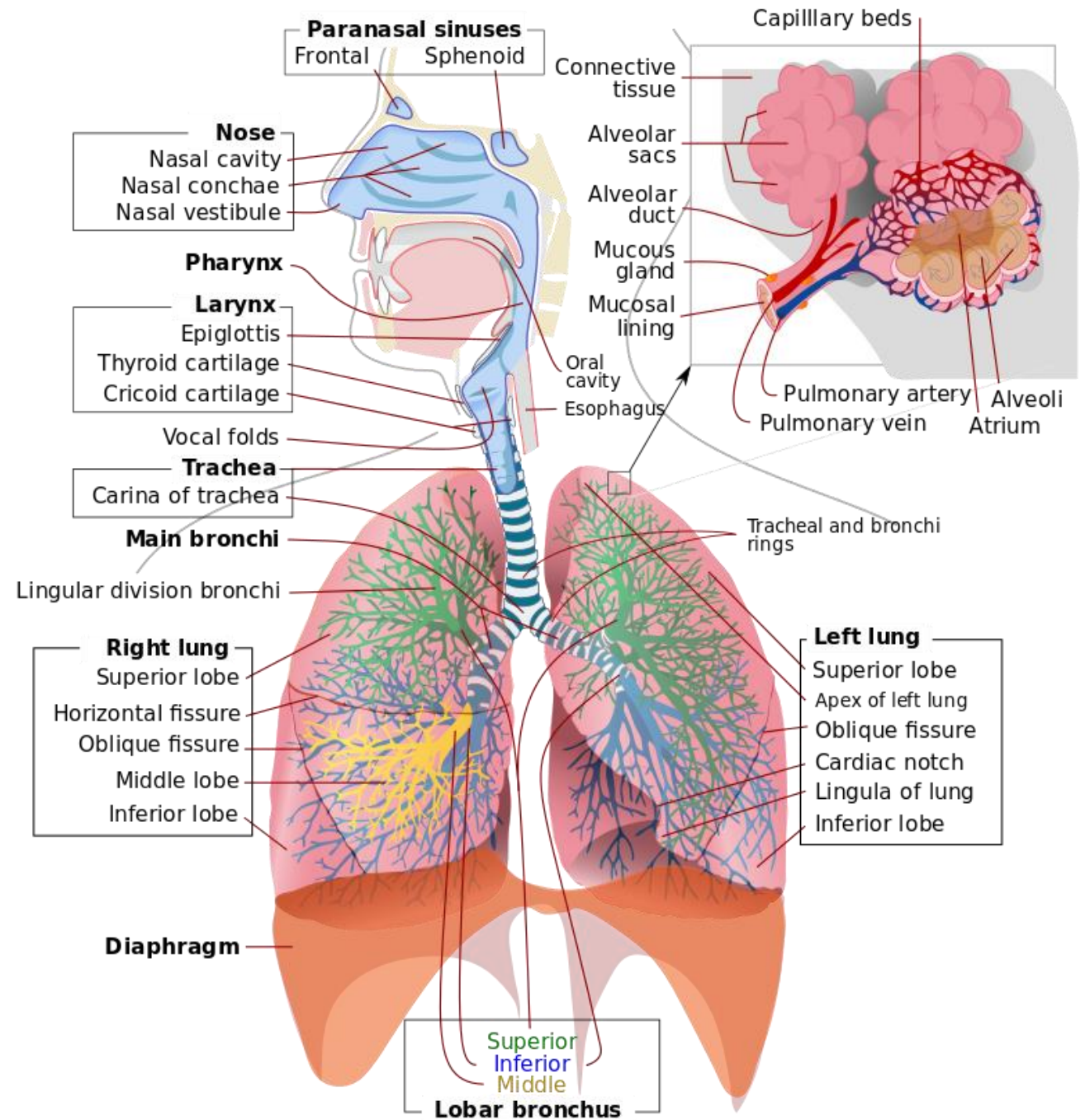
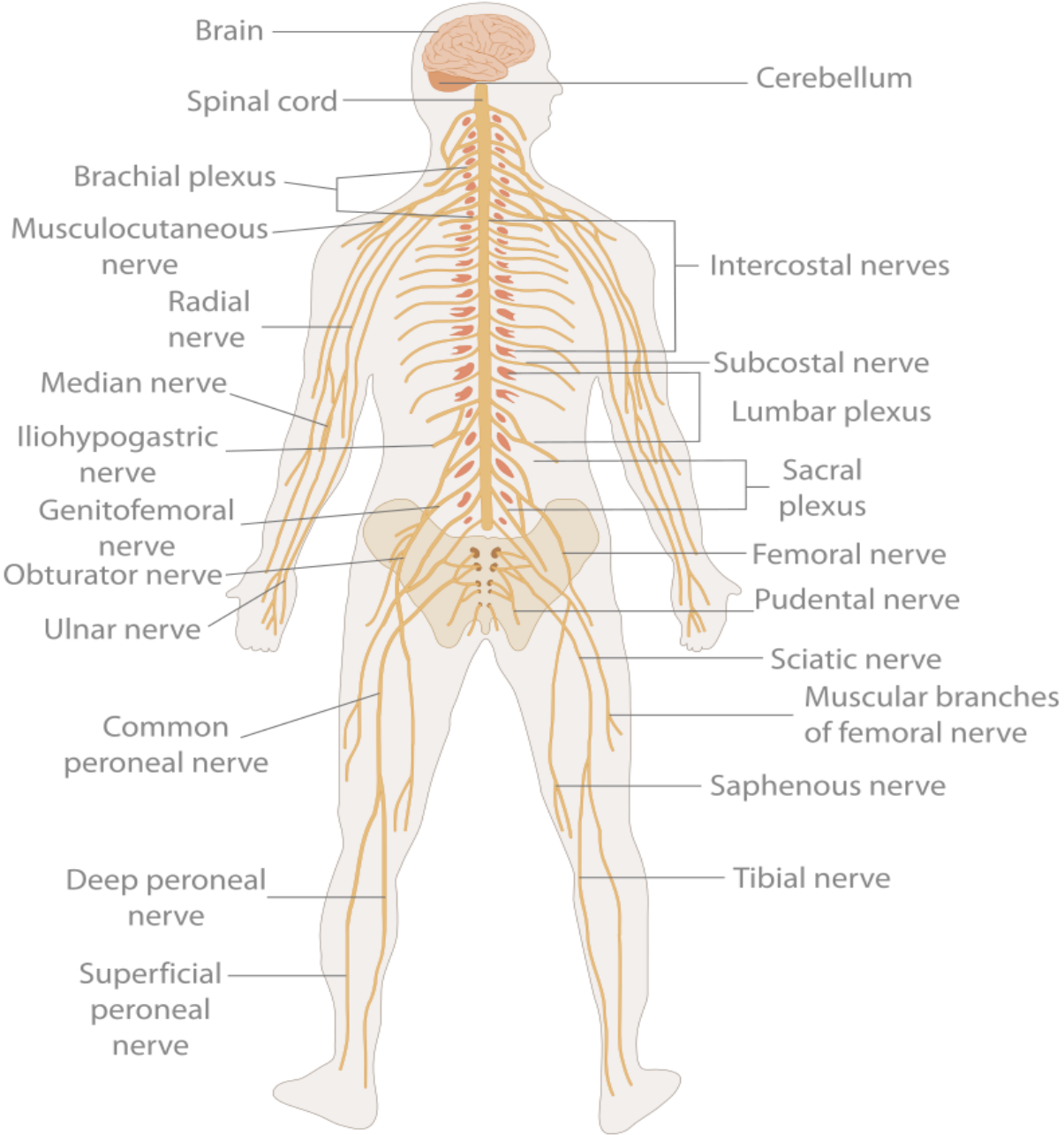


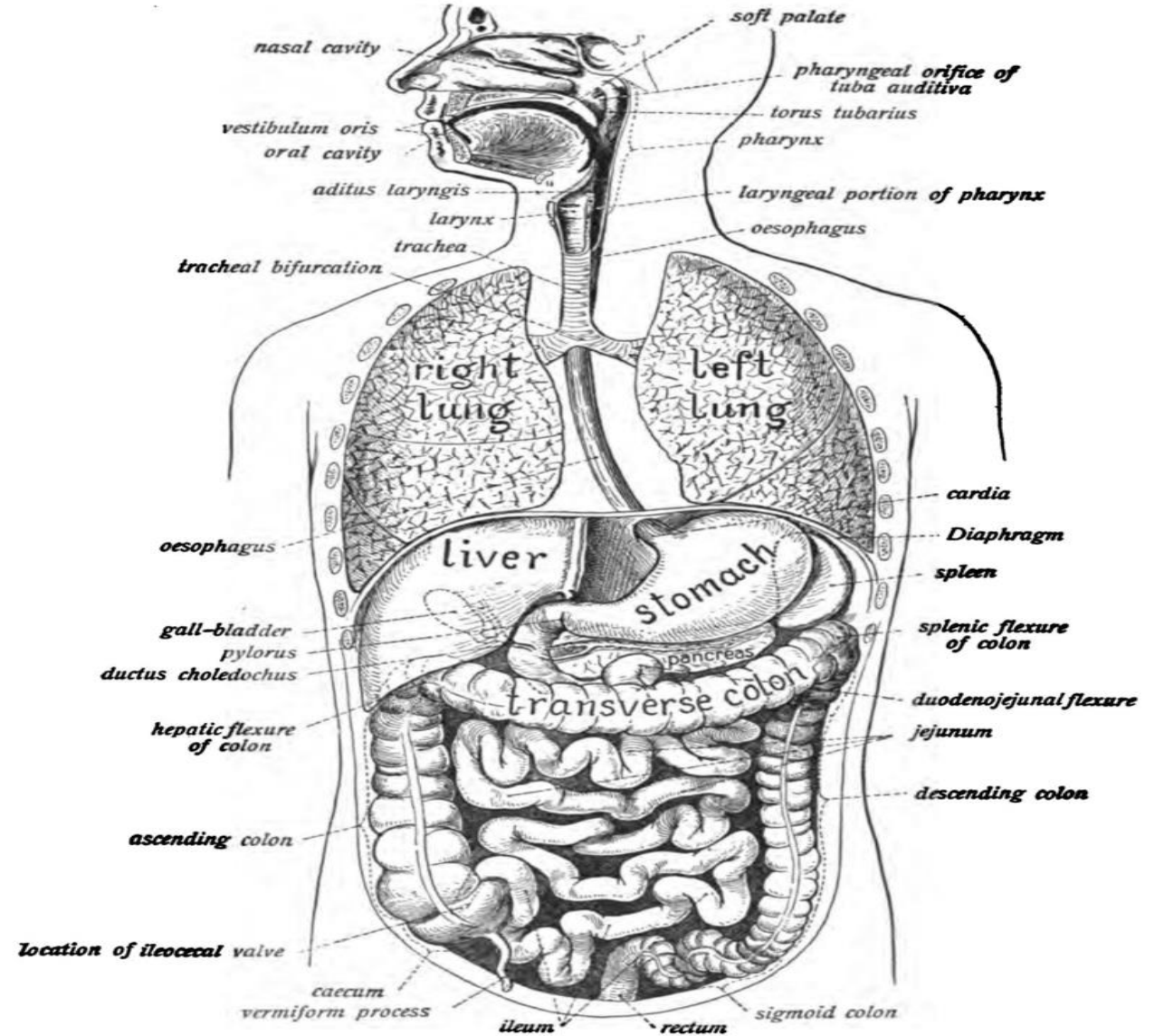
The **respiratory system** (also **respiratory apparatus, ventilatory system**) is a biological system consisting of specific organs and structures used for gas exchange in animals and plants.



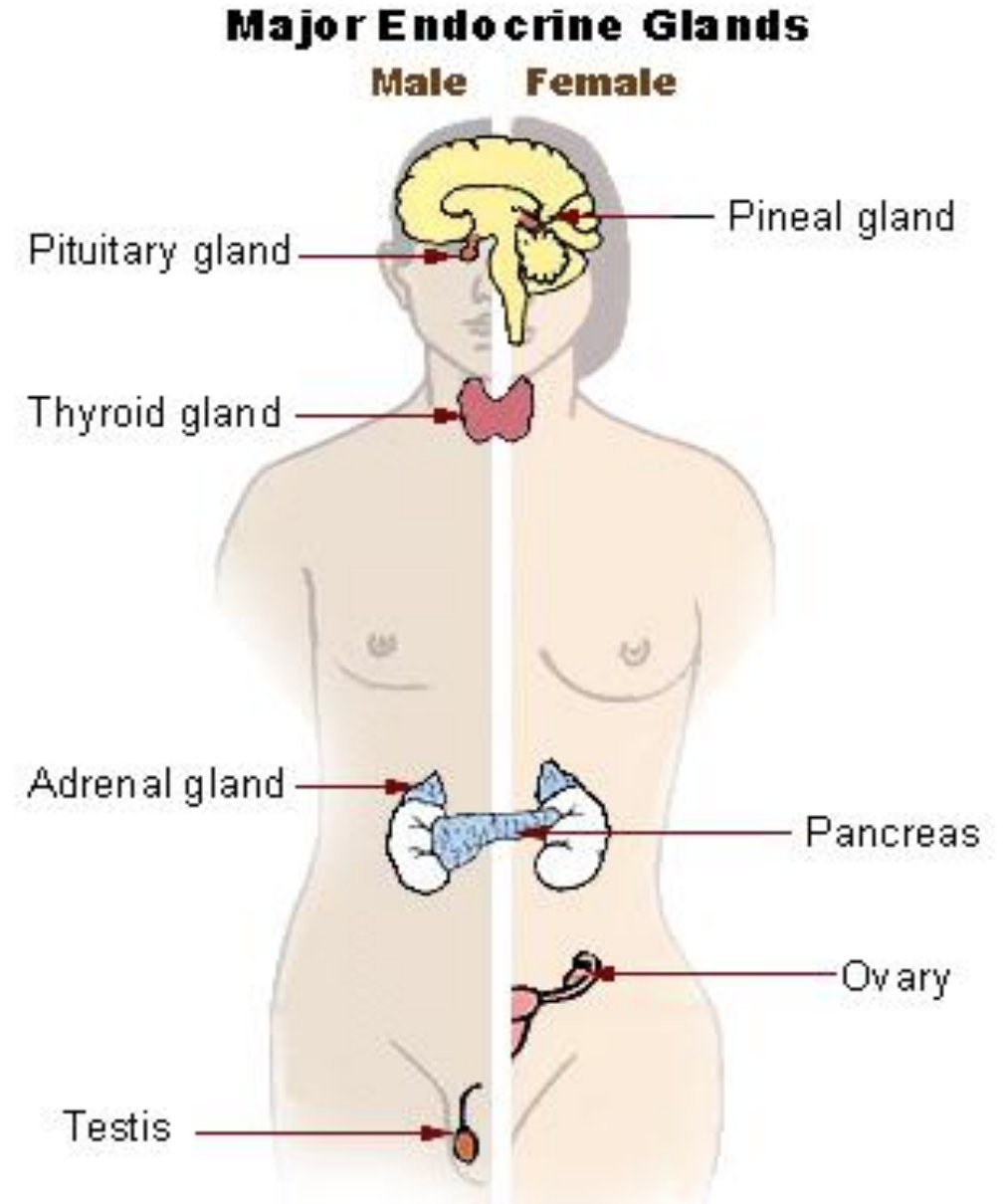
The **nervous system** is a highly complex part of an animal that coordinates its actions and sensory information by transmitting signals to and from different parts of its body.



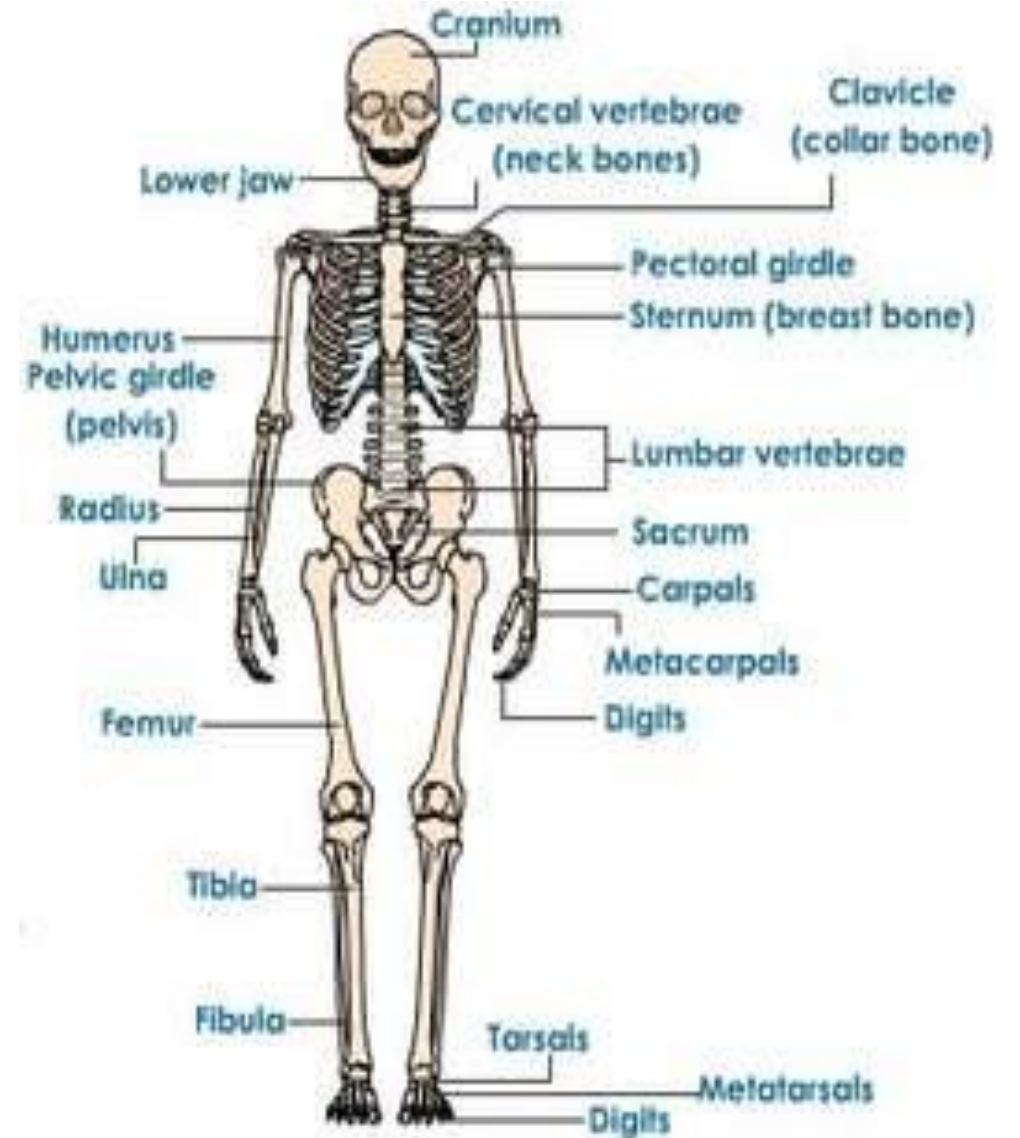
The **human digestive system** consists of the gastrointestinal tract plus the accessory organs of digestion (the tongue, salivary glands, pancreas, liver, and gallbladder).



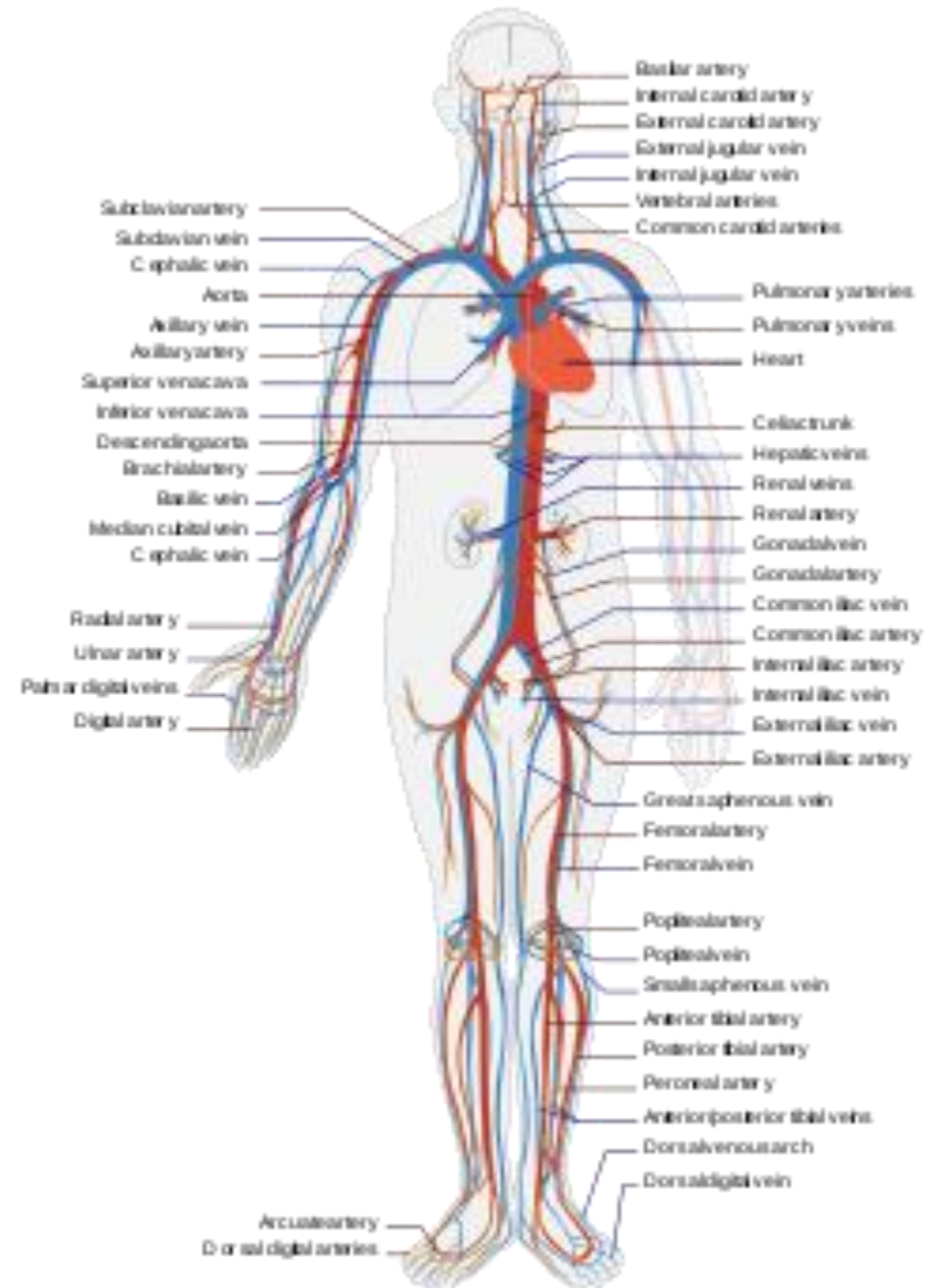
The **endocrine system** is a chemical messenger system comprising feedback loops of hormones released by internal glands of an organism directly into the circulatory system, regulating distant target organs.



The **skeleton** is the body part that forms the supporting structure of an organism. It can also be seen as the bony frame work of the body which provides support, shape and protection to the soft tissues and delicate organs in animals.



The **circulatory system**, also called the **cardiovascular system** or the **vascular system**, is an organ system that permits blood to circulate and transport nutrients (such as amino acids and electrolytes), oxygen, carbon dioxide, hormones, and blood cells to and from the cells in the body to provide nourishment and help in fighting diseases, stabilize temperature and pH, and maintain homeostasis



Lec 3 Medical Terminology

Dr. Ahmed Makki

- **algia**: pain, painful condition
- **ectomy**: surgical removal, cutting out
- **hyper**: excessive, increased
- **hypo**: deficient, decreased
- **itis**: inflammation

- **osis**: abnormal condition, disease
- **ostomy**: the surgical creation of an artificial opening to the body surface
- **otomy**: cutting, surgical incision
- **plasty**: surgical repair
- **rrhage**: bleeding, abnormal excessive fluid discharge
- **rrhea**: flow or discharge
- **sclerosis**: abnormal hardening
- **angio**: vessel

Anti: against

Mega: large

Arterio: artery

melan: black

Auto: self

eu: easy, good normal

mono: one

Bi: two

ex(o): outside

myel(o): pertaining to the spinal cord, the bone marrow, or myelin

bi(o): pertaining to life

extra: outside, in addition

my(o): pertaining to muscle

blast(o): germ or cell

gastr(o): pertaining to the stomach

nas(o): pertaining to the nose

cardi(o): pertaining to the heart

Hemi: half

glyc(o): sugar

ne(o): new

Brady: slow

gynec(o): pertaining to females or the female reproductive organs

nephr(o): pertaining to the kidney

Calc: stone; also heel

hemat(o): pertaining to blood

neur(o): pertaining to a nerve or the nervous system

cardi(o): pertaining to the heart

Noct: night

cephal(o): pertaining to the head

hem(o): pertaining to blood

olig(o): little, deficient, containing a relatively small number of units

cerebr(o): pertaining to the cerebrum, a part of the brain

hepat(o): pertaining to the liver

oophor(o): pertaining to the ovary

cervic(o): pertaining to the neck or the uterine cervix

hom: same or like

Heter: other, different

ophthalm(o): pertaining to the eye

Chole: pertaining to bile

orchid(o): pertaining to the testicles

chondr(o): pertaining to cartilage

chondr(o): pertaining to cartilage

Osteo: pertaining to bone

Adipo: pertaining to the fat

hydr(o): water

Circum: around, about

Oro: pertaining to the mouth

Contra: against, opposite

Ortho: straight or normal

cost(o): pertaining to a rib

hyster(o): pertaining to the uterus

oste(o): pertaining to bone

cyan(o): blue

Infra: below

Supra: above

ot(o): pertaining to the ear

phag(o): pertaining to eating, ingesting, or engulfing

pyel(o): pertaining to the kidney or pelvis

Tachy: fast

pharyng(o): pertaining to the throat, or pharynx

py(o): pertaining to pus

Therm: pertaining to temperature

phleb(o): pertaining to a vein

quadr(i): four

thorac(o): pertaining to the chest

pneum(o): pertaining to respiration, the lungs, or air

Quar: four

Trans: across

Tri: three

retr(o): backward or behind

Uni: one

Pre: before

Post: after, behind

Pro: in front of

salping(o): pertaining to a tube

proct(o): pertaining to the rectum

scler(o): hard; also means pertaining to the sclera

Poly: many

Phagia: pertaining to eating or swallowing

Lysis: decline, disintegration, or destruction

Pathyo: disease or a system for treating disease

Megaly: enlargement of

genic: causing

graph: a record or the instrument used to create the record

a: without, lack of

cyst(o): pertaining to the bladder or any fluid-containing sac

leuk(o): pertaining to anything white or to leukocytes (white blood cells)

erythr(o): pertaining to anything red or to erythrocytes (red blood cells)

arthro: pertaining to a joint

pseud(o): false

pulm(o): pertaining to the lung

taxis: order, arrangement of

phasia: A speech disorder of a specific kind, dysphasia

phobia: is a type of anxiety disorder defined by a persistent fear of an object or situation (social phobia)

scope: instrument for examination
(microscope)

scopy: examination with an instrument (to deal with something)

carotid: great arteries of the neck

aorta: is the main artery that carries blood from the heart to the rest of the body

congestion: blockage of the body passages for example by fluid or mixture of somethings, resulting in overfilling

asphyxia: lack of oxygen or excess of carbon dioxide in the body that results in unconsciousness

hypoxia: decrease level of oxygen

bucc: cheek

palpation: to examine by touch

percussion: to examine by striking

viscous: sticky

toxic: poisonous

toxicology: involves in the study of the adverse effects of chemical substances on living organisms

retina: inner nerve, containing layer of the eye

sect: cut

fract: break

xer: dry, example xerostomia (dryness of the mouth)

Lec 7 Medical Terminology

Dr. Ahmed Makki

Phot: light

sepsis: the presence of micro-organisms or their toxins in the blood; also the toxic condition caused by such presence

Tom: cut

Pleur: rib, side

Sept: wall, divider; also seven

Toxic: poisonous

Serum: the clear portion of body fluids, including blood

Trich: hair

Sinus: cavity, channel, or hollow space

Ur: urine

som(a): body

varic: varicose vein

viscous: sticky

stern(o): sternum (breastbone)

radius the forearm bone on the thumb side; also a line from the centre of a circle or sphere to the edge

Stasis: slowing or stopping of the normal flow of a fluid, such as blood

Viscer: internal organs

Ren: kidney

stature: height

Pod: foot

Podiatry or **podiatric medicine:** is a branch of medicine devoted to the study, diagnosis, and medical and surgical treatment of disorders of the foot, ankle, and lower extremity

xen- foreign (material)

Stoma: any small opening on the surface of the body, such as a pore; also, the opening created in the abdominal wall for the passage of urine or feces

Xer: dry

Sebum: a fatty secretion of the sebaceous glands

Tact: touch

Sect: cut

Tetra: four

A **sign** is objective evidence of disease such as a fever. Objective means the sign can be evaluated or measured by the patient or others

A **symptom** is subjective evidence of a disease, such as pain or a headache. Subjective means that it can be evaluated or measured only by the patient

A **syndrome** is a set of the signs and symptoms that occur together as part of a specific disease process

A **diagnosis** (DX) is the identification of a disease (plural, diagnoses). To diagnose: is the process of reaching a diagnosis

A **differential diagnosis** is an attempt to determine which one of several diseases can be causing the signs and symptoms that are present

A **prognosis** is a prediction of the probable course and outcome of a disorder (plural, prognoses)

An **acute** condition has a rapid onset, a severe course, and a relatively short duration

A **chronic** condition is of long duration. Although such diseases can be controlled, they are rarely cured

A **remission** is the temporary, partial, or complete disappearance of the symptoms of a disease without having achieved a cure.

A **disease** is a condition in which one or more body parts are not functioning normally. Some diseases are named for their signs and symptoms. For example, chronic fatigue syndrome (CFS) is a persistent overwhelming fatigue of unknown origin

An **acronym** is a word formed from the initial letter of the major parts of a compound term. For example, the acronym **laser** stands for light amplification by stimulated emission of radiation

A **fissure** is a groove or crack-like sore of the skin. This term also describes normal folds in the contours of the brain.

A **fistula** is an abnormal passage, usually between two internal organs or leading from an organ to the surface of the body. A fistula may be due to surgery, injury, or the draining of an abscess

The **ileum** is the last and longest portion of the small intestine.

Memory aid: ileum is spelled with an e as in intestine

The **ilium** is part of the hip bone.

Memory aid: ilium is spelled with an i as in hip

An **infection** is the invasion of the body by a pathogenic (disease-producing) organism. The infection can remain localized (near the point of entry) or can be systemic (affecting the entire body).

Signs and symptoms of infection include: malaise, chills and fever, redness, heat and swelling, or exudate from a wound

Malaise is a feeling of general discomfort or uneasiness that is often the first indication of an infection or other disease

An **exudate** is fluid, such as pus, that leaks out of an infected wound.



Medical Terminology / Lecture (1)

CHAPTER 1

The Elements of a Medical Vocabulary

KEY TERMS

Adjective	a word used with a noun to modify its meaning
Analyze	to separate into elements or parts
Consonant	a letter of the alphabet other than a, e, I, o, u
Diphthong	a blend of two vowel sounds in one syllable
Interpret	to explain or tell the meaning of
Noun	a word that is the name of something, such as a person, place, thing, or idea
Plural	the form of a word denoting more than one
Pronounce	to say words or syllables aloud
Syllable	several letters taken together to form one sound
Vocabulary	a list or collection of words
Vowel	one of the letters a, e, I, o, u. the letter y sometimes serves as a vowel.



INTROBUCTION

This text has two main purposes:

1. To help you build a medical vocabulary easily and quickly, and
2. To assist you in interpreting medical terms as they are used in medical practice.

In this first chapter, we will talk about the way that medical terms are built. We will analyze the terms, and you will have practice exercises to help you remember. In later chapters you will learn how to interpret medical terminology as it is used by physicians and other health professionals.

COMMONLY USED TERMS

You may not realize that many medical terms are already a part of your vocabulary. You`ve seen them in print—in advertisements, for instance; you`ve heard them in television programs; and you`ve used them in conversation. Let`s analyze a few medical terms that you are likely to have heard. Like the new medical terms you`ll be learning later on, they are formed from combinations of parts.

Abnormal ab-is a word beginning, or prefix, often used in medical terms.

It Means away from.

Anemia an-is prefix meaning not or without. –emia is a word ending, or suffix, meaning blood condition.

Appendectomy -ectomy is a suffix used in surgical terms; it means taking out (excision) or removing; append-refers to the appendix.

Arthritis arthr is a word root meaning joint; -it is is a suffix meaning

M.Sc Rusul Y. ALabada

inflammation.

Diarrhea dia- is a prefix meaning through; -rhea is a suffix meaning flow.

Hydrophobia hydro-is a root meaning water; -phobia means fear it is the medical term for rabies, a disease in which the victim fears water because swallowing it leads to painful spasms.

Hypodermic the prefix hypo- means beneath; the suffix -dermic means having to do with the skin. A hypodermic syringe (needle) injects fluid beneath the skin.

Neuralgia neur- is the root for nerve; the word ending-algia means pain in the body part it follows.

Tracheotomy trache is the medical root for trachea (the windpipe); -otomy is A surgical suffix that means a cutting or incision.

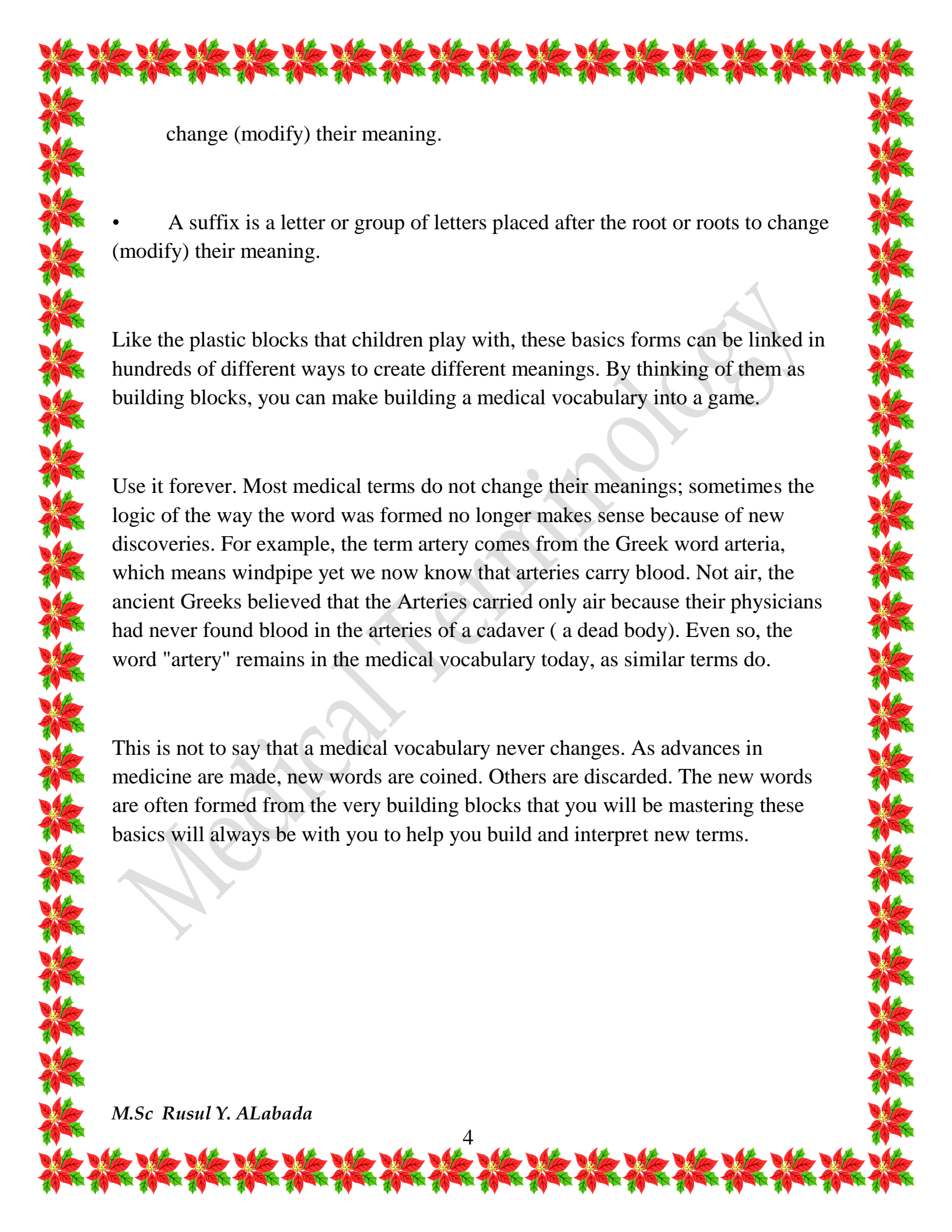
These are only a few examples of words that you may already have heard and used. You may feel quite comfortable with them. As you work through this text, you'll find the new terms becoming just as comfortable.

LEARNING AND REMEMBERING MEDICAL TERMS

Let's begin by learning some word parts. Medical terms have three basic elements:

- (1) Roots, (2) prefixes, and (3) suffixes (figure 1.1)
- The root is that part of a word that can stand alone and have meaning.
 - A prefix is a letter or group of letters placed before the root or roots to

M.Sc Rusul Y. ALabada



change (modify) their meaning.

- A suffix is a letter or group of letters placed after the root or roots to change (modify) their meaning.

Like the plastic blocks that children play with, these basic forms can be linked in hundreds of different ways to create different meanings. By thinking of them as building blocks, you can make building a medical vocabulary into a game.

Use it forever. Most medical terms do not change their meanings; sometimes the logic of the way the word was formed no longer makes sense because of new discoveries. For example, the term artery comes from the Greek word *arteria*, which means windpipe yet we now know that arteries carry blood. Not air, the ancient Greeks believed that the Arteries carried only air because their physicians had never found blood in the arteries of a cadaver (a dead body). Even so, the word "artery" remains in the medical vocabulary today, as similar terms do.

This is not to say that a medical vocabulary never changes. As advances in medicine are made, new words are coined. Others are discarded. The new words are often formed from the very building blocks that you will be mastering these basics will always be with you to help you build and interpret new terms.

BUILDING BLOCKS

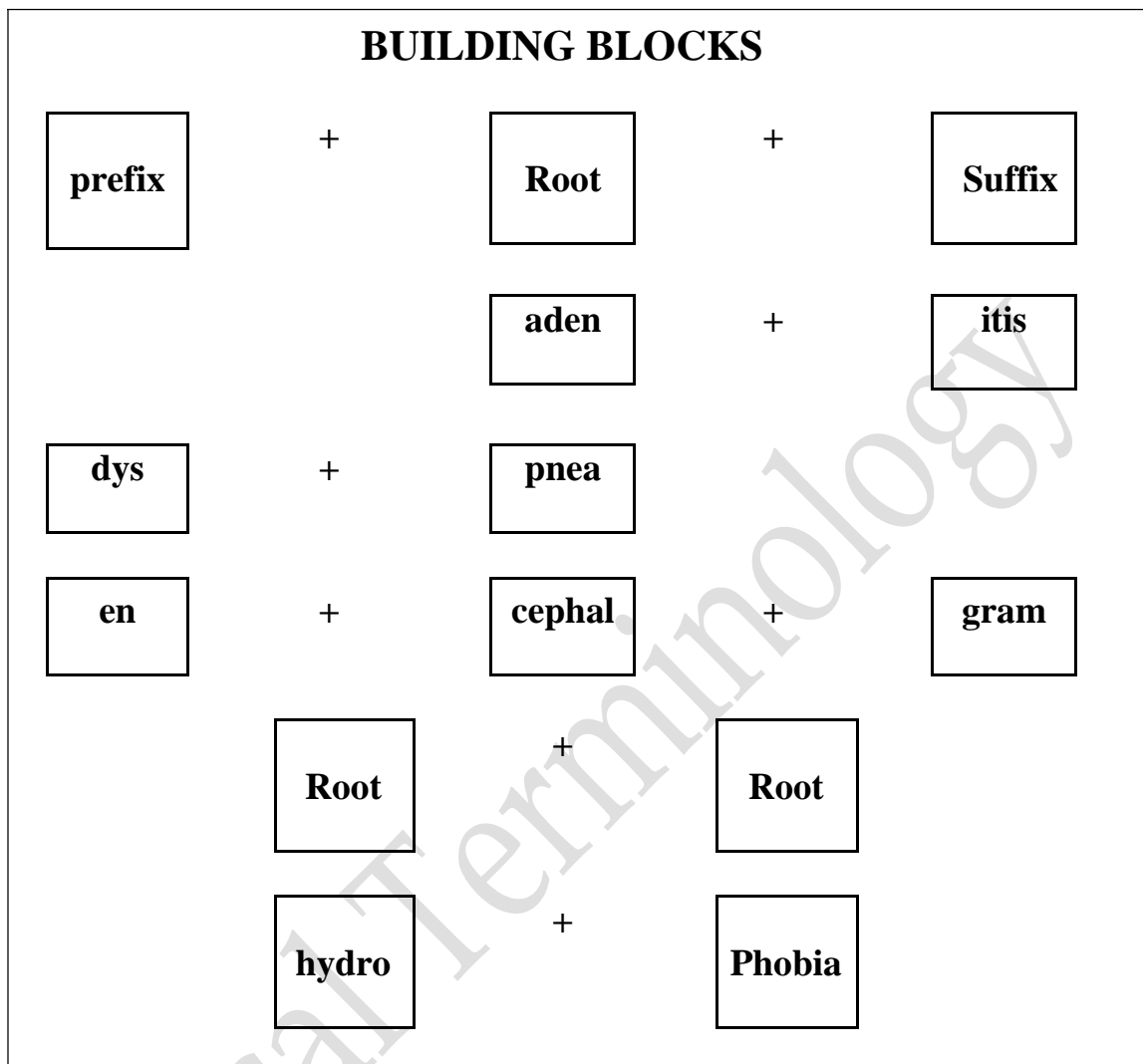


FIGURE 1.1 constructing medical terms using building blocks

Analyzing the structure of words

Now, let's explore some common building blocks (figure 1.1). In the lists of examples, you will see the building block, then its meaning, then its use in the full word, where the building block is shown in italics.

ROOT: The root of a word can stand alone and have meaning. For example:

root	Meaning	Example
aden	gland	Adenitis
cardi	heart	Cardiology
cephal	head	Encephalogram
derm	Skin	Dermatosis
flex	bending	Anteflexion
gastr	Stomach	Gastroscopy
hydr	Water	Hydrophobia
my	Muscle	Myalgia
neur	Nerve	Neuritis
pnea	Breath	Dyspnea

Prefix: Recall that a prefix is a letter or group of letters placed before a word to Change (modify) its meaning. For example:

Prefix	Meaning	Example
a-	without, not	Apnea
Ante-	before (in time or place)	Ante flexion
Dys-	bad, painful, difficult	dysfunction (Note: this is an example in which y serves as a vowel.)
endo-	Within	Endocrine
retro-	behind, backward	Retrograde

Suffix. Recall that a suffix is a letter or group of letters placed after a word to change (modify) its meaning. For example:

Suffix	Meaning	Example
-algia	Pain, painful condition	Neuralgia
-cele	Herniation or bulging	Hydrocele
-itis	Inflammation	Gastritis
-ology	Study or science of	Cardiology
-pathy	Disease	Myopathy