Class / Second



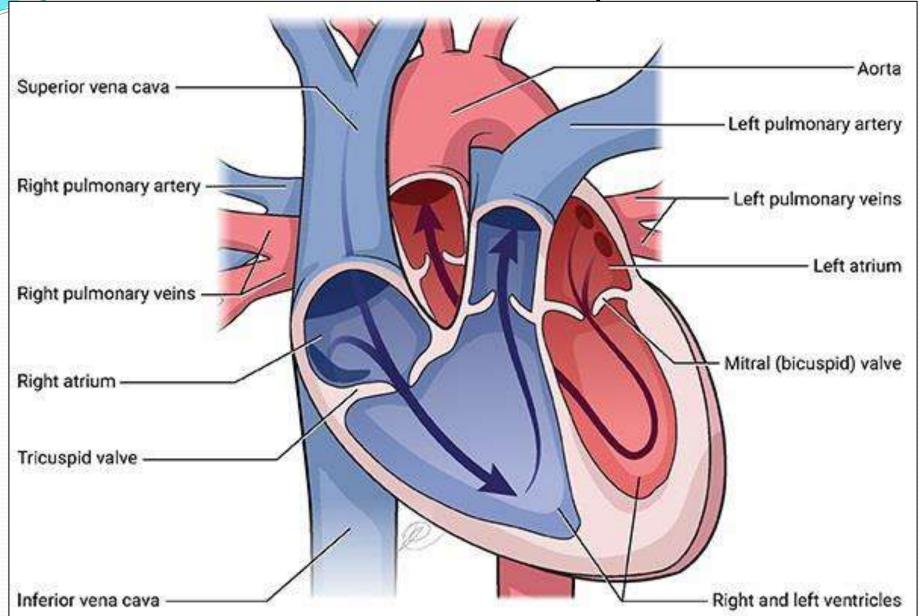
Subject name / Cardiovascular System Asst . Lecturer . Ahmed Subhi Ali

قسم: تقنيات التخدير

كلية النور الجامعة

thursday 3/3/2022

Cardiovascular System



Term	Analysis	Meaning
Card/o	Root	Heart
Aort/o	Root	Aorta
Atri/o	Root	Atrium
Valv/o , valvul/o	Root	Valve
Ventricul/o	Root	Ventricle
Peri-	Prefix	Around, surrounding
My/o	Root	Muscle
Endo-	Prefix	Inner, inside
Brady-	Prefix	Slow

Tachy-	Prefix	Fast
Corona	From the Latin word for "crown"	"coronary" is sometimes used to describe blood vessels especially the arteries of the heart
Echo	English word from the Greek mythology	Echo has been adopted of use in forming some medical terms
Electr/o	Root	Electrical
-gram	Suffix	Written record
-stenosis	Suffix	A narrowing
Atria(singular: atrium)	From the Latin atrium	Two of the four heart Chambers, composed of the right atrium and left atrium

Ventricle	Ventricle means cavity taken from a Latin word which means belly	Two of four heart chambers, composed of the right ventricl and left ventricle
Troponin		A protein that is released into the bloodstream when a heart attack occurs
Bradycardia	Brady: a prefix means "slow" Cardia: heart	Abnormally slow heatbeat (regular)
Tachycardia	Tachy: rapid Card/i/o: heart -ia: condition	Abnormally rapid heart (regular)
Arrthymia	The prefix a: against Rhythmo: the same thing	Abnormal rhythm; irregular heartbeat
Cardiopathy	Card/i/o: heart -pathy: disease	Any heart disease

Cardiodynia	Card/i/o: heart -dynia: pain	Heart pain
Cardiomegaly	Card/i/o: heart Megaly: enlargment	Enlagement of the heart
Atriomegaly	Atrium: hall -megaly: a suffix Means enlargement	Enlargement of an atium
valvulitis	Valvul/o: valve -it is: inflammation	Inflammation of a heart valve
Myocadia Infraction MI	My/o: muscle Cardi/o: heart -al: adjective form for heart	Heart attack
Cardiologist	Card/i/o: heart -ology: study of	Medical speciality dealing with the heart
Cardiomyoplasty	Card/i/o: heart My/o: muscle -plasty: surgical repair	Surgical procedure that Involves engaging specific cardiac muscle to Stimulate the heart

Cardiotomy	Card/i/o: heart -tomy: incision	Incision into the heart
Atrial	From the Latin word atrium "hall"	Adjectival form of atrium
Cardiac	Adjectival form of crdium "heart"	Relating to heart
Ventricular	Ventricul/o: ventricle -ar: adjectival suffix	Adjectival form of ventricle
Antihypertensives		Lower blood pressure



Class / Second

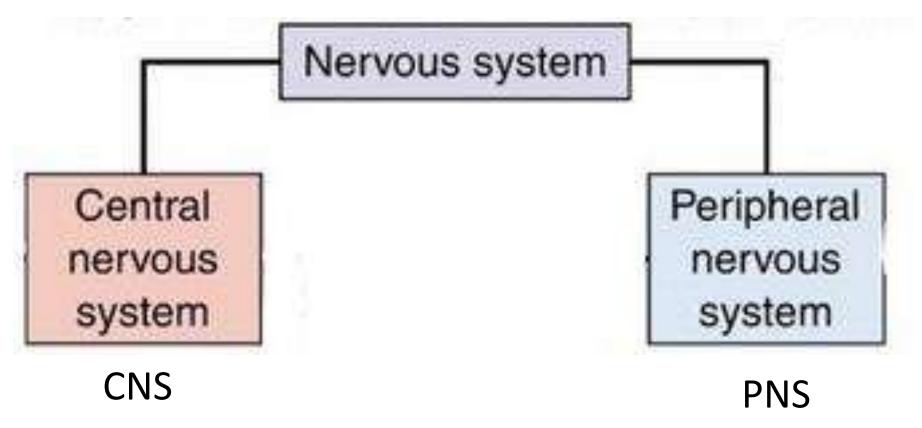
Subject name / Nervous system

Asst . Lecturer . Ahmed Subhi Ali

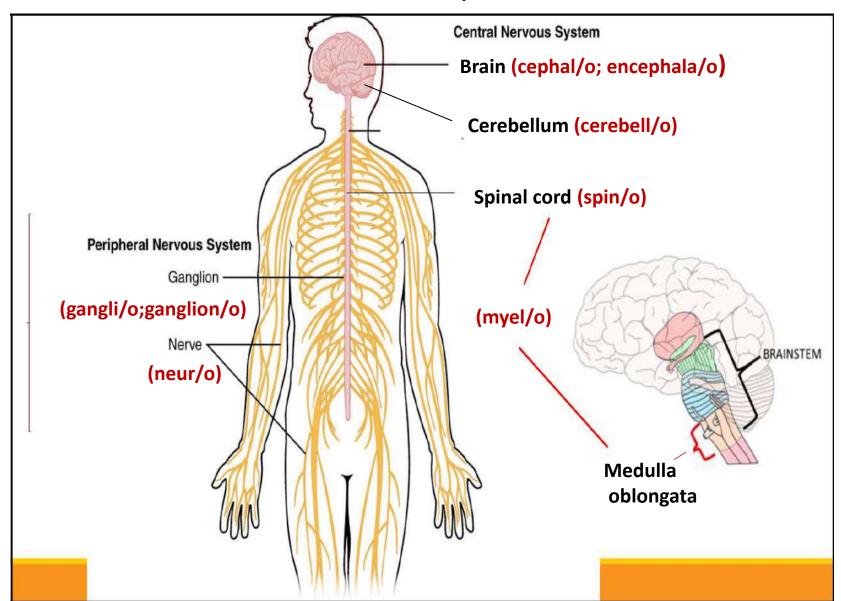
قسم: تقنيات التخدير

كلية النور الجامعة

Component of nervous system



Nervous system

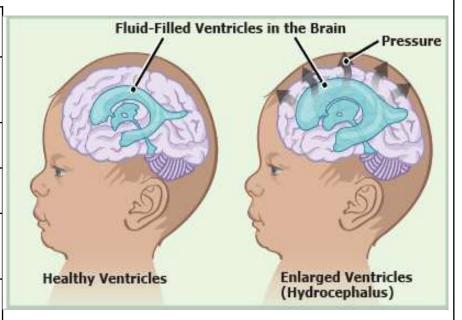


The Nervous System

Term	Refers to
cerebr/o	the cerebrum; also, the brain in general
cortic/o	outer layer or covering
hydr/o	water
megal/o	large
mening/i/o	a membrane
myel/o	in connection with the nervous system, refers to the spinal cord and medulla oblongata
psych/o	the mind
-mania	suffix meaning "morbid attraction to" or "impulse toward"
-phobia	suffix meaning "morbid or unreasonable fear"

Common disorders

Term	Refers to	
agnosia	loss of sensory input recognition	
aphasia	Loss of speech	
dysphasia	impaired speech	
hydrocephalus	excessive cerebrospinal fluid in the brain	
neuralgia	pain in a nerve	
neuropathy	any disorder of the nervous system	



hydrocephalus

Common disorders		
Term Refers to		
para lysis	loss of motor control	
hemi paresis	partial paralysis of one side of the body	
hemi plegia	paralysis of one side of the body	
para plegia	paralysis of the lower extremities and, often, the lower trunk of the body	
par esthesia	numbness	
hyper esthesia	abnormal sensitivity to touch	

Term	Refers to	
cerebral thrombosis	blood clot in the brain	
cerebral stroke	an acute clinical event, related to impairment of	
	cerebral circulation, lasting more than 24 hours	
cerebrovascular disease	brain disorder involving a blood vessel	
encephal itis	inflammation of the brain	
mening itis	inflamed meninges	
myel itis	inflamed spinal cord	

Term	Refers to
delirium	impaired consciousness
dementia	impaired intellectual function
epilepsy	CNS disorder often characterized by seizures
Huntington disease (also	hereditary disorder of the CNS characterized by
Huntington's disease)	involuntary muscle movements and dementia
Parkinson disease (also	a neurologic condition characterized by difficulty in
Parkinson's disease)	controlling muscles

Class / Second

Subject name / Respiratory System Asst . Lecturer . Ahmed Subhi Ali

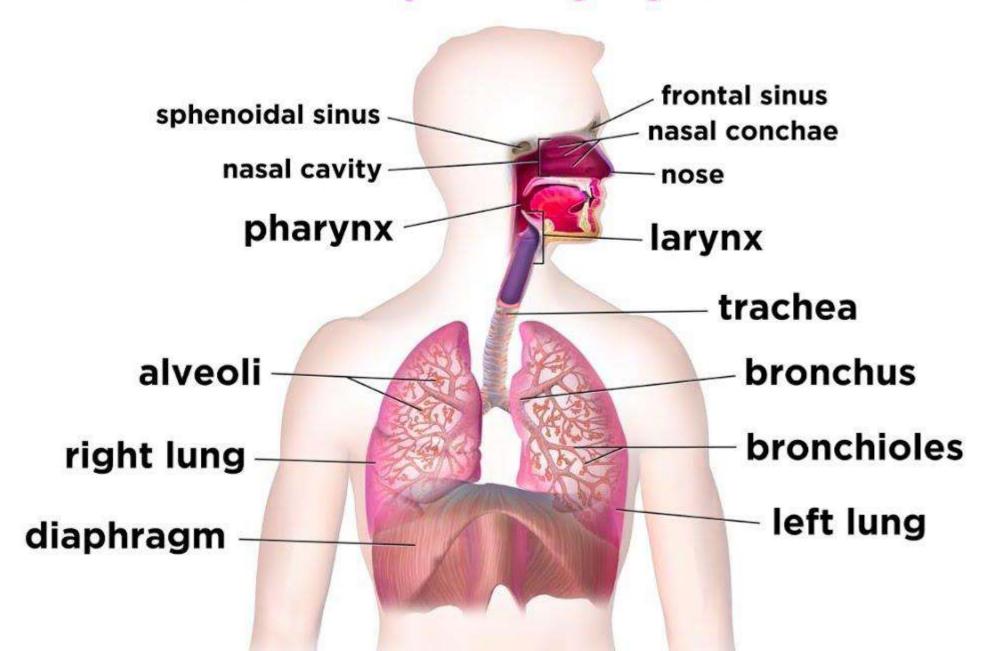
قسم: تقنيات التخدير

كلية النور الجامعة

thursday 10/3/2022



The Respiratory System



Term	Analysis	Meaning
Alveoli (singular: alveolus)	From the Latin word which means "trough"	Small cavities in which oxygen is removed from the air delivered by the bronchioles
Bronchi (singular: bronchus)	Latin: windpipe	Tubes (right and left) branching off from the trachea and into the lungs
Bronchiole	From the Latin word bronchioles "small windpipe"	Very small branches of bronchi that extend into the lungs
Diaphragm	From the Greek diaphragm "partition"	Muscular partition at the base of the thoracic cavity
Nasal	Nas/o: nose -al: adjective suffix	Adjective referring to the nose
Pharynx	Greek word meaning "throat"	Passageway just below the nasal cavity and mouth

Term	Analysis	Meaning
Larynx	From a Greek word meaning "larynx"	Vocal cords, voice box
Trachea	From the Greek word "tracheia"	Windpipe
Anoxia	A: negation Oxia: oxygen	Lack or absence of oxygen in tissue
Apnea	a-: not pnea: breathing	Absence of breathing
Aspiration		The accidental inhalation of foreign material(s) into lung
Asthma	Greek word meaning "breathless"	A lung disease characterized by reversible inflammation and constriction

Dyspnea	Dysp-: faulty Pnea: breathing	Difficult breathing
Hypercapnia	Capnia: carbon dioxide	Increased carbon dioxide in tissue
Hypoxia	Oxia: oxygen	Decreased amount of oxygen in tissues
Bronchial pneumonia (bronchopneumonia)	Bronch/i/o: bronchus -al: adjective suffix Pneumon/o: lung -ia: condition	Inflammation of the smaller bronchial tubes
Bronchiolitis	Bronchiol: bronchiole -itis:	Inflammation of the bronchioles
Bronchorrhea	Bronch/i/o: bronchus -rrhea: flow	Excessive mucus production by a bronchus

Pharyngocele	Pharyng/o: pharynx -cele: hernia	A hernia in the pharynx
Rhinalgia	Rhin/o: nose -algia: pain	Pain in the nose
Tracheorrhagia	Trache/o: trachea -rrhagia: hemorrhage	Hemorrhage of the trachea
Bronchoscope	Bronchi/o: bronchus -scope: view	A device for visually inspecting the interior of a bronchus
Rhinoscope	Rhin/o: nose -scope: view	A small mirror with a thin handle; used in rhinoscopy
Rhinoplasty	Rhin/o: nose -plasty: surgical repair	Surgery performed on the nose

Pulmonologist		Medical doctors who treat respiratory disorders
Laryngology	Laryng/o: larynx Logy: study	Branch of medical study concerned with the larynx and diagnosis and treatment of its disease
Anti TB		Drugs used to treat Tuberculosis
Antitussive		Drug that prevents or relieves Coughing
Inhaler		A medical device used for delivering medication into the body via the lungs
Nebulized mist treatment		Terapy that uses a device to produce a fine spray (nebulizer) That delivers medication directly into the lungs



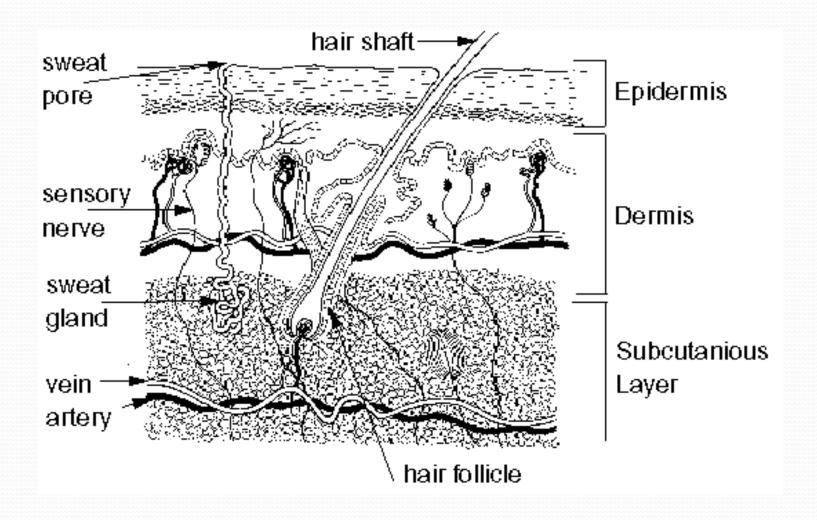
Class / Second

Subject name / Skin and its appendages

Asst . Lecturer . Ahmed Subhi Ali

قسم: تقنيات التخدير كلية النور الجامعة





Component	meaning	Example
CUT-	skin	Subcutaneous layer = layer below the skin
DERMA-	Skin	Dermatology = study of the skin
EPI-	Upon	Epidermis = layer above the dermis
LIPO-	Fat	Lipoatrophy = atrophy of the fat below the skin
MELAN-	black	Melanin = the black pigment in the skin
-osis	Condition /disease	Dermatophytosis = a fungal in fection of the skin

Component	meaning	Example
onych-	nail	Onychectomy = excision of a nail
pachy-	thick	Pachyderma = abnormal thickening of skin
Sclero-	hand/tough	Scleroderma = chronic hardening of the skin
Sudor-	Sweat	Sudorific = an agent that promotes sweat
-itis	inflammatio n	Dermatitis = inflammation of the skin
-oma	tumour	Melanoma = black coloured skin tumour

Acronyms

BCC	Basal Cell Carcinoma
MM	Malignant Melanoma
NBCCS	Nevoid basal cell carcinoma syndrome
NM	Nodular Melanoma
NMSC	Non Melanoma Skin Cancer

Acronyms		
SC	subcutaneous	
SCC	Squamous cell carcinoma	
SSM	Superficial Spreading Melanoma	
UVR	Ultra Violet Radiation	

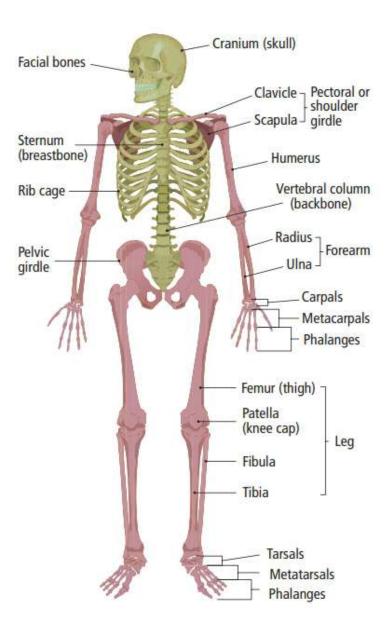


Class / Second

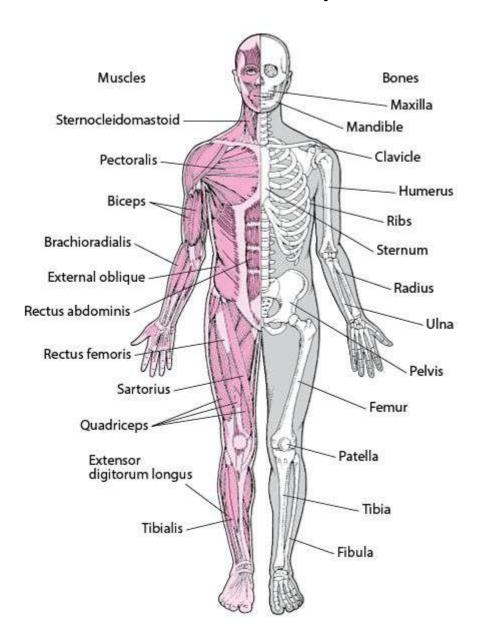
Subject name / Musculoskeletal system

Asst. Lecturer. Ahmed Subhi Ali

قسم: تقنيات التخدير كلية النور الجامعة



Musculoskeletal system



Prefixes	Meaning
inter-	between
intra-	within
supra-	above
sub-	below
sym- syn-	together, with

Suffixes	Meaning
-algia	pain
-asthenia	weakness
-itis	inflammation
-osis	Abnormal condition
-rrhaphy	suture
-trophy	development

Combining forms	Meaning
ankyl/o	stiff
arthr/o	joint
burs/o	bursa
carp/o	Ccarpal bones
cervic/o	neck
crani/o	cranium , skull

Abbreviation	Meaning
Fx	Fracture
MD	Muscular dystrophy
MG	Myasthenia gravis
ROM	Range of motion
OA	Osteoarthritis
L1 to L2	Lumbar vertebrae

Combining Forms

ankyl/o	stiff joint
arthr/o	joint
burs/o	bursa
carp/o	carpus
cervic/o	neck
chondr/o	cartilage
clavicul/o	clavicle
coccyg/o	соссух
cortic/o	outer layer
cost/o	rib
crani/o	skull
cutane/o	skin
erythr/o	red

femor/o	femur
fibul/o	fibula
humer/o	humerus
ili/o	ilium
ischi/o	ischium
kyph/o	hump
lamin/o	lamina
lord/o	bent backward
lumb/o	loin
mandibul/o	mandible
maxill/o	maxilla
medull/o	inner portion
metacarp/o	metacarpus

metatars/o	metatarsus
myel/o	bone marrow, spinal cord
orth/o	straight
oste/o	bone
patell/o	patella
path/o	disease
ped/o	child; foot
phalang/o	phalanges
pod/o	foot
prosthet/o	addition
pub/o	pubis
radi/o	radius, ray (X-ray)

RA	rheumatoid arthritis
RLE	right lower extremity
RUE	right upper extremity
SLE	systemic lupus erythematosus
T1, T2, etc.	first thoracic vertebra, second thoracic
	vertebra, etc.
THA	total hip arthroplasty
THR	total hip replacement
TKA	total knee arthroplasty
TKR	total knee replacement
UE	upper extremity

AE above elbow

AK above knee

BDT bone density testing

BE below elbow

BK below knee

C1, C2, etc. first cervical vertebra, second cervical

vertebra, etc.

Ca calcium

DJD degenerative joint disease

DXA dual-energy absorptiometry

FX, **Fx** fracture

HNP herniated nucleus pulposus

JRA juvenile rheumatoid arthritis

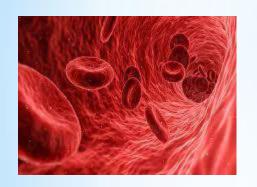
L1, L2, etc. first lumbar vertebra, second lumbar

vertebra, etc.

LE lower extremity

LLE left lower extremity

LUE left upper extremity



Medical Terminology

Class / Second

Subject name / Blood and Lymphatic system

Asst . Lecturer . Ahmed Subhi Ali

قسم: تقنيات التخدير كلية النور الجامعة



Blood:

is a specialized body fluid . it has four main components : plasma, red blood cells, white blood cells, and platelets . blood has many different functions, including:

Transporting oxygen and nutrients to the lungs and tissue.

الدم: هو سائل خاص بالجسم يحتوي على اربعة مكونات رئيسية:

البلازما, وخلايا الدم الحمراء وخلايا الدم البيضاء والصفائح الدموية.

للدم العديد من الوظائف المختلفة ، بما في ذلك : نقل الاوكسجين والمواد العديد من الوظائف المختلفة ، بما في ذلك : نقل الاوكسجين والانسجة .

Important information about blood:

The human body generally contains 4-6 liters of blood, which in turn consists of a variety of different cells, which are as follows:

يحتوي جسم الانسان بشكل عام على 4-6 لتر من الدم والذي يتكون بدوره من مجموعة متنوعة ومختلفة من الخلايا والتي تتمثل في الاتي:

1-Red blood cells: are responsible for transporting oxygen from the lungs to the rest of the tissues and cells of the body, and in turn delivering carbon dioxide from the cells to the lungs.

خلايا الدم الحمراء: هي المسؤولة عن نقل الاوكسجين من الرئتين الى باقي انسجة وخلايا الجسم, وبالمقابل توصيل ثاني اوكسيد الكاربون من الخلايا الى الرئتين.

2- White blood cells: primarily responsible for fighting Infections and infections.

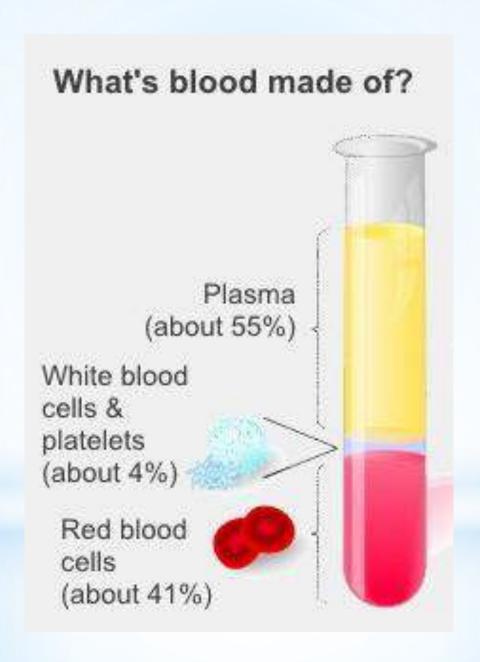
خلايا الدم البيضاء: المسؤولة بشكل اساسي عن محاربة الالتهابات والعدوى.

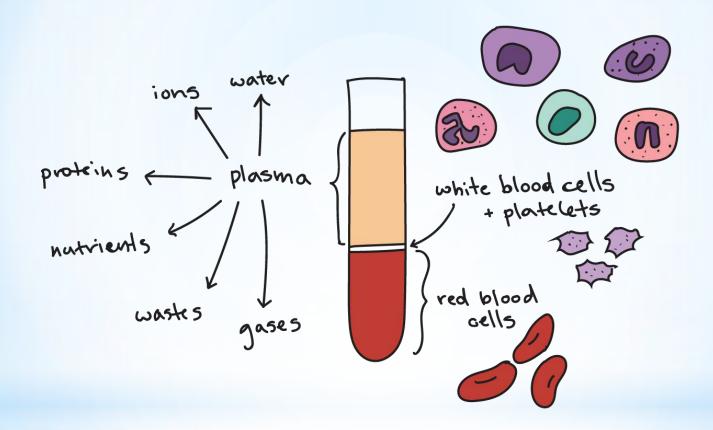
3- Platelets: they work on blood clotting and clotting in the event of injuries and wounds.

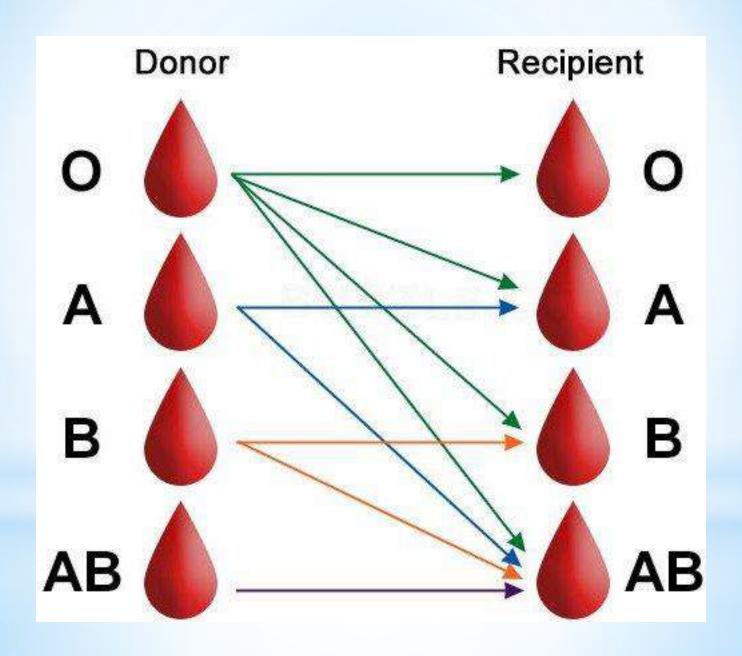
لصفائح الدموية: وهي تعمل على تخثر الدم وتجلطه في حال الاصابات والجروح.

4- Plasma: it is the blood fluid that carries the rest of the blood components in addition to proteins and nutritional salts for the cells and tissues of the body.

البلازما: وهو عبارة عن السائل الدموي الذي يحمل باقي مكونات الدم بالاضافة الى البلازما: وهو عبارة عن السائل البروتينات والاملاح الغذائية لخلايا وانسجة الجسم.







Blood Group	Gives to these groups	Receives from these groups
O	AII	O- only
O ⁺	AB+, A+, B+, O+	O- and O+
A ⁻	AB-, AB+, A+, A-	O- and A-
A ⁺	AB+ and A+	O-, O+, A-, A+
B	B-, B+, AB-, AB+	O- and B-
B⁺	B+ and AB+	O-, O+, B-, B+
AB⁻	AB- and AB+	O-, A-, B-, AB-
AB^+	AB+ only	AII

Blood analysis terms and abbreviations and their meanings			
مصطلحات واختصارات تحاليل الدم ومعانيها			
(الاختصار) Meaning (الاختصار)			
TSH	تحليل الغدة الدرقية		
CBC	تحليل مكونات الدم (صورة دم كاملة)		
RBC_s	تحليل عدد كريات الدم الحمراء		
HCT	تحليل نسبة الهيمات كريت		
MCV	تحليل متوسط حجم الكرية الحمراء		
MCH	تحليل متوسط وزن (كمية) هيموكلوبين الكرية		
	الحمراء		
MCHC	تحليل متوسط تركيز الهيموكلوبين في الكريات الدم		
	الحمراء		
PLT	تحليل الصفائح الدموية		
WBC	تحليل كريات الدم البيضاء		
ESR	تحليل معدل سرعة ترسب كريات الدم الحمراء		
LDL	تحليل الكوليسترول السيء (ذو الكثافة المنخفضة)		
HDL	تحليل الكوليسترول الجيد (ذو الكثافة العالية)		
TG	تحليل الدهون الثلاثية		

Lymphatic system:

Is a circulatory system in which transparent lymph fluid that tends to be yellow in color runs through.

This fluid is similar in composition to the composition to blood except that it does not contain red blood cells but white blood cells.

الجهاز اللمفاوي (اللمفي): هو جهاز دوراني يجري فيه سائل اللمف الشفاف الذي يميل لونه الى الصفرة يشبه هذا السائل في تركيبه تركيب الدم الا انه لايحتوي على كريات الدم الحمراء بل كريات الدم البيضاء.

*The commonest disorder of the blood and lymphatic system is globally, anemia even in the developed world.

اكثر اضطرابات الدم والجهاز اللمفاوي شيوعا هو فقر الدم على مستوى العالم حتى في العالم المتقدم.

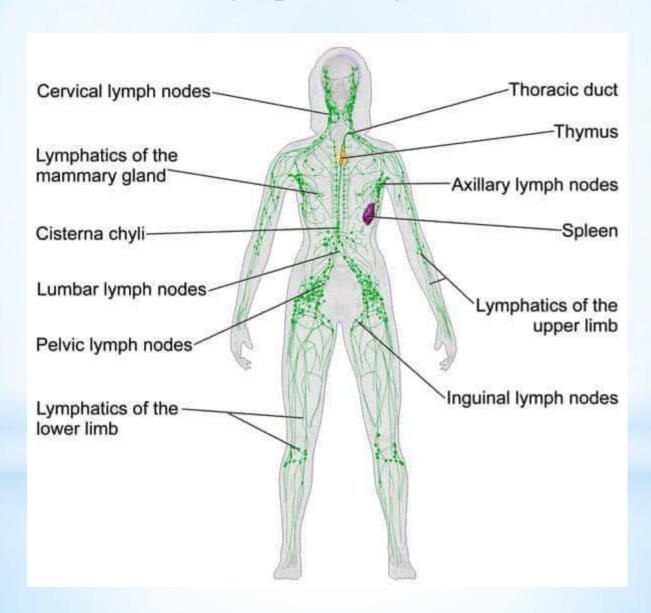
*Diagnosis of disorder will depend on symptoms, history, observation of the patient and examination of:

- A) blood red cells, white cells and serum.
- B) bone marrow and biopsy.

يعتمد تشخيص الاضطراب على الاعراض والتاريخ ومتابعة المريض وفحص:

أ) الدم خلايا الدم الحمراء والخلايا البيضاء والمصل. ب)نخاع العظم وفحص نسيج الجسد

Lymphatic system



Abbreviation	Meaning	Abbreviation	Meaning
Cardiovas	cular		
AED	automatic external defibrillator	HF	heart failure
		IAS	Interatrial septum
AICD	automatic implantable cardioverter defibrillator	ICD	implantable cardioverter defibrillator
AS	aortic stenosis	IVC	inferior vena cava
ASD	atrial septal defect	IVS	interventricular septum
ASHD	arteriosclerotic heart disease	LA	left atrium
AV	atrioventricular, arteriovenous	LDL	low-density lipoprotein
BBB	bundle-branch block		
BP	blood pressure	LV	left ventricle
CA	cancer; chronological age; cardiac arrest	MI	myocardial infarction
CABG	coronary artery bypass graft	MVP	mitral valve prolapse
CAD	coronary artery disease	RA	right atrium
CC	cardiac catheterization; chief complaint	RBC	red blood cell(s)
СНВ	complete heart block	RV	right ventricle
CHF	congestive heart failure	SA	sinoatrial (node)
CV	cardiovascular	SOB	shortness of breath
CVA	cerebrovascular accident; costovertebral angle	SVC	superior vena cava
DVT	deep vein thrombosis (also called deep venous thrombosis)	TIA	transient ischemic attack
ECG, EKG	electrocardiogram; electrocardiography	US	ultrasound; ultrasonography
ELISA	enzyme-linked immunosorbent assay (test to detect anti-HIV antibodies)		



Class / Second

Subject name / Medical Measure **Uints & Their Conversion**

Asst. Lecturer. Ahmed Subhi Ali

قسم: تقنيات التخدير كلية النور الجامعة



Medical Measure Units & their Conversion

(وحدات قياس الحجم وتحويلاتها) Mass Measure Conversation

SI Abbreviations:

L = Liter 1L = 1000 milliliters $[10^3 \text{ mL}]$

mL = Milliliter 1L = 1000 cc $[10^3 cc]$

cc = Cubic centimeter 1 mL = 1 cc $[10^{-3} L]$

 $1 \text{ m}^3 = 1000 \text{ Liters } [10^3 \text{ L}]$

Imperial Abbreviations (US)

tsp = teaspoon

1 tsp = 5 mL (cc)

tstp = tablespoon

1 tbsp = 3 tsp

fI oz = fluid ounce

1 fluid ounce = 2 tbsp

pt = pint

1 pint = 16 fluid ounce

qt = quart

1 quart = 2 pints

gal = gallon

1 gallon = 4 quarts

Conversation Imperial (US) \Longrightarrow SI

```
1 \text{ tsp} = 5 \text{ mL (cc)}
1 \text{ tbsp} \cong 15 \text{ mL (cc)}
1 \text{ fluid ounce} \cong 30 \text{ mL (cc)}
1 \text{ pint} \cong 470 \text{ mL (cc)}
1 \text{ quart} \cong 950 \text{ mL} \Longrightarrow (= 0.95 \text{ L})
1 \text{ gallon} \cong 3.79 \text{ L}
```

<u>(SI)</u>

Abbreviations

kg = Kilogram	1 kg =	1000 gm [10 ³ gm]
g = gram	1 g =	1000 milligram \rightarrow [10 ³ mg] \rightarrow [10 ⁶ μ g]
mg = milligram	1 mg =	$1000 \text{ microgram} \longrightarrow [10^3 \mu g]$
$\mu g = microgram$	1 mg =	$0.001 \text{ gm} \longrightarrow [10^{-3}\text{g}]$

Imperial (US)

Abbreviations

oz = ounce

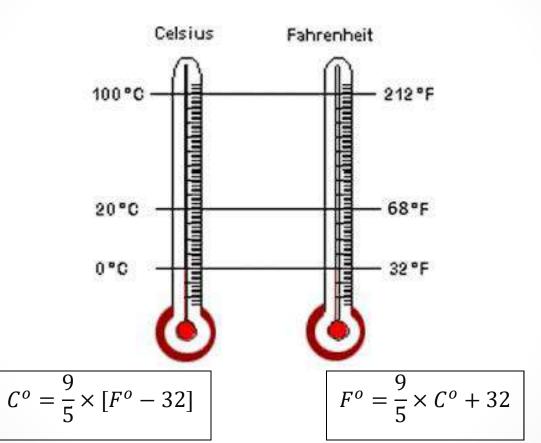
Ib = pound

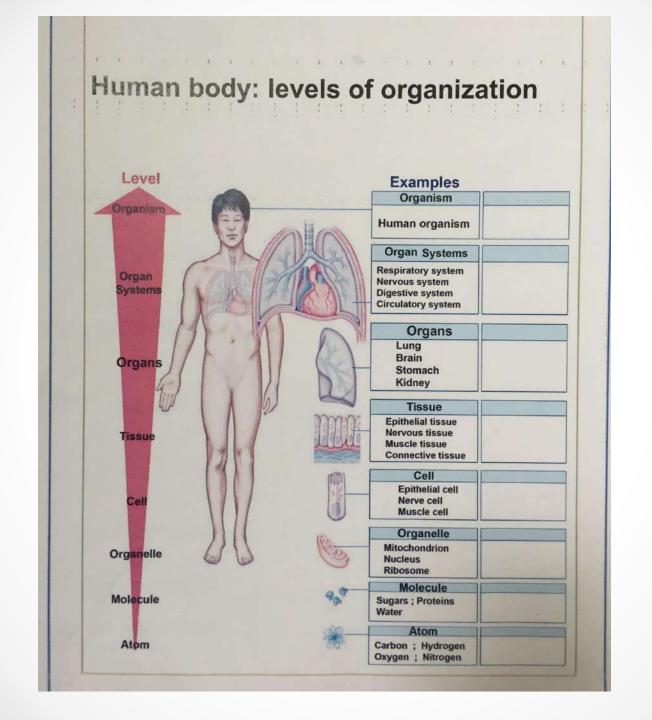
t = ton

1 Ib = 16 oz

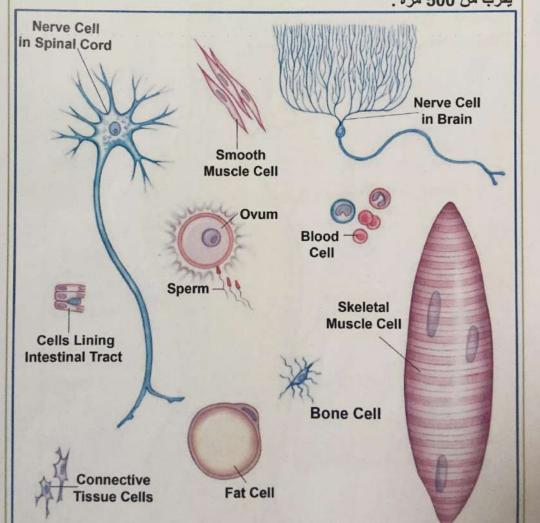
Temperature Scales & Measure Conversion

وحدات ومقاييس درجات الحرارة وتحويلاتها





Cells are the basic building of human body blocks. They have many different shapes and vary in size and function. الخلايا هي الأساس في بناء كتل جسم الإنسان. للخلايا العديد من الأشكال المختلفة وتتنوع في الحجم والوظيفة. الأمثلة أدناه تمثل الأشكال والأحجام مع الأبعاد التي قد تكون عليها الخلايا إذا تم تكبيرها ما يقرب من 500 مرة.



Pituitary gland	الغدة النخامية	Lungs	الرئتين
Adrenal glands	الغدد الكظرية	Esophagus	المريء
Ovaries	المبايض	Diaphragm	الحجاب الحاجز
Thyroid glands	الغدد الدرقية	Pleura	غشاء الجنب
Tracheas	القصبة الهوائية	Blood vessels	الاوعية الدموية
Esophagus	المريء	Nerves	الاعصاب
Thoracic	صدري	Ribs	الضلوع
Thoracic cavity	القفص الصدري	Costal pleura	غشاء الجنب الضلعي
Ventral	بطني	Abdominopely	ric حوض البطن
Chest	الصدر	Pelvic	الحوض

dorsal	ظهري	Aorta	الشريان الابهر
Visgera	احشاء	Pulmonary trunk	الجذع الرئوي
Respiratory	الجهاز التنفسي	Talus	الكاحل
Muscle	العضلة	Femur	عظم الفخذ
Sacrum	العجز	Knee	الركبة
Cranially	قحفي	Ankle	الكاحل
Cranial	الجمجمة	Shinbone	عظم الساق
Heart	القلب	Quadriceps muscle	عضلة الفخذ
Superior vena cava	الوريد الاجوف	Mandible	الفك السفلي
	العلوي		
Apex of heart	قمة القلب	Pelvic bones	عظام الحوض

