is an important consideration in crossmatching blood for transfusions.**
- **The Rh factor can cause difficulties when a Rh-positive infant is born to a Rh-negative mother.**

AUTOIMMUNE DISORDERS any of a large group of diseases characterized by a condition in which the immune system produces antibodies against its own tissues, mistaking healthy cells, tissues, or organs for antigens. This disorder appears to be genetically transmitted and predominantly occurs in women during childbearing years. It is estimated that 3% of Americans have an autoimmune disorder, with women affected 2.7 times more often than men.

COMMON DISORDERS **Rheumatoid arthritis, Myasthenia gravis, pernicious anemia, Crohn's disease, Multiple sclerosis, scleroderma, Grave's disease.**

Deformity from Rheumatoid Arthritis

Myasthenia Crisis

Myasthenic crisis is a **life-threatening condition** which is defined as weakness from acquired myasthenia gravis that is severe enough to necessitate intubation or to delay extubation following surgery.

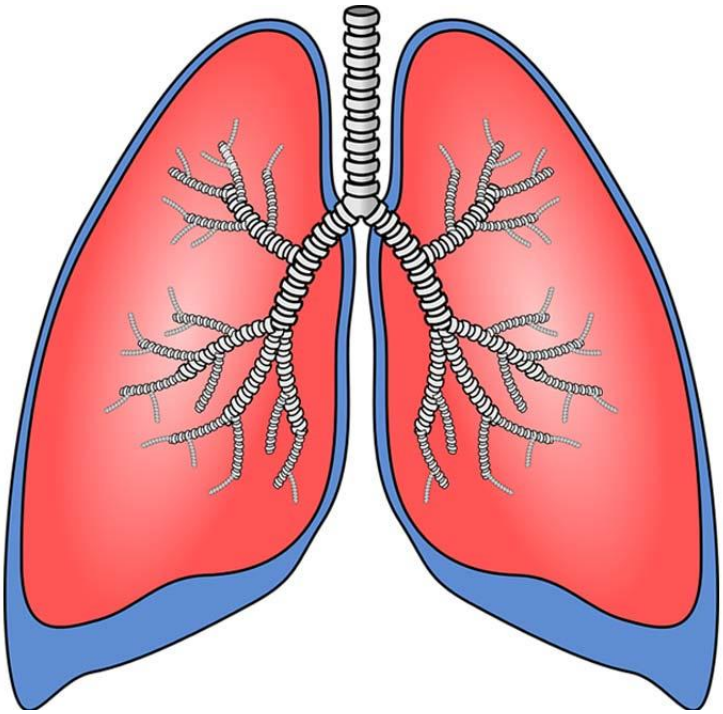
The respiratory failure is due to weakness of respiratory muscles.

Severe bulbar (oropharyngeal) muscle weakness

When this results in upper airway obstruction or severe dysphagia with aspiration, intubation and mechanical ventilation are necessary.

D/D : **Cholinergic Crisis**

Treatment : Immunoglobulins or Plasmapheresis



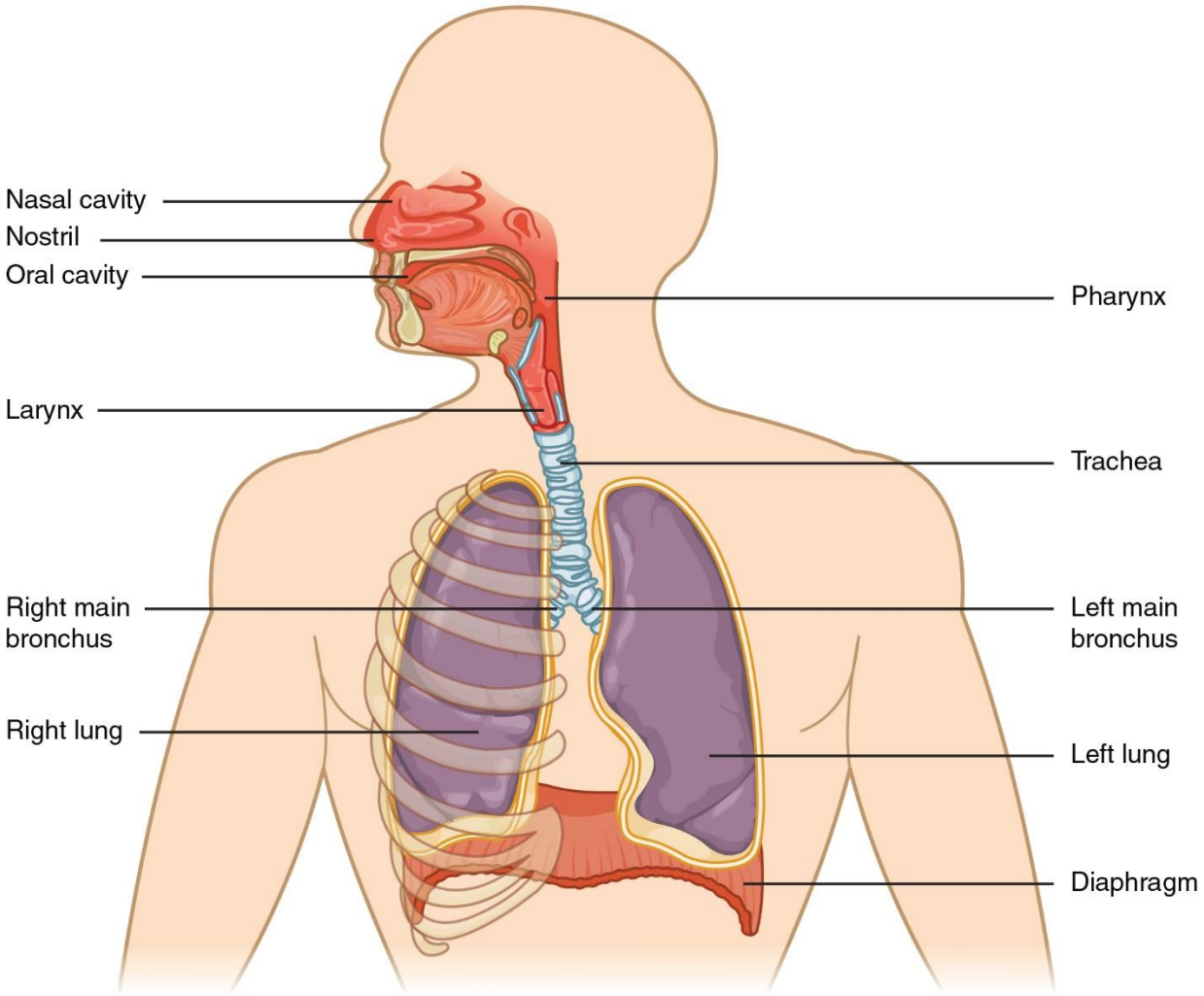
STRUCTURES OF THE RESPIRATORY SYSTEM

Supplies blood with oxygen for transformation to the cells in the all parts of the body.

Functions of the Respiratory System

- Deliver air to lungs
- Convey oxygen from the inhaled air to the blood for delivery to the body cells
- Expel waste products (carbon dioxide and a small amount of water) returned to the lungs by the blood through exhalation
- Produce the airflow through the larynx that makes speech possible

The upper respiratory system consists of the nose, mouth, pharynx, epiglottis, larynx, and trachea. The lower respiratory system consists of the bronchial tree and lungs.



NAME SYMPTOMS OF UPPER RESPIRATORY INFECTIONS/ DISEASES.

1. Nasal Congestion
2. Runny Nose
3. Sneezing
4. Sore Throat
5. Cough

DIALYSIS is a procedure to remove waste products, such as urea, creatinine, and excess water from the blood of a patient whose kidneys no longer function (dia- means complete through, and -lysis means separation). The two types of dialysis in common use are hemodialysis and peritoneal dialysis. Patients can choose the type of long term dialysis they prefer.

HEMODIALYSIS

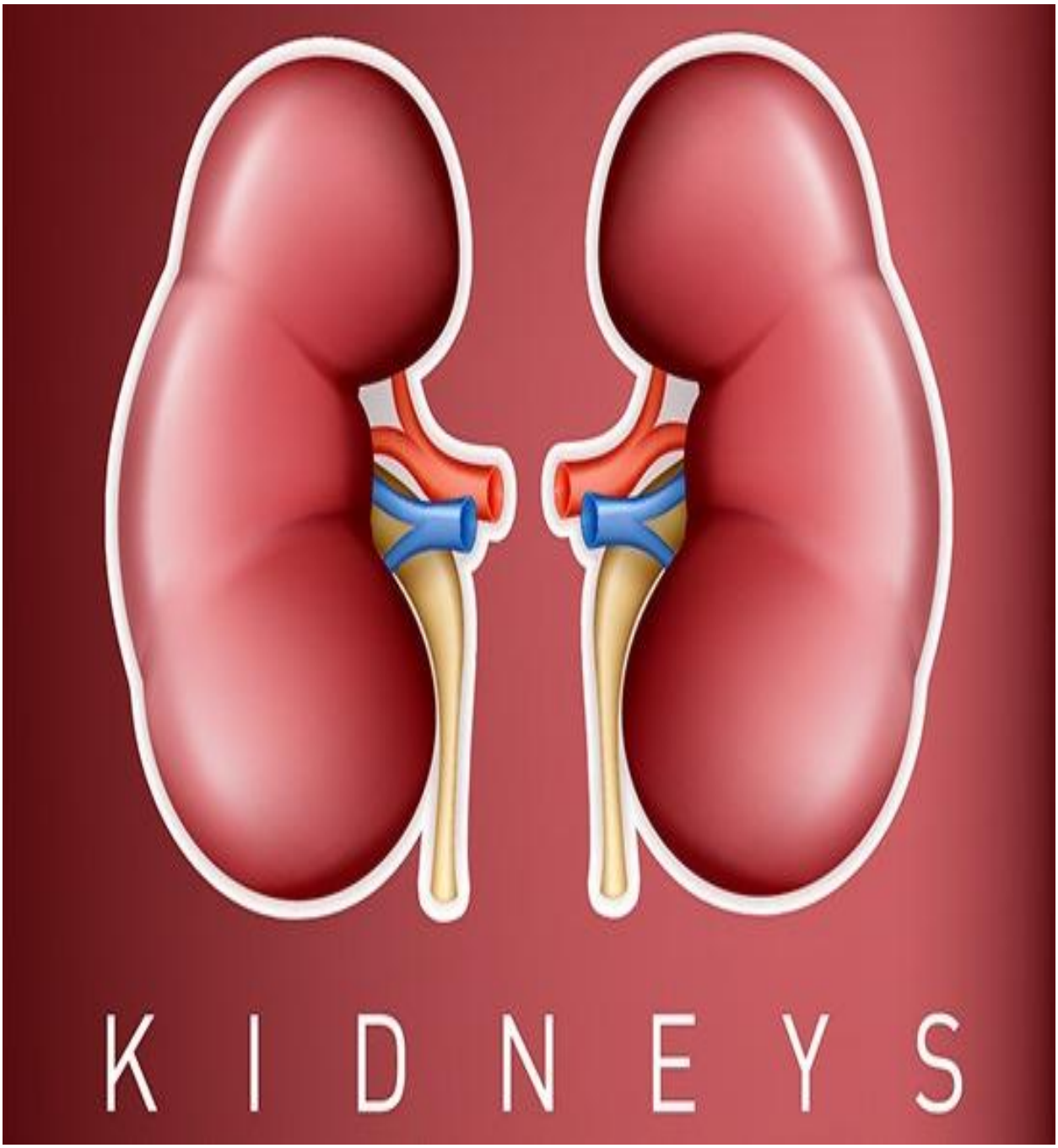
is the process by which waste products are filtered directly from the patient's blood. Treatment is performed on an external hemodialysis unit, sometimes referred to as an artificial kidney. This is the most common type of dialysis.

- A shunt implanted in the patient's arm is connected to the hemodialysis unit, and arterial blood flows through the filters of the unit. A shunt is an artificial passage that allows the blood to flow between the body and the hemodialysis unit.
- The filters contain dialysate, which is a sterilized solution made up of water and electrolytes. This solution cleanses the blood by removing waste products and excess fluids.

PERITONEAL DIALYSIS

the lining of the peritoneal cavity acts as the filter to remove waste from the blood. The sterile dialysate flows into the peritoneal cavity around the intestine through a catheter implanted in the abdominal wall. This fluid is left in for a period of time to absorb waste products and then drained out through the tube. Peritoneal dialysis can be done at home but considered less effective.

PERITONEAL DIALYSIS (AT HOME)


KIDNEYS

FUNCTIONS OF THE ENDOCRINE SYSTEM

The primary function of the endocrine system is to produce hormones that work together to maintain homeostasis. Hormones are chemical messengers that are secreted by endocrine glands directly into the bloodstream. This enables them to reach target cells and organs throughout the body. Each hormone has specialized functions in regulating the activities of specific cells, organs, or both. The hormones of the endocrine system affect almost every organ and cell in the body. Blood and urine tests are used to measure hormone levels.

STRUCTURES OF THE ENDOCRINE

Endocrine glands, which produce hormones, do not have ducts; There are 13 major organs that make up the endocrine system:

- One pituitary gland (divided into two lobes)
- One pineal gland
- One thyroid gland
- Four parathyroid glands
- One thymus
- One pancreas (pancreatic islets)
- Two adrenal glands
- Two gonads (either a pair of ovaries in female or a pair of testicles in males).

DIABETES MELLITUS (DM)

Is the most common endocrine system disease, is a group of metabolic disorders characterized by hyperglycemia resulting from defects in the body's production of insulin (type 1) or its ability to use it properly (type 2). Diabetes Mellitus is not related to diabetes insipidus.

DIABETIC COMPLICATIONS

- Diabetic Retinopathy
- Heart Disease
- Ketosis
- Kidney disease
- Peripheral neuropathy

MENTAL HEALTH

Although described as being disorders of mental health, the causes of the following conditions also include congenital abnormalities, physical changes, substance abuse, trauma, medication, or any combination of these factors.

ANXIETY DISORDERS (D)s) are mental conditions characterized by excessive, irrational dread of everyday situations or fear that is out of proportions to the real danger in a situation. Without treatment, an anxiety disorder can become chronic.

Generalized ANXIETY is characterized by chronic, excessive worrying. Physical symptoms associated with this condition can include muscle tension, sleep, disturbance, irritability, trouble concentrating, and restlessness.

PANIC ATTACK in an unexpected, sudden experience of fear in the absence of danger, accompanied by physical symptoms such as heart palpitations, shortness of breath, chest tightness, dizziness, sweating, nausea, feelings of unreality, choking sensations, or a combination of these. A panic attack is unneeded activation of the body's fight or flight response.

PANIC DISORDER is characterized by a fear of panic attacks. Panic disorder can cause people to develop agoraphobia or other phobias.

Post-Traumatic Stress DO (PTSD) may develop after an event involving actual or threatened death or injury to the individual or someone else, during which the person felt intense fear, helplessness, or horror. War, natural disasters, or other life-threatening experiences can cause PTSD. Symptoms including emotional mood swings, hyperarousal, anxiety, sleep disorders, and persistent reliving of the event.

PHOBIAS A phobia is a persistent, irrational fear of a specific thing or situation, strong enough to cause significant distress, to interfere with functioning and to lead to the avoidance of the thing or situation that causes this reaction. There are countless phobias.

Fears & Phobias List

- **Acrophobia**: *Fear of heights*
- **Aerophobia**: *Fear of flying*
- **Agoraphobia**: *Fear of public space*
- **Ailurophobia**: *Fear of cats*
- **Amathophobia**: *Fear of dust*
- **Arachnophobia**: *Fear of spiders*
- **Astrapophobia**: *Fear of lightning*
- **Claustrophobia**: *Fear of closed-in spaces*
- **Emetophobia**: *Fear of vomiting*
- **Ereuthophobia**: *Fear of blushing*
- **Genophobia**: *Fear of sex*
- **Haematophobia**: *Fear of blood*
- **Keraunophobia**: *Fear of thunder*
- **Microphobia**: *Fear of germs/small things*
- **Mysophobia**: *Fear of dirty*
- **Nyctophobia**: *Fear of the dark*
- **Ochlophobia**: *Fear of crowds*
- **Ornithophobia**: *Fear of birds*
- **Pathophobia**: *Fear of disease*
- **Pnigophobia**: *Fear of choking*
- **Pteronophobia**: *Fear of feathers*
- **Pyrophobia**: *Fear of fire*
- **Triskaedekaphobia**: *Fear of the number thirteen*
- **Xenophobia**: *Fear of strangers*
- **Zoophobia**: *Fear of animals*