

Medical Terminology

Prepared by

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First Year

2018 / 2019



Acknowledgments

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First Year

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Course Description

نموذج رقم (١٢)

جامعة /أكاديمية : ...وزارة الصحة والسكان

كلية /معهد :المعاهد الفنية الصحية.....

قسم :

توصيف مقرر دراسي

١- بيانات المقرر		
الرمز الكودي :	اسم المقرر: Medical Terminology	الفرقة /المستوى: First Grade
التخصص :	عدد الوحدات الدراسية : 24	نظري 24 عملي

٢- هدف المقرر:	To be able to read and understand medical terms commonly used in health care field.
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3- المستهدف من تدريس المقرر: Students of Technical Health Institute	
<p>By the end of this course, students should be able to:</p> <ul style="list-style-type: none"> Identify basic terminologies related to the medical field Know the basic principles of medical terms such as: the three parts of medical terms, word roots, prefixes and suffixes. build, divide, spell and pronounce common medical words. Recognize major structures, functions and medical terms related to body systems. Verify diseases through analysis of the term related to different body systems. Identify medical specialties and their titles, of all medical staff. Recognize the commonly used terms in health care system. 	<p>أ. المعلومات والمفاهيم:</p>
<p>By the end of this course, students should be able to:</p> <ul style="list-style-type: none"> analyze the medical term into its basic elements. compare/ contrast the structure of body systems and related diseases. know how to understand the meaning of the medical terms of the body systems and related diseases. Combine more than one medical term to introduce other meaningful one. 	<p>ب- المهارات الذهنية:</p>

By the end of this course, students should be able to: <ul style="list-style-type: none"> • use medical terms to communicate with doctors and other professional health providers. • Pronounce the medical terms in a correct way. • apply the medical terms in different health care fields. • Practice reading and writing the medical terms in the field of specialty 	ج- المهارات المهنية الخاصة بالمقرر
By the end of this course, students should be able to: <ul style="list-style-type: none"> • Use medical terms to facilitate communication with health care providers. • Read and write clearly about specialty related topics. • Apply the use of medical terms in the field of in the field of specialty. 	د- المهارات العامة :
The first semester <ul style="list-style-type: none"> • Chapter one: Medical terminology definition and basics including structures of medical terms (Prefixes, roots and suffixes). • Chapter two: Odds, ends and directions. • Chapter three: Terminology of Circulatory system structure and related diseases. • Chapter four: Terminology of digestive system structure and related diseases. • Chapter five: Terminology of respiratory system structure and related diseases. The second semester <ul style="list-style-type: none"> • Chapter six: Terminology of urinary system structure and related diseases. • Chapter seven: Terminology of nervous system structure and related diseases. • Chapter eight: Terminology of musculoskeletal system structure and related diseases. • Chapter nine: Terminology of Female reproductive system structure and related diseases. • ChapterTen: Terminology of male reproductive system structure and related diseases. 	4- محتوى المقرر:

Lectures <ul style="list-style-type: none"> ○ Active learning (discussion) ○ Pair work (activities) ○ Group work 	٥- أساليب التعليم والتعلم
<ul style="list-style-type: none"> ○ individual guidance ○ Individual feedback ○ Remedial programs 	٦- أساليب التعليم والتعلم للطلاب ذوي القدرات المحدودة
٧- تقويم الطلاب :	
<ul style="list-style-type: none"> ○ Assignments ○ Periodic quizzes ○ Midterm ○ Final exam 	أ- الأساليب المستخدمة
<ul style="list-style-type: none"> ○ Assignments (occasionally) 	ب- التوقيت

<ul style="list-style-type: none"> ○ Periodic quizzes (week 5,11) ○ Midterm (week 8) ○ Final exam (At the end of the semester) 	
Year work (20 pts) includes <ul style="list-style-type: none"> ○ Assignments 15% ○ Periodic quizzes 45% ○ Midterm 40% ○ Final exam (80 pts) 	ج- توزيع الدرجات
<p>٨- قائمة الكتب الدراسية والمراجع :</p> <ol style="list-style-type: none"> 1. Medical Dictionary Definitions, https://www.emedicinehealth.com/medical-dictionary-definitions/article_em.htm 2. Common Medical Terminology - GlobalRPH, http://globalrph.com/common-medical-terminology-suffix-prefix-and-root-words/ 3. Circulatory System - Structure, Function, Parts, Diseases Kenhub 4. https://www.kenhub.com/en/library/anatomy/circulatory-system 5. The Respiratory System: Structure and Function – School Work Helper 6. https://schoolworkhelper.net/the-respiratory-system-structure-and-function/ 7. https://opentextbc.ca/anatomyandphysiology/chapter/12-1-basic-structure-and-function-of-the-nervous-system 8. Medical Dictionary, © 2009 Farlex and Partners 	

رئيس مجلس القسم العلمى :

أستاذ المادة :

Chapter 1

Medical terminology

Definition

Medical terminology is language used to precisely describe the human body including its components, processes, conditions affecting it, and procedures performed upon it. Medical terminology is used in the field of medicine.

Medical terminology has quite regular morphology, the same prefixes and suffixes are used to add meanings to different roots. The root of a term often refers to an organ, tissue, or condition. For example, in the disorder hypertension, the prefix "hyper-" means "high" or "over", and the root word "tension" refers to pressure, so the word "hypertension" refers to abnormally high blood pressure. The roots, prefixes and suffixes are often derived from Greek or Latin, and often quite dissimilar from their English-language variants. This regular morphology means that once a reasonable number of morphemes are learnt it becomes easy to understand very precise terms assembled from these morphemes. A lot of medical language is anatomical terminology, concerning itself with the names of various parts of the body.

Basics

There are three basic parts to medical terms:

- 1- **Root:** the middle of the word and its central meaning.
- 2- **Prefix:** comes at the beginning and usually identifies some subdivision or part of the central meaning.
- 3- **Suffix:** comes at the end and modifies the central meaning as to what or who is interacting with it or what is happening to it.

Example

Myocarditis		
(prefix)	(root)	(suffix)
myo = muscle	card = heart	itis = inflammation

Prefix change:

<u>Myo</u> carditis	= muscle layer of heart inflamed
<u>Peri</u> carditis	= outer layer of heart inflamed
<u>Endo</u> carditis	= inner layer of heart inflamed

Suffix change:

Cardi <u>ologist</u>	= a physician specializing in the heart
Cardi <u>megaly</u>	= enlargement of the heart
Cardi <u>itis</u>	= inflammation of the heart

Examples of prefixes

Component	Meaning	Example
a/an	= without, none	anemia (literally no blood but means few red cells)
Micro	= small	microstomia (abnormally small mouth)
macro	= large	macrostomia (abnormally large mouth)
mega	= enlarged	megacolon (abnormally large colon)

Examples of suffixes

Component	Meaning	Example
-itis	= inflammation	Carditis
-osis	= abnormal condition	cyanosis (blue color of the skin and mucous membranes)
-ectomy	= to cut out (remove)	tonsillectomy
-otomy	= to cut into	tracheotomy (to cut into the trachea temporary opening)
-ostomy	= to make a “mouth”	colostomy (to make a permanent opening in colon)
-scopy/ -scopic	= to look, observe	colonoscopy (look into colon)
-megaly	abnormal large	Cardiomegaly
-graphy/ -graph	= recording an image	Mammography (the procedure of imaging the breasts) Mammograph (the device used in imaging the breasts)
-gram	= the image (X-ray)	Mammogram
-ology	= science	Biology
-ologist	specialize in	Cardiologist

Word roots for organs

Component	Meaning	Example
Stomato	= mouth	Stomatitis
Dento	= teeth	Dentist, dental carries
Glosso/linguo	= tongue	glossitis, lingual nerve
Gingivo	= gums	Gingivitis
Gastro	= stomach	Gastritis
Entero	= intestine	Gastroenteritis
Colo	= large intestine	colitis, megacolon
Procto	= anus/rectum	Proctitis
Hepato	= liver	hepatitis, hepatomegaly
Nephro/rene	= kidney	nephrosis, renal failure
Orchido	= testis	Orchiditis
Oophoro	= ovary	Oophoritis
Hystero/metro	=uterus	Hysterectomy, endometritis
Salpingo	= uterine tubes	Hysterosalpingogram
Dermo	= skin	Dermatitis
Masto/mammo	= breast	Mastectomy, mammography
Osteo	= bones	Osteitis
Cardio	= heart	electrocardiogram (ECG)
Cysto	= bladder	Cystitis
Rhino	= nose	rhinitis (runny nose)
Phlebo/veno	= veins	Phlebitis
Pneumo/pulmo	= lung	pneumonia, pulmonary artery
Hemo/emia	= blood	hematemesis, anemia
Encephalo	= brain	Encephalitis

Exercise 1

Choose the correct answer

1. If I haven't been brushing my teeth often enough, I may end up with bleeding from my gums, a condition called
 - hepatitis
 - colitis
 - gingivitis
 - stomatitis

2. A permanent opening in the colon is called a
 - megacolon
 - colonoscopy
 - colostomy
 - colectomy

3. A specialist in diseases of the digestive tract called a
 - cardiologist
 - pulmonologist
 - neurologist
 - gastroenterologist

4. You have just been diagnosed as having an enlarged liver. The doctor describes it as:
 - megacolon
 - hepatomegaly
 - hepatitis
 - gastroenteritis

5. An inflammation of kidneys is termed:
 - hepatitis
 - cystitis
 - proctitis
 - nephritis

6. An enlarged heart is termed:

- hepatomegaly
- cardiomegaly
- megacolon
- myocarditis

7. Removal of ovaries is called

- hysterectomy
- appendectomy
- oophorectomy
- gastrectomy

8. inflammation of uterine tubes is called

- endometritis
- salpingitis
- hepatitis
- proctitis

9. A procedure that records brain electrical activity is called:

- electrocardiography
- electroencephalography
- electromyography
- electrophoresis

10. A female patient has a special X-ray procedure of the breasts performed. The X-ray image is called a

- mammoplasty
- mammography
- mastectomy
- mammogram

Chapter 2

Odds, Ends and Directions

Odds and Ends

Technicolor terms

Component	Meaning	Example
Erythr/o	= red	erythrocytes (red cells)
Leuk/o	= white	leukocytes (white blood cells)
melan/o	= black	melanoma (black tumor of the skin)
cyan/o	= blue	cyanosis (blueness may be due to cold or not enough oxygen in blood)
xanth/o	= yellow	xanthoma (yellow tumor)

Tumor talk

Adding – oma (a swelling) to organ and tissue word roots names tumors. Tumors may be malignant (cancerous) or benign (not life-threatening).

Component	Meaning	Example
Aden/o	= gland	Adenoma
Lip/o	= fat	Lipoma
My/o	= muscle	Myoma
Lymph/o	= lymph tissue	Lymphoma

Directions

Component	meaning	Example
Endo	= inside	endoscopy (to inspect the inside of an organ or space with a lighted instrument)
Peri	= around	perianal (around the anus)
Retro	= behind	retrosternal (behind the breastbone)
Epi	= upon, on top	epidermis (the top or outermost layer of skin)
Trans	= through	transcutaneous (through the skin)
Intra	= within	intravenous (inside the veins, e.g. IV fluids)
Sub	= below	subcutaneous (below the skin)
Supra	= above	suprarenal (above the kidney)

Signs and symptoms

A symptom is something you observe and complain about to the physician e.g. headache, fever, colic, pain.

A sign is something the physician observes and/or can measure e.g. temp 39 C, blood pressure 140/90 mm hg.

Exercise 2

Choose the correct answer

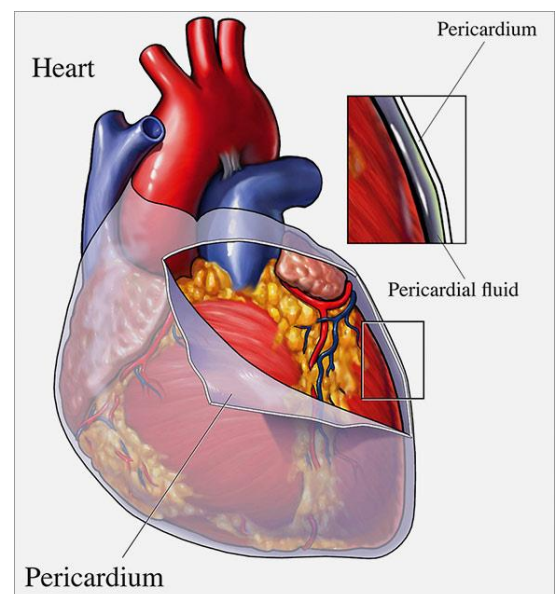
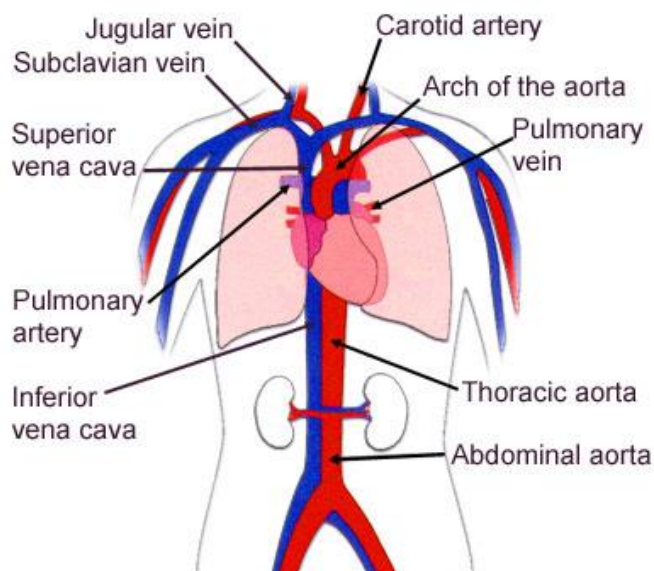
1. Leukocytes refer to:
 - ☐ red blood cells
 - ☐ white blood cells
 - ☐ pus cells
 - ☐ platelets
2. All of the followings are considered as signs except:
 - ☐ headache
 - ☐ temperature 39
 - ☐ pulse 80
 - ☐ blood pressure 130/90
3. Adenoma means tumor of:
 - ☐ lymph nodes
 - ☐ glands
 - ☐ fatty tissue
 - ☐ muscles
4. Melanoma refers to:
 - ☐ black tumor of the skin
 - ☐ yellow discoloration of skin
 - ☐ blue discoloration of skin
 - ☐ red skin
5. Intravenous fluids usually given:
 - ☐ under the skin
 - ☐ inside the veins
 - ☐ inside the muscle
 - ☐ through the skin

Chapter 3

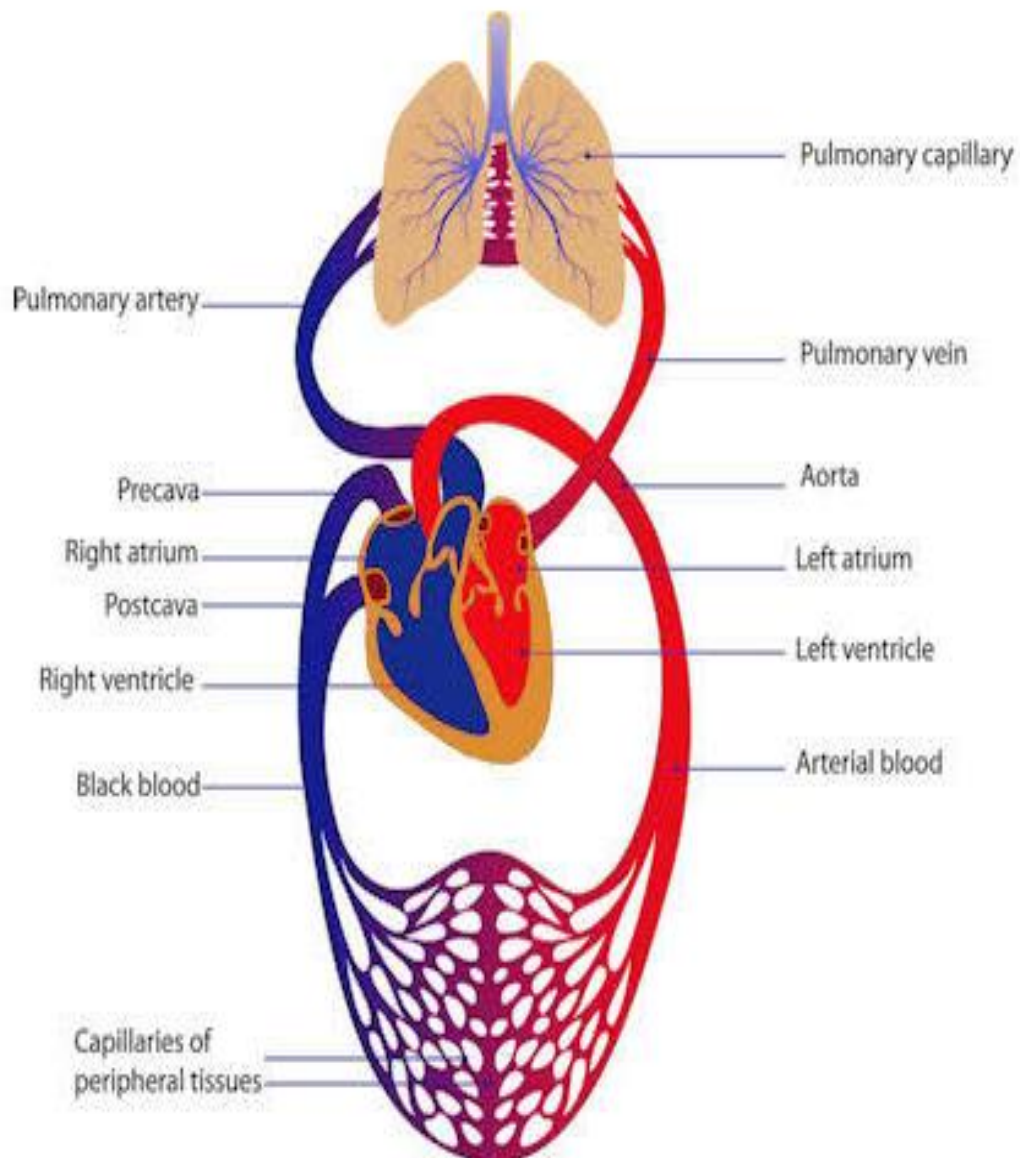
Circulatory system

Structure and Function

The **circulatory system** is a vital organ system that delivers essential substances to all cells for basic functions to occur. Also commonly known as the cardiovascular system, is a network composed of the heart as a centralized pump, **bloods vessels** that distribute blood throughout the body, and the blood itself, for transportation of different substances.



Circulation



Circulatory System Terms

component	Meaning	Example
Cardio-	Heart	Endocarditis = inflammation of the lining of the heart Myocarditis = inflammation of the cardiac muscle pericarditis = inflammation of the of the membrane surrounding the heart
Cyte-	Cell	erythrocyte = red cell.
Haem-	Blood	haematoma= a swelling filled with blood. haemorrhage = bleeding
Vas-	vessel / duct	cardiovascular = blood vessels of the heart.
Hyper-	Excessive/high	hypertension= high blood pressure.
Hypo-	deficient / below	hypotension= low blood pressure.
-penia	Deficiency	leukopenia = low levels of leukocytes.
Brady/tachy	slow/fast	Bradycardia (rate<60) tachycardia (rate>100)
Veno/phlebo	vein	phlebitis (inflammation of veins)
-stasis	to stop	Hemostasis (to stop bleeding)
-emia	blood	Hypoxemia (low oxygen), toxemia (toxins in blood), bacteremia (bacteria in blood), anemia (abnormally low levels of red blood cells).

Exercise 3

Choose the correct answer

1. Pericarditis is a term describing inflammation of
 - the inside lining of heart chambers
 - the membrane surrounding the heart
 - the muscular layer of the heart
 - the heart valves
2. A physician who specializes in diagnosis of diseases of the heart is called a
 - hematologist
 - serologist
 - pathologist
 - cardiologist
3. A recording of the electrical activity of the heart is termed
 - echocardiogram
 - cardiac scan
 - electrocardiogram
 - cardiac catheterization
4. Bradycardia is a term describing an
 - abnormally fast heart rate
 - inflammation of heart muscle
 - enlarged heart
 - abnormally slow heart rate
 - abnormally small heart
5. Which of the following cells gives the red color to the blood?
 - leucocytes
 - erythrocytes
 - melanocytes
 - platelets
6. Inflammation of veins is termed
 - lymphangitis
 - phlebitis
 - arteritis
 - angina
7. High blood pressure means:
 - Hypertension
 - Hypotension
 - Tachycardia
 - Bradycardia

8. low oxygen in blood refers to:

- Hypoxemia
- Toxemia
- hyperemia
- bacteremia

9. low levels of leukocytes refer to:

- leukemia.
- leukopenia
- leukocytosis
- erythrocytosis

10. Myocarditis means:

- inflammation of blood vessels.
- inflammation of cardiac valves.
- inflammation of cardiac muscles.
- inflammation of cardiac surroundings.

Chapter 4

Digestive system

Structure and Function

Mouth

The mouth is the beginning of the digestive tract; and, in fact, digestion starts here when taking the first bite of food.

Esophagus

during swallowing, the esophagus delivers food to the stomach.

Stomach

The stomach is a hollow organ, or "container," that holds food while it is being mixed with enzymes that continue the process of breaking down food into a usable form.

Small intestine

mainly responsible for absorption of nutrients into the bloodstream.

Pancreas

The pancreas secretes digestive enzymes into the duodenum, the first segment of the small intestine.

Liver

the liver is the body's chemical "factory." It takes the raw materials absorbed by the intestine and makes all the various chemicals the body needs to function.

Gallbladder

The gallbladder stores and concentrates bile, and then releases it into the duodenum to help absorb and digest fats.

Colon (large intestine)

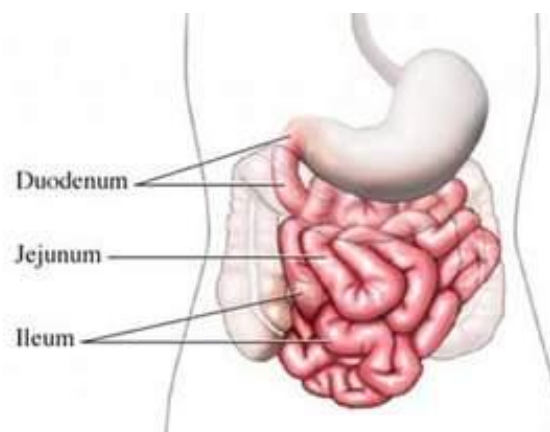
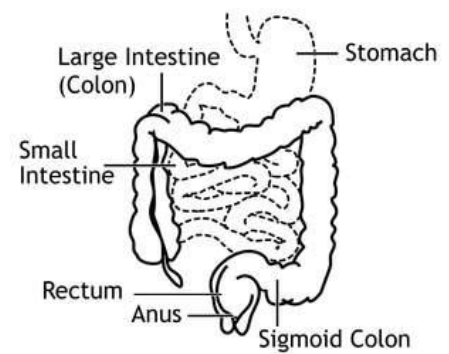
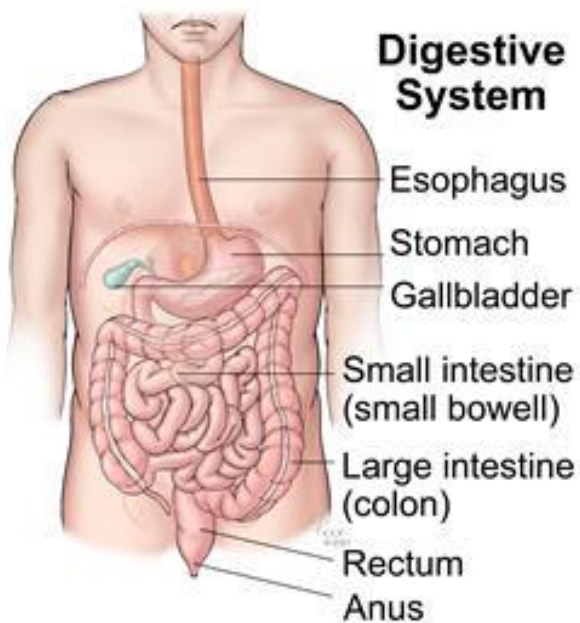
The large intestine is a highly specialized organ that is responsible for processing waste so that emptying the bowels is easy and convenient.

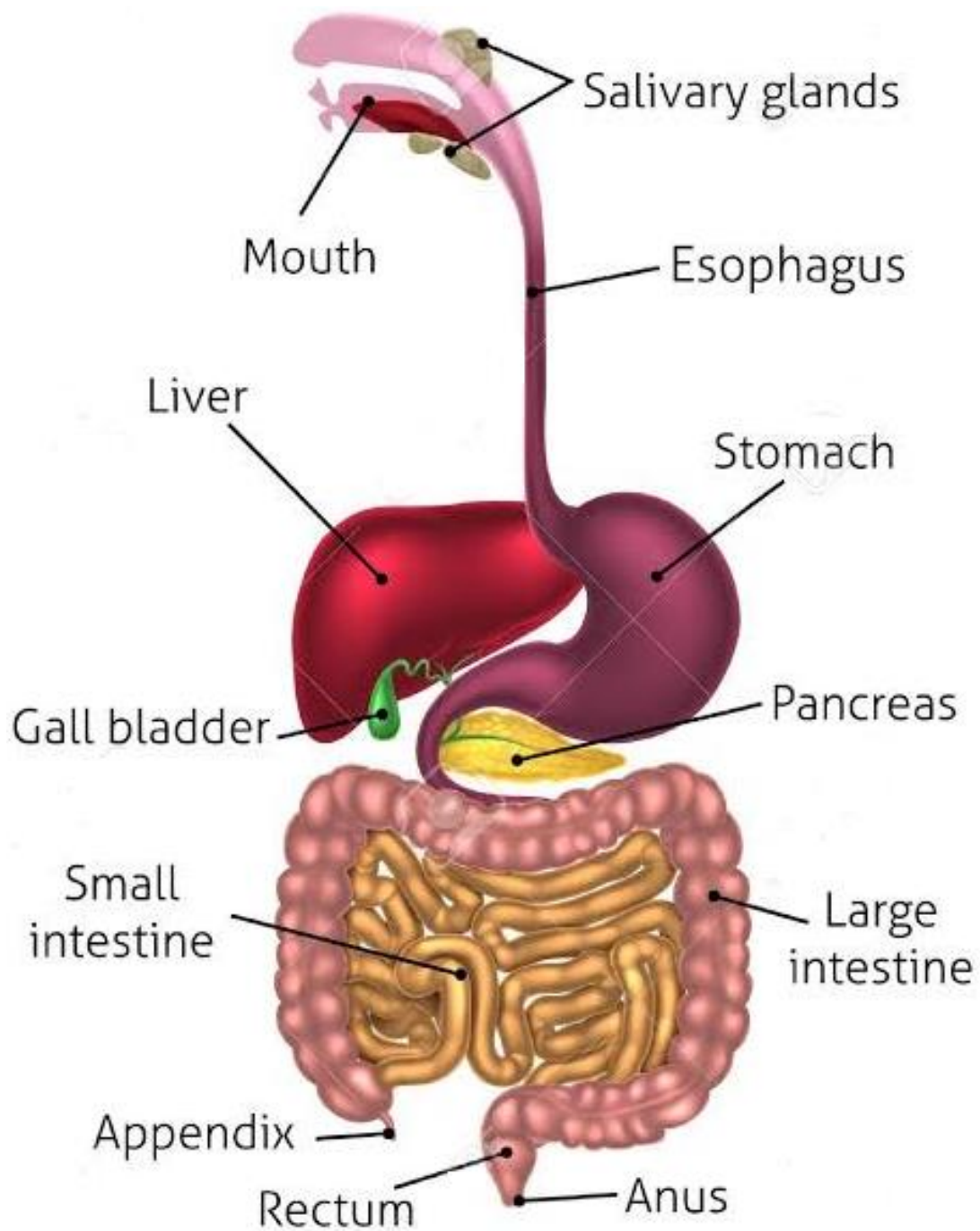
Rectum

The rectum (Latin for "straight") is a chamber that connects the colon to the anus.

Anus

The anus is the last part of the digestive tract. contents.





Digestive System

Digestive System Terms

component	Meaning	Example
Gastr/o	Stomach	Gastritis, Gastrectomy
Hepat/o	Liver	Hepatitis (inflammation of), hepatoma (tumor of)
Chol/e	Gall, bile	Cholecystitis, cholecystectomy (inflammation of, removal of gallbladder)
Cyst/o	Bladder, sac	Cystitis
Emes/o	Vomit	Emesis (vomiting), emetic (stimulating vomiting), antiemetic (stopping vomiting)
Lapar/o	Abdominal wall	Laparotomy (cutting into the abdomen)
-rrhea	Flow, discharge	Diarrhea
-phagia	Ingestion/ swallowing	Dysphagia (difficult painful swallowing)
-itis	inflammation	<p>Peritonitis (Inflammation of the lining of the abdominal cavity)</p> <p>Pharyngitis (Inflammation of the pharynx)</p> <p>Oesophagitis ((Inflammation of the Oesophagus)</p> <p>Gastritis (Inflammation of the stomach)</p> <p>Hepatitis (Inflammation of the liver)</p>

Exercise 4

Choose the correct answer

1. An emetic drug would have which of the following actions?
 - Stop bleeding
 - Induce vomiting
 - Stop vomiting
 - Stop diarrhea
2. Stomatitis means inflammation of
 - mouth
 - colon
 - rectum
 - stomach
2. Dysphagia is a term describing difficult, painful or abnormal
 - passing of stool
 - emptying of the stomach
 - swallowing
 - passing gas (flatulence)
4. Inflammation of stomach is called
 - hepatitis
 - colitis
 - stomatitis
 - gastritis
5. Surgical removal of an inflamed gallbladder is termed
 - gastrectomy
 - cystectomy
 - cholecystectomy
 - cholecystitis
6. Diarrhea is a term describing:
 - difficult breathing
 - painful menstruation
 - difficult painful swallowing
 - passage of frequent loose stool

7. jaundice refers to:

- blue coloration of the skin
- red coloration of the skin
- yellow coloration of the skin
- pale facies

8. Tumor of the liver is called:

- hematoma
- hepatoma
- hepatitis
- hepatomegaly

9. Glossitis means inflammation of:

- Oesophagus
- Pharynx
- Tongue
- Gums

10. Colitis means inflammation of:

- Small intestine
- Large intestine
- Duodenum
- Pancreas

Chapter 5

Respiratory System

Structure and Function

The respiratory system is the system in the human body that enables us to breathe.

The act of breathing includes: inhaling and exhaling air in the body; the absorption of oxygen from the air in order to produce energy; the discharge of carbon dioxide, which is the byproduct of the process. The respiratory system is divided into two parts:

Upper respiratory tract:

This includes the nose, mouth, and the beginning of the trachea (the section that takes air in and lets it out).

Lower respiratory tract:

This includes the trachea, the bronchi, bronchioles and the lungs (the act of breathing takes place in this part of the system).

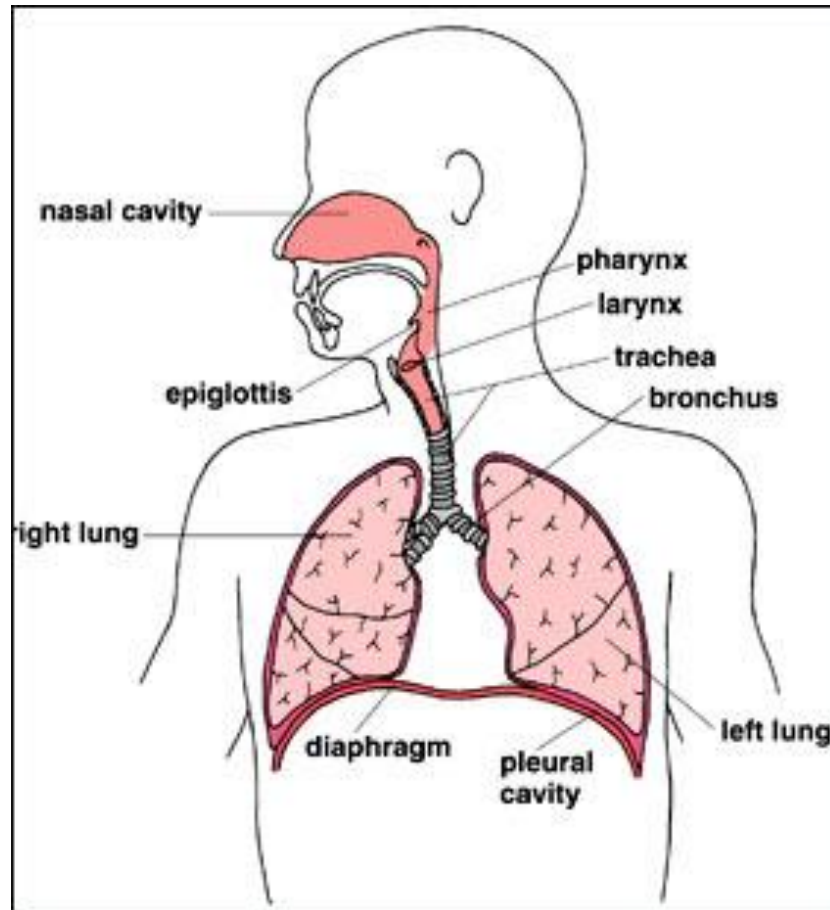
The organs of the lower respiratory tract are located in the chest cavity. They are delineated and protected by the rib cage, the chest bone (sternum), and the muscles between the ribs and the diaphragm (that constitute a muscular partition between the chest and the abdominal cavity).

The trachea – the tube connecting the throat to the bronchi.

The bronchi – the trachea divides into two bronchi (tubes). One leads to the left lung, the other to the right lung. Inside the lungs each of the bronchi divides into smaller bronchi.

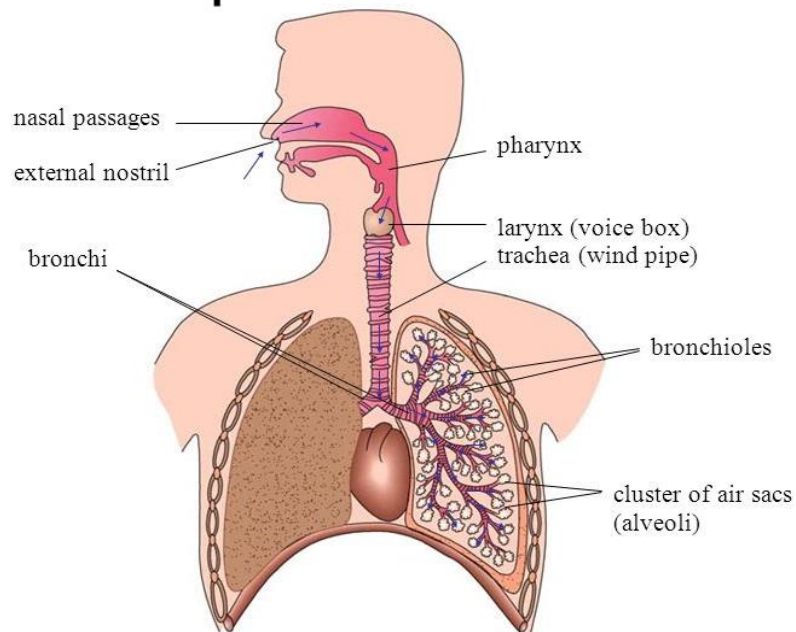
The bronchioles - the bronchi branch off into smaller tubes called bronchioles which end in the pulmonary alveolus.

Pulmonary alveoli – tiny sacs (air sacs) delineated by a single-layer membrane with blood capillaries at the other end.



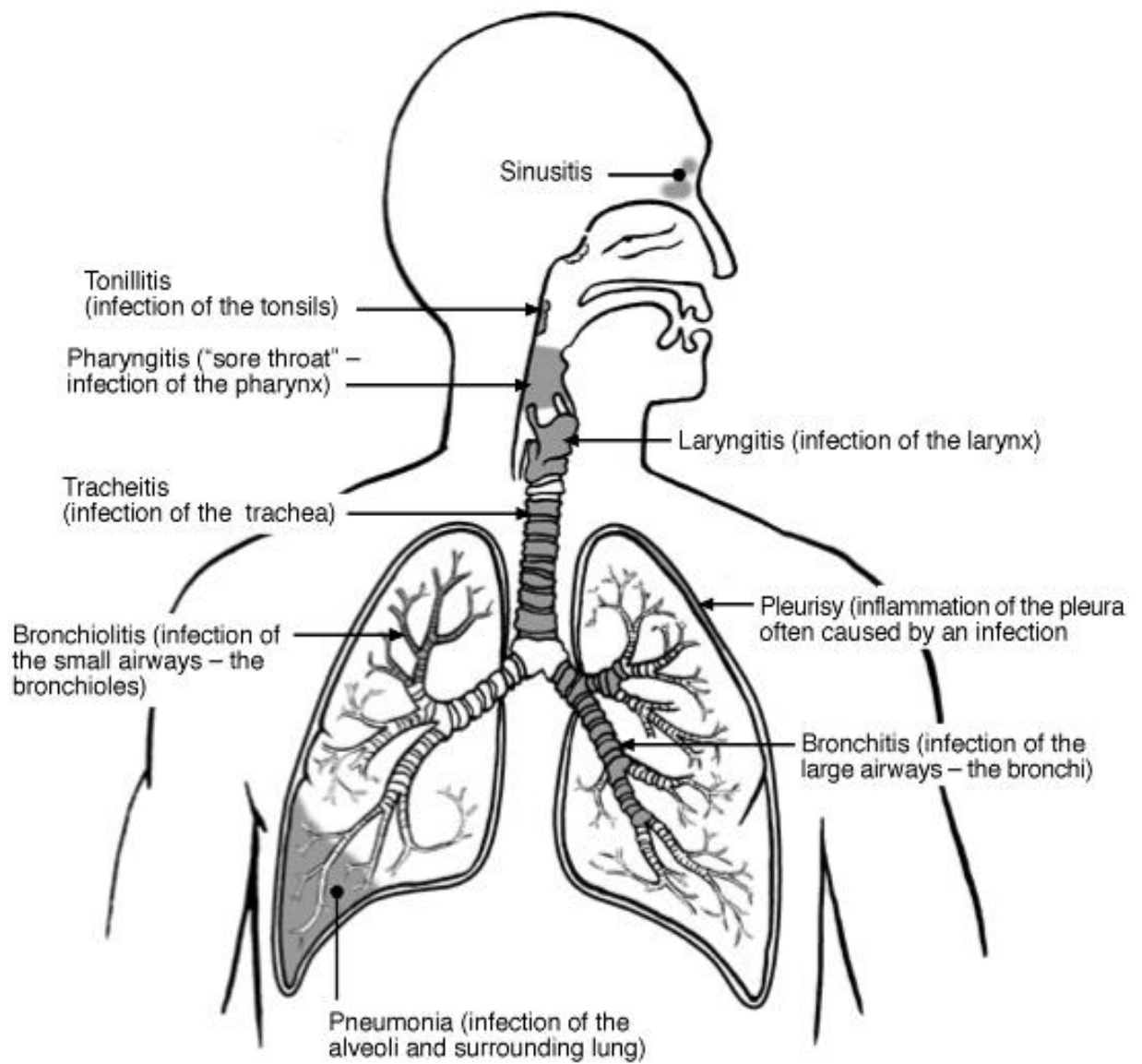
Respiration

Atmosphere
 ↓
 external nostril
 ↓
 nasal passages
 ↓
 pharynx
 ↓
 larynx
 ↓
 trachea
 ↓
 bronchi
 ↓
 bronchioles
 ↓
 Alveoli



Respiratory system terms

component	Meaning	Example
Rhin/o	Nose	Rhinitis, rhinorrhea (inflammation of and “runny” nose)
Laryng/o	Larynx, “voice box”*	Laryngotomy, Laryngectomy (cutting into, surgically removing the larynx), laryngitis
Trache/o	Trachea, “windpipe”	Tracheotomy, tracheostomy (temporary and permanent openings), Tracheitis
Bronch/o	Lung air passageways	Bronchoscopy (looking into the bronchi), bronchitis
Pne/u, -pnea	Breath, air, lung	Tachypnea, dyspnea, apnea (accelerated, difficult/painful, cessation of breathing), pneumonia
Pulmo/o	Lung	Pulmonary artery
-ptysis	Spitting (coughing)	Hemoptysis (spitting or coughing up blood from lungs)



Infections of the respiratory tract

Exercise 5

Choose the correct answer

1. A faster than normal respiratory rate of breathing is termed
 - ☐ dyspnea
 - ☐ apnea
 - ☐ tachypnea
 - ☐ pleurisy

2. Hemoptysis is a term describing
 - ☐ a bloody nose
 - ☐ bleeding from the gums
 - ☐ blood in the chest cavity
 - ☐ coughing up blood from the lungs

3. Patients with pneumonia often have difficult breath. The term for this is
 - ☐ tachycardia
 - ☐ dyspnea
 - ☐ apnea
 - ☐ bradycardia

4. Epistaxis is the term for
 - ☐ a collapsed lung
 - ☐ a nosebleed
 - ☐ uncontrollable sneezing
 - ☐ coughing up blood from the lungs

5. Bronchitis means
 - ☐ Inflammation of trachea
 - ☐ Inflammation of larynx
 - ☐ Coughing up blood
 - ☐ Running nose

6. Larynx is a part of:

- ☐ digestive system
- ☐ respiratory system
- ☐ nervous system
- ☐ Urinary system

7. All of the followings are symptoms of respiratory system diseases except:

- ☐ diarrhea
- ☐ cough
- ☐ dyspnea
- ☐ Chest pain

8 The membrane surrounding lungs is called:

- ☐ Pericardium
- ☐ Peritoneum
- ☐ pleura
- ☐ omentum

9. Pneumonia means:

- ☐ inflammation of trachea
- ☐ inflammation of peritoneum
- ☐ inflammation of lung
- ☐ inflammation of pericardium

10. Rhinitis means:

- ☐ bloody nose
- ☐ running nose
- ☐ inflammation of nasal sinuses
- ☐ inflammation of alveoli

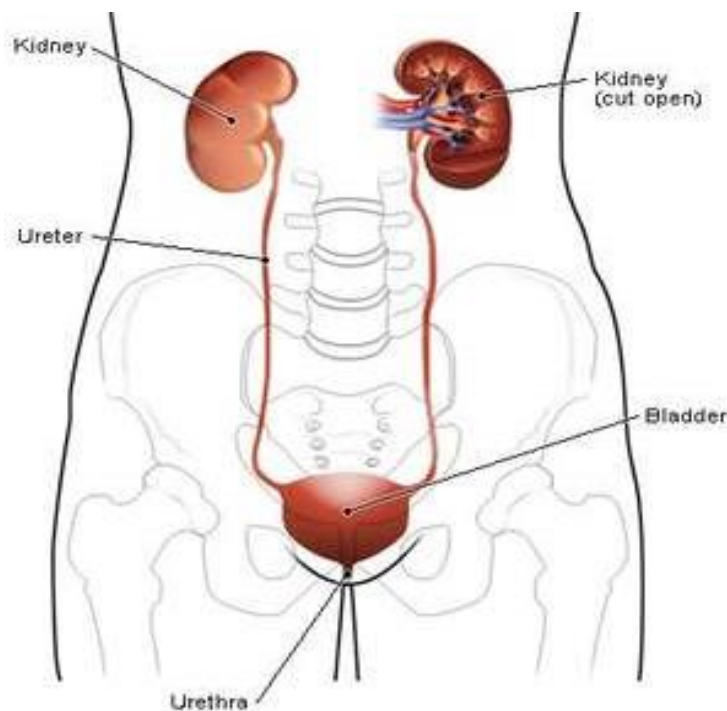
Chapter 6

Urinary System

Structure and Function

The kidneys, ureters, bladder, and urethra are the primary structures of the urinary system. They filter blood and remove waste from the body in the form of urine.

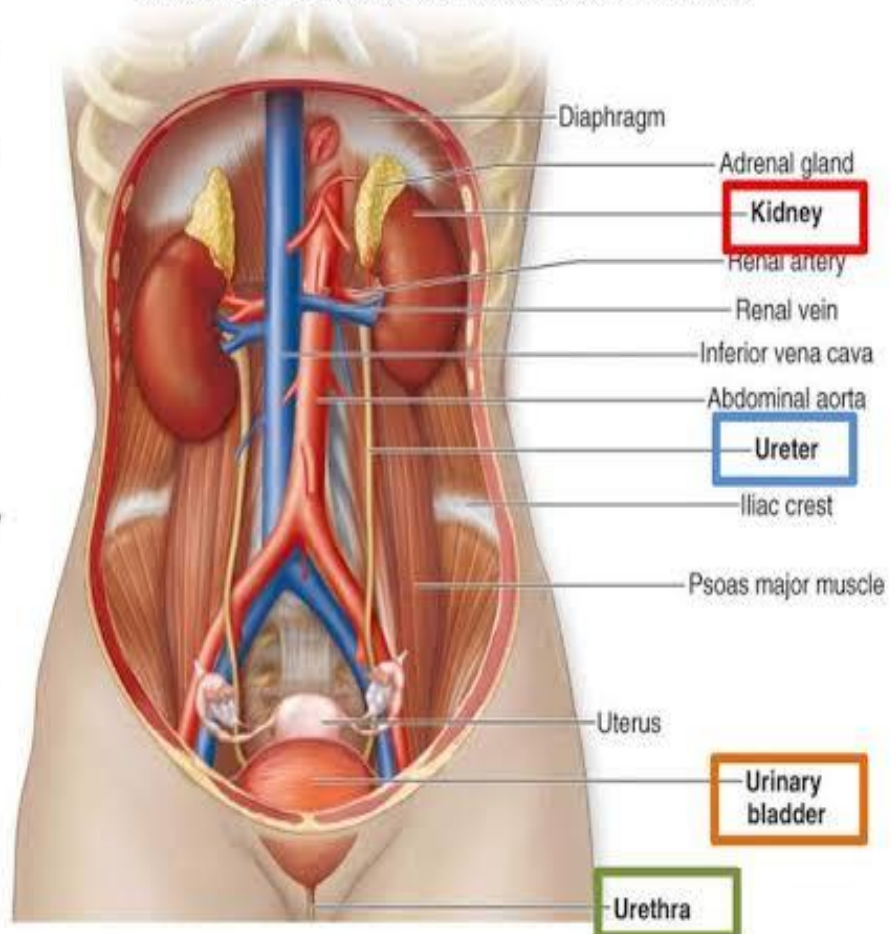
1. **Kidneys** Filter Blood at the Top of the Urinary System. Nephrons are the Basic Functional Units of Blood Filtration and Urine Production
2. **The Ureters** Move Urine from the Kidneys to the Bladder
3. **Urinary bladder acts as an internal storage for urine.** Urine flows into the bladder via the ureteral orifices and out through the internal sphincter. Micturition, or urination, is the act of emptying the bladder by external urethral sphincter relaxation permitting urine to flow through the urethra and outside the body.



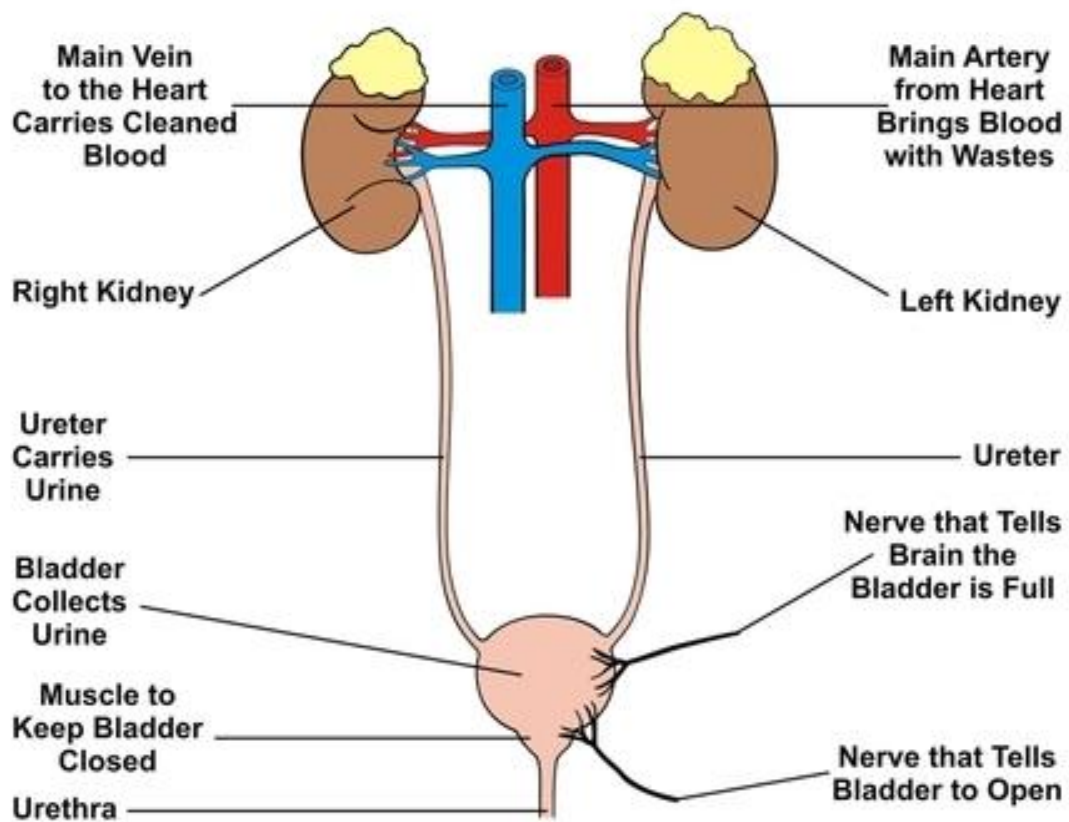
The Urinary System

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- The **Kidneys** do most of the work of the urinary system, while other parts serve as passageways or storage organs
- The **ureter** transport urine from the kidneys to the urinary bladder.
- The **urinary bladder** stores urine.
- The **urethra** discharges urine from the body.



URINARY SYSTEM



Urinary system terms

Component	Meaning	Example
Nephr/o, ren/o	Kidney	Nephritis, renal failure
Hydro/o	Water	Hydronephrosis (abnormal condition involving back up of urine into the kidney)
Cyst/o	Bladder	Cystitis, cystectomy (inflammation of, removal of bladder)
Pyel/o	Renal collecting ducts	Pyelogram (X-ray of the collecting ducts)
Ur/o, -uria	Urine	Hematuria (blood in urine) anuria (no urine formation) Nocturia (frequently getting up and urinating during the night).
Olig/o	Scanty, less than normal	Oliguria (reduced urine formation)
Poly	Frequent, more than normal	Polyuria (frequent urination)

Other Urinary System Diseases

Urethritis – inflammation of the urethra, the final pathway for urine in both sexes, and the common pathway for urine and semen in the male.

Renal calculi – kidney stones

Ureteric stenosis – narrow ureter

Stone ureter and stone bladder

Enuresis – involuntary release of urine, most often in reference to “bedwetting.”

Exercise 6

Choose the correct answer

1. Abnormal frequent urination with increased urine volume is termed:

- ☐ polyuria
- ☐ oliguria
- ☐ anuria
- ☐ enuresis

2. Kidney inflammation is termed

- ☐ hydronephrosis
- ☐ nephritis
- ☐ renal stone
- ☐ cystitis

3. A specialist in diseases of the kidney is called:

- ☐ nephrologist
- ☐ gastroenterologist
- ☐ proctologist
- ☐ serologist

4. The presence of blood in urine is termed:

- ☐ hematemesis
- ☐ hematuria
- ☐ pyuria
- ☐ melena

4. The term for scanty or less than normal urine formation is

- ☐ anuria
- ☐ enuresis
- ☐ oliguria

5. polyuriaA procedure that allows a physician to look into the bladder and examine its interior is termed a

- ☐ cystoscopy
- ☐ cystogram
- ☐ gastroscopy
- ☐ coloscopy

6. Surgical removal of a kidney is termed:

- nephropexy
- nephrectomy
- appendectomy
- hysterectomy

7. Absence of urine formation is termed:

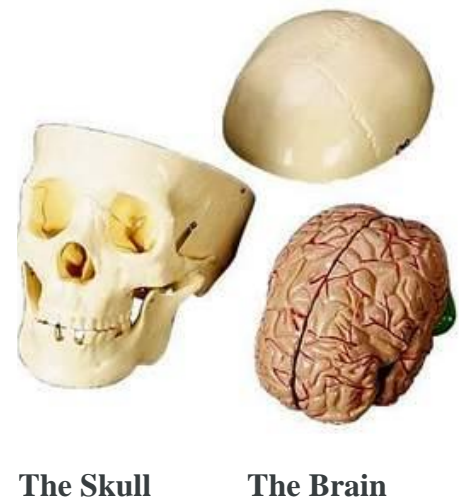
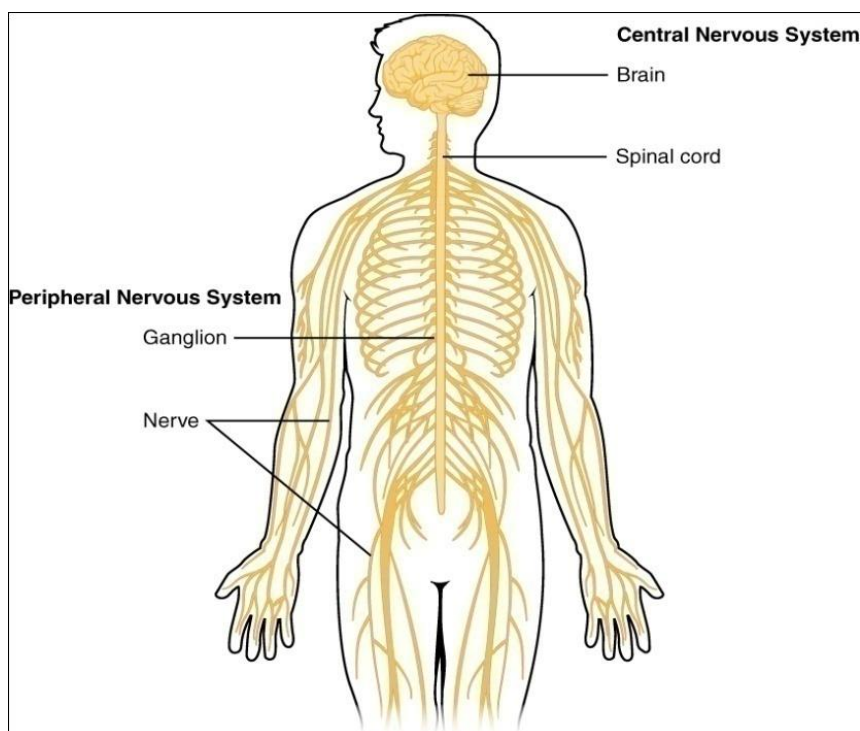
- oliguria
- polyuria
- anuria
- hematuria

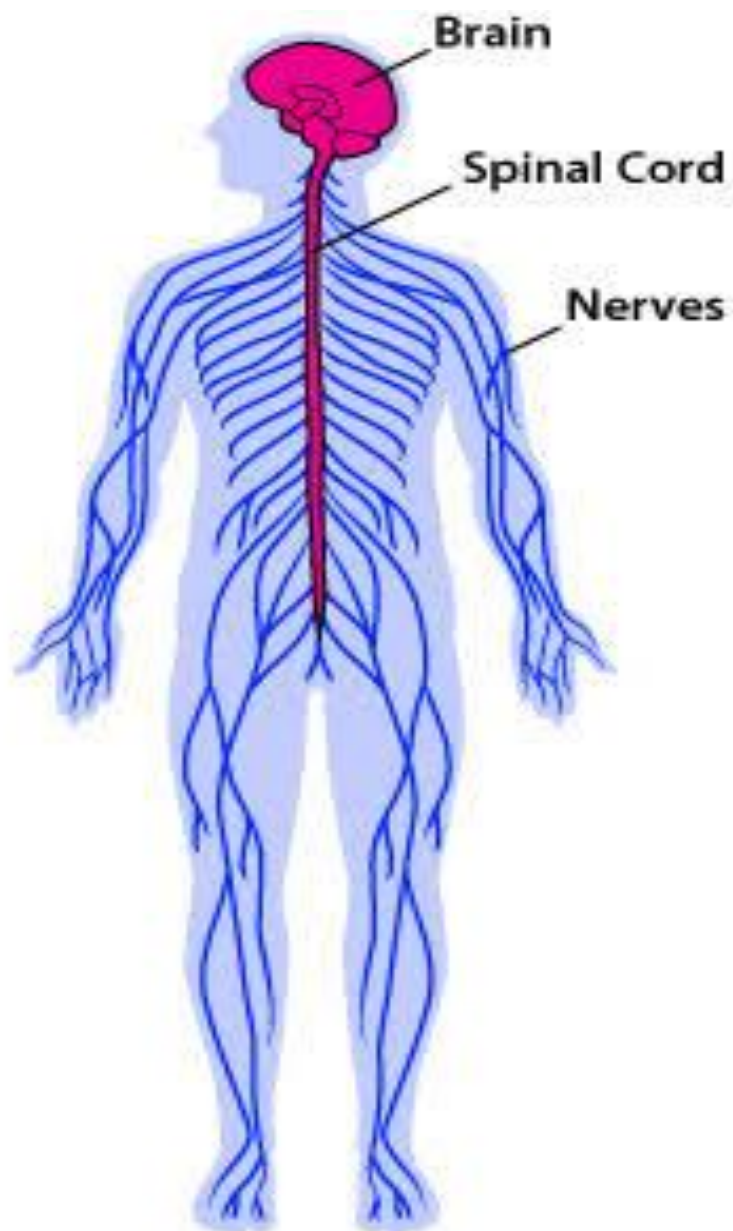
Chapter 7

Nervous System

Structure and Function

The nervous system can be divided into two major regions: the central and peripheral nervous systems. The **central nervous system (CNS)** is the brain and spinal cord, and the **peripheral nervous system (PNS)** is everything else. The brain is contained within the cranial cavity of the skull, and the spinal cord is contained within the vertebral cavity of the vertebral column. the CNS is what is inside these two cavities and the peripheral nervous system is outside of them.





- Central Nervous System (CNS)
- Peripheral Nervous System (PNS)

Nervous System Terms

component	Meaning	Example
Crani-	Skull	cranial nerves
Cephal-	Head	Cephalgia (a headache)
Encephal/	Inside the head (brain)	Encephalitis (inflammation of the brain)
MENING-	Membrane	meningitis = inflammation of the membranes of the brain and spinal chord
NEUR-	Nerve	Neuron
-pathy	Disease, abnormality	Encephalopathy (disease of the brain) Neuropathy (disease of the nerves)
-gram	Record	electroencephalogram (EEG) = brain scan
-plasia	Development, formation, growth	Aplasia (no development) Hyperplasia (over development)
-plegia	Paralysis	Hemiplegia (paralysis of one side of the body) Quadriplegia (paralysis of all four limbs)

Exercise 7

Choose the correct answer

1. Encephalitis means:

- inflammation of the membranes around the brain
- inflammation of the spinal cord
- inflammation of the brain
- nerve disease

2. Meningitis refers to

- inflammation of the brain
- inflammation of the membranes around the brain
- inflammation of the spinal cord
- a sensation of itchiness of the scalp

3. Neuropathy is a term describing

- a specialist in diseases of the nervous system
- inflammation of the membranes surrounding the brain
- a noninflammatory disease of nerves
- absence of a brain at birth

4. A tumor of the protective membranes surrounding the brain and spinal cord is called a/an

- neuroma
- encephalocele
- myeloma
- meningioma

5. Hemiplegia means:

- paralysis of all four limbs
- paralysis of one side of the body
- nerve inflammation
- Brain inflammation

Chapter 8

Musculoskeletal System

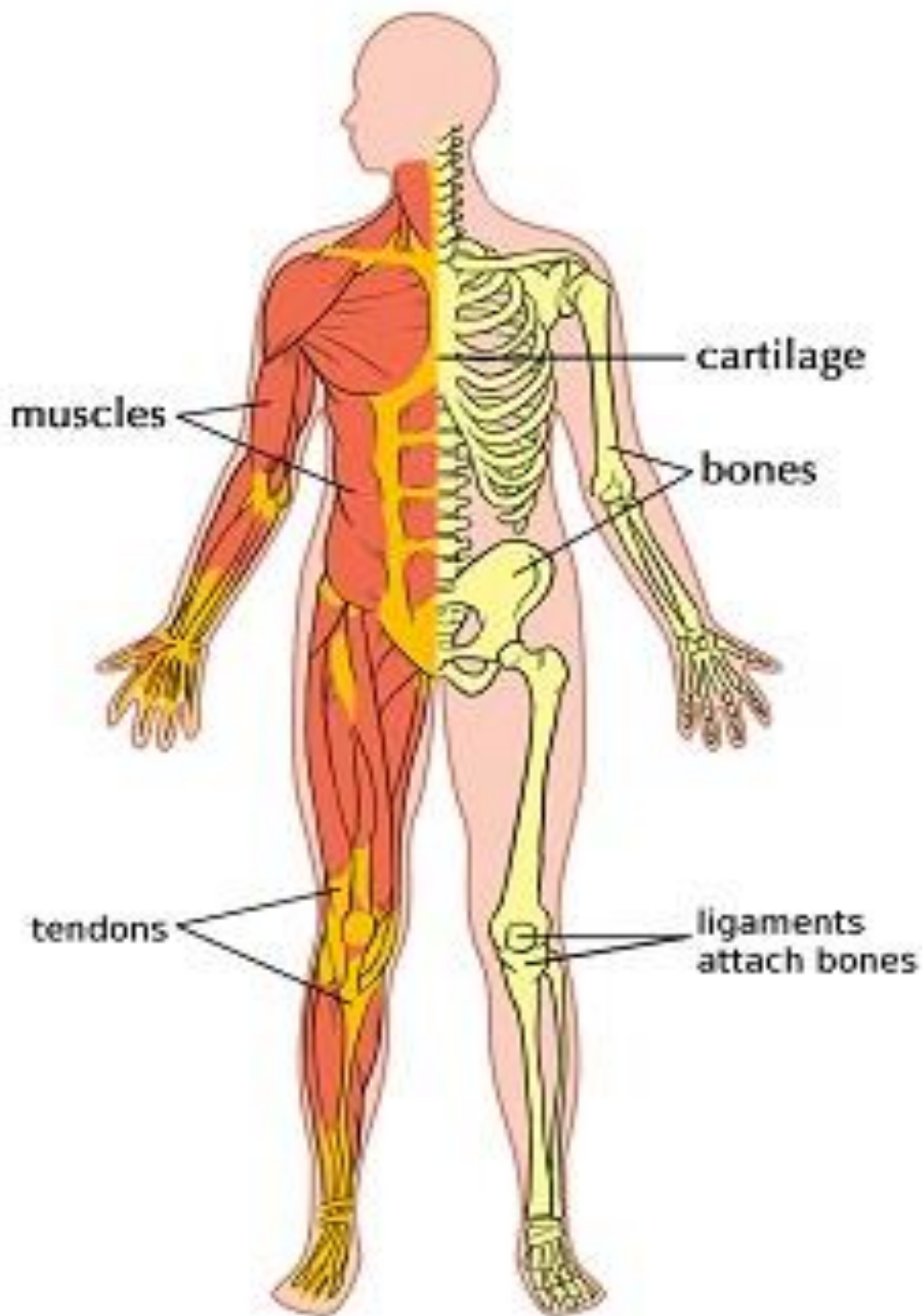
Structure and Function

The skeletal system includes the bones of the skeleton and the cartilages, ligaments, and other connective tissue that stabilize or connect the bones. In addition to supporting the weight of the body, bones work together with muscles to maintain body position and to produce controlled, precise movements. Without the skeleton to pull against, contracting muscle fibers could not make us sit, stand, walk, or run.

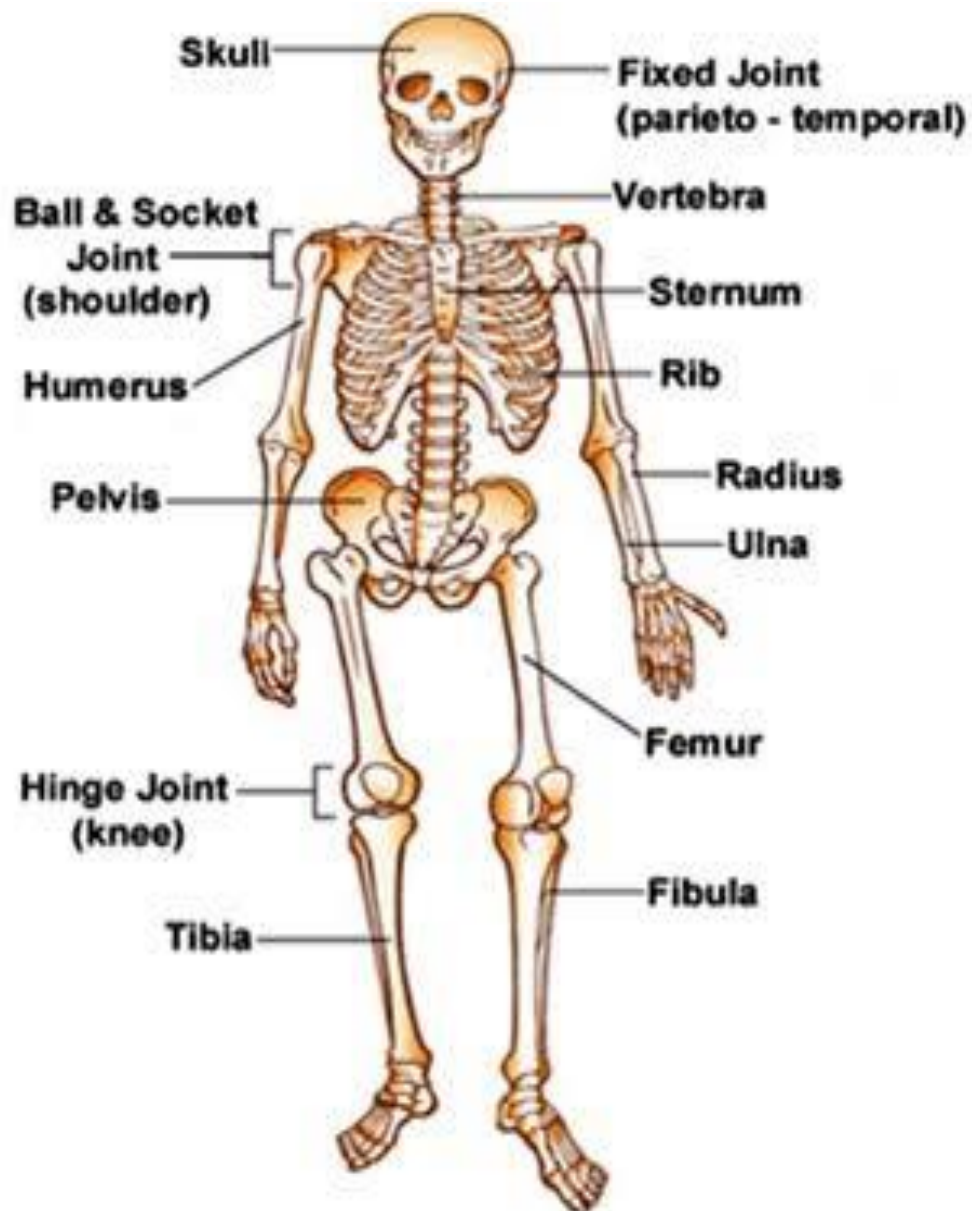
Musculoskeletal System Terms

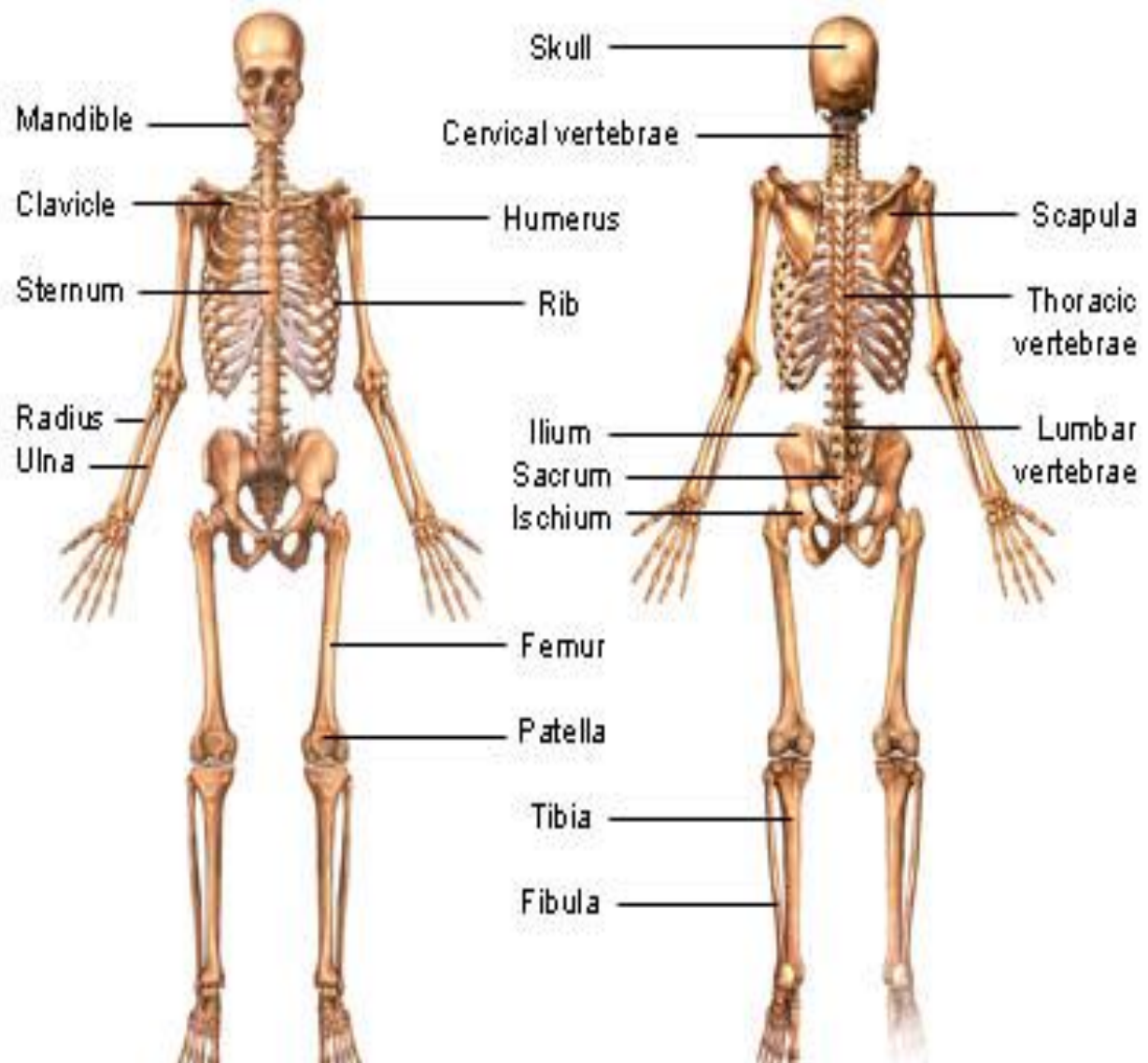
Component	Meaning	Example
Oste/o	Bone	Osteitis, osteoma, osteocyte
Chondr/o	Cartilage	Chondritis, chondroma, chondrocyte
Arthr/o	Joint	Arthritis
Myel/o	Bone marrow	Myeloma
Ten/o,	Tendon (binds muscle to bone)	Tendonitis
Ligament/o	Ligament (binds bone to bone)	Ligamentous injury
My/o, myos/o	Muscle	Myoma, myositis
-malacia	Softening	Osteomalacia, chondromalacia
-asthenia	Weakness, loss of strength	Myasthenia gravis
-trophy	Development, stimulation, maintenance	Atrophy (shriveling of muscles), hypertrophy (increase in size and strength of muscles)
-algia, algesia	Pain	Myalgia, arthralgia, analgesia (relief pain)

Musculoskeletal System



Skeleton





Exercise 8

Choose the correct answer

1. Arthroplasty describes
 - visualization of the interior of a joint
 - inflammation of a joint
 - surgical reconstruction of a joint
 - abnormal development of a joint
2. Soft, rubbery bones due to inadequate calcium deposition related to vitamin D deficiency would be termed
 - osteitis
 - osteomyelitis
 - osteomalacia
 - myeloma
3. The term for painful, aching muscles is
 - neuralgia
 - myalgia
 - arthralgia
 - cephalgia
4. Myasthenia gravis involves
 - inflammation of muscles
 - severe muscular weakness
 - inflammation of joints
 - paralysis of muscles
5. When weight-lifters exercise regularly their muscles become stronger and the increase in muscular size is due to
 - atrophy
 - dystrophy
 - myositis
 - hypertrophy
6. Chondrocytes are cells found in
 - bones
 - bone marrow
 - cartilage
 - blood
7. A bone marrow tumor is termed
 - osteitis
 - osteoma
 - myoma
 - myeloma

8. Arthritis refers to inflammation of:

- bones
- joints
- ligament
- muscles

9. Osteoma means:

- bone inflammation
- joint inflammation
- muscle tumor
- bone tumor

10. Analgesic drug is a medicine given to a patient to

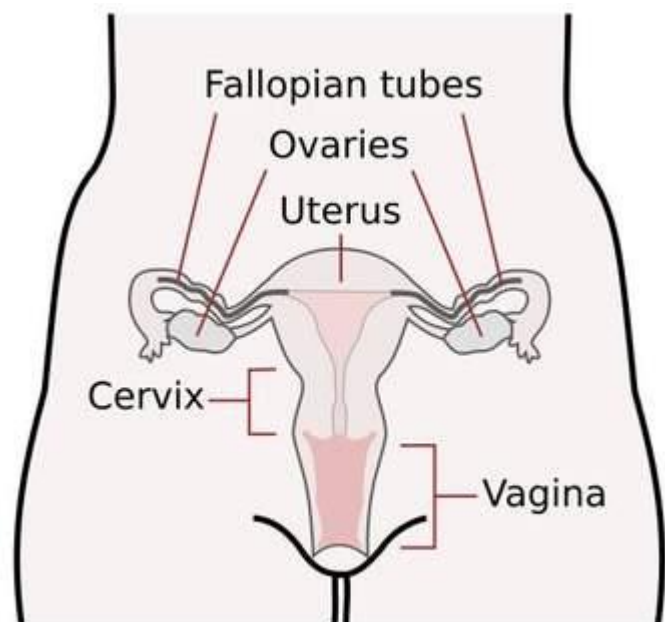
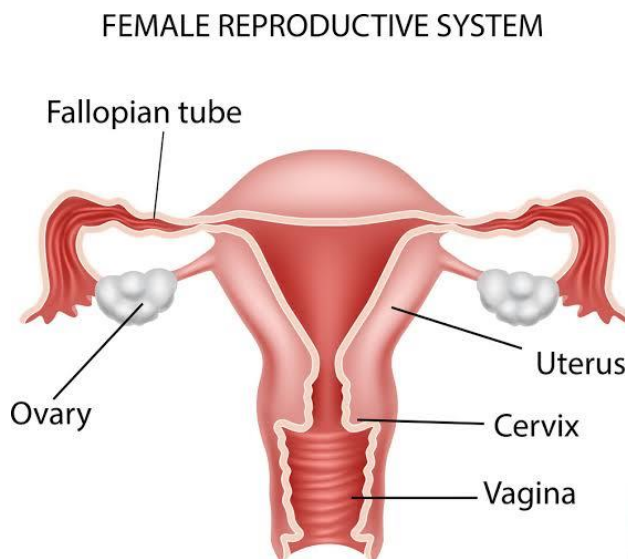
- relief pain
- decrease blood sugar
- accelerate heart beats
- decelerate heart beats

Chapter 9

Female Reproductive System

Structure and Function

The female reproductive system includes the ovaries, fallopian tubes, uterus, vagina, vulva, mammary glands and breasts. These organs are involved in the production and transportation of gametes and the production of sex hormones. The female reproductive system also facilitates the fertilization of ova by sperm and supports the development of offspring during pregnancy and infancy.



Female reproductive system terms

Component	Meaning	Example
Hyster/o, metr/	Uterus	Hysterectomy, endometritis (inflammation of the lining of uterus)
Salping/o, -salpinx	Uterine tube	Salpingitis, hematosalpinx (blood in the uterine tube)
Colp/o	Vagina	Colporrhaphy (suturing a tear), colposcopy (viewing the interior)
Oophor/o	Ovary	Oophorectomy, Oopheritis
Men/o	Menstruation	dysmenorrhea (painful menstruation) menorrhagia (excessive menstruation)
Mamm/o, mast/o	Breast	Mammogram, mastectomy
Gyne-	women related	Gynecology
natal	Labor	Antenatal (before labor) Postnatal (after labor)

Exercise 9

Choose the correct answer:

1. Hematosalpinx is a term describing

- inflammation of the uterus
- blood in a uterine tube
- blood in the uterus
- blood in the abdomen

2. Surgical removal of the ovary is called:

- hysterectomy
- orchidectomy
- appendectomy
- oophorectomy

3. A hysterosalpingo-oophorectomy is the term for surgical removal of the

- uterus
- uterus and uterine tubes
- uterus, uterine tubes and ovaries
- ovaries

4. Oligomenorrhea refers to

- painful menstruation
- cessation of regular menstrual periods
- scanty, less than normal menstrual flow
- abnormally heavy menstrual flow

5. Abnormally heavy menstrual flow is called:

- dysmenorrhea
- menorrhagia
- menopause
- Amenorrhea

6. Gynecology is the science related to:

- Males
- Females
- Children
- Adults

7. Mastectomy refers to:

- Inflammation of breast
- Inflammation of uterus
- removal of the uterus
- removal of the breast

8. Antenatal care is the care given to women:

- after labor
- before labor
- before pregnancy
- none of the above

9. Inflammation of the lining of uterus is termed:

- salpingitis
- oophoritis
- endometritis
- vaginitis

10. Fallopian tube is a part of:

- digestive system
- female genital system
- male genital system
- musculoskeletal system

Chapter 10

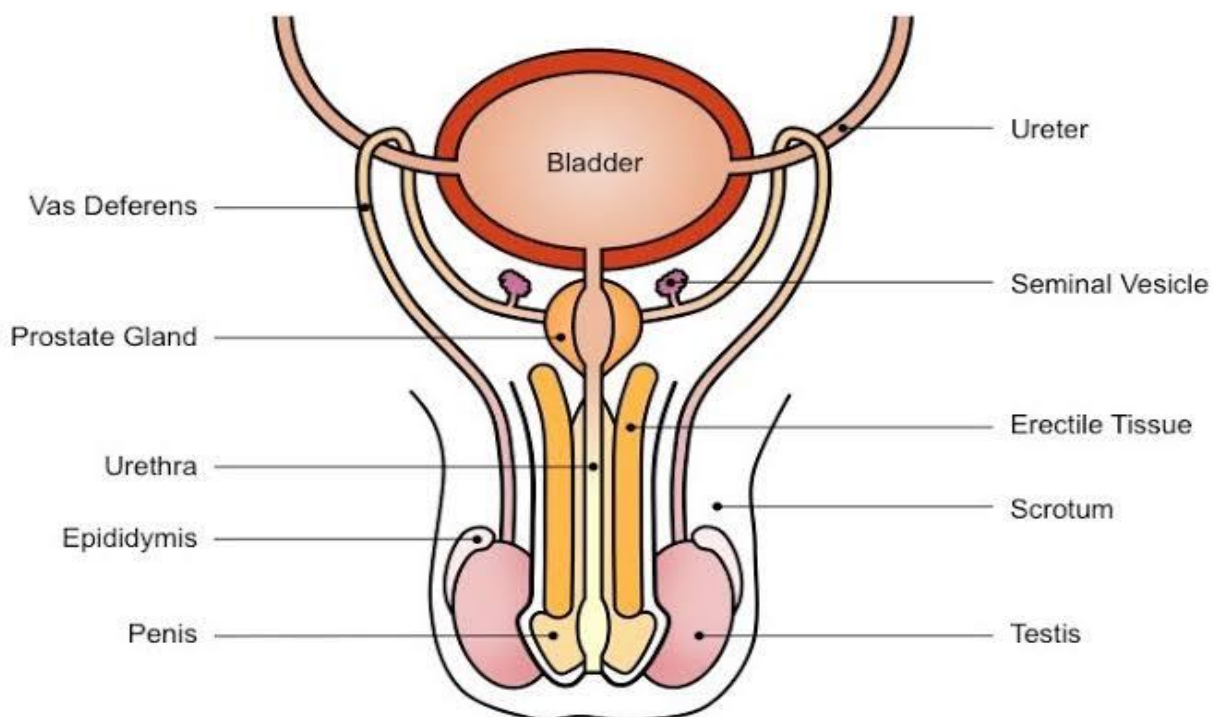
Male Reproductive System

Structure and Function

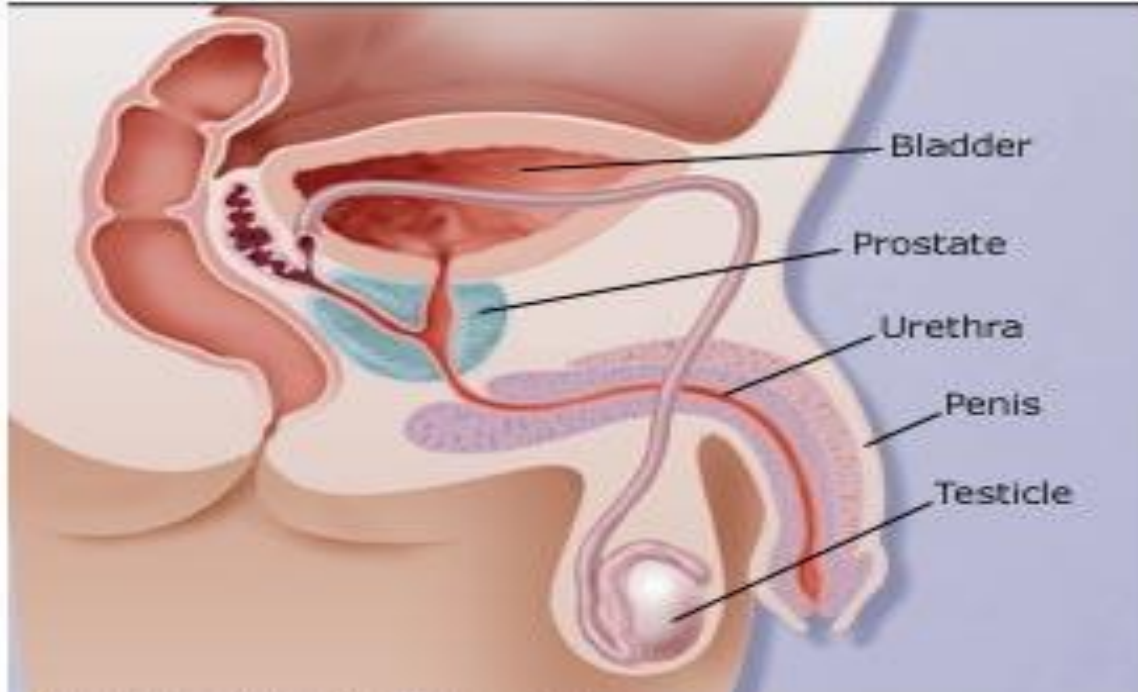
Unlike the female reproductive system, most of the male reproductive system is located outside of the body. These external structures include the penis, scrotum, and testicles.

The purpose of the organs of the male reproductive system is to perform the following functions:

- To produce, maintain, and transport sperm (the male reproductive cells) and protective fluid (semen)
- To discharge sperm within the female reproductive tract during sex
- To produce and secrete male sex hormones responsible for maintaining the male reproductive system



Male Reproductive System



Male reproductive system terms

Component	Meaning	Example
Orchid/o, test/o	Testes (male gonad) *	Orchiditis, orchidectomy, testicular artery, testosterone (male sex hormone)
Andr/o	Male	Androgenic (stimulating maleness)
Prostat/o	Prostate	Prostatitis, prostatectomy
Vas/o	Vessel, duct	Vas deferens, vasectomy (duct carrying semen from testes, cutting the duct)

Exercise 10

Choose the correct answer:

1. Cancer of the testicle usually requires its surgical removal. This procedure is termed
 - orchidectomy
 - orchidoplasty
 - orchidopexy
 - orchiditis
2. Inflammation of the testis is termed
 - oophoritis
 - salpingitis
 - orchiditis
 - epididymitis
3. Prostate is a part of:
 - respiratory system
 - male reproductive system
 - female reproductive system
 - digestive system
4. cutting the duct carrying semen from testes is termed:
 - vasectomy
 - mastectomy
 - hysterectomy
 - salpingectomy
5. The male reproductive cells are called:
 - erythrocytes
 - leukocytes
 - ova
 - sperms