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Medical Terminology

For the Students of Medical Colleges
of Medicine, Pharmacy and Nursing

Part 1

Zaraway Pizîşkî

be Rênusî Kurdî Latînî

Bo qutabî (xwêndkar)anî kolîce pizîşkîyekani
Pizîşkî, Dermansazîw Perstarî

المصطلحات الطبية باللغة العربية

لطلاب الكليات الطبية: الطب، الصيدلة و التمريض

2012- 2013

Nawî ktêb: Zarawey Pizîşkî be Rênusî Kurdî Latînî

Kokirdnewew rêkxstin: Dr. Faraedon Kaftan

Yekem Çap: (2012-2013)

Beş: 1

Le beîwêberayetî giştî ktêbxane giştîyekan jimarey (1661) î
salî (2012) y pêdrawe.

Çapxane: Çuwarçra

Slêmanî - Kurdistanî Îraq

Pîte Kurdîyekani Rênuşî Latînî:

A	a	ئا، ا		N	n	ن
B	b	ب		O	o	ۆ، ئۆ
C	c	ج		P	p	پ
Ç	ç	چ		Q	q	ق
D	d	د		R	r	ر
E	e	ه، ئه، ئه		Ř	ř	ر
Ê	ê	ئ، ئی		S	s	س
F	f	ف		Ş	ş	ش
G	g	گ		T	t	ت
H	h	ه		U	u	و
Ĥ	ĥ	ح		Û	û	وو
I	i	بزرۆکه: (بیدهنگ)		V	v	ڤ
Î	î	ی، یی، ئی		W	w	و
J	j	ژ		X	x	خ
K	k	ک		X̄	x̄	غ
L	l	ل		'	'	ع
Í	í	ئ		Y	y	ی
M	m	م		Z	z	ز

Planning: is to see the end from the beginning and to see the beginning from the end.

Nexşekêşan: Bînîni kotayîye le seretawew bînîni seretayê le kotayîyewe.

التخطيط: هو رؤية النهاية من البداية ورؤية البداية من النهاية.

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LESSONS OF COLLEGE OF MEDICINE

دروس الكلية الطبية

Wanekanî Kolîcî Pizîşkî

FIRST YEAR

Biology
Kurdology

Anatomy
Chemistry
Physics
Computer

السنة الأولى

الأحياء
اللغة الكردية و المصطلحات الطبية
باللغة الكردية و العربية
التشريح
الكيمياء
الفيزياء
الحاسوب

Yekem Saî

Zîndewerzanî
Kurdîw Zaraway Kurdî
Pizîşkî be Kurdîw 'Erebî
Tuwêkarî
Kîmya
Fîzya
Kempiyuter

SECOND YEAR

Physiology
Biochemistry
Histology
Anatomy
Embryology

السنة الثانية

الفسلجة
الكيمياء الحياتية
علم الأنسجة
التشريح
علم الأجنة

Duwem Saî

Karendamzanî
Jîne Kîmya
Şanezanî
Tuwêkarî
Korpelezanî

THIRD YEAR

Pathology
Pharmacology
Microbiology
Surgery
Medicine
Parasitology and
Immunology
Community Medicine

السنة الثالثة

علم الأمراض
علم الأدوية
علم الأحياء الدقيقة
الجراحة
الباطنية
علم الطفيليات و علم المناعة
طب المجتمع

Sêyem Saî

Derdzanî
Dermanzanî
Wirdezîndewerzanî
Brînsazî: Neştergerî
Henawî
Mişexorzanî (Mêmlîzanî) w
Bergîzanî
Komele Pizîşkî

FOURTH YEAR

Surgery
Medicine
Obstetrics
Forensic Medicine
Pediatrics
Psychology
Community Medicine

السنة الرابعة

الجراحة
الباطنية
التوليد
الطب العدلي
طب الأطفال
علم النفس
طب المجتمع

Çuwarem Saí

Brînsazî: Neştergerî
Henawî
Mindalpêbûn
Dadwerîye Pizîşkî
Mindále Pizîşkî
Derunzanî
Komele Pizîşkî

FIFTH YEAR

Medicine
Surgery & Anesthesia

Pediatrics
Dermatology
Gynaecology
E.N.T. (Ear, Nose & Throat)
Ophthalmology
Psychiatry
Medical Imaging (Radiology)
Urology
Orthopedics and Fracture

السنة الخامسة

الباطنية
الجراحة والتخدير

طب الأطفال
علم الأمراض الجلدية
النسائية
الأنف والأذن والحنجرة

علم أمراض العيون
علم الأمراض النفسية
التصوير الطبي (علم الأشعة)

علم المجاري البولية
العظام والكسور

Pêncem Saí

Henawî
Brînsazî (Neştergerî) w Sifkarî
Mindále Pizîşkî
Derdepêstzanî
Derdejinzanî
Quîg u lut u giwê

Derdeçawzanî
Derdederunzanî
Wênegerî pizîşkî (Tîşkzanî)

Mîzefozanî
Êsk u şikawî

SIXTH YEAR

Medicine
Surgery
Pediatrics
Gynaecology and Obstetrics

السنة السادسة

الباطنية
الجراحة
طب الأطفال
النسائية والتوليد

Şeşem Saí

Henawî
Brînsazî: Neştergerî
Mindále Pizîşkî
Derdejinzanîw Mindalpêbûn

Chapter 1 Introduction to Medical Terminology:

1. Concepts of Medical Terminology:

Medical Terminology (MT):

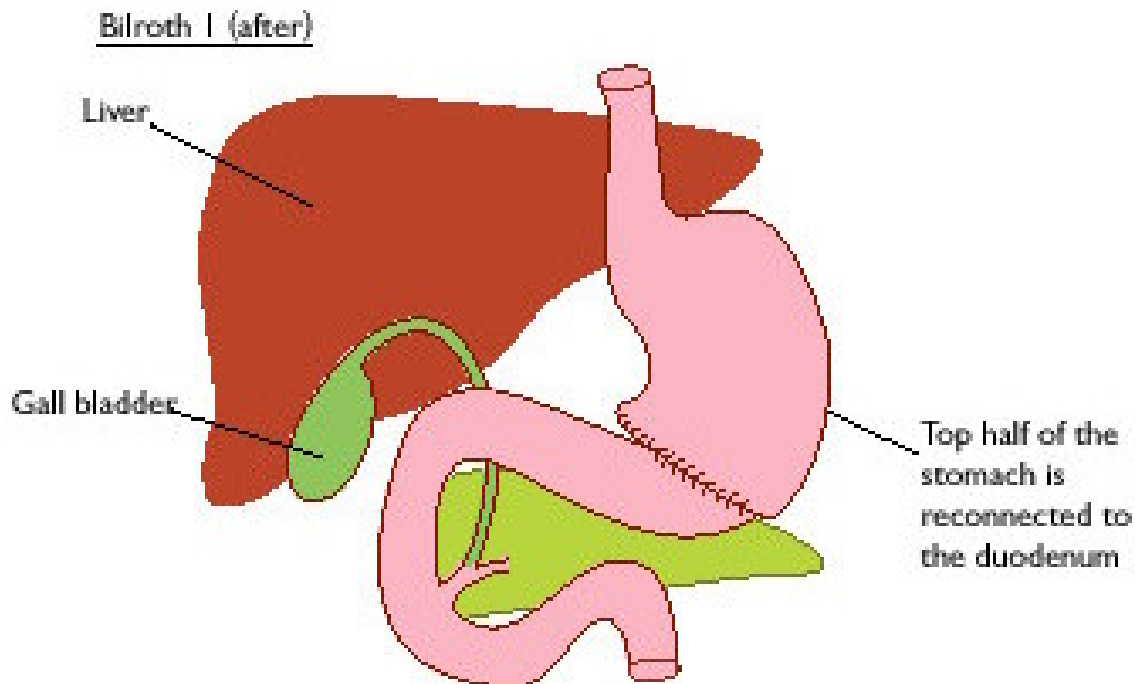
المصطلحات الطبية

Zaraway Pizîškî

1- Is a special vocabulary used by health care professionals for effective and accurate communication.

2- Because it is based on Greek and Latin words, medical terminology is consistent and uniform throughout the world.

3- Is also efficient; although some of the terms are long, they often reduce an entire phrase to a single word, e.g.: **gastroduodenostomy** stands for (a communication between the stomach and the 1st part of the small intestine)



This operation removes part of the stomach

Gastroduodenostomy

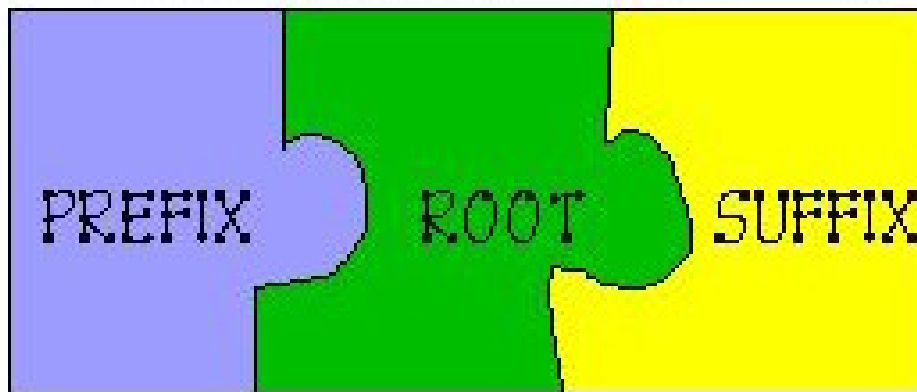
4- The medical vocabulary is vast, and learning it may seem like learning the entire vocabulary of a foreign language, like the jargon (meaningless) that arises in all changing fields, it is always expanding: e.g.: terms with the development of computers, such as software, megabyte, search engine, e-mail, chat room.

5- By learning these meanings, we can analyze and remember many words.

Word (Wiş) = Prefix (Pêşgir) + Root (Reg) + Suffix (Paşgir)

Word parts: (Beşekanî wiş) Most medical terms can be divided into component parts: (Roots, Prefixes, and Suffixes) that maintain the same meaning whenever they appear.

WORD PARTS ARE
LIKE PARTS OF A PUZZLE!



1- Root: (Reg)

- * is the fundamental unit of each medical word.
- * establishes the basic meaning of the word.
- * is the part to which modifying **prefixes and suffixes** are added.

2- A suffix: (Paşgir)

- * Is a short word part or series of parts added at the end of a root to modify its meaning.
- * There is a dash before the suffix such as – itis.

3- A prefix: (Pêşgir):

- * is a short word part added before a root to modify its meaning.
- * There is a dash after the prefix such as pre-.

2 Types of Words:

I. Simple words: e.g.: The simple word (**learn**): - er : learner re- : relearn

* Not all roots are complete words: most medical roots are derived from other languages and used in combinations:

- **Greek word** (kardia) is a root = cardi= heart.

- **Latin word** (pulmo) is a root = lung.

- **Both Greek + Latin roots:** nephr (Greek), ren (Latin) = kidney.

- **The same root** may have different meanings: e.g.:

----- myel = marrow: 1- bone marrow (myelocytes) 2- spinal cord (myelitis).

----- scler = : 1- hard (scleroderma) 2- white of the eye (sclera).

----- cyst = : 1- filled sac or pouch 2- urinary bladder.

II. Compound words: contain more than one root: e.g.:

----- eyeball, bedpan, frostbite and wheelchair.

----- Cardiovascular = (heart + blood vessels).

----- Urogenital = (urinary + reproductive systems).

----- Lymphocyte = (a white blood cell found in the lymphatic system).

----- Gastrointestinal

2 Word Combining Forms:

1- Root + O + suffix = Combining forms: e.g.:

neur/o: neur + O + logy = neurology (l = consonant)

psych/o: psych (mind) + O + logy (study of) = psychology

otorhinolaryngology: ot/o = ear, rhino = nose, laryng/o=larynx.

Rhinoplasty: is the plastic surgery to repair postfracture deformity of nose.

2- neur + itis = neuritis (i = vowel)

Word Derivations:

Most medical word parts come from Greek (G) and Latin (L):

- **Muscle:** comes from Latin word that means mouse = muscle movement under the skin

- **Coccyx:** (the end of the spine)= cuckoo = resembles the cuckoo's bill.

Pronunciation:

Vowels: (a, e, i, o, u,)

Short Pronunciation: (a, e, i, o, u,)

a: as in hat	e: as in met	i: as in bin	o: as in some	u: as in run
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Long Pronunciation: (ā, ē, ī, ō, ū,)

ā: as in say	ē: as in tea	ī: as in lie	ō: as in hose	ū: as in sue
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soft and hard c	soft c = racer	hard c = candy
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soft and hard g:	soft g = (j) page	hard g = grow
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Words Ending in x:

X in pharynx (throat) + Suffix → **g** : Pharynx → pharyngeal

X in coccyx + Suffix → **g** : coccyx → coccygeal

X in thorax (chest) + Suffix → **c** : thorax → thoracotomy

Suffixes Beginning with rh:

r → rr as in: rhage: hem/o (blood) + rhage → hemorrhage

r → rr as in: rhea: men/o (menses) + rhea → menorrhea

r → rr as in: rhea: dia- (through) + rhea (flow) → diarrhea

Symbols and Abbreviations: Both symbols and abbreviations can save time and space in naming objects, organizations, and procedures.

1- commonly Used Symbols: Shorthand

@ = at	L = left	R = right
↑ = increase(s), Upward	↓ = decrease (s), Downwards	→ = lead to, to the right
1° = primary	2° = secondary (to)	° = degree
& = and	# = number, pound	X = times
> = greater than	< = less than	Δ = change (Greek Delta)
♂ = male	∞ = Proportional to	♀ = female

2- Abbreviations:

Acronym: is an abbreviation formed from the 1st letter of each word in a phrase. e.g.:

ASAP: as soon as possible

Ach: acetylcholine

MRI: (magnetic resonance imaging)

CT: in CT scan means computed tomography.

10 Silent Letters and Unusual Pronunciations:			10 حروف صامتة و تلفظ غير اعتيادي	10 Pîti bêdeng u gokirdnî na asayî
Letters (Written)	Pronunciation	Example & its definition	النموذج و التعريف	nimunew pêname
ch	k	chemical: pertaining to chemistry	كيميائي او مادة كيميائية تتعلق بالكيمياء	kîmyawî: madey kîmyawî ya peywend be kîmya
		chronic	مزمن	dirêjxayen
dys	dis	dystrophy: poor nourishment	التغذية الناقصة أو السيئة	xorakpêdanî kem u xrap (bedxorakî)
eu	u	euphoria: exaggerated feeling of well-being	الشعور بالنشاط و الخفة	hestkirdn be çalaki zor u difxoşî
		euthanasia	تيسير الموت. القتل الرحيم	mergsazî
		euthyroid	سوي الغدة الدرقية	pêşmilefjênî asayî
gn	n	gnathic: pertaining to jaw	خاص بالفك أو اللحي ، فكي أو لحيي	peywend be şewîlge ya riş
ph	f	pharmacy: a drug dispensary	صيدلية	dermanxane
pn	n	pneumonia: inflammation of the lungs	ذات الرئة	hewkirdinî siyekan
		pneumogram: record or tracing made by a pneumograph	تسجيل وظيفة الرئة	tomarî karekanî siy
ps	s	pseudo: false	زائف، كاذب	drozne
		psoriasis:	داء الصدف	kajekê, derde pûleke
pt	t	ptosis: drooping	إنسدال أو استرخاء جفن العين الأعلى	dakewtnî pêlwî çaw
rh	r	rheumatic: pertaining to rheumatism, a disorder of muscles and joints	تتعلق بالرتئية (الروماتيزم) : اضطراب في العضلات و المفاصل	peywend be romatîzm: nexoşî masulkew cumge
x	z	xiphoid: pertaining to cartilage attached to the sternum	تتعلق بغضروف عظم القص	peywend be kirkişagey êsk (kolêke) y şing
		xerosis = dryness	جفاف	wişkî

2. Suffixes:

Noun Suffixes: 1- Condition Of: حالة ال Paşgirî Naw: 1- Bar

Suffixes that mean (Condition Of):		اللاحقة للحالة	Paşgir
Suffix	Example & its definition	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-ia	analgesia: absence of pain	فقد الألم	azarşkan, azarneman
	anemia: diminished Hb	فقر الدم	kemxwênî
	anesthesia:	تخدير	sifkirdin
	diplopia: double vision	ازدواج البصر	cutbînê
	insomnia: inability to sleep	الأرق	xewzîfan, bêxewî
	phobia: persistent & exaggerated fear	الرهاب	tirsê
-ism	alcoholism: impaired control of alcohol use	الكحولية ، إدمان المسكرات	aîkihulêtî
	egotism: exaggerated self-importance	الغرور	lexobayîbûn, xo be giringzanîn
	metabolism: all the activities of the cell	ايض	zîndeçalakî
	parasitism: infection with parasites or behaving as a parasite	التطفل	mişexorî, mêmîayetî
-sis -osis	acidosis: acid condition of body fluid	الحماض : زيادة في حموضة الدم أو نقص في قلويته	xuwên tirşbun
	mitosis: cell division	انقسام الخلية	xanedabeşbûn
	necrosis: cell death	موت خلية ، نخر	rizan, dawêşan
	sclerosis: hardening	تصلب	reqbun
	stenosis:	تضييق	teskbun
	thrombosis: having a blood clot in a vessel	تخثر	xwênmeyîn, pirgpeydabûn
-sis -asis	psoriasis: skin disease	داء الصدف	kajekê: derdepêst, derdepuleke

-y	atony : lack of muscle tone	وهني، استرخاء	xawbunî masulke
	dysentery : intestinal disorder	الزحار، الاسهال	rîxoletêkçun, sikçun
	dystrophy : abnormal development, often denoting the degeneration of muscles	فساد التغذية، الجثث	bedxorakî (xorakpêdanî kem u xrap)
	tetany : sustained muscle contraction	تكزز : تقلص عضلي مستمر	girjbunî berdewamî masulke

Noun Suffixes: 2- Medical Specialties: التخصص الطبي 2- Pispoîrî pizîşkî

Suffix	Meaning	Example	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-ian	specialist in	physician : practitioner of medicine	الطبيب	pizîşk: pispoîr le pizîşkîda
		pediatrician : a physician who specializes in care and treatment of children	المختص في الأطفال	pispoîrî çareserkirdnî mindal
-iatrics	medical specialty	geriatrics : study and treatment of the aged	طب الشيخوخة	pizîşkî pîrî wate: lêkoînewew çareserkirdinî temendar
		pediatrics : treatment of children	معالجة الاطفال	çareserkirdinî mindal
-iatry	medical specialty	podiatry : (chiroprody) study and treatment of the foot	الأقدامية : العناية بالقدم البشرية و معالجتها	çareserkirdin u bayexdan be (pê)y mirov
		psychiatry : study and treatment of mental disorders	الطب النفسي	pizîşkî nexošyekanî derunî
-ics	medical specialty	orthopedics : study and treatment of the skeleton and joints. → orthopedician :	التجبير ، تقويم الأعضاء : دراسة و علاج عظام و مفاصل الجسم ← اختصاصي في تقويم الأعضاء	lêkoînewew çareserkirdnî nexošî êškepeyker u cumge → pispoîr le êškepeyker u cumge
		obstetrics → obstetrician	- الولادة ← اختصاصي في التوليد	çareserkirdnî mindalbun → pispoîr le mindalbun

		pediatrics: treatment of children → pediatrician	معالجة الأطفال ← إختصاصي في الأطفال	çareserkirdnî mindafan → pispořî mindafan
-ist	specialist	anatomist:	إختصاصي في التشريح	pispoř le tuwêkarî
		cardiologist: specialist in the study and treatment of the heart	إختصاصي في امراض القلب	pispořî diî, diîzan
		dentist: one who treats the teeth and mouth	إختصاصي في الأسنان	pispořî didan, didanzan
		dermatology → dermatologist	إختصاصي في الجلدية	pêstzanî → pêstzan
		gynecology → gynecologist	إختصاصي في النسائية	jinzanî → jinzan
		orthodontist	إختصاصي في تقويم الأسنان	didanřastkirdinewez an
		orthopedist	إختصاصي في العظام	êskzan
		pharmacy → pharmacist	إختصاصي في الأدوية	→ dermanzan
		radiologist	إختصاصي في الأشعة	tîřkzan
		technologist: specialist in a technical field	تقني، إختصاصي في التقنيات	têknîkzan
-logy	study of	physiology: study of function in a living organism	علم الوظائف ، علم الفسلجة : دراسة وظائف الكائن الحي	karendamzanî
		urology:	علم الجهاز البولي	mîzekoendamzanî

Suffixes that mean (pertaining to or resembling):		اللاحقة بمعنى يُشبهه أو يُشابهه أو يتعلق بـ	Paşgir be manay peywend be ya weku
<u>Suffix</u>	<u>Example</u>	معنى النموذج و اللاحقة معاً	<u>Watay nimunew paşgir pêkewe</u>
-ac	cardiac: pertaining to the heart	قلبي	diî
-al	skeletal: pertaining to the skeleton	خاص بالهيكل العظمي	peywend be êškepeyker
	vocal: pertaining to the voice	صوتي	dengî
	anatomical: from anatomy	تشريحي	tuwêkarekî
	abdominal: from abdomen	بطني	sikekî
	local	موضعي	şwênêkî
	oral	فمي	demî, demekî
	oval: from ovum	بيضوي	hêlkeyî
	viral: from virus	حموي، فايروسي	vayrosî
-ar	cellular	متعلق بالخلية	xaneyî
	circular	دائري	bazineyî
	muscular: pertaining to muscles	عضلي	masulkeyî
	nuclear: pertaining to a nucleus	متعلق بالنواة	nawukî
-ary	dietary: pertaining to the diet	غذائي	xorakî
	salivary: pertaining to saliva	لعابي	lîkî, tfî
	urinary: pertaining to urine	بولي	mîzî, mîzekî
	papillary: like or resembling a nipple	حليمي	goyekî
-ory	circulatory: pertaining to circulation	دوراني	sûrêkî
	respiratory: pertaining to respiration	تنفسي	peywend be henasedan
	exploratory: exploratory surgery	جراحة استقصائية	neştergerî bo dozînewey hokarî nexoşî
-form	epileptiform: pertaining to epilepsy	شبه صرعي	şêwe perkem (fê)
	muciform: like or resembling mucus	مخاطي الشكل	şêwe çilîm
-ic	anemic: from anemia	ذو علاقة بفقر الدم	kemxwên
	basic: from base	قاعدي	tiftyî

	metric: from meter	مِترِي ، قِيَاسِي	metrî
	neurotic: pertaining to neurosis	عِصَابِي	demare pişewîdarî
	necrotic: from necrosis	نِخْرِي	mirdûyî
	pelvic: pertaining to pelvis	حِوِضِي	hewzî, mojî
	physiologic: from physiology	طَبِيعِي ، غَيْر مَرَضِي	siruştî, asayî, na nexoşî
	septic: from sepsis	اِنْتِنَانِي	pîs, genîw
-ical	anatomical: pertaining to anatomy	مُتَعَلِّقٌ بِالتَّشْرِيحِ	peywend be tuwêkarî
	surgical: pertaining to surgery	مُتَعَلِّقٌ بِالجِرَاحَةِ	peywend be neştergerî
	symmetrical: patterned self-similarity	مُتَمَاثِلٌ	lêkçû, çunyek
	topical: pertaining to a surface = local	مَوْضِعِي	nawçeyî, şwênekî
-ile	febrile: pertaining to fever	حَمِّي	be ta
	virile: muscular	عِضَلِي	masulkeyî
-oid	adenoid: resembling a gland	شَبِيهِ الغَدَةِ	rijênşêwe
	lymphoid	شَبِيهِ الِليمْفِ	lîmfşêwe
	rheumatoid	شَبِيهِ الرُّوْمَاتِيْزِمِ	romatîzmsşêwe
	mucoïd: resembling mucus	شَبِيهِ المَخَاطِ	çîlmşêwe
	ovoid: resembling an egg	شَبِيهِ البَيْضَةِ	hêlkeşêwe
	toxoid: resembling toxin (poison)	شَبِيهِ السُّمِّ	jehirşêwe
-ous	cutaneous	جِلْدِي	pêstî
	endogenous	دَاخِلِي	nawekî
	exogenous	خَارِجِي	derekî
	fibrous: pertaining to fibers	لِيفِي	rîşalyî
	venous: pertaining to a vein	وَرِيدِي	xwênhênî

Singular Ending	Plural Ending	(Singular & plural) Examples	نهاية الكلمة في المفرد و الجمع	Kotayî wişe le tak u koda
a	ae	bull <u>a</u> : → bullae	فقاعة ← فقاعات	biîq → biîqekan
		gingiv <u>a</u> (gum) → gingivae	الثة ← اللثات	puk → pukekan
		patell <u>a</u> : → patellae	رضفة	kîawe ejno →
		vertebr <u>a</u> : bone of the spine → vertebrae	فقرة ← فقرات	biîrbiîfe → biîrbiîfekan
en	ina	foram <u>e</u> n (opening) → foramina	ثقب ← ثقب	kun → kunekan
		lum <u>e</u> n: central opening → lumina	تجويف الأنبوب ←	boşayî naw borî →
ex	ices	apex <u>:</u> → apices	قمة ← قمم	lutke → Lutkekan
		index <u>:</u> → indices	السبابة ←	pencey doşawmije
ix	ices	Appendix <u>:</u> (something added) → appendices	ذيل ، ملحق ، الزائدة الدودية ← الزوائد الدودية	paşko → paşkokan rîxoîe kiwêre → rîxoîe kiwêrekan
		matrix <u>:</u> background substance → matrices	المادة البين الخلوية ←	madey nêwan xane →
yx	yces	calyx <u>:</u> → calyces	كأس ← كؤوس	kase → kasekan
is	es	diagnos <u>i</u> s: (identification of disease) diagnoses	التشخيص ← التشخيصات	nasînewey nexoşî →
		pelvis <u>:</u> bony hip girdle → pelves	الحوض ←	hêwz, moj →
		prognosis <u>:</u> → prognoses	التكهن بمستقبل المرض ←	pêşbînî ayîndey nexoşî (derd) →
		testis <u>:</u> male gonad → testes	خصية ←	hêlke gun →
ma	mata	adenom <u>a</u> : tumor of a gland → adenomata	ورم غدي ←	rijênelu →
		carcinom <u>a</u> : → carcinomata	سرطان ←	şêrpence →
		stigm <u>a</u> (mark or scar) → stigmata	ندبة ، أثر الجرح	şwên brîn →
<u>nx</u> : -anx	nges	phalan <u>x</u> : (bone of finger or toe) → phalanges	سلا مى ← سلا ميات	grê pence →

-inx	nges	meninx: membrane around the brain and spinal cord →meninges	غشاء الدماغ سحايا ←	perdey mêşk u petke demar→
-ynx	nges	pharynx: →pharynges	البلعوم ←	geru→
		larynx → larynges	الحنجرة ←	qufqufage→
on	a	ganglion: mass of nerve tissue → ganglia	ورم كيسبي على وتر عضلي او على صفاق ←	grêy turekeyî le ser jêy masulke ya perde→
		protozoon: →protozoa	كائن بدائي من خلية واحدة ←	zîndewerî seretayî yek xane→
		spermatozoon →spermatozoa	نطفة ، حيوان منوي ← حيوانات منوية	tom, xaney regezî nêrîne→
um	a	acetabulum: →acetabula	الحق ←	defroke→
		bacterium: →bacteria	جرثومة ← جراثيم	mîkrob→
		ovum (egg) →ova	بيض ← بيوض	hêlke→ hêlkekan
		omentum: abdominal membrane →omenta	الثر ←	xew→
		serum: liquid →sera	مصل ←	xwênawk→
us	i	embolus: →emboli	سدادة ← سدادات	demewane→
		focus: center →foci	بؤرة ←	çeq→ çeqekan
		fungus: →fungi	فطر ←	keûu→ keûuwekan
		nevus: →nevi	وحمة، شامة ←	xalí→ xalékan
		nucleus: →nuclei	نواة ←	nawik→

3. Prefixes:

Prefixes for Numbers:			البداية (الصدر) للأرقام	Pêşgir bo jimare
Prefix	Meaning	Example & its definition	معنى النموذج و البداية (الصدر) معا	Watay nimunew Pêşgir
prim/i-	first	primitive: occurring first in time	بدائي	seretayî
		primary	أولي	yekemî
mon/o	one	monocular: pertaining to one eye	وَحِيدُ الْعَيْنِيَّةِ ، وَحِيدُ الْعَيْنِ ، أَعْوَر	yekçawe, takçaw
		mononuclear	وحيد النواة	yek nawike xane
uni-	one	unicellular: composed of one cell	وَحِيدُ الْخَلِيَّةِ	takxane
		unilateral: one side	ذو جانب واحد	yekla, takla
hemi-	half; one side	hemisphere: one half of a rounded structure	نصف الكرة	nîwexf, nîmçexf
		hemithorax: one half or one side of the chest	نصف الصدر	nîwesing
		hemiarthroplasty: is replacement of half of the joint component	تصنيع نصفي للمفصل	nîwcumge çakkirdin
semi-	half; partial	semisolid: partially solid	شبه أو نصف صلب (جامد)	nîmçefer
bi-	two; twice	bicuspid: a tooth with two points	صمام ذو شرفتين	dûzimane
		bipolar	ذو قطبين	dûcemserî
		binuclear	ذات نواتين	dûnawikî
di-	two; twice	dimorphous: having two forms	ذو شكلين	dûşewe
diplo/o	double	diploid: having two sets of chromosomes	ثنائي الصبغيات ، مزدوج الصبغيات	dû set kfomosom

tri-	three	triplet: one of three offspring produced in a single birth	ثلاثي	yek le sê mindalî be yek sik ledayikbu
		trisect: to cut into three parts	القطع الى ثلاثة أجزاء	be sê beş kirdin
quadr/i-	four	quadrant: ¼ : one-fourth of an area	رُبع ¼	çarek, çuwar yek ¼
		quadriplegia	شلل الأطراف الأربعة	Îflîcî çuwar pel
tetra-	four	tetrahedron: a figure with 4 surfaces	الرُّباعي السطوح	çuwar fû
		tetraplegia	شلل الأطراف الأربعة	Îflîcî çuwar pel
multi-	many	multiple: consisting of many parts	مُتَعَدِّدٌ	çendîn, fre
		multinucleated	مُتَعَدِّد النواة	fre nawik
poly-	many, much	polydactyly: many fingers or toes	تعدد الأصابع	frepenceyî
		polymorphous: having many forms	متعدد الأشكال	fre şêwe
		polysaccharide: substance composed of many sugars	السُّكَّر العُداديّ، عديد السُّكَّر يد	fre şekre, fre şekrîd



Polydactyly

Prefixes for numbers:

Jimare	Jimare be Kurdî	Latin prefixes Cardinal & Multiple	Latin prefixes Ordinal	Greek prefixes
1/12	yek Leser duwanze	unci-		
1/6	yek Leser şeş	sextant-		
1/4	yek Leser çuwar	quadrant-		
1/3	yek Leser sê	trient-		
1/2	yek Leser dû	semi- demi-		hemi-
3/4	sê Leser çuwar	dodrant-		
1	yek	uni- sim- singul-	prim-	mono-, haplo- hen-
1. 1/4	yek u çarek	quasqui-		
1. 1/2	yek u nîw	sesqui-		
2	dû	du- bi-, bis-	second-	di-, dy-, duo-
3	sê	tri- ter-	terti-	tri-
4	çuwar	quadri-, quadru- quater-	quart-	tetra-
5	pênc	quinque-	quint-	penta-
6	şeş	sexa-	sext-	hexa-
7	hewt	septem-, septi-	septim-	hepta-
8	heşt	octo-	octav-	octa-, octo-
9	no	novem-	nona-	ennea-
10	de	decem-, dec-	decim-	deca-
11	yanze	undec-	undecim-	hendeca-
12	duwanze	duodec-	duodecim-	dodeca-
13	siyanze	tredec-, etc.		triskaideca-
14	çuwarde	quattuordec-		tetrakaideca-
15	panze	quinquadec-, quindec-	quindecim-	pentakaideca-
16	şanze	sedec-, sexdec-		hexakaideca-, hexadeca-
17	hêve	septendec-		heptakaideca-
18	hejde	octodec-		octakaideca-
19	nozde	novemdec-, novendec-		enneakaideca-
20	bîst	viginti-	vigesim-	icosa-, icosi-, eicosa-

30	sî	triginti-	trigesim-	triaconta-
40	çil	quadraginti-	quadagesim-	tetraconta-
50	penca	quinginti-	quingagesim-	pentaconta-
60	şest	sexaginti-	sexagesim-	hexaconta-
70	hefta	septuaginti-	septuagesima-	heptaconta-
80	heşta	octogint-	octogesim-	octaconta-
90	newed	nonagint-	nonagesim-	enneaconta-
100	sed	centi-	centesim-	hecato-, hecatont-
200	dû sed	ducenti-		diacosioi-
300	sê sed	trecenti-		triacosioi-
400	çuwar sed	quadringenti-		tetracosioi-
500	pênc sed	quingent-, quingent-	quingentesim-	pentacosioi-
600	şeş sed	sescenti-, sexcenti-		hexacosioi-
700	hewt sed	septingenti-		heptacosioi-
800	heşsed	octingenti-		octacosioi-
900	no sed	nongenti-		enneacosioi-
1000	hezar	milli-	millesim-	chili-
10,000	de hezar	—		myria-
	Çendîn (le yek zotr)	multi- (more than 1)		poly- (more than 1)



The "standard dictionary numbers"

Name	Short scale (USA and Modern British)	Long scale (Continental Europe and/or Archaic British)
million	10^6	10^6
milliard	10^9 (short scale)	10^9
billion	10^{12} (long scale)	10^{12}
trillion	10^{12}	10^{18}
quadrillion	10^{15}	10^{24}
quintillion	10^{18}	10^{30}
sextillion	10^{21}	10^{36}
septillion	10^{24}	10^{42}
octillion	10^{27}	10^{48}
nonillion	10^{30}	10^{54}
decillion	10^{33}	10^{60}
undecillion	10^{36}	10^{66}
duodecillion	10^{39}	10^{72}
tredecillion	10^{42}	10^{78}
quattuordecillion	10^{45}	10^{84}
quindecillion (quinquadecillion)	10^{48}	10^{90}
sexdecillion (sedecillion)	10^{51}	10^{96}
septendecillion	10^{54}	10^{102}
octodecillion	10^{57}	10^{108}
novemdecillion (novendecillion)	10^{60}	10^{114}
vigintillion	10^{63}	10^{120}
centillion	10^{303}	10^{600}

Prefixes for colors:			البادئة (الصدر) للألوان	Pêşgir bo reng
chrom/o	color	hypochromic: paler than normal color	قليل اللون	Kem reng
Prefix	Meaning	Example & its definition	معنى النموذج و البادئة (الصدر) معاً	Watay nimunew pêşgir pêkewe
cyan/o	blue	cyanosis: bluish discoloration of the skin due to lack of O ²	إزرقاق ، زُراق	şînbunewe
		cyanotic is pertaining to bluish discoloration	مزرق	şînbuwewe
erythr/o	red	erythrocyte: a red blood cell	كروبيات الدم الحمراء	xfokey sur
		erythroblast: immature red blood cell	كروبيات الدم الحمراء غير ناضجة	xfokey surî pênegeyştu
		erythroderma is redness of the skin	احمرار كلي للجلد	surbunî pêst
leuk/o	white, colorless	leukoplakia: white patches in the mouth	التقرنية البيضاء في الفم	pele ya tuwêkîî sipî le demda
		leukoderma: loss of color in the skin	فقد لون الجلد	pêst sipîbun
		leukemia is overgrowth of white blood cells	سرطان الدم	şêrpencey xwên
melan/o	black, dark	melanin: the dark pigment that colors the hair and skin	صبغ سافع في الجلد و الشعر	mîlanîn: rengî tarîkî pest u tuk
		melanoma: dark tumor	ورم الجلد	luwe reşey pêst
		melanocyte: is the cell that produces dark pigment	خلية تصبغ الجلد	xaney rengî pêst
xanth/o	yellow	- xanthocyte: cell with yellow color	الخلية الصفراء	zerdexane
		xanthoderma: yellow coloration of the skin	إصفرار الجلد ، صفرة الجلد	pêstzerdbûn, pêstezerdê
		xanthoma: is yellow raised area on the skin	ورم جلدي أصفر	luwe zerdey pêst

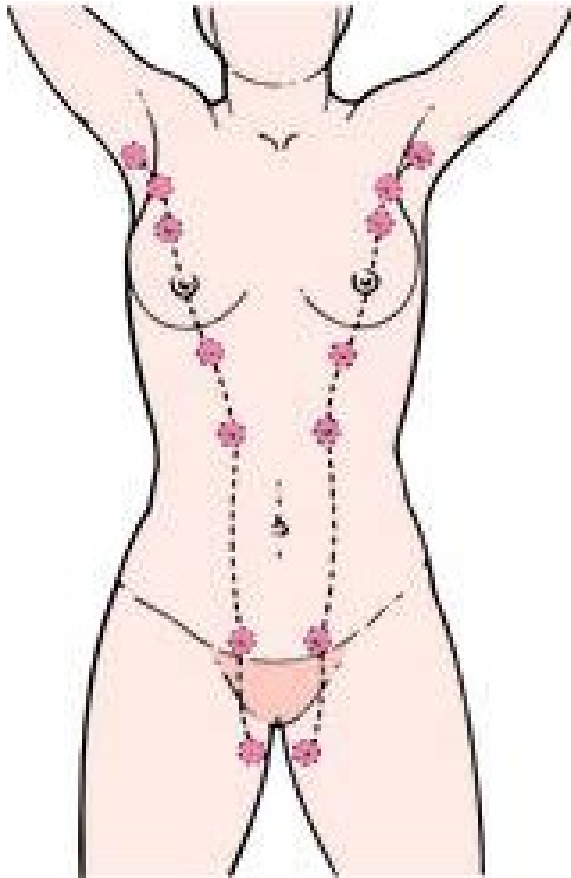
Negative Prefixes:			البادئة (الصدر) للنفي	Pêşgir bo (bê) ya (na)
Prefix	Meaning	Example & its definition	معنى النموذج و البادئة (الصدر) معاً	Watay nimunew pêşgir pêkewe
a-	not; without	aseptic: free of infectious organisms	طاهر ، لافسادي	xawên
		amorphous: without form	بدون شكل	bê şêwe
		amnesia	نسيان ، فقد الذاكرة	bîrçûnewe, bîreçwê
		avascular	عديم الأوعية الدموية	bê dezuley xwên
		atrophy: wasting away (lack of nourishment)	ضمور، نقص في التغذية	pukanewe, kem xorakî
an-	not; without	anesthesia	تخدير	siŕkirdin
		analgesic	بدون ألم	bê êşuazar
		anaerobe: no air	لا هوائي : مُعتاش	bê hewa jîw
anti-	against	antidote: means for counteracting a poison	ترياق : مُضاد السم	dije jehr
		antibody	جسم مضاد	dije ten, dijok
		antiserum	مصل مضاد	dije xwênawk
		antibiotic: substances that act against microorganisms	مضاد حيوي	dije zîndeyî
contra-	against, opposite	contraception: prevention of conception	مَنع الحمل	dijesikpiŕbûn
		contraindication	النواهي	qedexekarî
		contralateral	على جانب المقابل	beramber
de-	down, without	decapitated: to cut off the head	مقطوع الرأس	serlêkrawe
		depilatory: agent used to remove hair	مزيل الشعر	mûlabere
		dehumidify	بدون رطوبة	bê şê
		decongestant	مزيل الاحتقان	dije xwêntêzan
		detoxify (detoxication)	ازالة السم	jehrlabirdin

dis-	absence, removal, separation	disease	مرض	nexoşî, derd
		disintegrate	يتفكك، يتحطم	deřzêt, têkdeşkêt
		disinfect	يظهر	xawên dekat
		dislocate	يخلع	etrazê, le cê eçê
		displace	يزيح، يتنحى	la eda, şwên egořê
		dissect: to separate tissues for anatomical study	يُشرَح، يسلخ	twêtwê eka, eygîrwê
in-	not	inactive	عاطل، غير ناشط	nakara
		inadequate	غير كاف	beşneker, beşnekirde
		incompatible	لا تآلف، تنافر	neguncaw
		incontinent	مصاب بسلس البول، الغائط و انقياد الشهوة الجنسية	xopêfanegir le mîzkirdin, pîsayîkirdin u riştinî towî piyawetî
		insignificant: not important	غير مهم، غير معتد	bêbayex
		insufficient	غير كاف، قليل	beşnekirde
im-	not: used before: b	im<u>b</u>alance: not balanced immature: not mature	غير متوازن	nahawseng
	not: used before: m	im<u>m</u>ature	غير ناضج	pênegeyîw
	not: used before: p	im<u>p</u>ossible: not possible	غير محتمل	nekirde
		im<u>p</u>erforate	غير مثقوب	Kun tênekaw
	im<u>p</u>ermeable	غير منفذ للماء	aw daneder	
non-	not	noninfectious: not able to spread disease	غير مُعد، غير مُنتقل	na dirm
		noncontributory	غير مساعد، غير مُسهِم	yarîdeneder, beşdarnebu
		nonexistent	غير موجود	nebû
un-	not	unconscious: not responsive	فَاقِدُ الوَعْيِ	bêhoş
		uncoordinated	غير متناسق، غير منسجم	neguncaw, na haw aheng
		unresponsive	غير مُستجيب	welâmneder
		unremarkable	غير جدير بالملاحظة، غير لافت للنظر، غير استثنائي، عادي	serncîranekêş

Prefixes for Direction:			البادئة (الصدر) لإتجاه	Pêşgir bo ařaste
Prefix	Meaning	Example & its definition	معنى النموذج و البادئة (الصدر) معاً	Watay nimunew pêşgir pêkewe
ab-	away from	abduction: position away from the midline of the body	تبعيد عن الخط الوسط	dûr kewtinewe le helî naweřast
		abnormal	شاذ ، غير اعتيادي	na asayî, nawêze
		absent	غائب	na amade, na diyar, bizir, nebu, nîye
		absence	غيبة ، غياب	amadenebûn
ad-	toward; near	adduction: position toward the midline of the body	تقريب عن المحور الرئيسي	nizîke tewerî serekî
		adhere: to attach or stick together	يلتصق ، يلاصق	pêkewe enwsê
		adjacent	قريب ، مجاور ، متاخم	nizîk, hawsê, tenîřt
dia-	through	dialysis: (dialyze) separation (-lysis) by passage through a membrane	الميز الغشائي : فصل المواد شبه الغروية عن المواد الأخرى القابلة للذوبان وذلك باستخدام غشاء فارز	perdeciyakarî
		diarrhea	اسهال	sikçûn
per-	through	percutaneous: through the skin	عن طريق الجلد	le rêy pêstewe
		perforate	يثقب ، ينقب	kunî tê eka
trans-	through	transfer	ينقل	giwastinewe, eygiwêzêtewe
		transfusion: introduction of blood or blood components into the bloodstream	نقل الدم	xwêngiwêzanewe
		transmission	إنتقال	guwastinewe, royřitin

Prefixes for Degree :			البادئة (الصدر) للمدى أو الدرجة	pêşgir bo çendêti ya pe
Prefix	Meaning	Example & its definition	معنى النموذج و البادئة (الصدر) معاً	Watay nimunew pêşgir pêkewe
hyper-	1- over	hypernephroma	ورم الغدة الكظرية	luy rijênî ser gurçîle
	2- excess	hyperplasia: over- development of an organ or tissue	مفرط النشاط أو الفاعلية	frekarayî
		hyperventilation: excess breathing	فَرطُ التنفس	fre henasedan
	3- abnormally high	hypertension: abnormally high tension	فَرطُ ضغط الدم	frepestanî xwên
	4- increased	hypertonic: (hyperactive) increased tonicity	مفرط التقوي	fretund, frebehêz, freçalak, frekara
hypo-	1- under, below, location	hypothalamus: under (below) thalamus	تحت المهاد ، تحت السريير البصري في الدماغ	jêr cêy bînîn le mêşkda
		hypodermic	تحت الجلد	jêr pêst
	2- abnormally below	hypoglycemia: blood sugar below normal	نقص (تدني) سكر الدم	kem şekrî xwên (dabezîni şekrî xwên)
	3- decreased	hypoactive	قليل النشاط	kemçalak
		hyposecretion	قليل الافراز	kem derdan
		hypotonic	ناقص التقوي	kem tund
		hypoxia: decreased O ² in the tissues	نقص الأوكسجة	kem oksycîni
olig/o	few, scanty	oligomenorrhea: a scanty menstrual flow (men/o)	قلة الطمث ، شحة الحيض	kemî xwênî suî xwên (kem mehkî)
		oligodontia: fewer number of teeth	نقص الأسنان	didan kemî

pan-	all	panacea: remedy that cures all ills; a cure-all	دواءٌ عامٌّ ، دواءٌ شامل	çareser ya dermanî giştî
		pandemic	وباء شامل	petay giştgir
		panplegia: total paralysis	شلل شامل	îflîcî (şepley) giştgir
super-	1- above	suprasternal: above sternum	فوق عظم القصّ	seru êskî koley sing
	2- excess	supernumerary: in excess number	عدد كبير	serbar, napêwîst u ziyade
	3- location	superficial	سطحيّ ، خارجي ، ظاهري	rûkeş

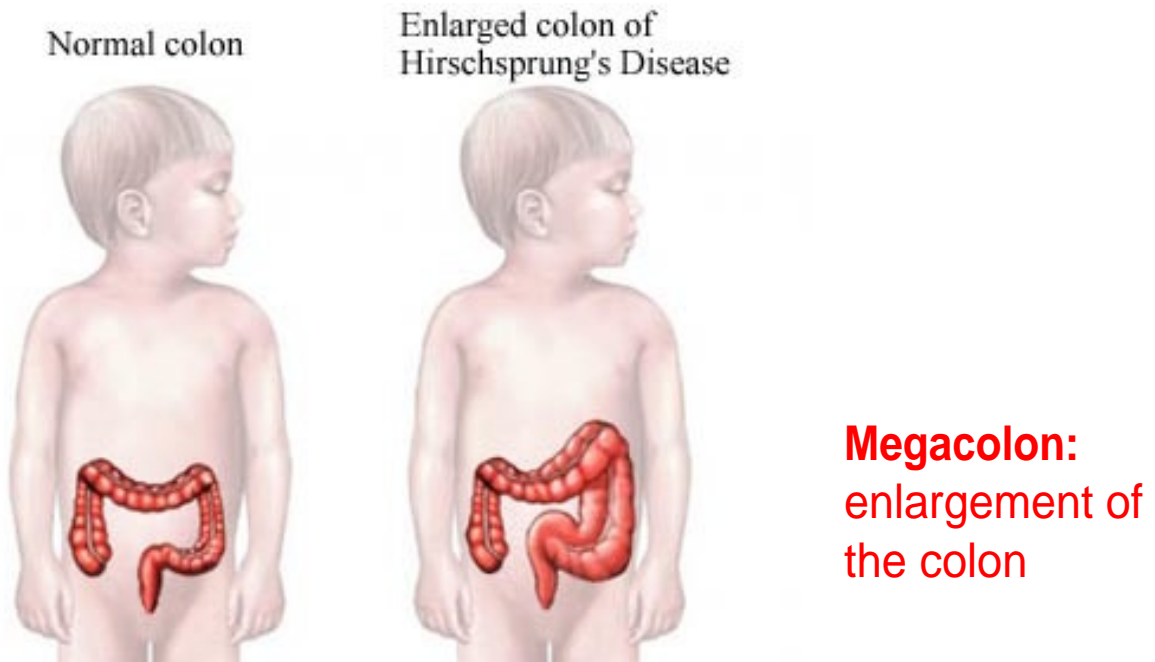


Supernumerary nipples

Prefixes for Sizes and Comparison:			البادئة (الصدر) للقياس و المقارنة	Pêşgir bo pêwanew berawirdkirdin
Prefix	Meaning	Example & its definition	معنى النموذج و البادئة (الصدر)	Watay nimunew pêşgir pêkewe
equi-	equal, same	equidistant	متساوي البعد	hawdûrî
		equilateral: equal sides	متساوي الأضلاع	hawla
		equivalent	متبادل، متكافئ	hawta, hawseng, hawhêz
eu-	true, good, normal, easy	euthanasia: easy or painless death (root = thanat/o)	القتل الرحيم	mirdinî bê azar, mergsazî
		euthyroid: normal thyroid gland (euthyroidism)	غدة درقية طبيعية	pêşmilerjênî asayî
hetero-	other, different, unequal	heterogenous: different materials	متباين الجنس	regezciya (♂&♀)
		heterograft: tissue graft: the donor and recipient are of different species	ترقيع بين جنسين مختلفين	pîne lenêwan dû regezciya
		heterosexual: the opposite sex	جنس مختلف	regezciy
		heterothermic: having varying body temperature	حرارة مختلفة للجسم	piley germî ciyawzî leş
homeo- homo-	same, unchanging	homeostasis: internal stability	الاتزان البدني	hawsengî leş
		homogenous	نفس الجنس	heman regez
		homograft	ترقيع بين جنسين متشابهين	pîney heman regez, (xo pîne)
		homosexual	نفس الجنس	haw regez
		homothermic: maintaining a constant body temperature	ثابت (متجانس) الحرارة	heman germî, germî cêgîr (negoîr)
iso-	equal, same	isograft: graft between two genetically identical individuals	طعم مشابه أو مثلي	pînekirdin (pispandin) lenêwan dû hawcînda
		isometric	متساوي القياس	hawpêwane
		isotonic	متساوي القوة	hawton, hawhêz

macro-	large, abnormally	macrocyte: extremely large red blood cell	خلية ضخمة	kelexane
	large	macroscopic: visible with the naked eye	عياني، يُرى بالعين المجردة	çawebîn
mega-, megal-	1- abnormally large	megabladder: enlargement of the bladder	مثانة كبيرة	gewre mîzêdan
		megacolon: enlargement of the colon	قولون ضخم	kelekoîon
	very large	megakaryocyte: cell with a very large nucleus	خلية ذات نواة كبيرة	xaney nawik gewre
	2- one million	megahertz	مليون هيرتز	yek mîlion hêrtz
megabyte		مليون لقمة	yek mîlion paru (qep)	
suffix: -megaly		karyomegaly: enlargement of nucleus	نواة كبيرة	zilbunî nawik
micro-	1- extremely small	microscopic: visible only through a microscope	مجهرى	wirdbînî
	2- one million	microsecond = 1/1 000 000	جزء من المليون من الثانية	mîlyonyekî çirkeyek 1/1 000 000
		microsurgery	الجراحة بالمجهر	wirdbîne neştergerî (birînsazî)
neo-	new	neonate: a newborn infant	وليد، حديث الولادة	newzad
		neocortex	الطبقة الخارجية الحديثة للدماغ	tuwêy nwêy derewey mêşk
normo-	normal	normovolemia: normal blood volume	كمية دم سوية	biçe xwênî asayî
		normothermic: normal body temperature	درجة حرارة طبيعية	piley germî asayî
		normosmosis: homeostasis	الاتزان البدني	hawsengî leş
ortho-	straight, correct, upright	orthotic: correcting or preventing deformities	تقوي	rastkirdinewew nehêştinî şêwawî
		orthopedic: correcting deformities	جراحة العظام	êske neştergerî

		orthodontic	تقويم الأسنان	didan rastkirdinewe
poikilo-	varied; irregular	poikiloderma: mottled condition of the skin	التخضب الشبكي الضموري في الجلد	pukanewew tofe rengbunî pêst
		poikilocyte	خلية غير منتظمة	xaney naîêk
pseudo-	false	pseudoplegia: false paralysis (suffix-plegia)	شلل كاذب أو وهمي	îflîciye dirozne
re-	again; back	reaction	تفاعل، رد الفعل	dije kirdar, dijkar, karlêk, kardanewe
		recovery	شفاء	çakbunewe
		recuperation: recovering	النقاهة: استعادة الصحة والعافية	bujanewe: hêz u tendrustî gefanewe
		reflux	إرتداد، جزر	gefaneweduwa
		regurgitation: backward or return flow, as of blood or stomach contents	تقييء، دفع إلى الوراء	gefanewey xwên ya rşanewey nawerokî gede bo duwawe
		rehabilitation	تأهيل	rahênanewe
		replace	يحل محل	şwêngirtinewe, cêgirtinewe
		replication	تكرار	dûpatkirdinewe



Prefixes for Time and/ or Position:			البادئة (الصدر) للزمن و الموقع	Pêşgir bo kat u şwên
Prefix	Meaning	Example & its definition	معنى النموذج و البادئة (الصدر) معاً	Watay nimunew pêşgir pêkewe
ante-	before	antecedent	سابق، سالف	raburdû, baw u bapîr
		antedate: predate	تأريخ مُتقدم	rudawî pêştir
		antenatal: before birth	قبل الولادة	pêş zayîn (ledayikbûn)
pre-	before, in front of	preauricular	امام الأذن	ber (pêş) giwê
		predict	يتنبأ	pêşbînî eka
		predisposing: leading toward a condition, such as disease	مُؤَهَّب ، مُوَدَّ الى حالة ما كحالة مرضية	amadekarî bo tuşbun be nexoşî
		premature	خديج، قبل النضوج	nakam
		premenstrual	قبل الطمث	pêş sûrî xwên (mehk)
		prenatal	قبل الولادة	pêş zayîn (ledayikbûn)
		preoperative: time span from decision for surgery to placement on the operating room table	قبل العملية	pêş neştergerî
pro-	before, in front of	prodrome: symptom precedes a disease	أعراض تُسبق المرض	nîşaney pêş nexoşî
		progenitor	جد أعلى، سلف	bapîr, baw u bapîr
		prognosis	تكهن للمرض	pêşbînî barî nexoşî
		projection	نتوء ، بروز	çukîe
		prosencephalon: forebrain	مُقدِّم المخ	beşî pêşewey mêşk

post-	after, behind	postmenopausal: after menopause	عَقَبَ سِنَّ الْيَأْسِ ، مَا بَعْدَ انْقِطَاعِ الطَّمَثِ	paş westanî sufî xwên, (paş temenî naeumêdî), paş mehkibîran
		postmortem: after death when an autopsy is performed to determine its cause	بعد الوفاة	paş mirdin
		postnasal	خلف الأنف	pişt lût
		postoperative: is the adjective for the operative time span from admission to postanesthesia	بعد العملية	paş neştergerî
		post-traumatic	بعد الجرحي	paş lêdan

Prefixes for Position:			البادئة (الصدر) للموقع	Pêşgir bo şwên
Prefix	Meaning	Example & its definition	معنى النموذج و البادئة (الصدر) معاً	Watay nimunew pêşgir pêkewe
dextr/o-	right	dextrad: toward the right	يميناً	be fasta
		dextrocardia: location of the heart in the right side of the chest	قلب يميني	raste diî
		dextromanual: (Rt handed)	أيمن اليد	raste
sinister/o-	left	sinistrad: toward the left	صَوْبَ الْيَسَارِ	be çepa
		sinistromanual: (Lt handed)	أيسر اليد	çepe
ec-, ecto-	out; outside	ectocardia: placement of the heart outside its normal position	قلب هاجر (من الولادة)	koçe diî (zigmak)
		ectoderm: outermost layer of the developing embryo	الجلد الباطن	tuwêy derewey pêst le korpeleda
		ectoparasite	طفيلي خارجي	derde mêmilî, (mşexorî derekî)
		ectopic	هاجر	derewey şwênî xoy (koçkirdû)
		eccentric: (geometrical center)	خارج المركز	dere çeçq

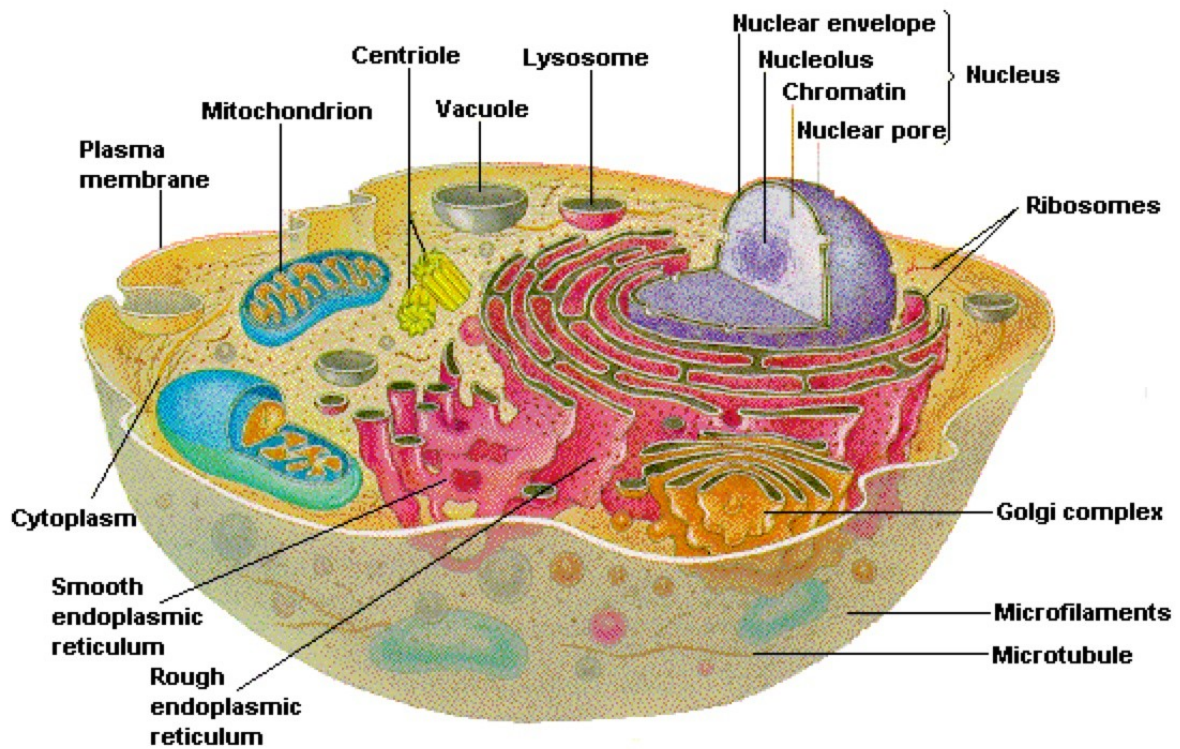
ex/o-	away from; outside	excision: cut out, extract, exhale	إستئصال، قطع	břîn, qirtandin
		exogenous: (outside the organism)	من خارج الجسم	le derewey leş
		exotoxin	سم خارجي	jehrî derekî
		extracorporeal: outside the body	خارج الجسم	derewy leş
		extra-terrestrial (ET): any object beyond the planet earth	خارج الأرض (فضائي)	derewey zewî
		extra- curricular: outside the realm of the normal curriculum of school or university education	لا منهجي (خارج المنهج)	nabernameyî, (derebername)
		extrauterine	خارج الرحم	dere mindaldan
		extravasation	نضح	xwêntêzan
		external, externally	خارجي	derekî
end/o-	in; within	endoscope: device for viewing the inside of a cavity or organ	منظار داخلي، منظار باطن	nawbîn
		endonasal: within the nose	من داخل الأنف	lenaw lutewe
		endoplasm: inner part of a cell's cytoplasm	القسم الداخلي للساييتوبلازم	plasmay naw xane
		endogenous	داخلي المنشأ	nawekî za
		endoderm: (innermost layer of the embryo)	الجلد الباطن	nawpoşe pêst
		endotoxin	ذيفان داخلي في داخل الجرثومة	jehrî nawewey mîkrob
mes/o-	middle	mesoderm	الأدمة المتوسطة	nawende çînî pêst
		mesencephalon	الدماغ المتوسط	mêşkî naweřast
syn-	together	synapse: a junction between two nerve cells	إتصال، مشبك	têkałanî cemserî hestedemarekan beyekewe

		synchronous: occurring at the same time	متزامن	le heman katda be yekewe rûdeden
		syndactyly: two or more digits are fused together	التصاق الأصابع	pencenusawî
sym-	together	symbiosis: used before → b	تعایش سلمي	be yekewe jîyan
		symmetrical: used before → m	متماثل	dû lay leyekçû
		symphysis: used before → p	ارتفاق	şwênî peywestî dû êsk
tel/e-, tel/o-	end	telangion: a terminal vessel (root = angi/o)	شريان إنتهائي	- dezuley xwênî kotayî



Syndactyly - hand

4. Cells, Tissues and Organs:



Roots for Cells, Tissues and Organs:			الجذور للخلايا و الأنسجة	Regekanî xanew şanekan
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
morph/o	form	polymorphic: having many forms	متعدد الشكل	freşêwe
		dimorphic: organism has two forms	ذات شكلين	dû şêweyî
		morphology: is study of form	علم الأشكال	şêwezanî
		amorphous: without form	بدون شكل	bê şêwe
cyto/o	cell	cytogenesis: the formation of the cells	تَوَلَّدَ الخَلايا ، تَكُونُ الخَلايا	dirustbunî xane
		cytology: is study of cells	علم الخلية	xanezanî
		cytoplasm: material that fills the cell	مادة داخل الخلية	madey naw xane
		cytotoxic: poisonous to cells	مسممة للخلية	jehre bo xane
-cyte	cell	leukocyte	خلية بيضاء	xaney sipî
		lymphocyte	خلية ليمفية	lîmfexane
		monocyte	خلية ذات تواة واحدة	yek nawike xane
		erythrocyte	خلية حمراء	xaney sûr
		adipocyte: cell that contains fat	خلية شحمية	xaney çewrî
nucle/o-	nucleus: is the control center of the cell	nuclear: pertaining to a nucleus	نَوَوِي	nawkî
		nucleoplasm: is the material that fills the nucleus	مادة داخل النواة	plasmay naw nawik
		nucleosome: small body in the nucleus	جسم في النواة	tenî naw nawik
kary/o	nucleus	karyotype: picture of the chromosomes of a cell organized according to size	نَمَطَ النُّوَاةَ ، نَمَطَ نَوَوِي	corî nawik be pêy qebare
		karyogenesis: formation of a nucleus	تكون النواة	nawik drustbûn
		Karyomegaly: is enlargement of the nucleus	تضخم النواة	nawik gewrebûn

hist/o, histi/o	tissue	histologist: specialist in the study of tissue	عالم النُّسج	zanay şane, şanezan
		histogenesis: formation of tissue	تكون الأنسجة	şane drustbûn
		histology: is study of tissues	علم الأنسجة	şanezanî
fibr/o	fiber	fibrosis: abnormal formation of fibrous tissue	لياف، تليّف، حُوول ليفي	bûnerîşalî
		fibril: is a small fiber	ليف صغير	rîşalî biçûk
		fibroma: fibrous tumor	ورم ليفي	luy rîşalî
		fibroplasia: formation of fibrous tissue	تكون الالياف	rîşalî pêkhatin
reticul/o	network	reticulum: a network	شبكة	tof
		reticular: resembling to a network	مثل شبكة	tořî, şêwe tof
		reticulocyte: cell that contains a network	خلية مشبكة	tořexane
aden/o	gland	adenoma: tumor (-oma) of a gland	ورم غدّي	rjênelû
		adenitis: is inflammation of a gland	التهاب الغدة	hewkirdinî rjên
		adenoid: resembling a gland	مثل الغدة	wek rjên
papill/o	nipple	papilla: is a projection that resembles a nipple	حليمية	go, gopkey memik
		papillary: like or resembling a nipple	حليمي الشكل	goyî
		papilliform: resembling a nipple	حليمي الشكل	goşêwe
myx/o	mucus	myxadenitis: inflammation of a gland that secretes mucus	التهاب غدة مخاطية	hewkirdinî çilmrêj
		myxoma: is a tumor of tissue that secretes mucus	ورم مخاطي	çilmelû
		myxocyte: tissue that secretes mucus	خلية مخاطية	çilmexane
muc/o	mucus, mucous	mucorrhea: increased flow (-rhea)of mucus	زيادة جريان المخاط	fre çilmrêjî
		mucoid: resembling mucus	مخاطاني	çilmî
	membrane	mucosa: membrane that secretes mucus	الطبقة المخاطة	çilme çin

somat/o	body	somatic: pertaining to the body	جَسَدِيّ ، بَدَنِيّ	cesteyî
		somatotropic: acting on the body	يؤثر على الجسد	karîger bo leş
		somatopsychic: the body and the mind	الجسد و الدماغ	leş u mêşk
		somatotropin (growth hormone): general stimulating effect on the body	المادة التي تحث الجسد	madey leşhander
-some	body	chromosome: structure that contains genes	خييط كروماتيني في النواة	kromosom: pêkhatey tuxm hełgr
		nucleosome: small body in the nucleus	جسم صغير في النواة	nawikosom: tenokeyeke le nawikda
		ribosome: organelle contains RNA	المحتوي على (آر، إن، أي)	raybosom: (RNA) y tyaye

Roots for Cell Activity:			الجذور لنشاط الخلية	Reg bo çalakî xane
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
blast/o, -blast	immature, productive embryonic cell	leukoblast: an immature white blood cell	أرومة بيضاء ، جَذَعَة بيضاء	xifokey sipî pênegeyştu
		erythroblast: immature red blood cell	كريات حمراء بدائية	xifokey sûrî pênegeyştu
		normoblast	سليفة حمراء	xaney asayî pênegeyştu
gen	origin, formation	genetics: the science of genes and heredity	علم الوراثة ، الوراثيات	tuxmzanîw bomaweyî
		regeneration	تجدد	nwêbunewe, çakbunewey şaney fewtaw
phag/o	eat, ingest	phagocyte: cell that ingests waste and foreign matter	بلعمية ، خلية آكلة	xaney xorak, xaney hełluş
		phagocytosis: ingestion of waste by a cell	بلعمة	qûtdan, hełluşîn
		esophagus	مرىء	surênçik

phil	attract, absorb	acidophilic: attracting acid stain	أَيْفٌ أَوْ مُجِبُّ الْأَصْبَاغِ الْحَمْضِيَّةِ	boyey tirşxuwaz
		basophilic: attracting basic stain	أَيْفٌ أَوْ مُجِبُّ الْأَصْبَاغِ الْقَاعَدِيَّةِ	boyey tiftxuwaz
		basophil	الف القاعدة	tiftxuwaz
		eosinophil	الف الأيوسين	eyosînxiuwaz
		neutrophil	محببة الاعتدال	hawkêşxiuwaz
		chromophilic: attracting color	الف أصباغ	boyexuwaz
		hemophilia (hematophilia)	الناعور، ميل مرضي للنزف	xwênxiuwaz, xwêneçoîfê
plas	formation, molding, development	aplasia: lack of development	اللانسج	geşewestê, pukanewe
		dysplasia	ردىء التكون	xirap drustbûn
		fibroplasia: formation of fibrous tissue	تكون الليف	rîşaldrûstê
		hyperplasia: over-development of an organ or tissue	فَرْطُ التَّنْسُجِ ، تَكَثُّرٌ نَسِيجِي ، فَرْطُ التَّصْنَعِ	fregeşê
		neoplasia: new formation of tissue	تكون الأورام الخبيثة	şêrpence peydabû
		neoplasm	نمو جديد	nwêgeşe
		thromboplastin	مكون الخثرين	meyên drûstkere
trop	act on, affect	chronotropic: affecting rate or timing	تَضَطُّرْبُ دَوْرِيَّةِ الْمَعْدَلِ أَوْ الْوَقْتِ	kar ekate ser rêje ya kat
		gonadotropin: substance that acts on the sex glands	المادة التي تؤثر على الغدد التناسلية	madey karîger le rjênî zaw uzê
		gonadotrophic	مغذي الغدد التناسلية	xorakpêderî rjênî zaw u zê
		somatotropic: acting on the body	يؤثر على الجسم	kar ekate ser leş
troph/o	feeding, nourishment	atrophy: wasting away (lack of nourishment)	ضُمُور	pukanewe

		autotroph: organism capable of manufacturing its own food	صانع ذاتي للغذاء	xorak bo xo drustker
		dystrophy	سوء تغذية	bed xorakî
	growth	hypertrophy: increased growth of tissue	تضخم غير طبيعي	zî, gewrebunî nasruştî

Suffixes and Roots for Body Chemistry:			اللاحقة و الجذر لكيمياء الجسم	Paşgir u reg bo kîmyay leş
Suffixes	Meaning	Example & its definition	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir ya reg pêkewe
-ase	enzyme	lipase: enzyme that digests fat	خميرة حالة الشحم	şîkar ya çewrîherskere
		amylase: enzyme that digests and breaks starch down into sugar	انزيم لأذابة النشا	nîşasteherskere
		protease: is an enzyme that digests proteins	أنزيم برتيني	přotînerskere
-ose	sugar	lactose: milk sugar	سكر اللبن	şekrî şîr
		maltose: is the disaccharide produced when amylase breaks down starch	السكر المنتج بواسطة انزيم النشا	şekrî le encamî ênzymî nîşaste dirustbû
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew paşgir ya reg pêkewe
hydr/o	water, fluid	hydrophilic: attracting water	مصوص للماء	awxuwaz
		hydrotherapy: is treatment using water	العلاج بالماء	aweçare
		hydration: relative amount of water	التميو	awên, awdar

gluc/o	glucose	glucosuria: presence of glucose in the urine (ur/o)	بَوْل سَكْرِي	şekremîzê
		glucogenesis: formation of glucose	تكون السكر	drustbunî şekir
		glucolytic	اذابة السكر	tuwanewey şekir
glyc/o	sugar, glucose	hyperglycemia: high blood sugar	زيادة سكر الدم	xwêne freşekrê
		hypoglycemia: low blood sugar	قلة سكر الدم	xwêne kemeşekrê
		normoglycemia	نسبة طبيعية لسكر الدم	xwêne asaşekrê
sacchar/o	sugar	polysaccharide: compound containing many sugars	عديد السكريد	freşekirîd
amyl/o	starch	amyloid: resembling starch	نظير النشا	lêkçui nîşaste
		amylase: enzyme that digests starch	أنزيم لهضم النشا	emyleyz: ênzymî nîşaste herskere
lip/o	lipid, fat	lipogenesis: formation of fat	تولد (تكون) الشحم	çewrîdirustbun
		liposuction: surgical removal of fat	ازالة الشحم	çewrî labirdin
		lipoma	ورم شحمي	çewre (pîwe) lû
		lipase: enzyme that digests fat	أنزيم لهضم الشحم	laypeyz: ênzymî çewrî herskere
adip/o	fat	adipocyte: cell that stores fat	الخلية الخازنة للشحم	xaney çewrîkokerewe
		adipose tissue: stores fat	نسيج دهني	roneşane
		adiposuria: is the presence of fat in the urine	وجود دهن في البول	mîze çewrê
steat/o	fatty	steatorrhea: discharge of fatty stools	إسهال دهني	çewre sikçun
		asteatosis: (dry skin): the affected area becomes rough and dry	جفاف الجلد	pêst wişkbûn
prote/o	protein	protease: enzyme that digests protein	أنزيم برتيني	protîyeyz: ênzymî p̄rotîn herskere
		proteolytic: destroying or dissolving protein	اذابة برتين	p̄rotîn tuwandinewe

Definitions:

Biopsy: Greek word (bio) = life, + (opsis) = to see, vision. Together they mean the visualization of living tissue. Biopsy: is the removal and examination of living tissue to determine a diagnosis, the specimen itself is called biopsy.

In vivo: (Latin word): means in the living body.

In vitro: (Latin word): means (in glass): refers to procedures and experiments done in the laboratory, as compared with studies done in living organisms.

In situ: (Latin word): means (in its original place): refers to tumors that have not spread.

In toto: (Latin word): means (whole or completely): referring to a structure or organ removed totally from the body.

Postmortem: after death when an autopsy is performed to determine its cause.

Anabolism: building phase of metabolism.

Catabolism: breakdown phase of metabolism.

Collagen: fibrous protein in connective tissue.

Amino acid: building block of protein.

Cortex: outer region of an organ.

ATP: energy compound of the cells

DNA: genetic material

cartilage: a type of connective tissue

mitochondria: organelles that produce ATP

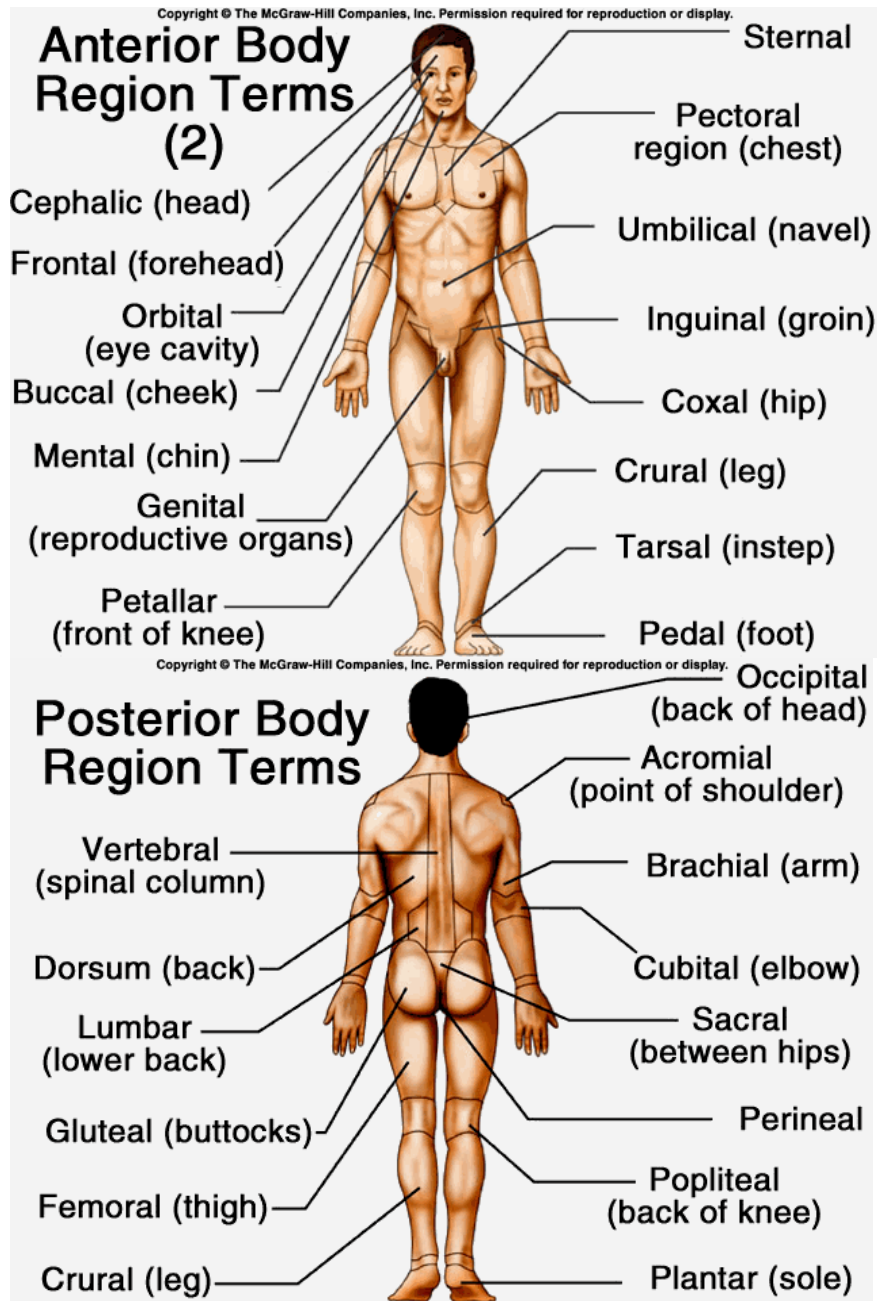
proteolytic: destroying or dissolving protein

somatopsychic: pertaining to the body and the mind

Cell structures:

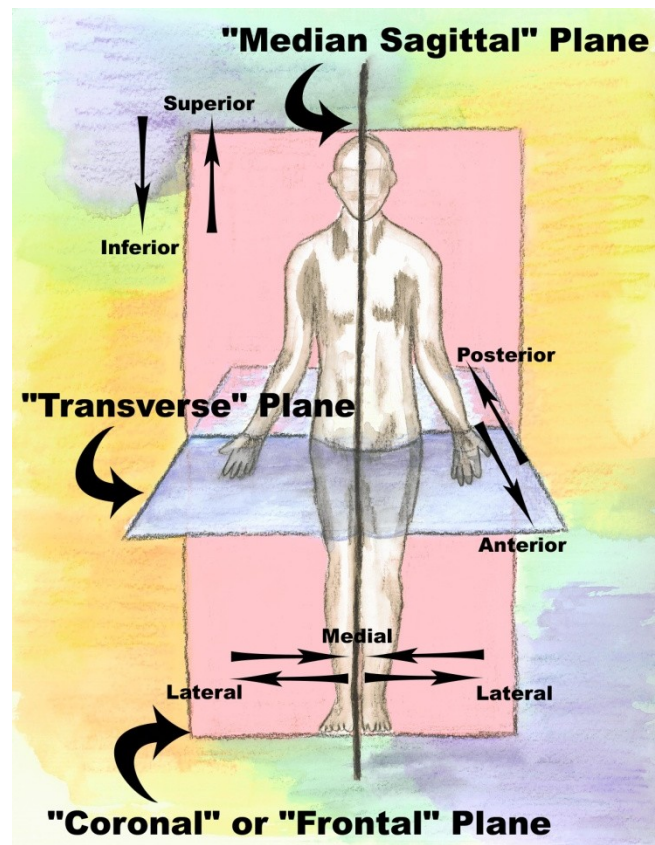
- 1- The four basic tissue types are: **epithelial**, **connective**, **muscle** and **nervous**.
- 2- The simple sugar that is the main energy source for metabolism is **glucose**.
- 3- **Nucleus:** is the control center of the cell.
- 4- The number of chromosomes in each human cell aside from the sex cells is **46**.
- 5- An organic compound that speeds the rate of metabolic reactions is **enzyme**.
- 6- **Karyomegaly:** is enlargement of the nucleus.
- 7- **Oytotoxic substance:** is damaging or poisonous to cells.
- 8- **Hydration:** refers to the relative amount of water.
- 9- **Adiposuria:** is the presence of fat in the urine.
- 10- **Myxocyte:** is found in tissue that secretes mucus.

5. Body Structure:



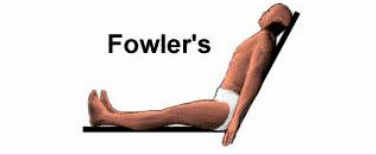


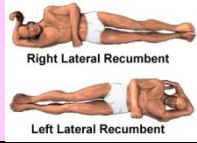

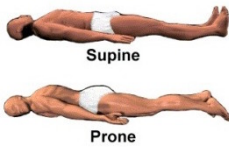






Anatomical Directions:

Term	Definition
anterior (ventral)	toward the front (belly) of the body
Posterior (dorsal)	toward the back of the body
medial	toward the midline of the body
lateral	toward the side of the body
proximal	near to the point of attachment or to a given reference point
distal	farther from the point of attachment or to a given reference point
superior	above
inferior	below
cephalad (cranial)	toward the head
caudal (tail)	toward the lower end of the spine
superficial (external)	close to the surface of the body
deep (internal)	close to the center of the body

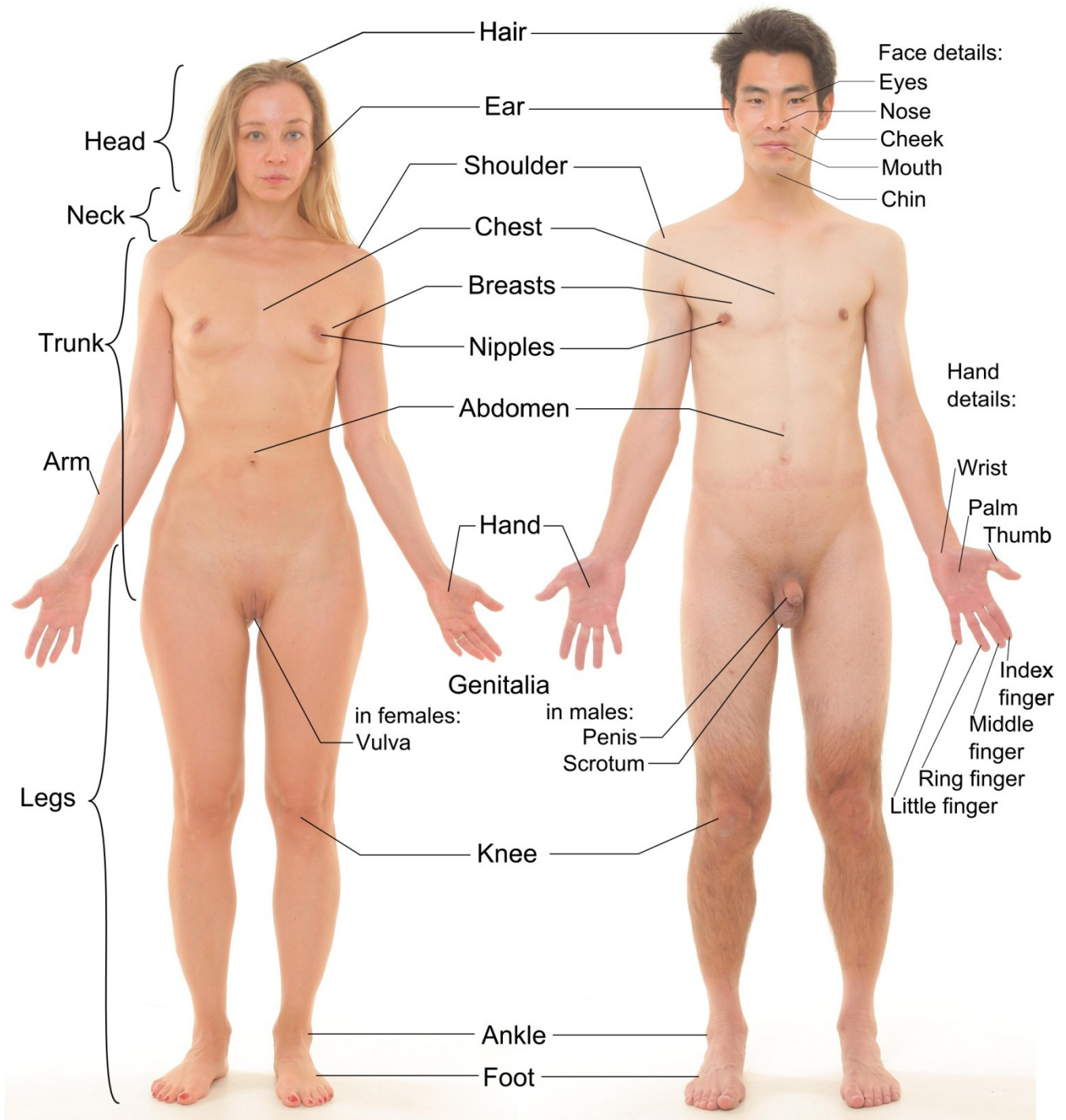


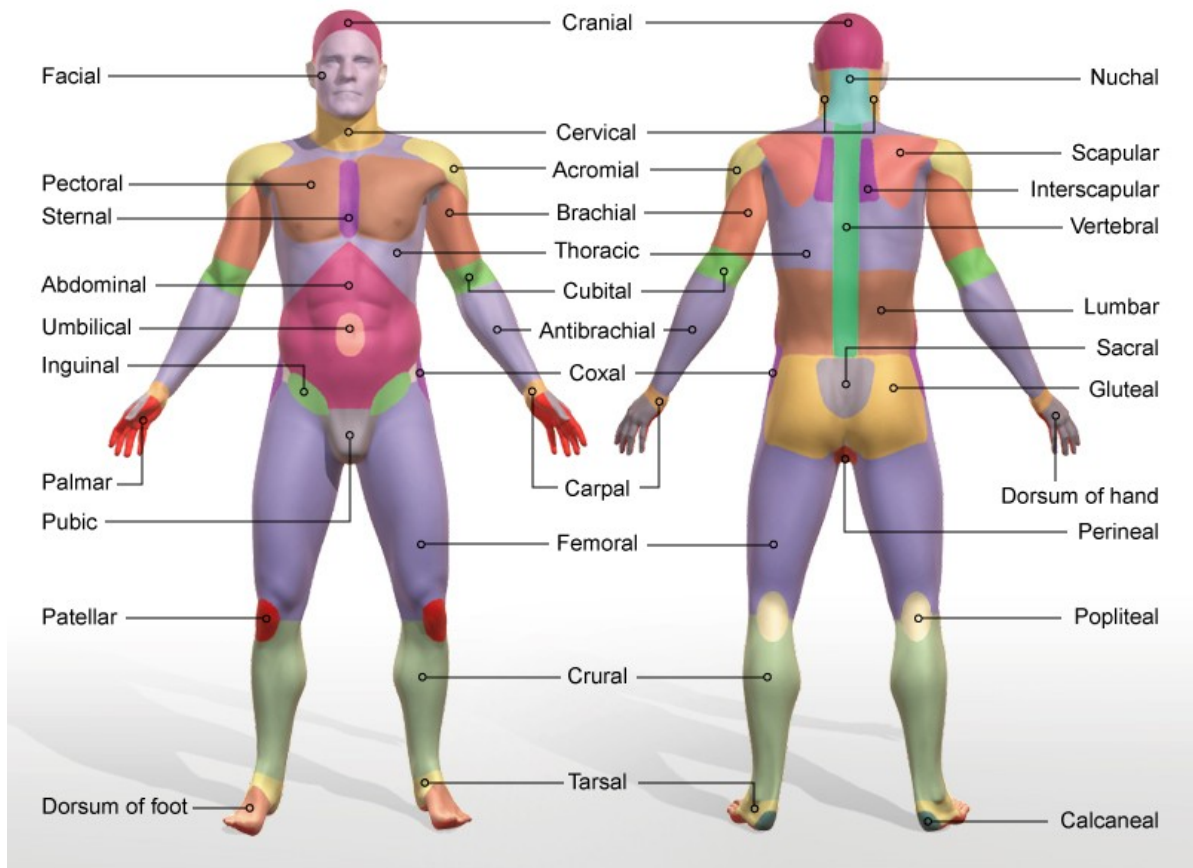
Body Positions:

<u>Position:</u>	<u>Description</u>	
anatomical position	standing erect, facing forward, arms at sides, palms forward, legs parallel, toes pointed forward	
decubitus position	lying down: L, R, dorsal or ventral	
dorsal recumbent	on back, with legs bent & separated, feet flat	
Fowler position	on back, head of bed raised about 18 inches, knees elevated	
Kraske (Jack knife)	prone with buttocks raised	
Knee-chest position	on knees, head & upper chest on table, arm crossed above head	
lateral recumbent (recovery position)	On the side with one leg flexed	
lithotomy position	on back, legs flexed on abdomen, thighs apart	
prone	lying face down	

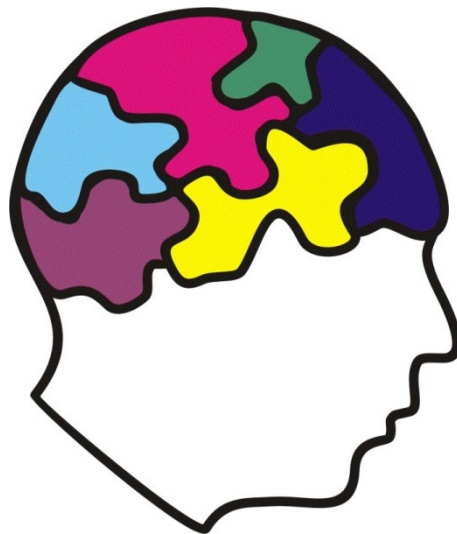
Sims position		
supine	lying face up	 <p>Supine</p>  <p>Prone</p>
Trendelenburg position	On back with head lowered by tilting bed back at 45 degree angle	







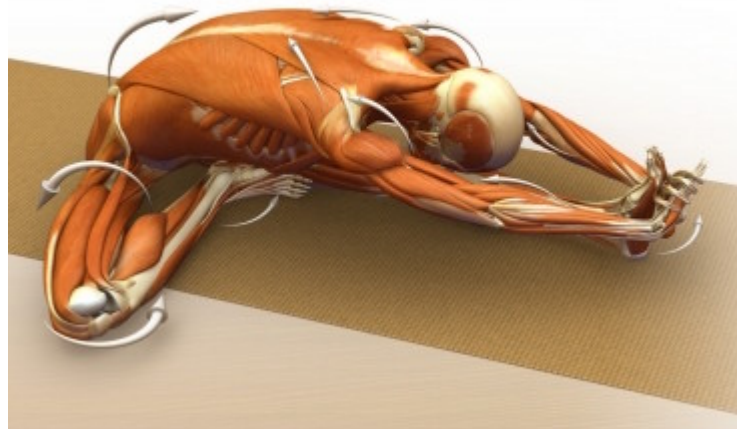




Roots for Regions of the Head and Trunk:			الجذور للرأس و الجذع	Reg bo ser u qed
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
cephal/o-	head	microcephaly: abnormal smallness of the head	صَغْرُ الرَّأْسِ	serbiçukî na asayî
cervic/o-	neck	cervicofacial: pertaining to the neck and face	عُنُقِي وَجْهِي	mil u rûyî
thorac/o	chest, thorax	extrathoracic: outside the thorax	خَارِجَ الصَّدْرِ	derewey sing
abdomin/o	abdomen	Intra-abdominal: within the abdomen	فِي الْبَطْنِ ، دَاخِلَ الْبَطْنِ	lenaw sik
celi/o	abdomen	celiac: pertaining to the abdomen	بَطْنِي ، جَوْفِي	sikî, henawî
lapar/o	abdominal wall	laparoscope: instrument for viewing the peritoneal cavity through the abdominal wall	مِنْظَارُ الْبَطْنِ	nawsikbîn
lumb/o	lumber region, lower back	thoracolumbar: pertaining to the chest and lumber region	صَدْرِي قَطْنِي	sing u xalîgeyî
periton, peritone/o-	peritoneum	peritoneal: pertaining to the peritoneum	صَفَاقِي ، هُرْبِي ، خَلِي	çermeçeqaîte



Roots for the Extremities:			الجذور للأطراف	Reg bo pel
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
acro/o (head, hands & feet)	Extremity, end	acrodermatitis: inflammation of the skin of the extremities	إلتهابُ جلد الأطراف	hewkirdinî pêstî dest, qaç u ser
		acromegaly: enlargement of the ends (head, hands & feet)	ضخامة الأطراف  	gewrebunî kotayîyekan: (dest, qaç u ser)
branch/o	arm	antebrachium: forearm	الساعد ، الذراع	basik
dactyl/o	finger, toe	polydactyly: having more than the normal number of fingers or toes	تعدد الأصابع	frepenceyî
ped/o	foot	dextropedal: using the right foot in preference to the left	أيمن الرجل : يُفضل استعمال الرجل اليمنى	raste qaçî
pod/o	foot	podiatric: pertaining to study and treatment of the foot	دراسة و علاج القدم	qaçzanî, pêzanî

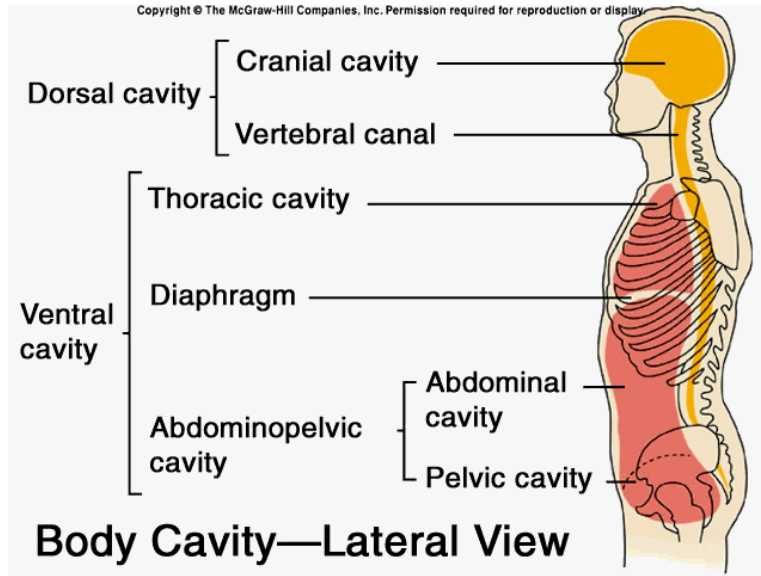


Prefixes for Position and Direction:			البادئة (الصدر) للموقع والاتجاه	Pêşgir bo şwên u ařaste
Prefix	Meaning	Example & its definition	معنى النموذج والبادئة (الصدر) معاً	Watay nimunew pêşgir pêkewe
circum-	around	circumoral: around the mouth	حَوْلَ الفم	dewruberî dem
peri-	around	perivascular: around a vessel	حَوْلَ الوعاء	dewruberî borî xwên
intra-	in, within	intrauterine: within the uterus	داخلِ الرحم	naw mindaldan
epi-	on, over	epithelium: tissue that covers surfaces	ظَهارة ، نَقِيضُ البِطانة	dapoşerexane
extra-	outside	extracellular: outside a cell or cells	خارجِ الخلية	derewey xane
infra-	below	Infrapatellar: below the kneecap (patella)	تحت الرضفة	jêr kilawey ejno
sub-	below, under	sublingual: under the tongue	تحت اللسان	jêr ziman
inter-	between	intercostal: between the ribs	بين الأضلاع	nêwaneperasû
juxta-	near, beside	juxtaposition: a location near or beside another structure	تجاور	hawsêyetî, tenîştêtî
para-	near, beside, behind	parsagital: near or beside a sagittal plane	جَنِيْبُ السَّهْمِي	nizîk ya tenîşt tîrekî
retro-	backward	retroperitoneal: behind the peritoneum	خلف الصفاق	pişt çermeçeqalte
supra-	above	suprascapular: above the scapula (shoulder blade)	فَوْقَ الكَتِفِ ، فَوْقَ اللُّوحِ	jûr defey şan



Sublingual

Body Cavities:



Ventral cavity

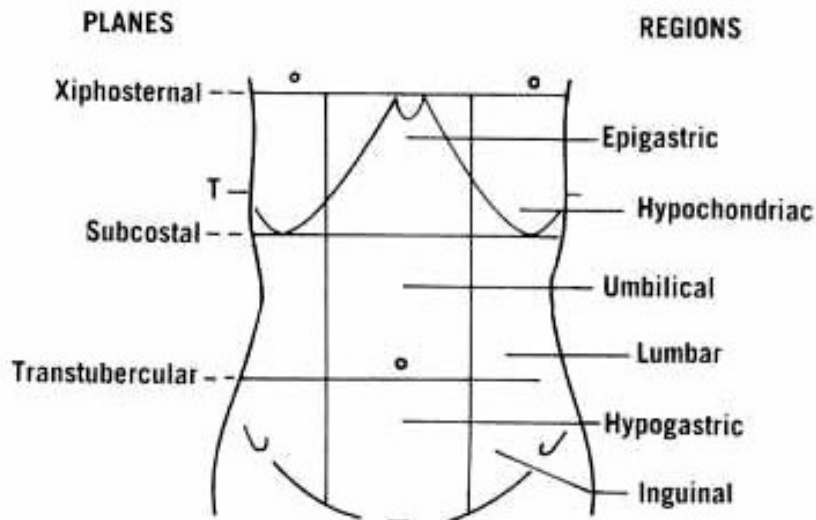
- 1- Thoracic cavity
- 2- Abdominal pelvic cavity:
 - a- Abdominal cavity
 - b- Pelvic cavity

Dorsal cavity

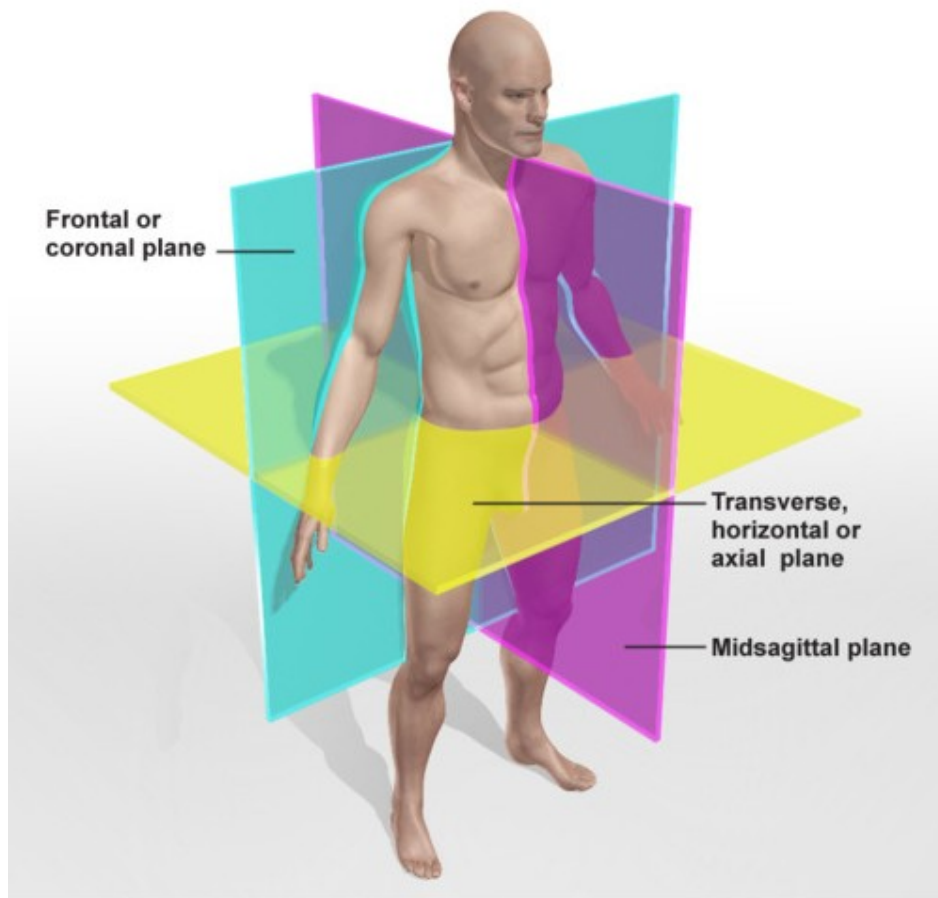
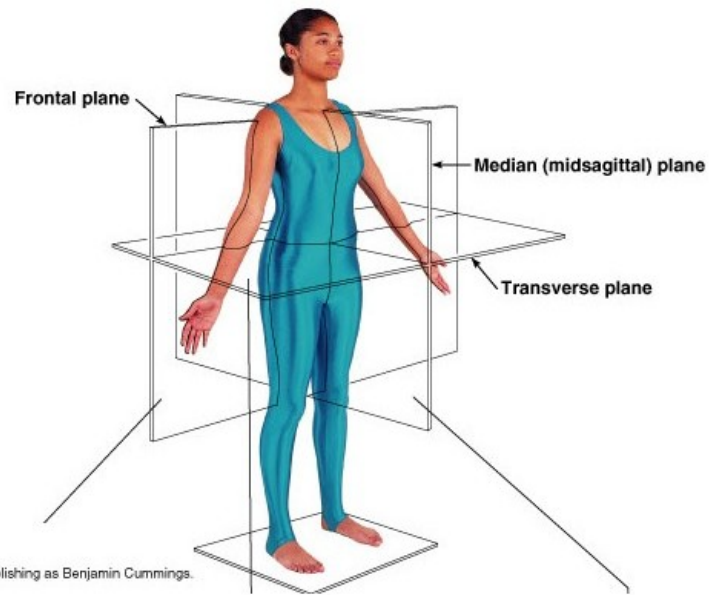
- 1- Cranial cavity
- 2- Spinal cavity (canal)

The nine regions of the abdomen:

R. Hypochondriac	Epigastric	L. Hypochondriac
R. Lumbar	Umbilical	L. Lumbar
R. inguinal (Iliac)	Hypogastric	L. inguinal (Iliac)



3 planes of division:



Chapter 2 Disease and Treatment:

6. Disease



Roots for the Disease:			الجذور للمرض	Reg bo derd (nexoşî)
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
algesi/o alg/o, algi/o,	pain	algisia: condition of having pain	التحسس بالألم ، حسُّ الألم ، تألم	be êş u azar, şwêne êşê
carcin/o	cancer, carcinoma	carcinogen: substance that produce cancer	مُسَرِّطَن ، مُؤَدِّ السَّرَطَان	şêrpencehên
cyst/i cyst/o,	filled sac or pouch, cyst, bladder	cystic: pertaining to or having cysts	كَيْسِي ، مَرَارِي ، مَثَانِي	turekeyî
lith	calculus, stone	lithiasis: stone formation	تَحَصُّن ، الداء الحَصَوِي ، تَكَوُّن الحَصِيَّات	berd dirustbun
onc/o	tumor	oncogene: gene that causes tumor	مُكَوِّن الورم	lûpêkhên
path/o	disease	pathogen: organism that produces disease	مُمْرِض ، مَعَل	nexoşîhên
py/o	pus	pyocyst: a sac or cyst containing pus	كَيْسٌ مُتَقَيِّح	kêmtureke, turekey kêmkirdû, zuxawetureke
pyr/o, pyret/o	fever, fire	pyretic: pertaining to fever	حُمُوِي ، سَخُونِي	beta
scler/o	hard	sclerosis: hardening of tissue	تَصَلُّب ، تَصَلُّد ، صَلَابُ الأوعِيَّةِ و الأعصابِ	borî u demar reqbûn
tox/o, toxic/o	poison	exotoxin: toxin secreted by bacterial cells	ذَيْفَانٌ خَارِجِي ، تَكْسِينُ خَارِجِ الخَلَايَا	derejehr

Prefixes for Disease:			البادئة (الصدر) للمرض	Pêşgir bo nexoşî
Prefix	Meaning	Example & its definition	معنى النموذج و البادئة (الصدر) معاً	Watay nimunew pêşgir pêkewe
brady-	slow	bradypnea: slow breathing	بُطء التنفّس	henasexawê
dys-	abnormal, painful, difficult	dysplasia: abnormal development of tissue	خَلل التنسّج	na asayiye şanegeşê
mal-	bad, poor	maladaptive: poorly suited to a specific use or to the environment	سوء التّلاؤم ، سوء تكيفي	bedrahatin
pachy-	thick	pachyemia: thickness of the blood	ثِخُن الدم	xwênexestê
tachy-	rapid	tachycardia: rapid heart (cardi) rate	تسرّع القلب ، خَفَقَة نَبْضٍ سريع	dîlexurpê, dîlekutê
xero-	dry	xerosis: dryness of the skin or membranes	جفاف	wîşkbunewe



Suffixes for Disease:			اللاحقة للمرض	Paşgir bo derd (nexoşî)
Suffix	Meaning	Example and definition	معنى النموذج واللاحقة معاً	Watay nimunew paşgir pêkewe
-algia, -algnesia	pain	myalgia: pain in a muscle (my/o)	ألم عَضَلِي	masulke êşê
-cele	hernia, localized dilation	hydrocele: localized dilation containing fluid	قَيْلَة مَائِيَّة	tureke aw, bagune
-clasis, -clasia	breaking	osteoclasia: breaking of a bone (oste/o)	عَمَلِيَّة كَسْر العَظْم جراحياً	êsk şikandin
-itis	inflammation	meningitis: inflammation of the membranes around the brain	إلْتِهَابُ السَّحَايَا	hewkirdinî perdey mêşk
-megaly	enlargment	hepatomegaly: enlargement of the liver	ضَخَامَة الكَبِد	cigerzilî
-odynia	pain	urodynia: pain on urination	ألمُ البَوْل ، ألمُ التَّبَوُّل	mîze êşê
-oma	tumor	blastoma: tumor of immature cells	الْوَرْمُ الجَذْعِي أو الجُرَثُومِي	luy xaney pênegeyştu
-pathy	any disease of	cardiomyopathy: any disease of the heart (cardi/o) muscle	إِعْتِلَالُ عَضَلَةِ القَلْب	derdemasulkey diî, nexoşyî masulkey diî
-rhage, -rhagia	bursting forth, profuse flow, hemorrhage	hemorrhage: profuse flow of blood	نَزْف	xwênberbun, xwênpijan
-rhea	flow, discharge	mucorrhea: discharge of mucus	زِيَادَة جَرِيَان المَخَاط	fre çilmîştin
-rhexis	rupture	amniorrhexis: rupture of the amniotic sac (bag of waters)	تَمَرُّق الكَيْسِ السَّلْوِي	ser aw teqîn, ser aw diîfan
-schisis	fissure, splitting	retinoschisis: splitting of the retina of the eye	إِنْشِقَاقُ الشَّبَكِيَّة	leyek ciyabunewey tofî çaw

Words for Disease used as Suffixes:			اللاحقة للمرض	Paşgir bo derd (nexoşî)
Word	Meaning	Example	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
dilation, dilatation	expansion, widening	vasodilatation: widening of blood vessels	توسُّع الأوعية	borî xwên frawanbûn
ectasia, ectasis	dilation	bronchiectasis: chronic dilatation of a bronchus	توسُّع القصبات	frawanbûnî borî henase ya hewa
edema	accumulation of fluid, swelling	lymphedema: swelling of tissues as a result of lymphatic blockage	وذمة لمفية	awsanî girêy lîmf
lysis	separation, loosening, dissolving, destruction	dialysis: separation of substances by passage through a membrane	الديليزة: الميز الغشائي، إنفاذ، تحال	ciyabunewey maddekan be perde royîştinda
malacia	softening	splenomalacia: softening of the spleen (splen/o)	تليين الطحال	siplênernmê
necrosis	death of tissue	osteonecrosis: death of bone tissue (oste/o)	نخر العظم، موات العظم	êsk mirdin ya kilorbûn
ptosis	dropping, downward displacement, prolapse	blepharoptosis: drooping of the eyelid (blephar/o)	إنسدال الجفن	pêludakewtin
spasm	sudden contraction, cramp	bronchospasm: spasm of a bronchus (bronch/o)	تقلص قسبي	borî henase girjbun
stasis	suppression, stoppage	menostasis: suppression of menstrual flow	إنقطاع الحيض، وقوف الحيض	mehkwestan, xwên wistanî sûfî mangane (bênîwêjî)
stenosis	narrowing, constriction	arteriostenosis: narrowing of an artery	تضييق الشرايين	xwênber teskbun

Prefixes and Roots for Infectious Diseases:			البادئة والجذر للأمراض المعدية (المتنقلة)	Pêşgir u reg bo nexoşî dirm
Prefixes	Meaning	Example & its definition	معنى النموذج والبادئة أو الجذر معاً	Watay nimune, pêşgir u reg pêkewe
staphyl/o- 	grape like	staphylococcus: a round bacterium that forms clusters	جنس المكورة ، العنقودية من رتبة الجراثيم الحقيقية	hêşuwe bektêrya
strept/o- 	twisted chain	streptobacillus: a rod-shaped bacterium that forms chains, streptococcus	العصيات السلسلية	zincîre çilke bektêrya
Roots bacilli, bacill/o	bacillus	bacilluria: bacilli in the urine (-uria)	بييلة عصوية ، تعصون البول	çilkemîzê
bacteri/o	bacterium	bactericide: agent that kills (-cide) bacteria	مبيد البكتريا	bektêrya lenawbere
myc/o	fungus, mold	mycosis: any disease condition caused by a fungus	داء فطري	derde kefû, nexoşî behoy kefuwewe
vir/o	virus	viremia: presence of viruses in the blood	فيروسية الدم	viyrose xwênê

Abbreviations:

1-	CA	Cancer	6-	HIV	human immunodeficiency virus
2-	CIS	Carcinoma in situ	7-	PPD	purified protein derivative
3-	FUO	Fever of unknown origin	8-	ECG	electrocardiogram
4-	staph	Staphylococcus	9-	AFB	acid-fast bacillus
5-	strep	Streptococcus			

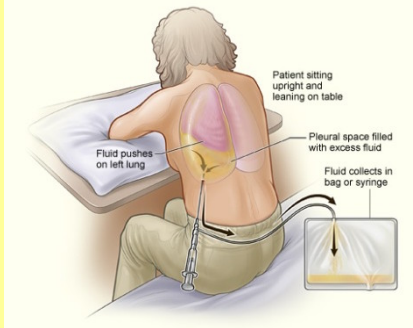
7. Diagnosis and Treatment; Surgery:

Roots for Physical Forces:			الجذور للقُدرة الفيزيائية	Reg bo tuwanay fîzîkî
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
aer/o	air, gas	aerobic: requiring air (O ²)	مُعْتاشٌ بِالْهَوَاءِ	bebajîw
bar/o	pressure	barotrauma: injury caused by pressure	إِصَابَةٌ بِالضَّغْطِ ، الرَّضُّ الْجَوِّي	pestanlêdan, derdepestan
chrom/o, chromat/o	color, stain	achromatous: lacking color	عَدِيمِ اللَّوْنِ ، لَا لَوْنِي	bêfeng
chron/o	time	synchronous: occurring at the same time	مُتْرَامِن	hawkat
cry/o	cold	cryoprobe: instrument used to apply extreme cold	مِسْبَارٌ قَرِيٌّ	desk (p̄robe) y sardîbexş
electro/o	electricity	electrolysis: destruction by means of electric current	التَّحْلُلُ الْكَهْرَبِي	be kareba şîkarkirdin
erg/o	work	synergistic: working together with increased effect, such as certain drugs in combination	مُؤَزَّرِي ، مُؤَازِر	hawker: beyekewe karkirdin (herewiz): dû derman ke beyekewe heman kar eken
phon/o	sound, voice	phonograph: instrument used to reproduce sound	مَخْطَاطُ الصَّوْتِ ، مَسْجَلُ الصَّوْتِ	degnûs: amêrî hêlkarî deng

phot/o	light	photography: using light to record an image on light-sensitive paper	التصوير الضوئي	tîşke wênegirî: wênegirtin be runakî
radi/o	radiation, x-ray	radioactive: giving off radiation	مُشعّ	tîşkin: tîşkder, tîşkpexş
son/o	sound	ultrasonic: pertaining to high-frequency sound waves (beyond human hearing)	فوق سمعي ، فوق صوتي	Jûr deng: seru deng
therm/o	heat, temperature	hypothermia: abnormally low body temperature	هبوط الحرارة ، خفض الحرارة	germîdabezîn

Suffixes for Diagnosis:			اللاحقة للتشخيص	Paşgir bo nasînewe
Suffix	Meaning	Example	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-graph	instrument for recording data	polygraph: instrument used to record many physiologic responses simultaneously	مخطاط متعدد ، مخطاط دوافع متعددة	- amêrî hêlkarî bo çendîn kardanewey karendamzanî - dirodoz
-graphy	act of recording data and its evaluation & interpretation	radiography: obtaining pictures using x-rays	التصوير الشعاعي	tîşke wênegirî: wênegirtin be tîşkî êks
-gram	a record of data	sonogram: record obtain by use of ultrasound (U/S) (ultrasonography)	مخطاط صدوي بالمسح فوق صوتي	hêlkarî deng
-meter	instrument for measuring	audiometer: instrument for measuring hearing	مقياس السمع ، مسماع	amêrî pêwanî hestî bîstin
-metry	measurement	ergometry: measurement of work done	قياس عمل منجز	karpêwan

-scope	instrument for viewing or examining	endoscope: instrument for viewing the inside of an organ or cavity	منظار داخلي ، منظار باطن	nawbîn: amêrî nawewebîn
-scopy	examination of	laparoscopy: examination of the abdomen through the abdominal wall	تنظير البطن أو جوف البطن	nawsikbîn

Suffixes for Surgery:			اللاحقة للجراحة	Paşgir bo neştergerî
Suffix	Meaning	Example	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-centesis	puncteur, tap	thoracentesis: puncture of the chest 	بزل صدري ، بزل الصدر	singkunkirdin
-desis	binding, fusion	pleurodesis: binding of the pleural membranes (around the lungs)	إندماج أغشية الجنب	beyekewe likanî siyeperde
-ectomy	excision, surgical removal	hysterectomy: excision of the uterus (hyster/o)	إستئصال الرحم	lêkirdinewey mindaîdan
-pexy	surgical fixation	cystopexy: surgical fixation of the bladder (cyst/o)	تثبيت المثانة في الجدار البطني	cêgîrkirdinî mîzeîdan be dîwarî sikewe

-plasty	plastic repair, plastic surgery, reconstruction	rhinoplasty: plastic surgery of the nose	تَقْوِيمُ أَوْ تَرْقِيعُ الْأَنْفِ	lût çak kirdin (cuwankarî lût)
-rhaphy	surgical repair, suture	herniorrhaphy: surgical repair of a hernia (herni/o)	خِيَاطَةُ الْفَتْقِ	durînewey qoî
-stomy	surgical creation of an opening	colostomy: creation of an opening into the colon	تَقْمِيمُ أَوْ فَعْرُ الْقَوْلُونِ ، شَرْجُ إِصْطِنَاعِي	kolon kunkirdin u hênane derewey rîxoîe gewre
		tracheostomy: tracheostomy : making an incision on the anterior aspect of the neck and opening a direct airway through an incision in the trachea.	فَتْحُ الْقَصْبَةِ الْهَوَائِيَّةِ	kunkirdinî borî hewa le rêy birînî beşî pêşewey mil u dananî borî heway metal ya plastîk
-tome	instrument for incising (cutting)	microtome: instrument for cutting thin sections of tissue for microscopic study	مِشْرَاحٌ ، مِبْشَرَةٌ ، مَقْطَاعُ شَرَاحٍ دَقِي	amêr bo birînî şane bo pişkinîn
-tomy	incision, cutting	tracheostomy: surgical incision of the trachea tracheotomy = tracheostomy	فُوهَةٌ رُغَامِيَّةٌ مِنَ الْعُنُقِ	birînî borî hewa
-tripsy	crushing	lithotripsy: crushing of a stone	تَفْتِيْتُ أَوْ سَحَقُ الْحَصَى	berdşikandin

Abbreviations:

History and
Physical examination

1-	ADL	Activities of daily living	25-	C & S	Culture and sensitivity
2-	BP	Blood pressure	26-	CT	Computed tomography
3-	bpm	Beats per minute	27-	Dx	Diagnosis
4-	C	Celsius (centigrade)	28-	EBL	Estimated blood loss
5-	CC	Chief complaint	29-	ICU	Intensive care unit
6-	c/o	Complains of	30-	I & D	Incision and drainage
7-	F	Fahrenheit	31-	MRI	Magnetic resonance imaging
8-	h/o	History of	32-	NSS	Normal saline solution
9-	H & P	History and physical	33-	postop	postoperative
10-	HPI	History of present illness	34-	preop	preoperative
11-	HR	Heart rate	35-	Rx	Drug, prescription, therapy
12-	Hx	History	36-	UV	Ultraviolet
13-	I & O	Intake and output	<u>Views for radiology</u>		
14-	IPPA	Inspection, palpation, percussion, auscultation	37-	AP	Anteroposterior
15-	PE	Physical examination	38-	LL	Left lateral
16-	PMH	Past medical history	39-	PA	Posteroanterior
17-	pt	Patient	40-	RL	Right lateral
18-	ROS	Review of systems	<u>Orders</u>		
19-	TPR	Temperature, pulse, respiration	41-	AMA	Ambulatory
20-	VS	Vital signs	42-	CBR	Complete bed rest
21-	WNL	Within normal limit	43-	DNR	Do not resuscitate
22-	w/o	without	44-	KVO	Keep vein open
Diagnosis and Treatment:			45-	NPO	Nothing by mouth
23-	BS	Bowel sounds	46-	QNS	Quantity not sufficient
24-	bx	Biopsy	47-	QS	Quantity sufficient
25-	C & S	Culture and sensitivity	48-	STAT	Immediately

8. Drugs:



- A drug is a substance that alters body function.
 - Drugs according to their derivation are of 2 types:
 - 1- **Traditional drugs:** derived from natural plant, animal and mineral sources.
 - 2- **Synthetic drugs:** Today, most of the drugs are manufactured synthetically by pharmacological companies. A few e.g.: certain hormones and enzymes have been produced by genetic engineering.
 - Drugs according to their prescription are of 2 types:
 - 1- **Over-the-table (OTC) drugs:** many drugs are available without prescription.
 - 2- **Prescribed drugs:** require a health care provider's prescription for use.
- Adverse drug effects:**
- most drugs have potential adverse effects or side effects that must be evaluated before being prescribed.

- there may be contraindications, or reasons not to use a particular drug for a specific individual based on that person's medical conditions, current medications, sensitivity, or family history.
- Also, while a patient is under treatment, it is important to be alert for signs of adverse effects such as digestive upset, changes in the blood, or signs of allergy, such as hives or skin rashes.

Side effect: (SE):

An undesirable effect of treatment with a drug or other form of therapy.

Drug names: 2 types:

1- The generic drug name:

- a. is simple version of the chemical name for the drug.
- b. is not capitalized.

2- The trade drug name: (brand or proprietary name):

- a. is a registered trademark of the manufacturer.
- b. is capitalized: is written with an initial capital letter.

* The same drug may be marketed by different companies under different trade names.

Herbal medicine or phytomedicine: is plant to treat diseases.

Drug terms:	
anaphylaxis	An extreme allergic reaction that can lead to respiratory distress, circulatory collapse, and death.
antagonist	A substance that interferes with or opposes the action of a drug.
contraindication	A factor that makes the use of a drug undesirable or dangerous.
efficacy	(Effectiveness); The power to produce a specific result.
potentiation	Increased potency created by two drugs acting together.
prescription	Written and signed order for a drug with directions for its administration.
substance dependence	A condition that may result from chronic use of a drug and the person has a compulsive need for a drug regardless of its adverse effects, it is psychological or physical.
synergy (synergism)	Combined action of two or more drugs working together to produce greater effect than alone.
tolerance	Chronic use of a drug results in loss of effectiveness and the dose must be increased to produce the original response.
withdrawal	A condition that results from cessation or reduction of a drug that has been used regularly.

Word Parts Pertaining to Drugs:			أجزاء الكلمة للأدوية	Beşekanî wişe bo derman
Suffixes:	Meaning	Example & its definition	النموذج ، اللاحقة ، البادئة والجذر	Nimune, paşgir, pêşgir u reg
-lytic	dissolving, reducing, loosening	anxiolytic: agents that reduces anxiety	حال ، إنحلالي ، إقلاعي	aramker, dûdiî kemker
-mimetic	mimicking, simulating	sympathomimetic: mimicking the effects of the sympathetic nervous system	مقلد الودي	lasayîkarî koendamî sozî heste demar
-tropic	acting on	inotropic: acting on the force of muscle contraction	عَضَلِيّ المفعول ، عَضَلِيّ الإنحياز	kar eka le hêzî girjibunî masulke
Prefixes:				
anti-	against	antidote: substance that counteracts a poison	ترياق ، مُضادُّ السَّم	dije jehr
contra-	against	contraceptive: preventing conception	مانع للحبل أو للحمل	rêgir le sik kirdin
counter-	opposite, against	countercurrent: flowing in an opposite direction	ضد التيار	dije tewijm
Roots:				
alg/o, algi/o, algesi/o	pain	algesic: painful	مؤلم ، مَوجع	be êş u azar
chem/o	chemical	chemotherapy: treatment with drugs	المعالجة الكيميائية	kîmya çare
hypn/o	sleep	hypnosis: an altered state with increased responsiveness	تنويم	xewandin, xewlêxistin
narc/o	stupor	narcotic: drug that induces stupor	مخدِّر	hoşber, sişker

pharmac/o	drug	pharmacy: the science of preparing and dispensing drugs, or the place where these activities occur	صَيْدَانِيَّةٌ ، صِنَاعَةُ الصَّيْدَانَةِ ، صَيْدَانَةٌ	dermanxane, derman dirustkirdin, dermansazî
pyr/o, pyret/o	fever	antipyretic: counteracting fever	مُخَفِّضُ الْحَرَارَةِ ، ضِدُّ الْحُمَّى	dije ta, germîkemkere
tox/o, toxic/o	poison, toxin	toxic: poisonous	سَمِّي	jehrawî, jehrîn
vas/o	vessel	vasomotor: pertaining to change in vessel diameter	مُحَرِّكُ الْأَوْعِيَةِ (يُضَيِّقُهَا أَوْ يُوسِّعُهَا)	borî xwênculên (tesk ya frawanbûn)

Abbreviations: Drugs and Drug Formulations

1-	cap	Capsule	7-	Rx	Prescription
2-	elix	Elixir	8-	supp	Suppository
3-	FDA	Food and Drug Administration	9-	susp	suspension
4-	MED	Medicine, medication	10-	tab	Tablet
5-	NASID	Nonsteroidal anti-inflammatory drug	11-	tinct	Tincture
6-	OTC	Over-the-table	12-	ung	Ointment

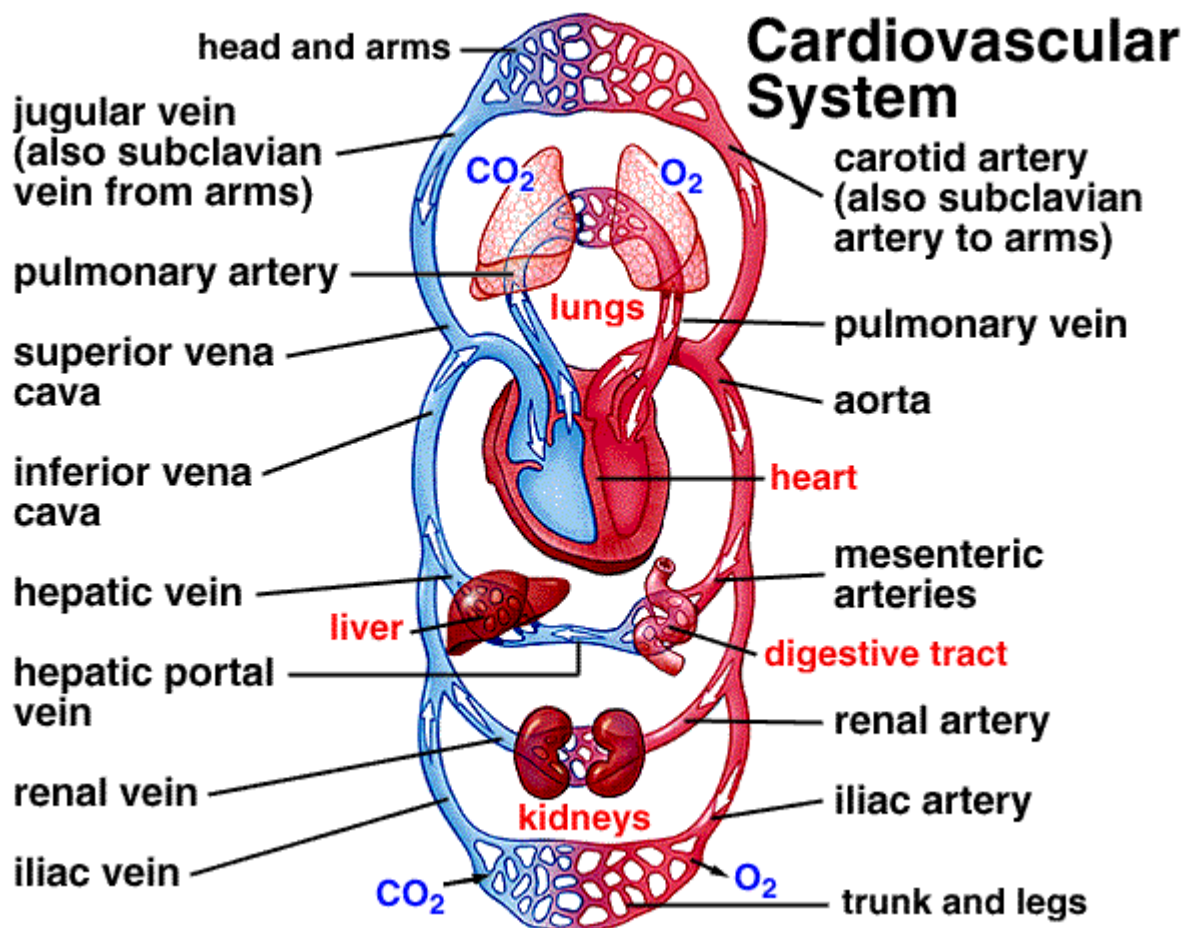
Abbreviations: Dosages and Directions

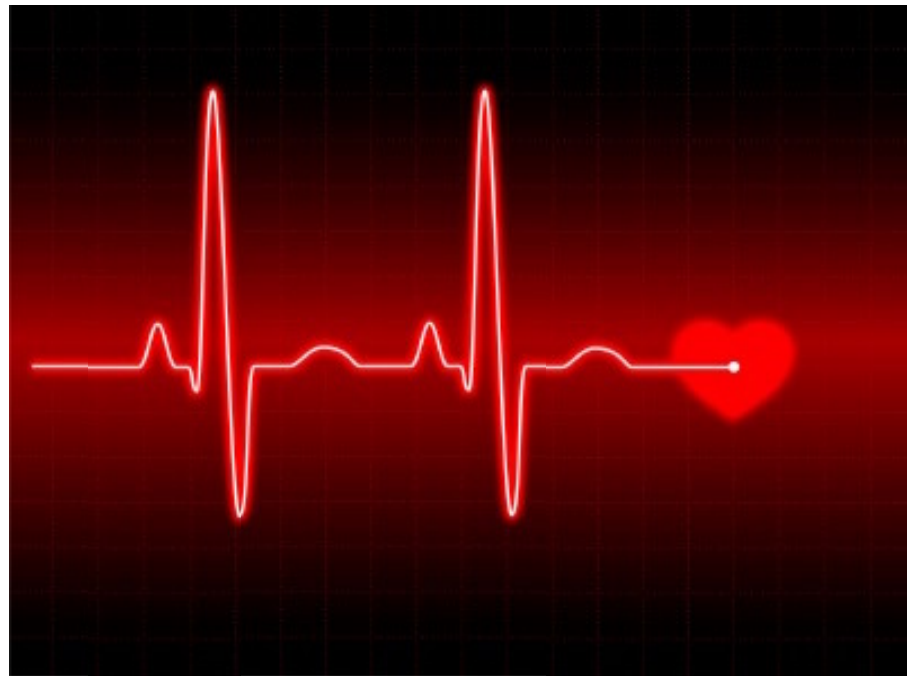
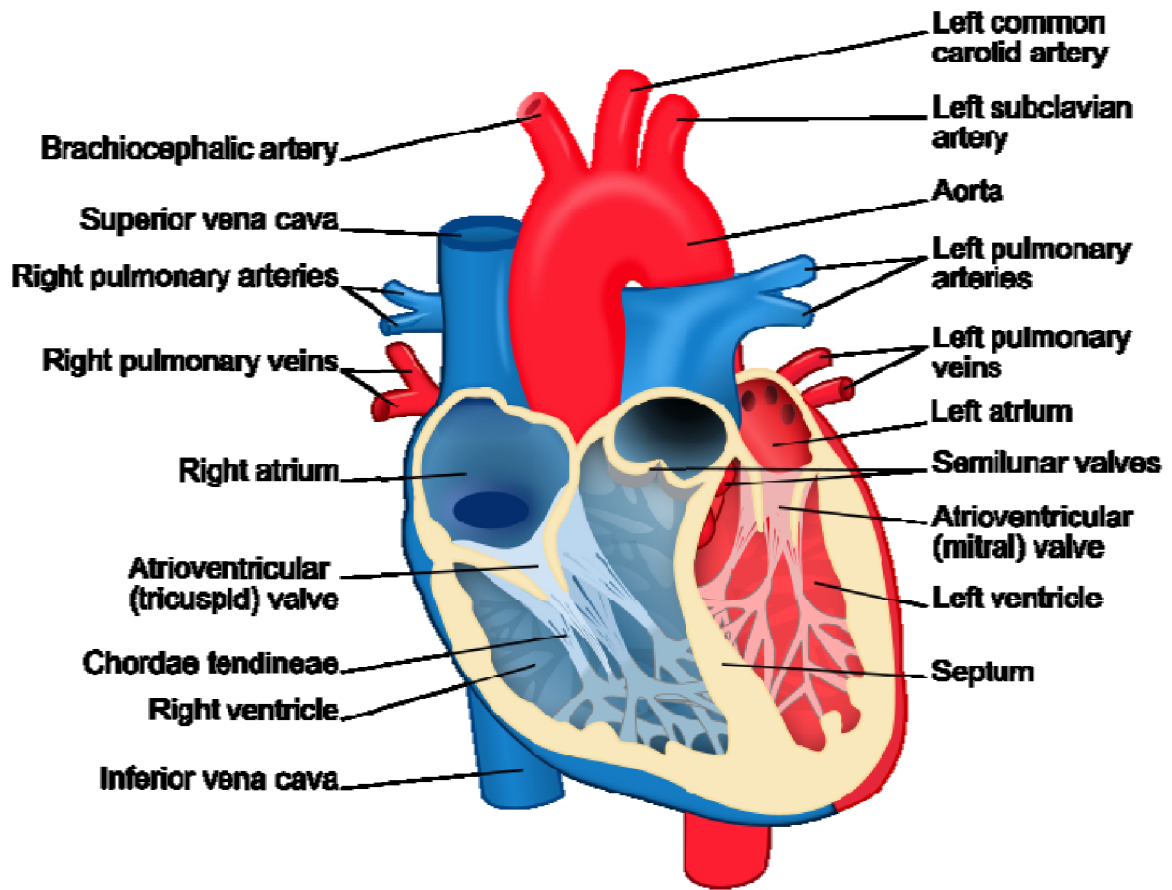
13-	ā	Before (Latin: ante)	28-	P	After, post
14-	āā	Of each (Greek: ana)	29-	pc	After meals
15-	ac	Before meals	30-	po	Per mouth (Latin: per os)
16-	aq	Water (Latin: aqua)	31-	pp	Postprandial (after a meal)
17-	bid	Twice a day	32-	qd	Every day
18-	c⁻	With	33-	qh	Every hour
19-	cc	Cubic centimeter	34-	q__h	Every____ hours
20-	hs	At bedtime	35-	qid	Four times a day
21-	IM	preoperative	36-	qod	Every other day
22-	IU	Drug, prescription, therapy	37-	s⁻	Without
23-	IV	Ultraviolet	38-	SC	Subcutaneous(ly)
24-	mcg	Micrograms	39-	ss⁻	Half (Latin: semis)
25-	mg	Milligrams	40-	tid	Three times per day
26-	LA	Long-acting	41-	U	Unit(s)
27-	NS	Normal saline	42-	x	Times

Chapter 3 Body systems:

9. Circulation:

The cardiovascular and Lymphatic Systems:



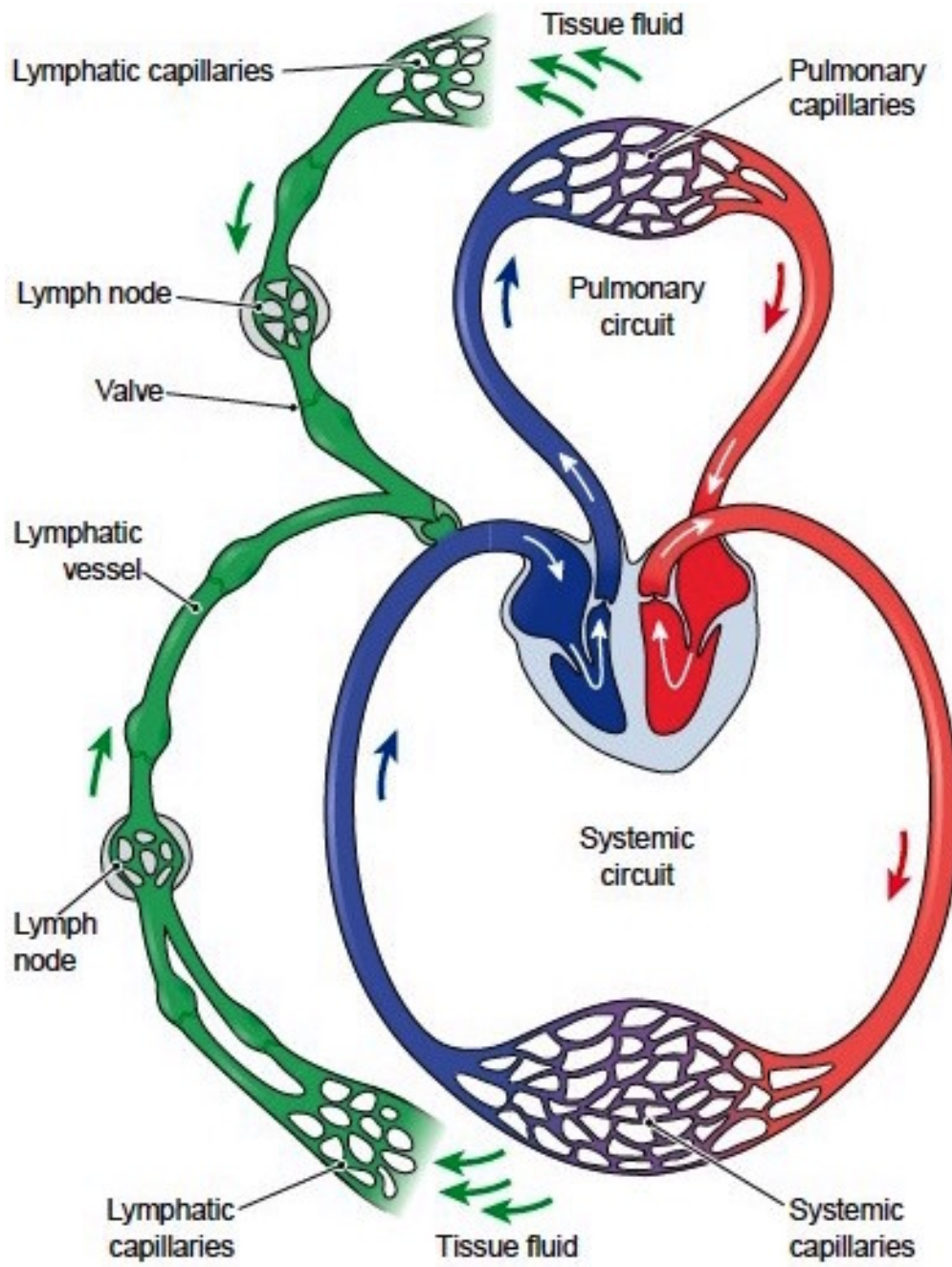


ECG

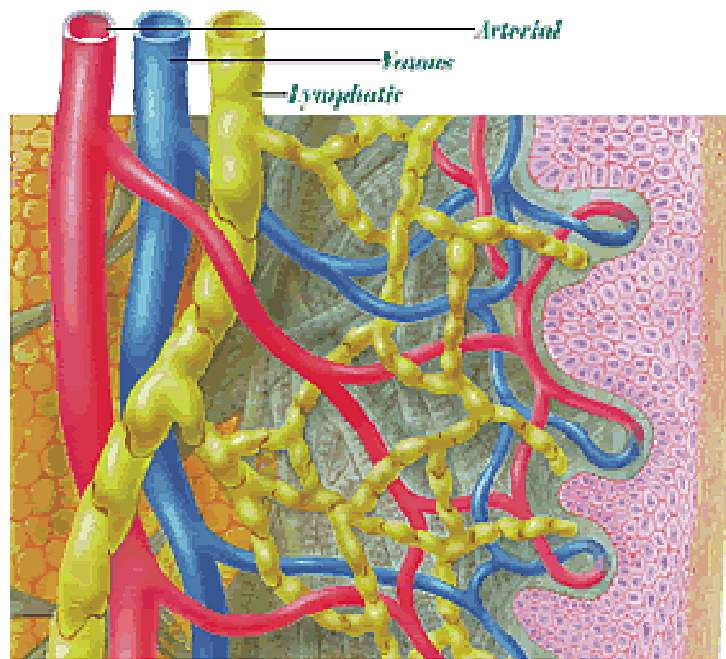
Roots for the Heart and Blood Vessels			الجذور للقلب و الأوعية الدموية	Reg bo diî u borî xwên
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
cardi/o	heart	cardiomyopathy: any disease of the heart muscle	اعتلال قلبي عضلي	derde masulkey diî
atri/o	atrium	atriotomy: surgical incision of an atrium	بضع الاذينة ، فتح اذنين القلب	kirdinewey giwêçkeley diî
ventricul/o	cavity, ventricle	supraventricular: above a ventricle	فوق البطين	jûr sikoîe
valv/o valvul/o	valve	valvectomy: surgical removal of a valve	استئصال الصمام	lêkirdinewey zimane (demewane)
angi/o	vessel	angiopathy: any disease of blood vessels	اعتلال الوعاء الدموي	derde borî xwên
vas/o vascul/o	vessel, duct	vasodilation: widening of a blood vessel	توسع الوعاء الدموي	frawanbunî borî xwên
arter/o arteri/o	artery	endarterial: within an artery	باطن الشريان، داخل الشريان	dîwî nawewey xwênber
arteriol/o	arteriole	arteriolar: pertaining to an arteriole	شرينى	xwênberoke
aort/o	aorta	aortoptosis: downward displacement of the aorta	تدل (هبوط، استرخاء) الأبهر	şaxwênber dakewtin
ven/o, ven/i	vein	venous: pertaining to a vein	وريدي	xwênhênî
phleb/o	vein	phlebectasia: dilatation of a vein	توسع الوريد	frawanbunî xwênhên

Abbreviations:

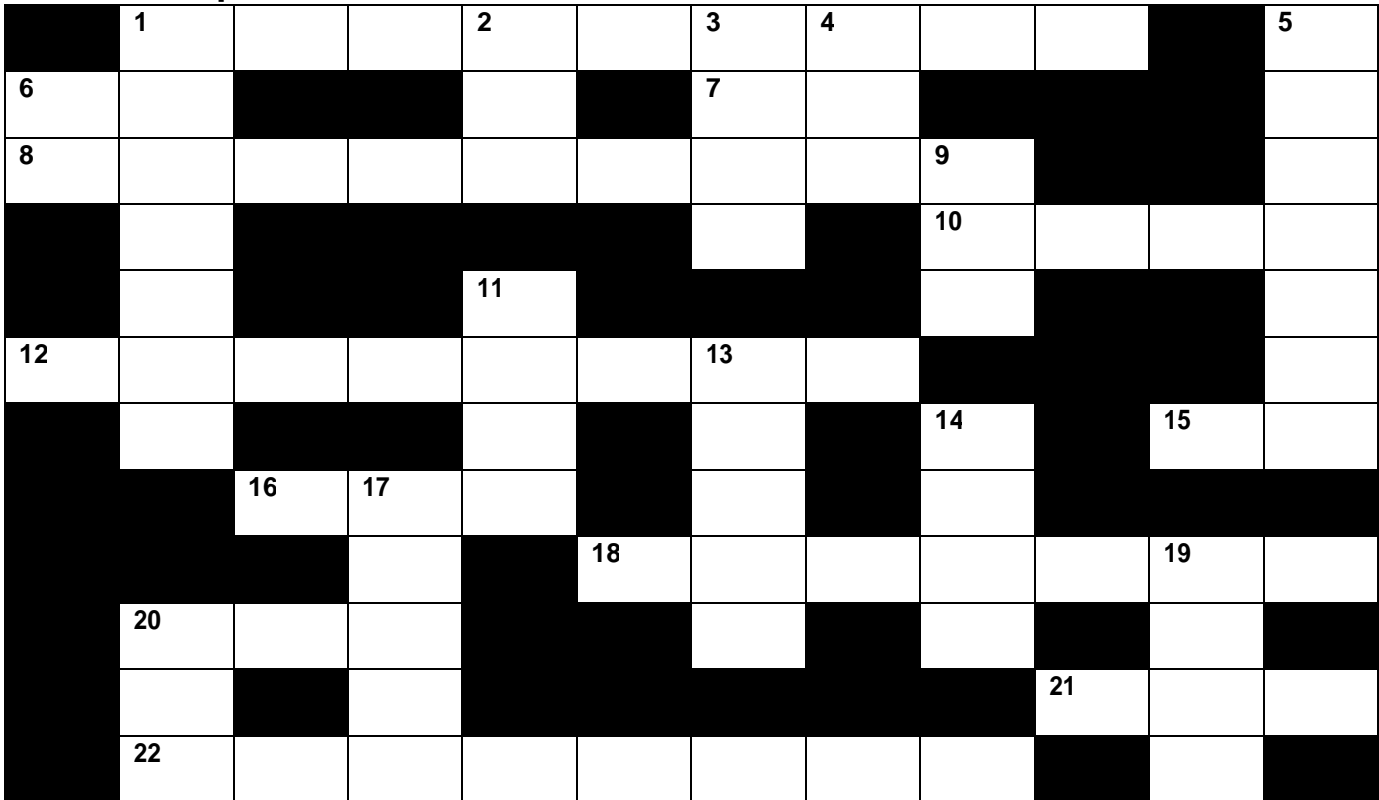
1-	ACE	Angiotensin-converting enzyme	25-	LDL	Low-density lipoprotein
2-	AF	Atrial fibrillation	26-	LV	Left ventricle
3-	AMI	Acute myocardial infarction	27-	LVH	Left ventricular hypertrophy
4-	AR	Aortic regurgitation	28-	MI	Myocardial infarction
5-	AS	Aortic stenosis, arteriosclerosis	29-	mmHg	Millimeter of mercury
6-	ASD	Atrial septal defect	30-	MR	Mitral regurgitation
7-	AT	Atrial tachycardia	31-	MS	Mitral stenosis
8-	AV	atrioventricular	32-	MVP	Mitral valve prolapse
9-	BBB	Bundle branch block	33-	MVR	Mitral valve replacement
10-	BP	Blood pressure	34-	NSR	Normal sinus rhythm
11-	bpm	Beats per minute	35-	PSVT	Paroxysmal supraventricular tachycardia
12-	CABG	Coronary artery bypass graft	36-	PTCA	Percutaneous transluminal coronary angioplasty
13-	CAD	Coronary artery disease	37-	PVD	Peripheral vascular disease
14-	CCU	Coronary care unit	38-	S₁	The first heart sound
15-	CHF	Congestive heart failure	39-	S₂	The second heart sound
16-	CPR	Cardiopulmonary resuscitation	40-	SA	Sinoatrial
17-	CVD	Cardiovascular disease	41-	SBE	Subacute bacterial endocarditis
18-	CVP	Central venous pressure	42-	SK	streptokinase
19-	DOE	Dyspnea on exertion	43-	SVT	supraventricular tachycardia
20-	DVT	Deep venous thrombosis	44-	TEE	Transesophageal echocardiography
21-	ECG	Electrocardiogram	45-	VF	Ventricular fibrillation
22-	HDL	High-density lipoprotein	46-	VSD	Ventricular septal defect
23-	HTN	Hypertension	47-	VT	Ventricular tachycardia
24-	JVP	Jugular venous pulse			



Roots for the Lymphatic Systems:			الجدور للأجهزة اللمفية	Reg bo koendamî lîmf
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
lymph/o	lymph, lymphatic system	lymphoid: resembling lymph or lymphatic tissue	شبيهة باللمف	lîmfî, lîmfekî
lymphaden/o	lymph node	lymphadenectomy: surgical removal of a lymph node	استئصال أو قطع الغدة اللمفية	birîni lîmfegirê
lymphangi/o	lymphatic vessel	lymphangioma: tumor of lymphatic vessels	ورم وعائي لمفي	luy lîmfeforî
splen/o	spleen	splenomegaly: enlargement of the spleen	تضخم الطحال	sipîgewrebûn
thym/o	thymus gland	athymia: absence of thymus gland	غيبة الغدة التوتية	nebûni rijêne saymes
tonsill/o	tonsil	tonsillar: pertaining to a tonsil	لوزي	aluyî



Crossword puzzle in circulation



Across

1. A microscopic vessel
6. Pacemaker of the heart
7. A route for injection (abbreviation)
8. The right AV valve
10. Vein: combining form
12. Relaxation phase of the heart cycle
15. Hardening of the arteries (abbreviation)
16. Substance used to dissolve blood clots (abbreviation)
18. Pulse: combining form, as in the name of blood pressure apparatus
20. Form of lipoprotein (abbreviation)
21. Heart disease associated with pulmonary edema (abbreviation)
22. Part of the heart's conduction system; it receives impulses from the AV node

Down

1. Main artery in the neck
2. Hospital unit that cares for the critically ill (abbreviation)
3. Category of compounds that includes fats: combining form
4. Heart attack (abbreviation)
5. Obstruction circulating in the bloodstream
6. Segment of the ECG tracing
9. Thrombotic condition of the veins (abbreviation)
11. Procedure for dilating an obstructed vessel (abbreviation)
13. Fluid that circulates in the lymphatic system
14. Lymphoid organ in the chest: root
17. Vein: root
19. Units in which blood pressure is measured (abbreviation)
20. Mechanical device to assist the heart, _____ D (abbreviation)

Answers to Crossword puzzle in in circulation

	¹ C	A	P	² I	L	³ L	⁴ A	R	Y		⁵ E
⁶ S	A			C		⁷ I	M				M
⁸ T	R	I	C	U	S	P	I	⁹ D			B
	O					O		¹⁰ V	E	N	O
	T			¹¹ P				T			L
¹² D	I	A	S	T	O	¹³ L	E				U
	D			C		Y		¹⁴ T		¹⁵ A	S
		¹⁶ T	¹⁷ P	A		M		H			
			H		¹⁸ S	P	H	Y	G	¹⁹ M	O
	²⁰ L	D	L			H		M		M	
	V		E						²¹ C	H	F
	²² A	V	B	U	N	D	L	E		G	

10. Blood and Immunity:

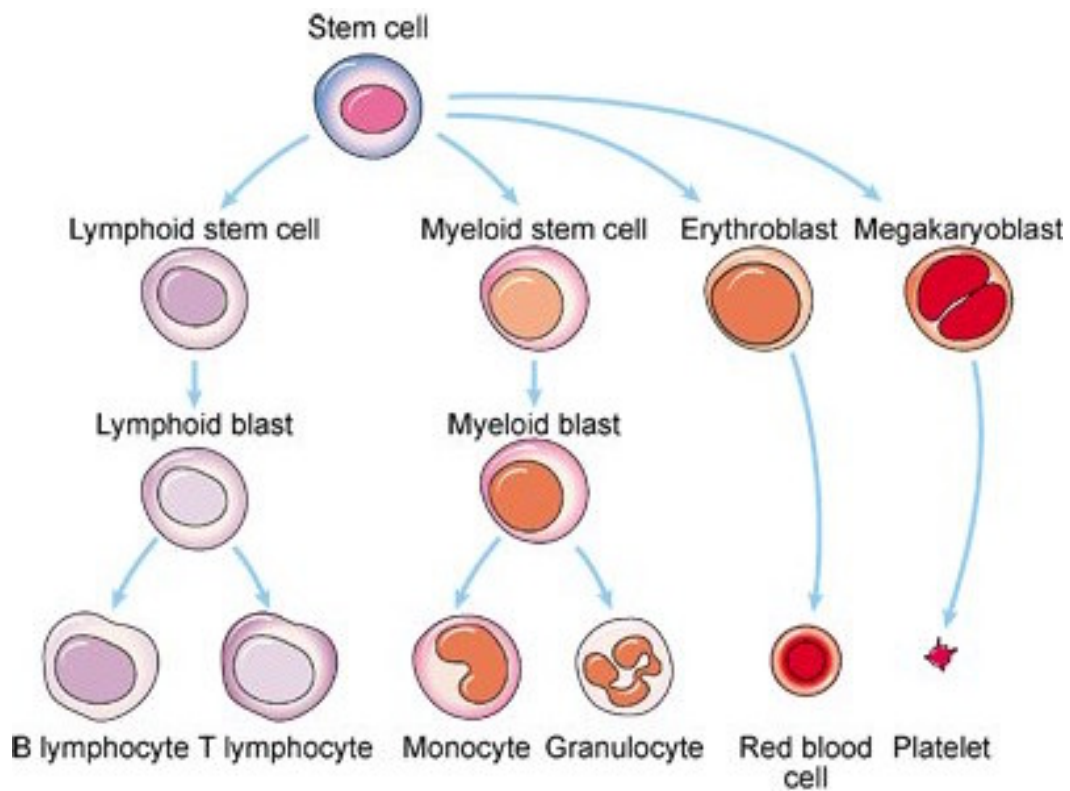
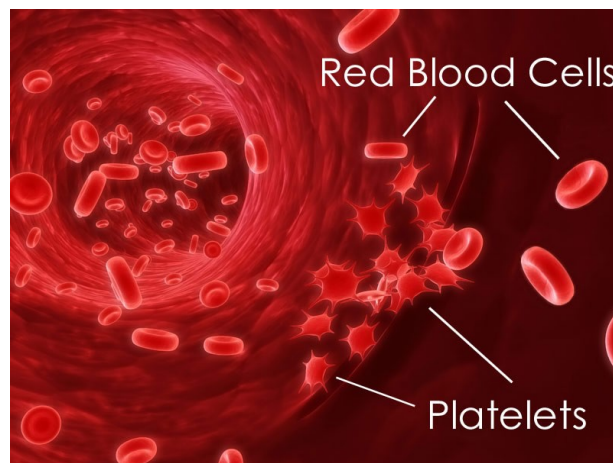
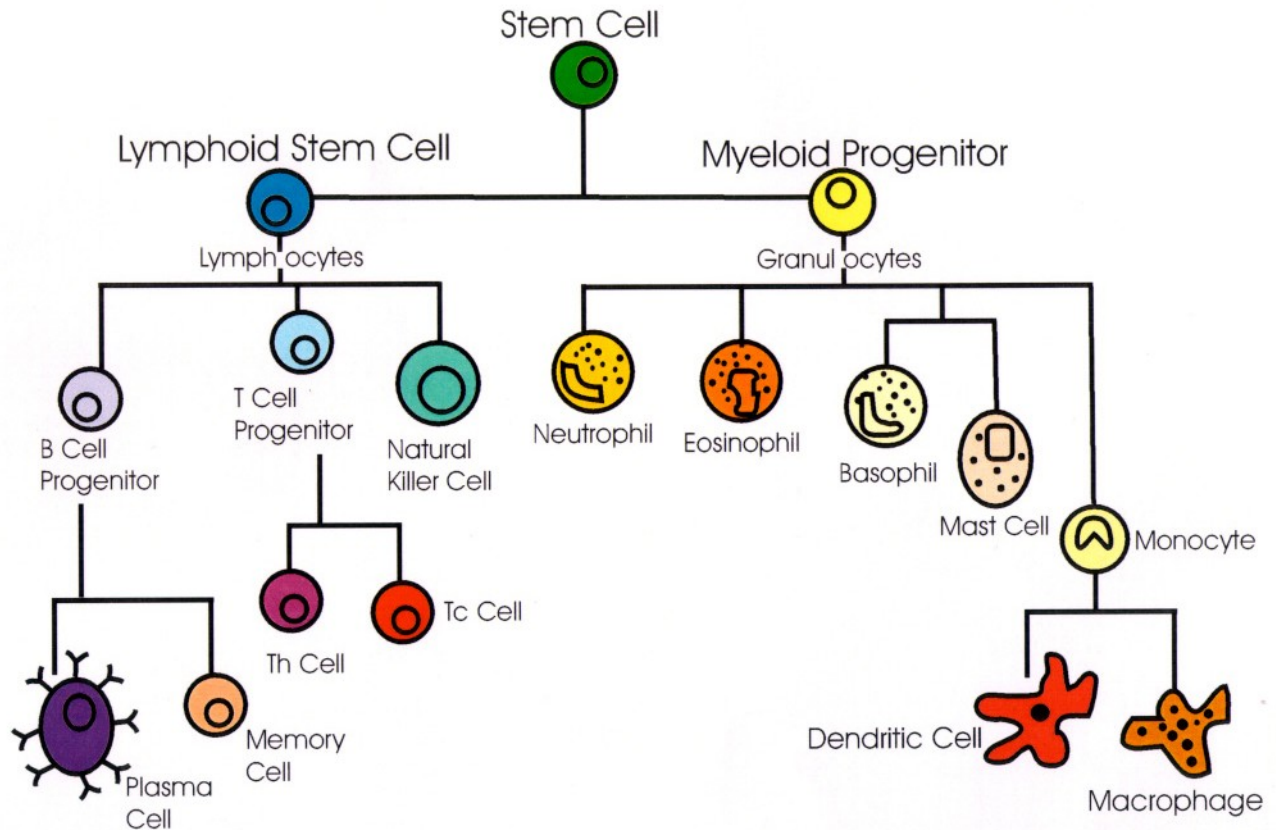


Diagram showing how blood cells are made
© CancerHelp UK

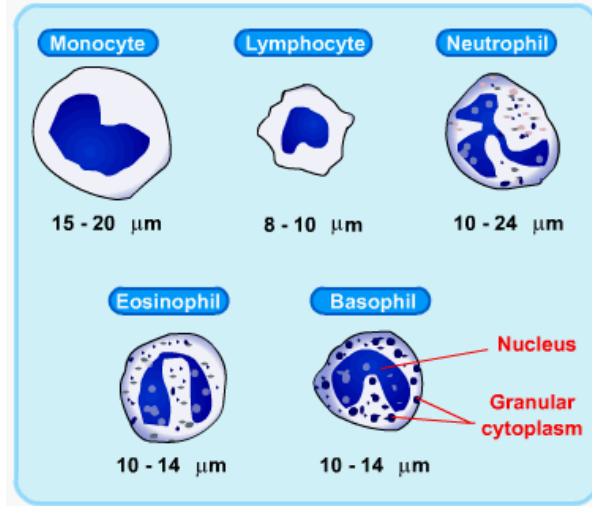


Suffixes for Blood:			اللاحقة للدم	Paşgir bo xwên
Suffixes	Meaning	Example & its definition	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-emia, -hemia	condition of blood	pachyemia: thickness (pachy) of the blood	ثخن الدم، تكتف الدم	xwênexestê
-penia	decrease in, deficiency of	leucopenia: deficiency of leukocytes in the blood	قلة الكريات البيضاء في الدم	xifokey sipî kemê le xwênda
-poiesis	formation, production	hemopoiesis: production of blood cells	تكوّن الدم	xwên dirustbun

Cells of the Immune System



Roots for Blood and Immunity:			الجدور للدم و المناعة	Reg bo xwên u bergirî
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
myel/o	bone marrow	myelogenous: originating in bone marrow	مُخ العظم	êskemox
hem/o, hemat/o	blood	hemorrhage: profuse flow of blood	نَزف	xwênberbun
erythr/o, erythrocyt/o	red blood cell	erythrocytosis: condition of increased red blood cells	داء فَرْط كرويات الدم الحمراء	derde zorbunî xîfokey sûrî xwên
leuk/o, leukocyt/o	white blood cell	leukopoiesis: production of white blood cells	تكوّن كرويات الدم البيضاء	dirustbunî xîfokey sipî xwên
lymph/o, lymphocyt/o	lymphocyte	lymphoblast: immature lymphocyte	خلية لمفية غير ناضجة	lîmfe xaney pênegeyîw
thromb/o	blood clot	thrombolytic: pertaining to dissolving a blood clot	مُذيب أو حالّ الخثرة أو الجلطة	pirgtiwênewe: meyîwî tuwêner, meyîwî şîkar
thrombocyt/o	platelet, thrombocyte	thrombocytopenia: deficiency of platelets in the blood	قلة الصفيحات الدموية	pefeke kemê
immun/o	immunity, immune system	immunization: production of immunity	تكوّن المناعة، كَسب المناعة، تمنيع، تحصين	kutan: dirustbunî bergirî

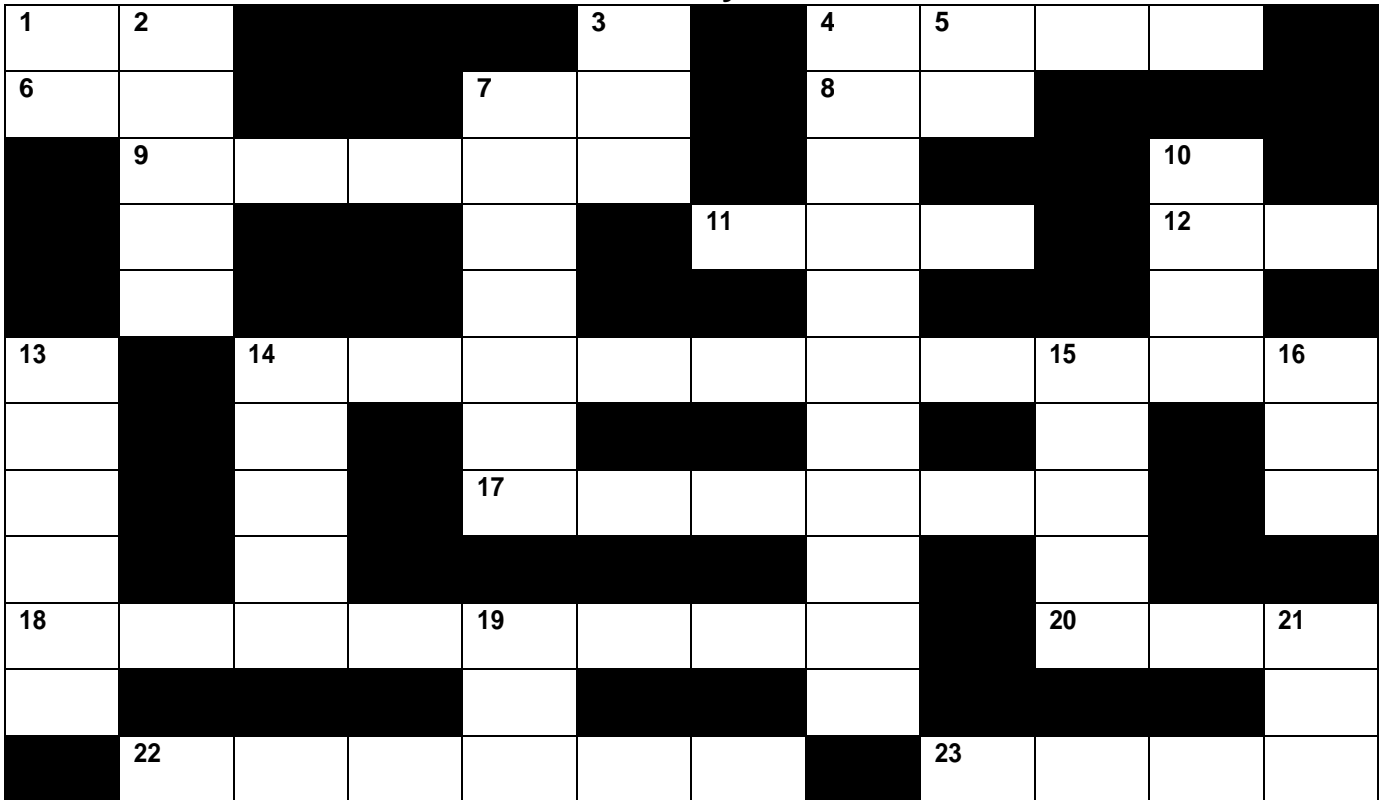


Roots for Chemistry:			الجذور للكيمياء	Reg bo kîmya
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
azot/o	nitrogen compounds	azoturia: increased nitrogen compounds in the urine (-uria)	بيبة آزوتية، كثرة المركبات النيتروجينية في البول	azotemîzê
calc/i	calcium (symbol Ca ⁺⁺)	calcareous: containing Ca ⁺⁺	كلسي، جبيري	kalîsyomdar
ferr/o, ferr/i	iron (symbol Fe ⁺⁺⁺)	ferric: pertaining to or containing iron	حديدك، حديد ثلاثي التكافؤ	asinîk
sider/o,	iron	sideroblast: an immature red blood cell containing iron granules	خلية حديدية غير ناضجة	asne xaney pênegeyîw
kali	potassium (symbol K ⁺)	hypokalemia: decrease of potassium in the blood	قللة أو تدني بوتاسيوم الدم	potasyomî xwênkemê
natri	sodium (symbol Na ⁺)	natriuresis: excretion of sodium in the urine (ur/o)	فرط إفراز الصوديوم في البول	zorderdanî sodyom le mîzda
ox/y	oxygen (symbol O ⁻²)	hypoxemia: deficiency of oxygen in the blood	نقص أوكسجين الدم	okscînî xwênkemê

Abbreviations:

1-	Ab	Antibody	15-	Hb	Hemoglobin
2-	Ag	Antigen	16-	Hct	Hematocrit
3-	AIDS	Acquired immunodeficiency syndrome	17-	HDN	Hemolytic disease of the newborn
4-	ALL	Acute lymphoblastic leukemia	18-	HIV	Human immunodeficiency virus
5-	AML	Acute myeloblastic leukemia	19-	Ig	Immunoglobulin
6-	BT	Bleeding time	20-	ITP	Idiopathic thrombocytopenic purpura
7-	CBC	Complete blood count	21-	PCV	Packed cell volume
8-	CLL	Chronic lymphocytic leukemia	22-	PMN	Polymorphonuclear = (neutrophil)
9-	CML	Chronic myelogenous leukemia	23-	PT	Prothrombin time
10-	DIC	Disseminated intravascular coagulation	24-	RBC	Red blood cell; red blood cell count
11-	EBV	Epstein-Barr virus	25-	SLE	Systemic lupus erythromatosus
12-	ELISA	Enzyme-linked immunosorbent assay	26-	CT	Clotting time
13-	ESR	Erythrocyte sedimentation rate	27-	vWF	Von Willebrand factor
14-	FFP	Fresh frozen plasma	28-	WBC	White blood cell; white blood cell count

Crossword Puzzle in Blood and Immunity



Across

1. Alternate name for antibody (abbreviation)
4. Cold: prefix
6. Chemical symbol for sodium
7. Antibody (abbreviation)
9. Bone marrow: combining form
11. Oxygen-carrying pigment of red cells (abbreviation)
12. Antigen (abbreviation)
14. The substance that is deficient in cases of anemia
17. Most numerous type of white blood cell: combining form
18. Immature form of red blood cell: combining form
20. Type of widespread coagulation disorder (abbreviation)
22. Name used for a hereditary type of anemia
23. A mineral found in the blood (root)

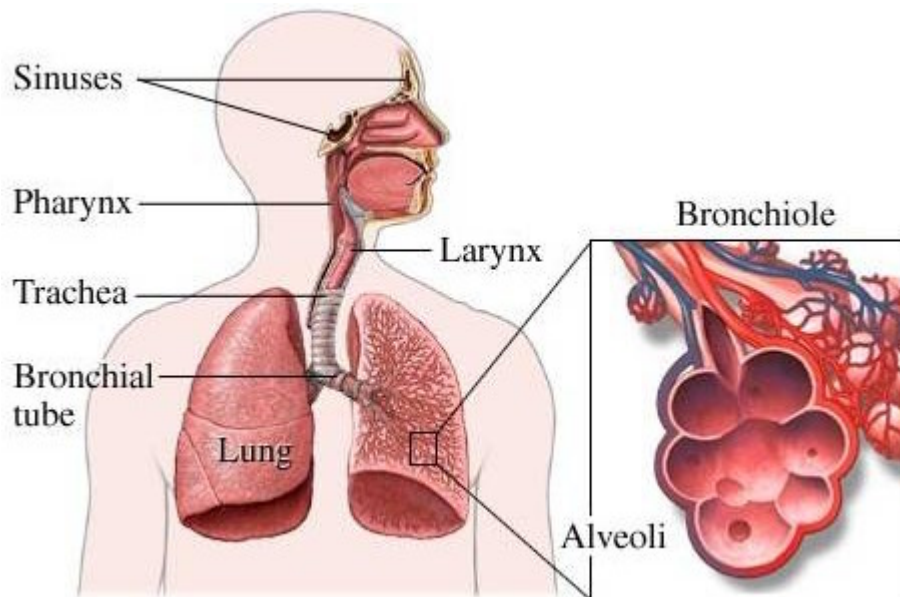
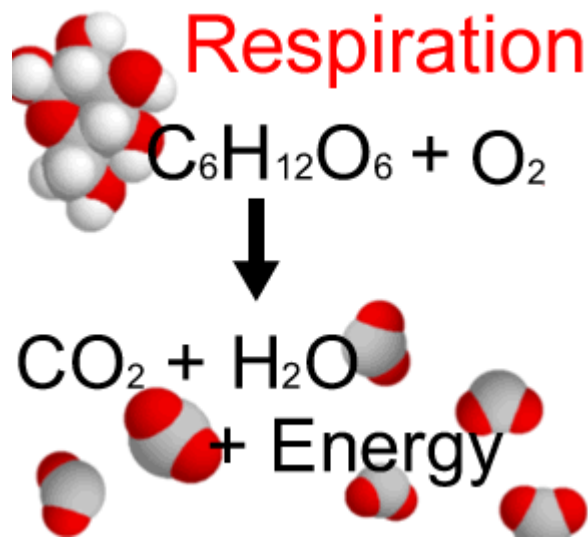
Down

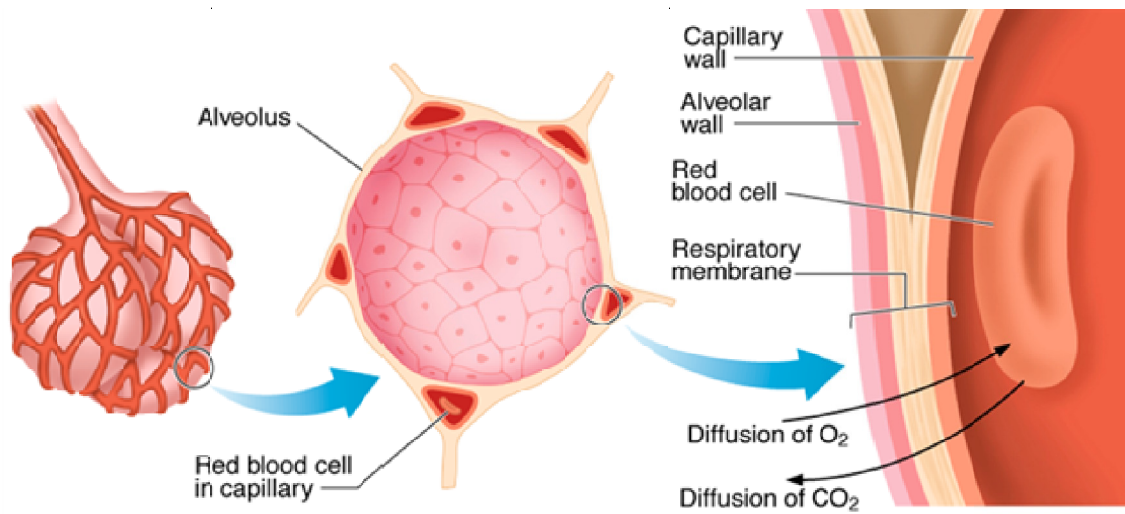
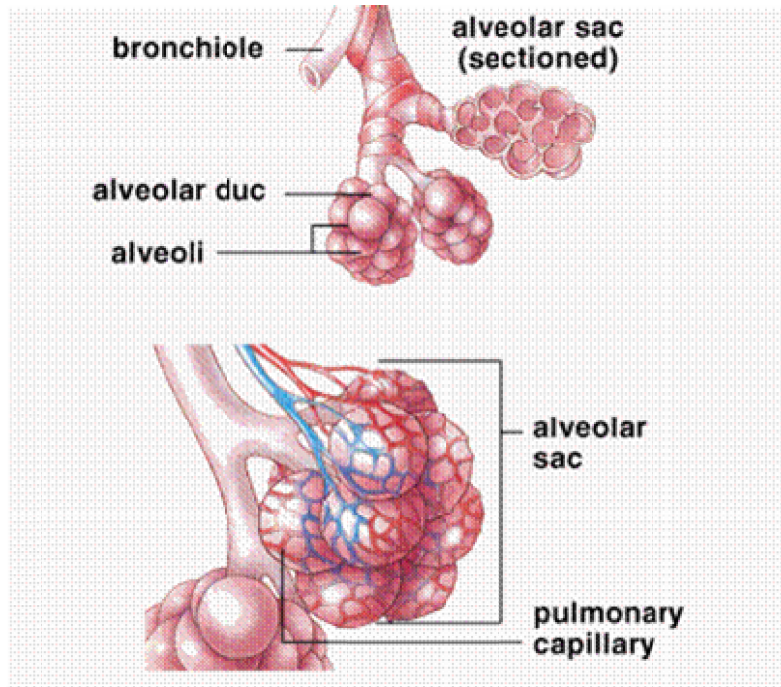
1. Prefix meaning "not"
2. Fraction of the blood that contains antibodies _____ globulin
3. Common blood type system
4. Blood clotting
5. Prescription (abbreviation)
7. Protein found in the blood
10. Potassium: combining form
13. Iron: combining form
14. Blood: root
15. Fluid that brings oxygen and nutrients to the cells
16. New: prefix
19. Form of lymphocytic leukemia (abbreviation)
21. Comprehensive blood study (abbreviation)

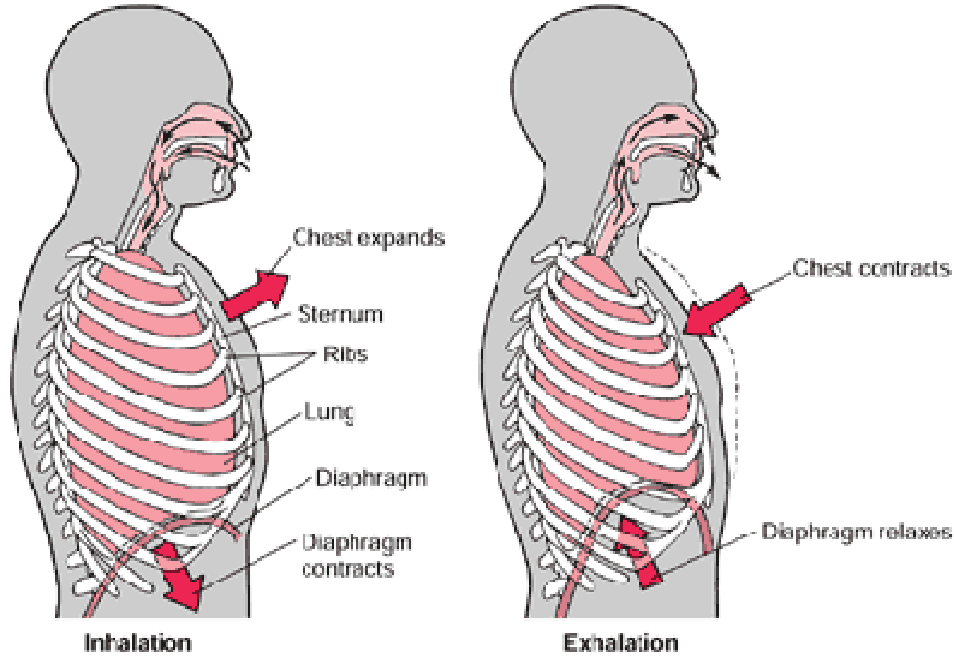
Answers to Crossword Puzzle in Blood and Immunity

¹ I	² G			³ A		⁴ C	⁵ R	Y	O		
⁶ N	A			⁷ A	B		⁸ O	X			
	⁹ M	Y	E	L	O		A		¹⁰ K		
	M			B		¹¹ H	G	B		¹² A	
	A			U			U			L	
¹³ S		¹⁴ H	E	M	O	G	L	O	¹⁵ B	I	¹⁶ N
I		E		I			A		L		E
D		M		¹⁷ N	E	U	T	R	O		O
E		A					I		O		
¹⁸ R	E	T	I	¹⁹ C	U	L	O		²⁰ D	I	²¹ C
O				L			N				B
	²² C	O	O	L	E	Y		²³ C	A	L	C

11. Respiration:







Suffixes for Respiration:			اللاحقة للتنفس	Paşgir bo henasedan
Suffixes	Meaning	Example & its definition	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-pnea,	breathing	orthopnea: difficulty in breathing except in an upright position	ضيق النَّفْس الأضطجاعي	rakişane (paîkewtine) tengenefesî
-oxia	level of oxygen	hypoxia: decreased amount of oxygen in the tissues	نقص الأوكسجين في الأنسجة	kemokscînî şane
-capnia	level of carbon dioxide	hypercapnia: increased carbon dioxide in the tissues	فرط ثاني أوكسيد الكربون في الدم	zorî duwanoksîdî karbon le xwênda
-phonia	voice	dysphonia: difficulty in speaking	عسر في التكلّم	qiseqursê

Roots for the Respiratory Passageways:			الجذور للممرات التنفسية	Reg bo rêfewî henasedan
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
nas/o	nose	nasal: pertaining to the nose	أنفي	lûtî
rhin/o,	nose	rhinorrhea: discharge from the nasopharynx	سيلان الأنف	aw be lûtda hatnexuswarewe
pharyng/o,	pharynx	pharyngeal: pertaining to the pharynx	بلعومي	geruyî
laryng/o,	larynx	laryngoscopy: endoscopic examination of the larynx laryngoscope:	تنظير الحنجرة	quîgbînî quîgbîn
trache/o	trachea	tracheotome: instrument used to incise the trachea	مبضع أو مشرط الرغامى	borîhewa bře
bronch/o, bronch/i	bronchus	bronchogenic: originating in a bronchus	قصبى المنشأ	borîhewaza
bronchiol	bronchiole	bronchiolectasia: dilatation of the bronchioles	توسع القصيبات	borîçkey hewa kişê

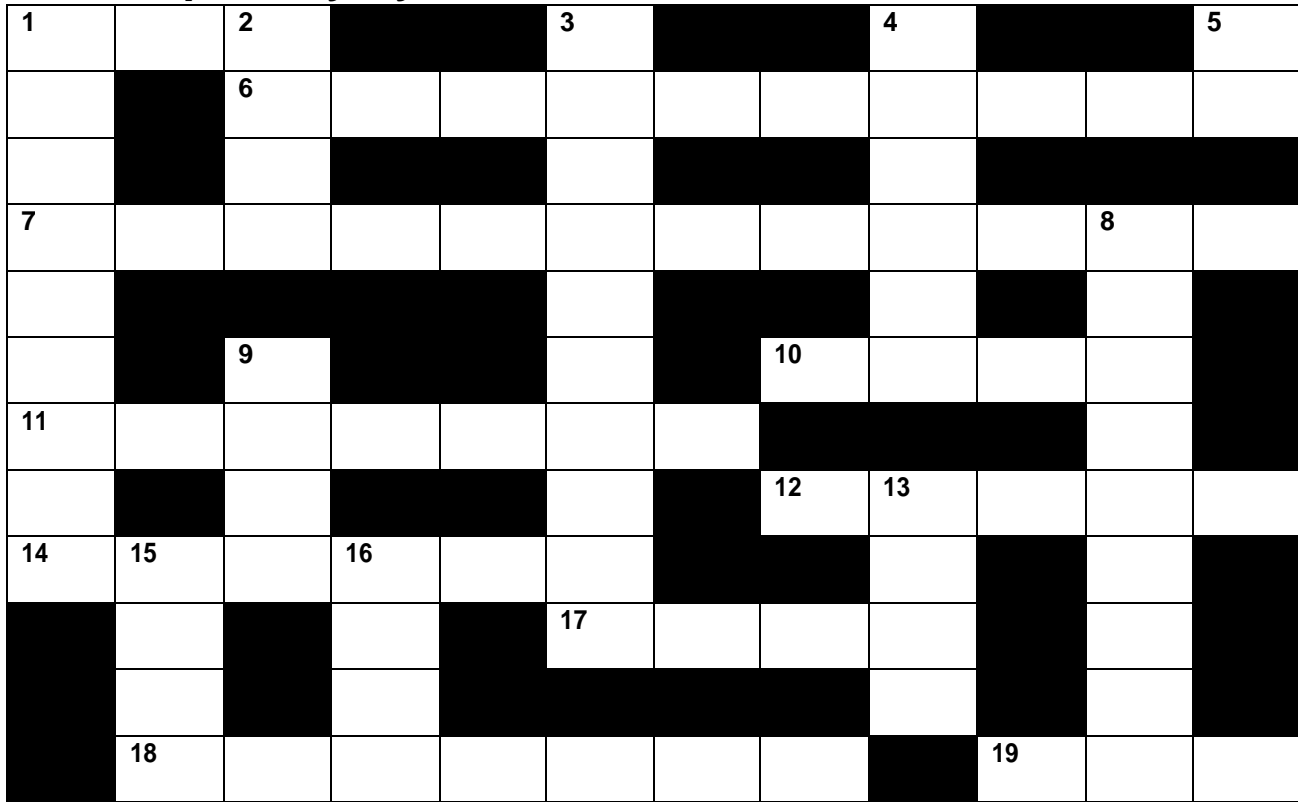
Roots for the Lungs and Breathing:			الجذور للرئة و التنفس	Reg bo siy u henasedan
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
phren/o	diaphragm	phrenic: pertaining to the diaphragm	حجابي (متعلق بالحجاب الحاجز)	nawpençikî
phrenic/o	phrenic nerve	phrenicotripsy: crushing of the phrenic nerve	رھس عصب الحجاب	demarî nawpençik hařîn
pleur/o	pleura	pleurodesis: fusion of the pleura	إندماج الجنبة	pêkdanûsanî siye perde

pulm/o, pulmon/o	lungs	intrapulmonary: within the lungs	داخل الرئة	naw siy
pneumon/o,	lung	pneumonectomy: surgical removal of a lung or lung tissue or (pneumectomy and pulmonectomy)	إستئصال الرئة	siybîîn
pneum/o, pneumat/o,	air, gas; also respiration, lung	pneumatocardia: presence of air in the heart	إسترواح القلب: وجود الهواء في داخل القلب	badiîê
spir/o	breathing	spirometer: instrument for measuring breathing volumes	مقياس حجم النفس	henasepêw

Abbreviations:

1-	ARDS	Acute respiratory distress syndrome	16-	IRV	inspiratory reserve volume
2-	AFB	Acid-fast bacillus	17-	LLL	Left lower lobe
3-	ABG	Arterial blood gas	18-	LUL	Left upper lobe
4-	ARF	Acute respiratory failure	19-	O₂	Oxygen
5-	BS	Breath sounds	20-	PFT	Pulmonary function tests
6-	C	Compliance	21-	RLL	Right lower lobe
7-	CF	Cystic fibrosis	22-	RML	Right middle lobe
8-	CO₂	Carbon dioxide	23-	RUL	Right upper lobe
9-	COLD	Chronic obstructive lung disease	24-	RDS	Respiratory distress syndrome
10-	COPD	Chronic obstructive pulmonary disease	25-	RV	Residual volume
11-	CXR	Chest x-ray	26-	TB	Tuberculosis
12-	ERV	Expiratory reserve volume	27-	TLC	Total lung capacity
13-	FEV	Forced expiratory volume	28-	TV	Tidal volume
14-	FRC	Functional residual capacity	29-	URI	Upper respiratory infection
15-	FVC	Forced vital capacity	30-	VC	Vital capacity

The Respiratory System Crossword



Across

1. Drug used to treat tuberculosis (abbreviation)
6. Portion of the throat behind the mouth
7. Instrument used to examine the larynx
10. Blood: combining form
11. RDS may appear in a newborn, also called a (n)
12. Rapid: prefix
14. Respiratory disease involving constriction of the bronchial tubes
17. An organ of respiration
18. Abnormal chest sounds
19. Diagnostic imaging test (abbreviation)

Down

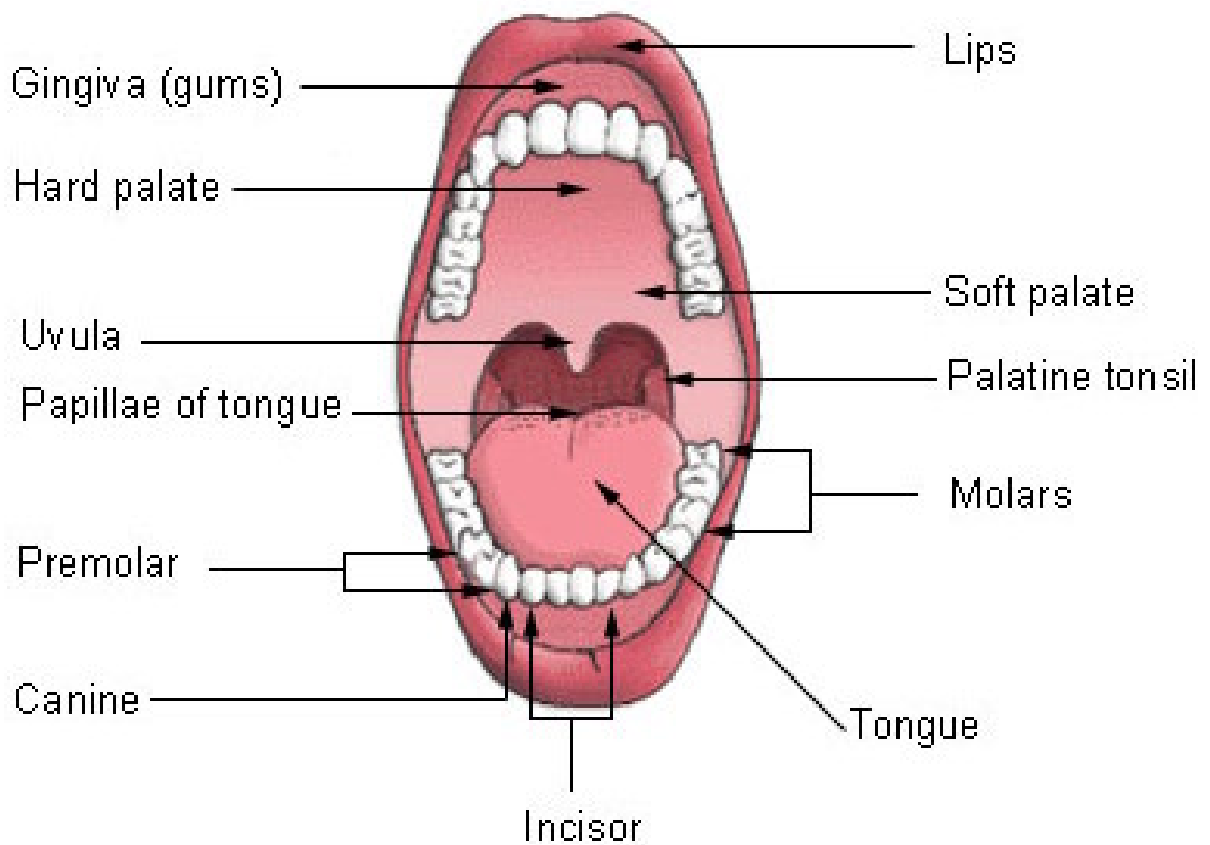
1. Infectious disease of the respiratory tract
2. The abbreviation of qh means every _____
3. Pertaining to the cartilage above the larynx
4. The tube between the throat and the bronchi: root
5. Diagnosis (abbreviation)
8. Accumulation of pus in the pleural space
9. After, behind: prefix
13. Vessel: root
15. Breathing: root
16. Under, below, decreased: prefix

Answers to Crossword puzzle in the Respiratory System

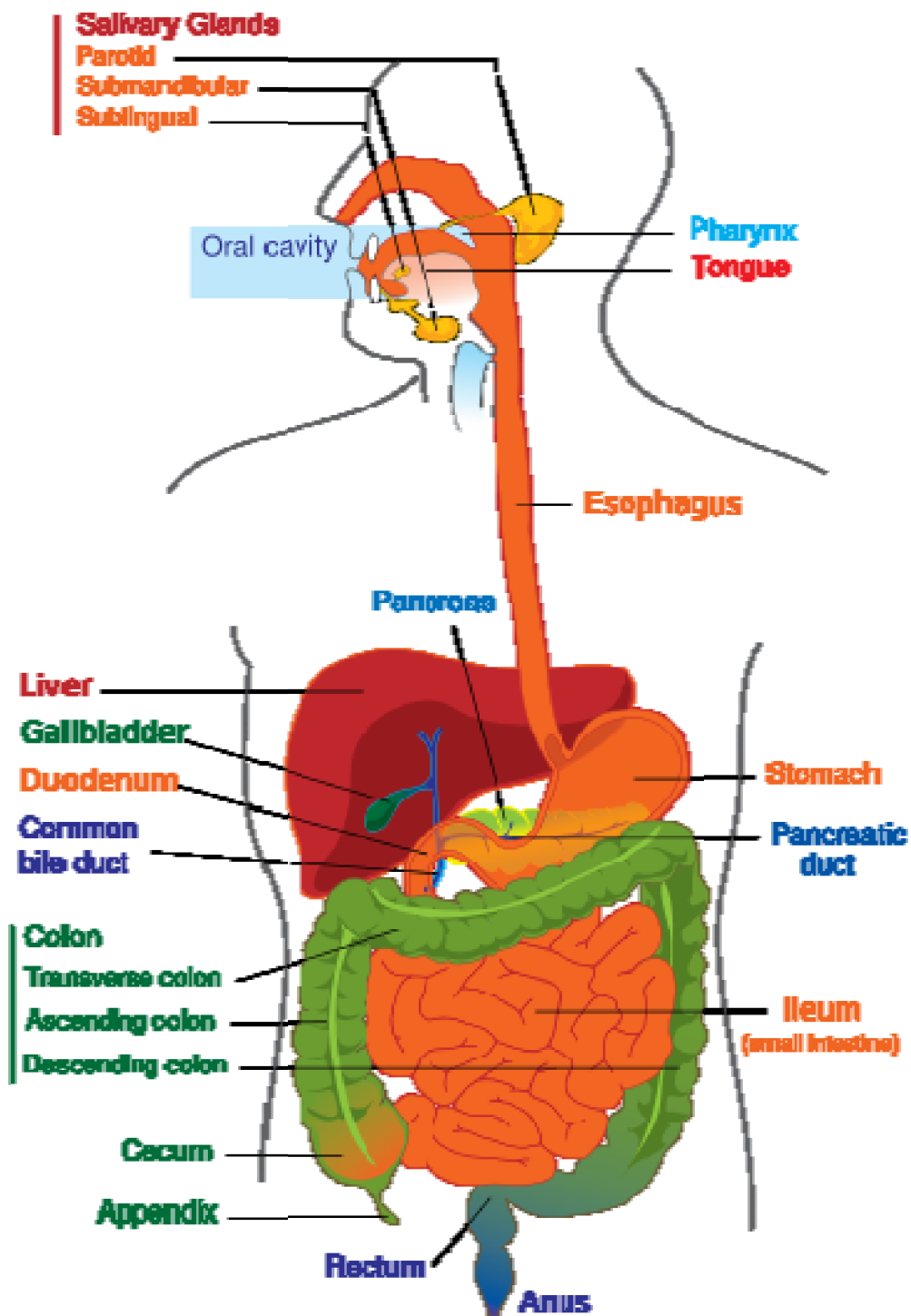
¹ I	N	² H		³ E		⁴ T		⁵ D		
N		⁶ O	R	O	P	H	A	R	Y	N
F		U		I		A				
⁷ L	A	R	Y	N	G	O	S	C	O	⁸ P
U				L		H		Y		
E		⁹ P		O		¹⁰ H	E	M	O	
¹¹ N	E	O	N	A	T	E			T	
Z		S		T		¹² T	¹³ A	C	H	Y
¹⁴ A	¹⁵ S	¹⁶ T	H	M	A		N		O	
	P		Y		¹⁷ L	U	N	G		R
	I		P				I		A	
	¹⁸ R	H	O	N	C	H	I		¹⁹ C	X
										R

12. Digestion:

Mouth (Oral Cavity)



Roots for the Mouth:			الجدور للفم	Reg bo dem
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
or/o	mouth	perioral: around the mouth	حول الفم	dewruberî dem
stoma, stomat/o	mouth	stomatitis: inflammation of the mouth	التهاب الفم	hewkirdinî dem
gnath/o	jaw	prognathous: having a projecting jaw	بارز الفك	çene derpeřîw
labi/o	lip	labiodental: pertaining to the lip and teeth	متعلق بالشفة والاسنان	lêw didanekî
bucc/o	cheek	buccoversion: turning toward the cheek	تحويل شذقي، متوجه نحو الخد	rûwew gona
dent/o dent/i	tooth, teeth	dentifrice: a substance used to clean the teeth	مادة لتنظيف الاسنان	madidey didan pakkerewe
odont/o	tooth, teeth	periodontist: dentist who treats the tissues around the teeth	طبيب اسنان يعالج ما حول السن وأمراضه	pizîřkî derd u dewrî didansaz
gingiv/o	gum (gingival)	gingivectomy: excision of gum tissue	إستئصال اللثة	pukbiřîn
lingu/o	tongue	sublingual: under the tongue	تحت اللسان	jêr ziman
gloss/o	tongue	glossopharyngeal: pertaining to the tongue and pharynx	لساني بلعومي	ziman u geruyî
sial/o	saliva, salivary gland or duct	sialogram: radiograph of the salivary glands and ducts	الاشعة السينية لغدد و قنوات اللعاب	tîřkewêney rijên u lîkeřoyekan
palat/o	palate	palatorrhaphy: suture of the palate	خياطة الحنك	meřařu dirûnewe



Digestive Tract

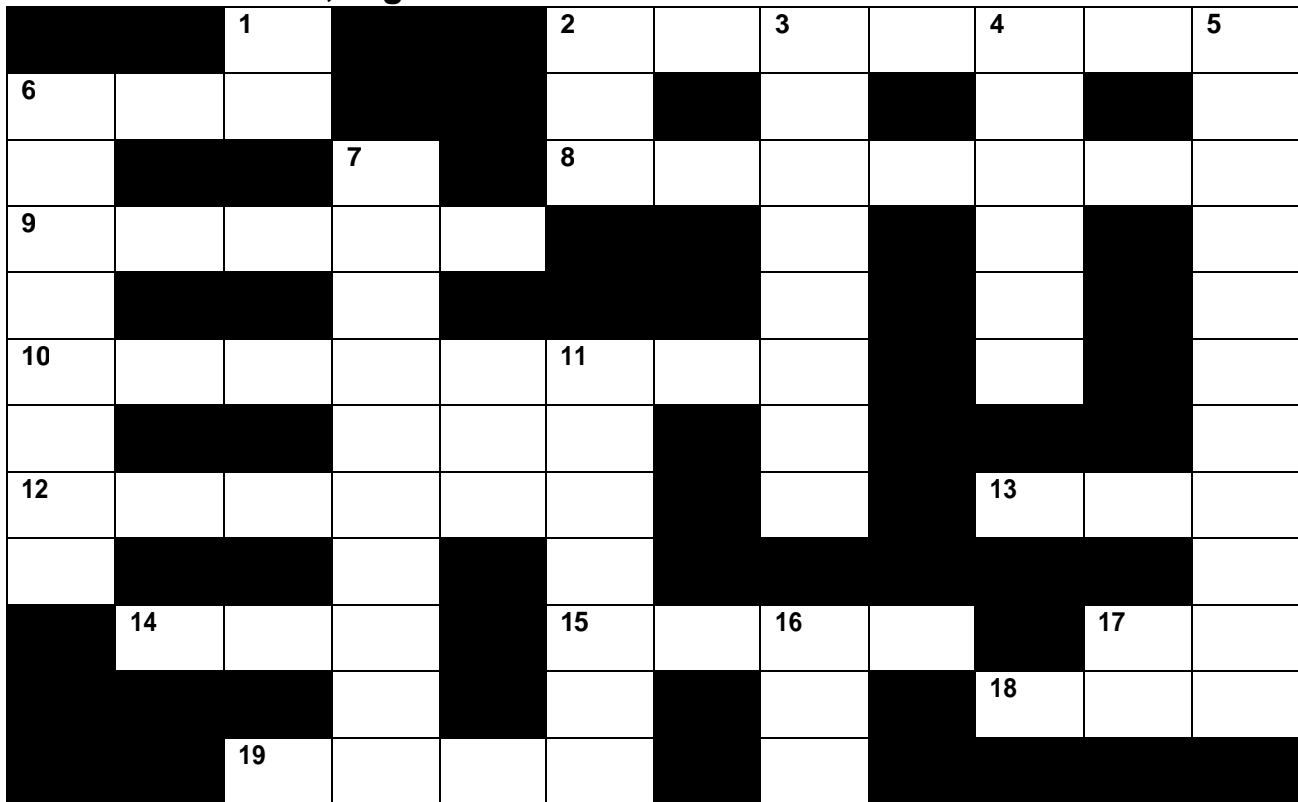
Roots for the Digestive Tract (Except the Mouth):			الجذور للقناة الهضمية (عدا الفم)	Reg bo kenafî hersikirdin (cige le dem)
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
esophag/o	esophagus	esophageal: pertaining to the esophagus	مريئي	surênçkî
gastr/o	stomach	gastroparesis: partial paralysis of the stomach	شلل المعدة الجريئي	beşe îflîcî gede
pylor/o	pylorus	pylorostenosis: narrowing of the pylorus	ضيق البواب	derçe teskî
enter/o	intestine	dysentery: infectious disease of the intestine	مرض معدي للامعاء	nexoşî dirmî rîxoîe
duoden/o	duodenum	duodenoscopy: endoscopic examination of the duodenum	تنظير الإثني عشر	duwanze girê bînîn
jejun/o	jejunum	jejunotomy: incision of the jejunum	بضع (شق) الصائم	birînî nexor (beşî duwemî rîxoîe barîke)
ile/o	ileum	ileectomy: excision of the ileum	قطع اللفائفي	birînî pêçawpêçe (beşî sêyemî rîxoîe barîke)
cec/o	cecum	cecoptosis: downward displacement of the cecum	هبوط الأعور	dakewtinî beşî yekemî rîxoîe gewre
col/o, colon/o	colon	colocentesis: surgical puncture of the colon	نخر (ثقب) القولون	simînî koîon
sigmoid/o	sigmoid colon	sigmoidoscope: an endoscope for examining the sigmoid colon	منظار (التعريج) السيني	çewtebîn
rect/o	rectum	rectocele: hernia of the rectum	فتق (قيلة) المستقيم	kîsî rêke
proct/o	rectum	proctopexy: surgical fixation of the rectum	تثبيت المستقيم	cêgîrkirdinî rêke
an/o	anus	transanal: through the anus	من خلال المخرج (فتحة الشرج)	be komda, le komewe

Roots for the Accessory Organs:			الجدور للأعضاء الثانوية	Reg bo endame tewawkerekan
Root	Meaning	Example & its definition	معنى النموذج و الجدور معاً	Watay nimunew reg pêkewe
hepat/o	liver	hepatocyte: a liver cell	خلية الكبد	xaney ciger
bili	bile	biliary: pertaining to the bile or bile duct	صفراوي، مري	zirawî
chol/e, chol/o	bile, gall	cholelith: gallstone, biliary calculus	حصاة المرارة	berdî ziraw
cholecyst/o	gallbladder	cholecystorrhaphy: suture of the gall bladder	خيطة كيس الصفراء	dirûnewey turekey ziraw
cholangi/o	bile duct	cholangiogram: radiograph of the bile ducts	صورة الاشعة السينية لقنوات المرارة	êkse tîşkewêney zerdawefoyekan
choledoch/o	common bile duct	choledochal: pertaining to the common bile duct	متعلق بالقناة الجامعة الصفراوية	şazerdawefoyî
pancreat/o	pancrease	pancreatolysis: dissolving of the pancrease	إنحلال بنكرياسي	penkryas lêkheŵeşan

Abbreviations:

1-	BE	Barium enema	12-	HEV	Hepatitis E Virus
2-	BM	Bowel movement	13-	HCl	Hydrochloric acid
3-	CBD	Common bile duct	14-	IBD	Inflammatory bowel disease
4-	ERCP	Endoscopic retrograde cholangiopancreatography	15-	IBS	Inflammatory bowel syndrome
5-	FAP	Familial adenomatous polyposis	16-	NG	Nasogastric
6-	GERD	Gastroesophageal reflux disease	17-	N&V	Nausea and vomiting
7-	GI	Gastrointestinal	18-	N/V/D	Nausea, vomiting & diarrhea
8-	HAV	Hepatitis A Virus	19-	PEG (tube)	Percutaneous endoscopic gastrotomy (tube)
9-	HBV	Hepatitis B Virus	20-	RUQ	Right upper quadrant
10-	HCV	Hepatitis C Virus	21-	TPN	Total parenteral nutrition
11-	HDV	Hepatitis D Virus	22-	UGI	Upper gastrointestinal

Crossword Puzzle , Digestion



Across

2. Pertaining to the jaw
6. Major portion of the large intestine: root
8. Mouth: combining form
9. Tooth: combining form
10. Small appendage to the cecum
12. Stomach: combining form
13. Inflammatory condition of the bowel (abbreviation)
14. Parenteral hyperalimentation (abbreviation)
15. Technique for viewing the accessory ducts (abbreviation)
17. Two, twice: prefix
18. Blind pouch at the beginning of the large intestine: root
19. Last portion of the small intestine: combining form

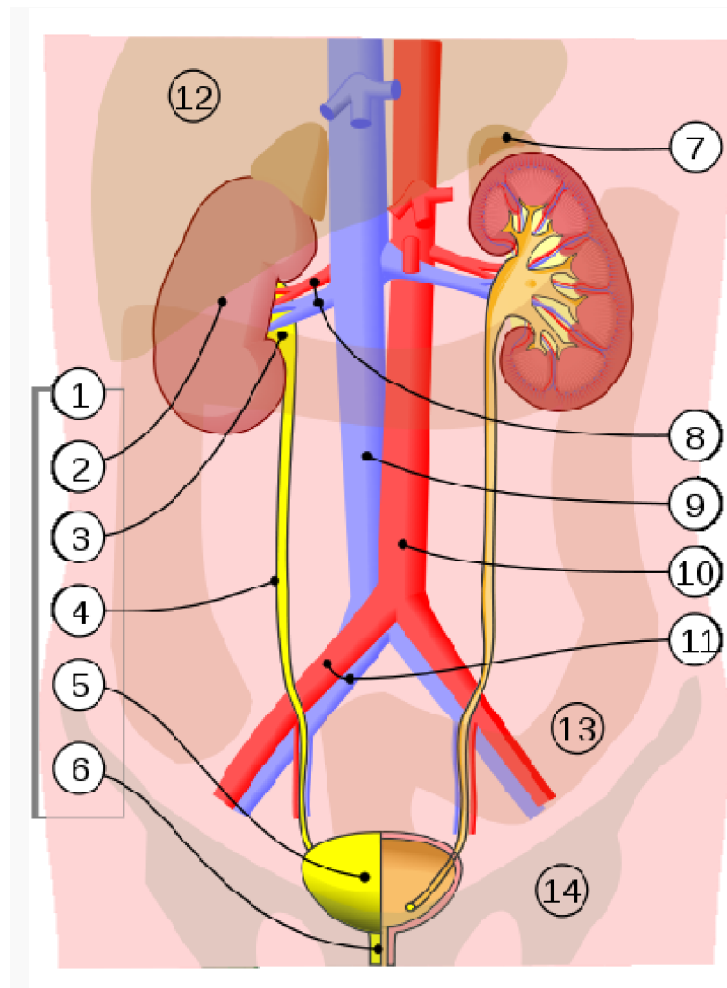
Down

1. 1/1000 of 1 liter(abbreviation)
2. Results in flatulence
3. Loss of appetite
4. Pertaining to the opening in the diaphragm that the esophagus passes through
5. Pertaining to the gallbladder
6. Bile duct: root
7. Enteric
11. First portion of the small intestine: combining form
16. Duct that carries bile into the intestine(abbreviation)
17. Down, without, removal: prefix

Answers to Crossword puzzle , Digestion

		¹ M			² G	N	³ A	T	⁴ H	I	⁵ C
⁶ C	O	L			A		N		I		H
H			⁷ I		⁸ S	T	O	M	A	T	O
⁹ O	D	O	N	T			R		T		L
L			T				E		A		E
¹⁰ A	P	P	E	N	¹¹ D	I	X		L		C
N			S		U		I				Y
¹² G	A	S	T	R	O		A		¹³ I	B	S
I			I		D						T
	¹⁴ T	P	N		¹⁵ E	R	¹⁶ C	P		¹⁷ D	I
			A		N		B		¹⁸ C	E	C
		¹⁹ I	L	E	O		D				

13. The Urinary Tract:

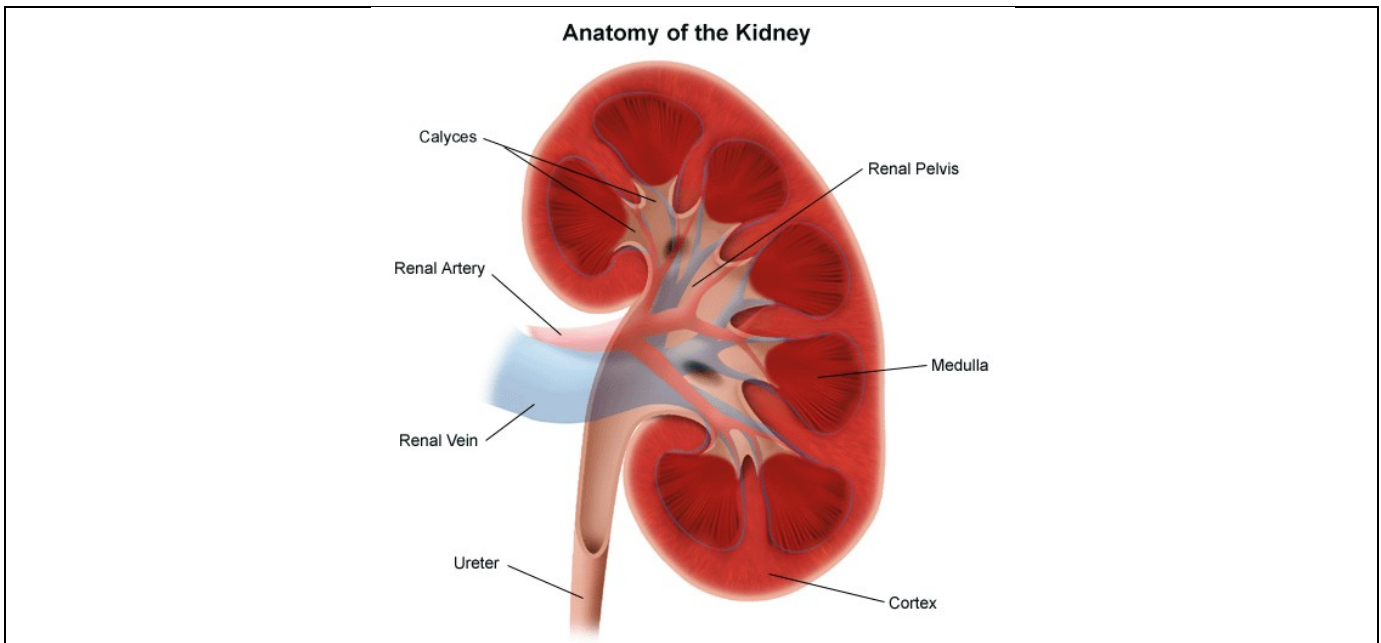


1. *Human urinary system*: 2. Kidney, 3. Renal pelvis, 4. Ureter, 5. Urinary bladder, 6. Urethra. (Left side with frontal section) 7. Adrenal gland

Vessels: 8. Renal artery and vein, 9. Inferior vena cava, 10. Abdominal aorta, 11. Common iliac artery and vein

With transparency: 12. Liver, 13. Large intestine, 14. Pelvis

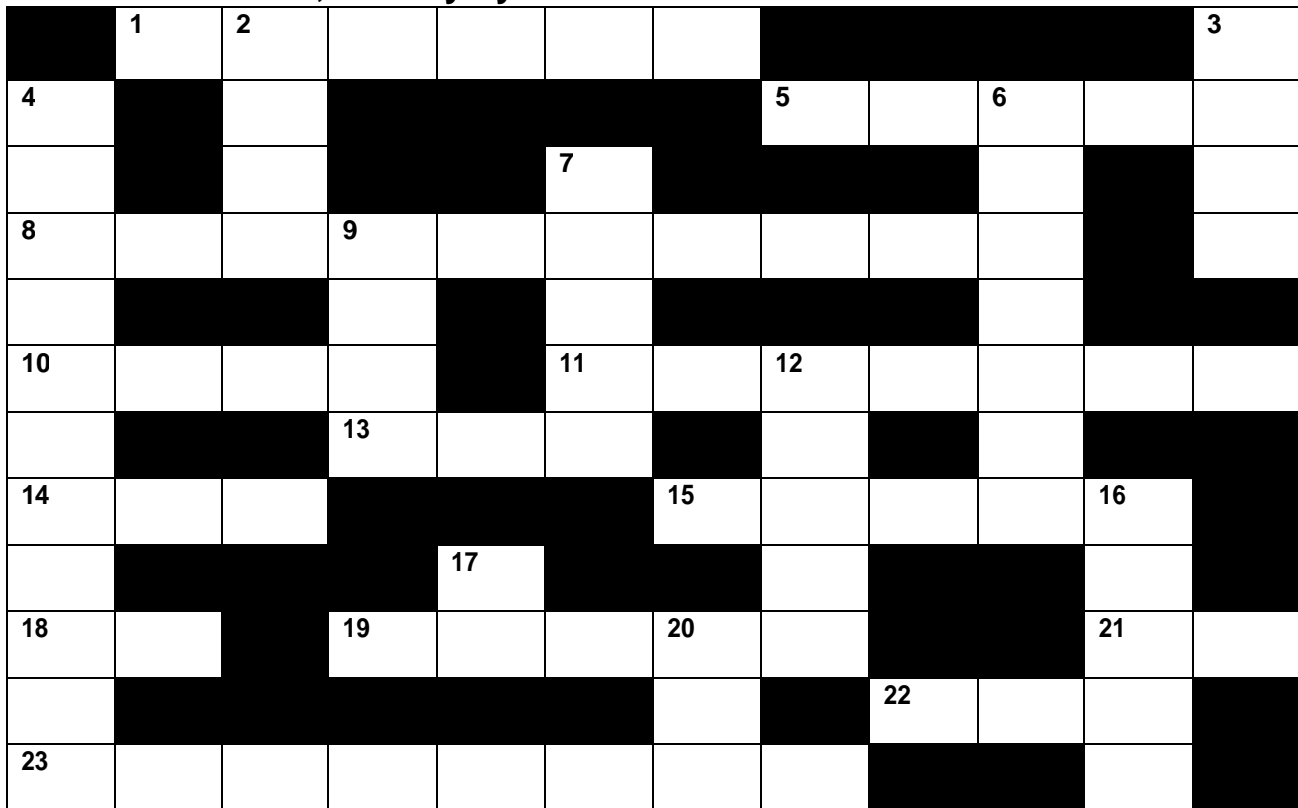
Roots for the Urinary Tract:			الجدور للمجاري البولية	Reg bo koendamî mîz
Root	Meaning	Example & its definition	معنى النموذج و الجدور معاً	Watay nimunew reg pêkewe
ren/o	kidney	infrarenal: below the kidney	تحت الكلية	jêr gurçike
nephro/o	kidney	nephrosis: any noninflammatory disease condition of the kidney	داء كلوي	derde gurçîle
glomerul/o	glomerulus	juxtaglomerular: near the glomerulus	مجاور (لصيق) الكبيبة	nizîk glóle (girmôle)
pyel/o	renal pelvis	pyeloplasty: plastic repair of the renal pelvis	تقويم حوض الكلية	çaksazî mojî gurçîle
cali-, calic-	calyx	caliectasis: dilatation of the renal calyx	توسع كأس الكلية	kasey gurçîle kişanî
ur/o	urine, urinary tract	urosepsis: generalized infection that originates in the urinary tract	تسمم بولي: التهاب عام ناشئ عن القناة البولية	mîzefo jarawîbûn
urin/o	urine	urination: discharge of urine	تبول، تبويل، بول	mîzkirdin
ureter/o	ureter	ureterostenosis: narrowing of the ureter	تضييق الحالب	teskbunî mîzefo
cyst/o	urinary bladder	cystotomy: incision of the bladder	شق (خزغ) المثانة	mîzełdan birîn
vesic/o	urinary bladder	intravesical: within the urinary bladder	داخل المثانة	naw mîzełdan
urethr/o	urethra	urethroscopy: endoscopic examination of the urethra	تنظير الأحييل	mîzecobînîn



Abbreviations:

1-	ADH	Antidiuretic hormone	13-	GU	Genitourinary
2-	ARF	Acute renal failure	14-	IVP	Intravenous pyelography
3-	ATN	Acute tubular necrosis	15-	IVU	Intravenous urography
4-	BUN	Blood urea nitrogen	16-	K	Potassium
5-	CAPD	Continuous ambulatory peritoneal dialysis	17-	KUB	Kidney-ureter-bladder
6-	CCPD	Continous cyclic peritoneal dialysis	18-	Na	Sodium
7-	CMG	Cytometrography, cytometrogram	19-	PEP	Protein electrophoresis
8-	CRF	Chronic renal failure	20-	PSS	physiologic saline solution
9-	EPO	Erythropoietin	21-	SG	Specific gravity
10-	ESRD	End-stage renal disease	22-	UA	Urinalysis
11-	ESWL	Extracorporeal shock wave lithotripsy	23-	UTI	Urinary tract infection
12-	GFR	Glomerular filtration rate			

Crossword Puzzle, Urinary system



Across

1. Tube that carries urine from the kidney to the bladder
5. Water; fluid: combining form
8. Cluster of capillaries in Boowman capsule
10. Few;scant: prefix
11. Microscopic functional unit of the kidney
13. Drug that reduces blood pressure, ____ inhibitor
14. Hormone that stimulates red cell production: (abbreviation)
15. Pertaining to the kidney
18. Measure of the weight of a substance as compared to water : (abbreviation)
19. Urinary bladder: combining form
21. Maximum amount of a substance that can be reabsorbed: (abbreviation)
22. Pituitary hormone that regulates water reabsorption: (abbreviation)
23. Excessive urination at night

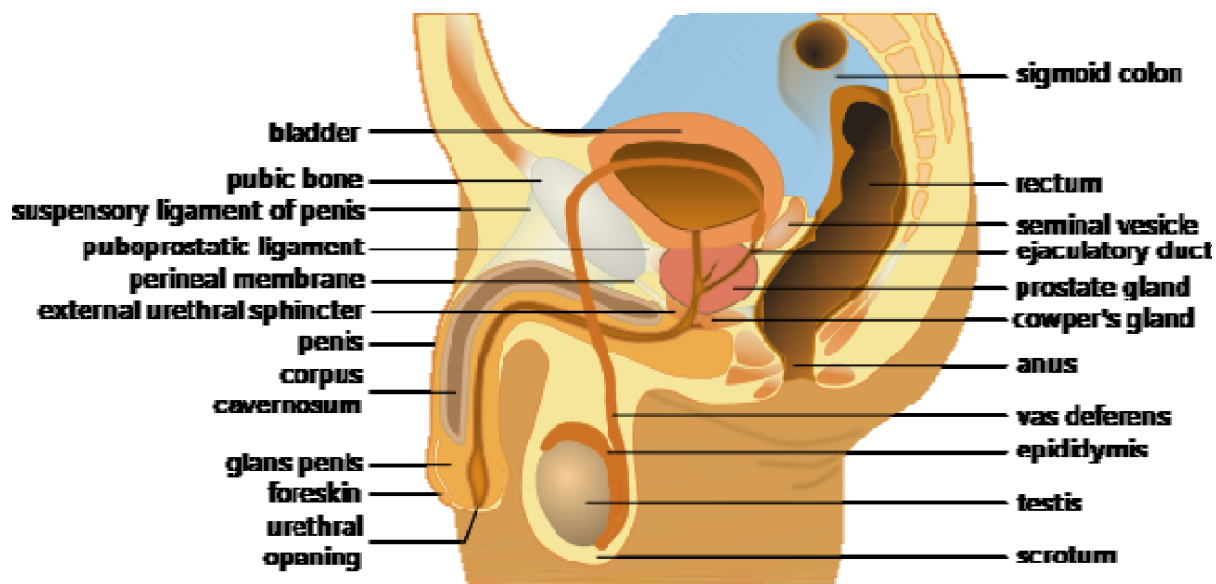
Down

2. Kidney: combining form
3. Organism often involved in urinary tract infections, E. _____
4. Substance produced in response to rennin that increases blood pressure
6. Painful or difficult urination
7. The fluid excreted by the kidneys
9. Large or abnormally large: prefix
12. Renal pelvis: combining form
16. Calculus (stone): combining form
17. Pus: root
20. Three: prefix

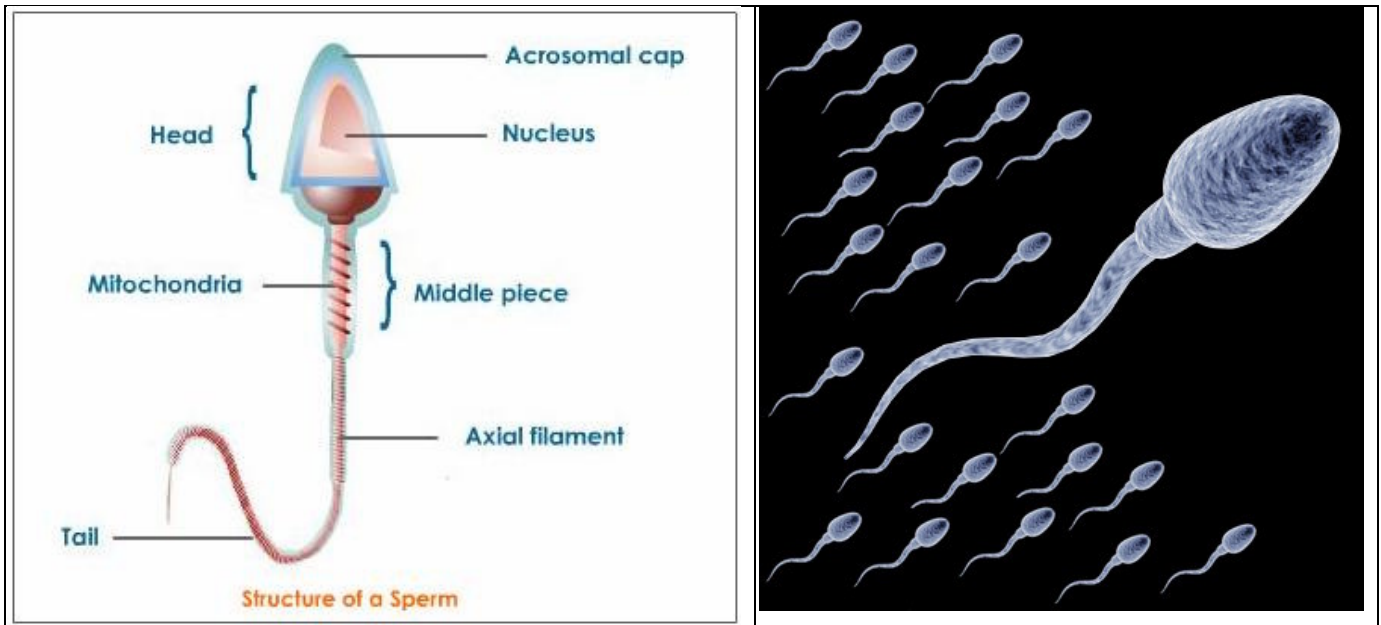
Answers to Crossword puzzle , Urinary system

	¹ U	² R	E	T	E	R				³ C	
⁴ A		E					⁵ H	Y	⁶ D	R	O
N		N			⁷ U				Y		L
⁸ G	L	O	⁹ M	E	R	U	L	U	S		I
I			E		I				U		
¹⁰ O	L	I	G		¹¹ N	E	¹² P	H	R	O	N
T			¹³ A	C	E		Y		I		
¹⁴ E	P	O				¹⁵ R	E	N	A	¹⁶ L	
N				¹⁷ P			L			I	
¹⁸ S	G		¹⁹ C	Y	S	²⁰ T	O			²¹ T	M
I						R		²² A	D	H	
²³ N	O	C	T	U	R	I	A			O	

14. The Male Reproductive System:



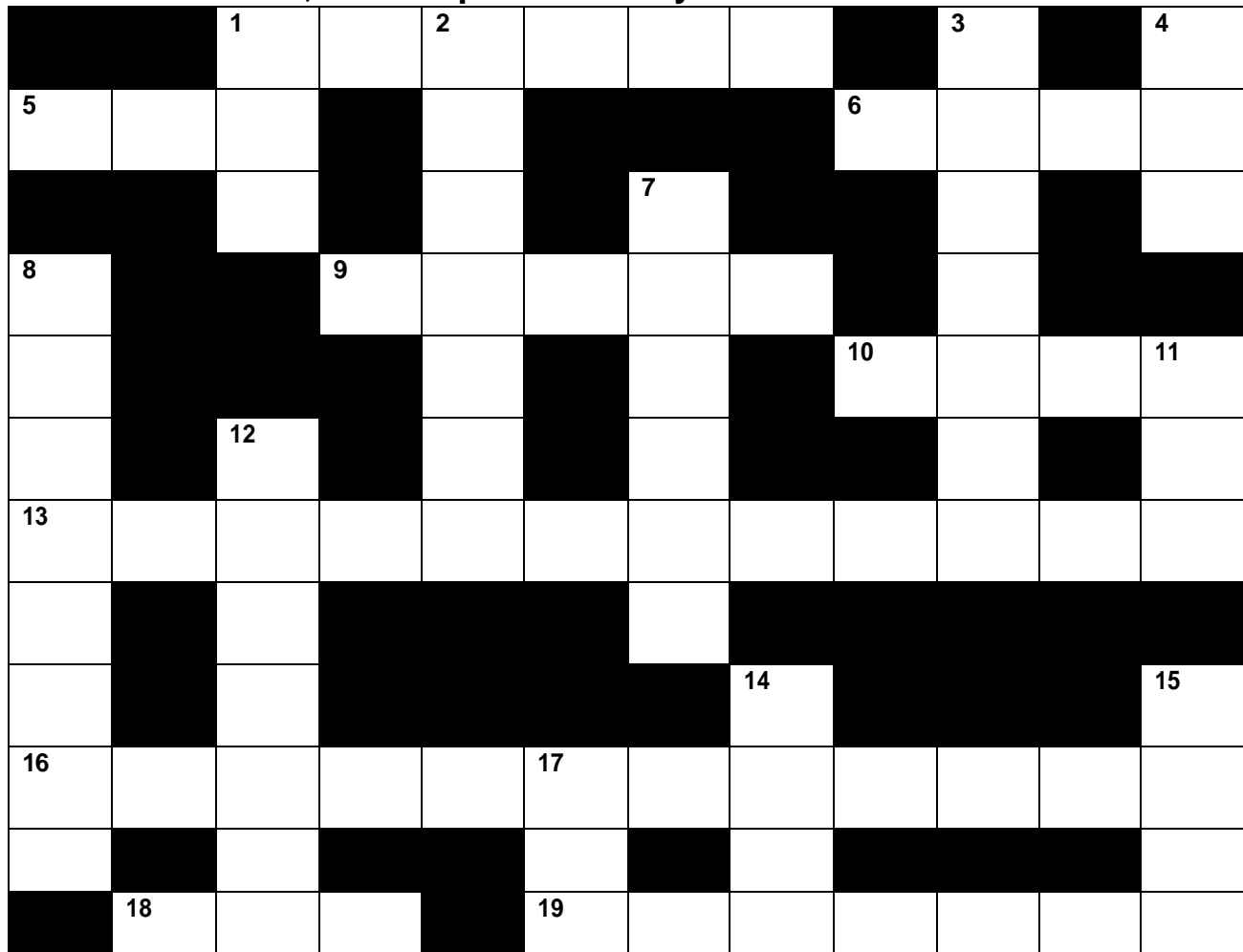
Roots pertaining to Male Reproduction:			الجنذور للأعضاء الذكورية للتكاثر	Reg bo koendamî nêrîney zaw u zê
Root	Meaning	Example & its definition	معنى النموذج و الجنذر معاً	Watay nimunew reg pêkewe
test/o	testis, testicle	testicular: pertaining to a testicle	خُصْوِي	gunekî
orchi/o, orchid/o	testis	anorchism: absence of a testis	غِيْبَةُ الْخُصَيْتَيْنِ	nebuñî hêlke gun
semin	semen	inseminate: to introduce semen into a woman	تَلْقِيْح، إِخْصَاب، تَمْنِيَّة	towî piyaw kirdine jineve
sperm/i, spermat/o	semen, spermatozoa	oligospermia: deficiency of spermatozoa	قَلَّةُ النَّطَافِ، قَلَّةُ الْحَبِيْبَاتِ الْمَنْوِيَّةِ	kemî towî piyawetî
epididym/o	epididymis	epididymitis: inflammation of the epididymis	الْتِهَابُ الْبَرْبَخِ	gunewêle hewkirdin
vas/o	vas deferens; also vessel	vasorrhaphy: suture of the vas deferens	خِيَاطَةُ (رَفُو) الْأَسْهَرِ	towefo dirûnewe
vesicul/o	seminal vesicle	vesiculography: radiographic study of the seminal vesicles	تَصْوِيْر الْحَوِيْصَلَاتِ الْمَنْوِيَّةِ بِالْأَشْعَةِ السِّيْنِيَّةِ	wênegirtinî turekey spêrm be tîşkî êks
prostat/o	prostate	prostatometer: instrument for measuring the prostate	مِقْيَاسُ الْبُرُوسْتَاتِ	prostatpêw
osche/o	scrotum	oscheoma: tumor of the scrotum	وَرْمُ الصَّفَنِ	luy pêstî gun



Abbreviations:

1-	AIDS	Antidiuretic hormone	11-	PSA	Prostate-specific antigen
2-	BNO	Bladder neck obstruction	12-	STD	Sexually transmitted disease
3-	BPH	Benign prostatic hyperplasia (hypertrophy)	13-	TPUR	Transperitoneal urethral resection
4-	DRE	Digital rectal examination	14-	TSE	Testicular self-examination
5-	FSH	Follicle stimulating hormone	15-	TUIP	Transurethral incision of prostate
6-	GC	Gonococcus	16-	TURP	Transurethral resection of the prostate
7-	GU	Genitourinary	17-	UTI	Urinary tract infection
8-	ICSH	Interstitial cell-stimulating hormone	18-	VD	Venereal disease
9-	LH	Lutenizing hormone	19-	VDRL	Venereal disease research laboratory (test for syphilis)
10-	NGU	Nongonococcal urethritis			

Crossword Puzzle, Male Reproductive System



Across

1. The male gonad
5. Abnormal, painful, difficult: prefix
6. Pertaining to condition of urine: suffix
9. A reproductive organ
10. Stone or calculus: root
13. Male gamete or sex cell
16. Main male sex hormone
18. Protein associated with prostate cancer: abbreviation
19. Semen or spermatozoa: root

Down

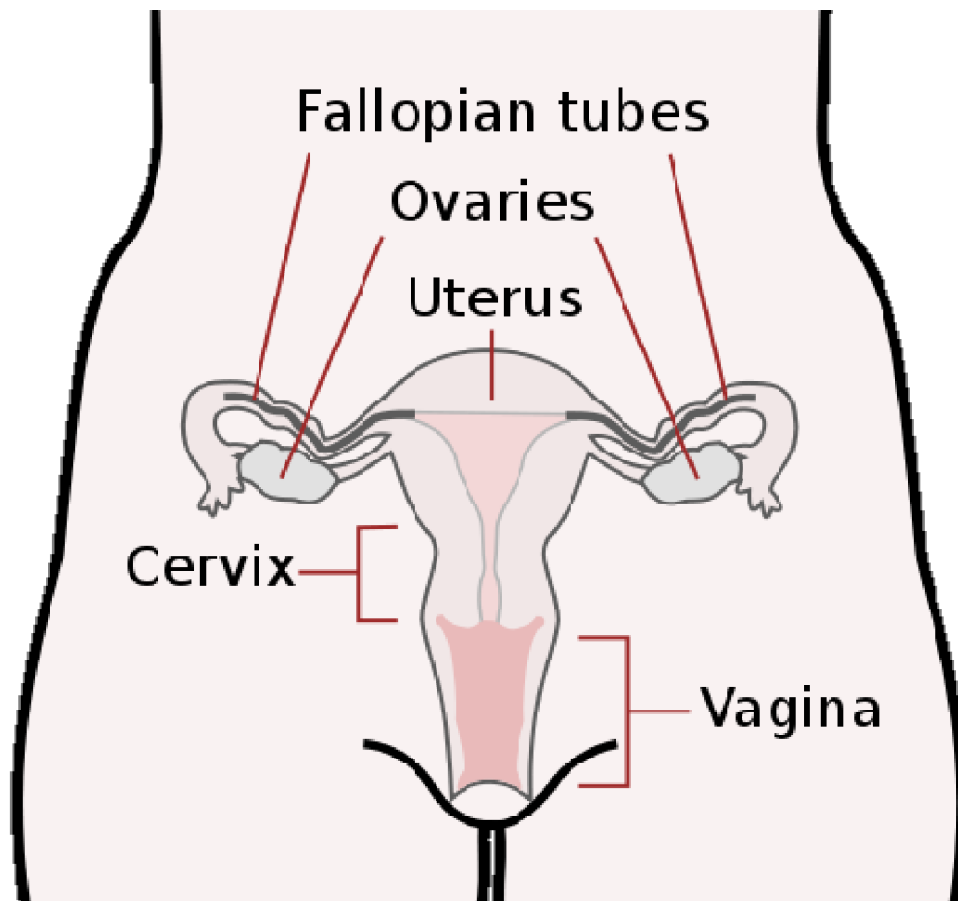
1. Self-examination of the testis: abbreviation
2. Sac that holds the testis
3. Testis: combining form
4. Ductus deferens: root
7. A reproductive or germ cell
8. Gland that contributes to semen
11. High blood pressure: abbreviation
12. Type of cell division that forms the gametes
14. Hernia or localized dilation: suffix
15. Male reproduction gland: root
17. Condition of: suffix

Answers to Crossword puzzle , Male Reproductive System

		¹ T	E	² S	T	I	S		³ O		⁴ V
⁵ D	Y	S		C				⁶ U	R	I	A
		E		R		⁷ G			C		S
⁸ P			⁹ G	O	N	A	D		H		
R				T		M		¹⁰ L	I	T	¹¹ H
O		¹² M		U		E			D		T
¹³ S	P	E	R	M	A	T	O	Z	O	O	N
T		I				E					
A		O					¹⁴ C				¹⁵ T
¹⁶ T	E	S	T	O	¹⁷ S	T	E	R	O	N	E
E		I			I		L				S
	¹⁸ P	S	A		¹⁹ S	P	E	R	M	A	T

15. The Female Reproductive System;

Pregnancy and Birth



Roots for Female Reproductive System			الجنذور لأعضاء التكاثر النسوية	Reg bo koendamî zorbun le mêyneda
Root	Meaning	Example & its definition	معنى النموذج و الجنذر معاً	Watay nimunew reg pêkewe
gyn/o, gynec/o	woman	gynecology: study of diseases of women	علم أمراض النساء	derde jinzanî
men/o, mens	month, menstruation	premenstrual: before a menstrual period	سابق الحيض (الطمث)	pêş mehk
oo	ovum, egg cell	oocyte: cell that gives rise to an ovum	خلية الببيضة الغير مستكملة النمو	xaney hêlke dirustker
ov/o	ovum, egg cell	ovulation: release of an ovum from the ovary	إباضة	hêlkekirdin
ovari/o	ovary	ovarian: pertaining to an ovary	مبيضي	hêlkedanî
oophor/o	ovary	oophorotomy: incision of an ovary	شق (بضع) المبيض	biîîî hêlkedan
salping/o	oviduct, tube	salpingectomy: excision of an oviduct	إستئصال البوق	hêlkedanbiîîî
uter/o	uterus	uterine: pertaining to the uterus	رحمى	mindaîdanî
metr/o, metr/i	uterus	metrorrhagia: abnormal uterine bleeding	نزف رحمى	xwênberbunî mindaîdan
hyster/o	uterus	hysteroscopy: endoscopic examination of the uterus	تنظير الرحم	mindaîdan bîîîî
cervic/o	cervix, neck	endocervical: pertaining to the lining of the cervix	متعلق بباطن عنق الرحم	naw milî mindaîdanî
vagin/o, gyn/o	vagina	vaginoplasty: plastic repair of the vagina	تقويم المهبل	çaksazî gulînk
colp/o	vagina	colpocele: hernia of the vagina	فتق مهبلى	debebûnî gulînk

Roots for the Female Accessory Structures:			الجذور للمكونات النسوية الثانوية	Reg bo pêkhate tewawkerekanî mêyne
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
vulv/o	vulva	vulvar: pertaining to vulva	فَرْجِي	kuzekî
episi/o,	vulva	episiotomy: incision of the vulva	قَصِّ الْعِجَانِ فِي الْوَلَادَةِ	biřîni nawgelê le mindaġbunda
perine/o	perineum	perineal: pertaining to perineum	عِجَانِي	nawgelî
clitor/o, clitorid/o	clitoris	clitorectomy: excision of the clitoris	إِسْتِنْصَال (قَطْع) الْبِظْرِ	qîtkebiřîni
mamm/o	breast, mammary gland	mammoplasty: plastic surgery of the breast	رَأْب (تَقْوِيم) الثَدِي	memik rastkirdinewe
mast/o	breast, mammary gland	amastia: absence of the breasts	غَيْبَةُ الثَدِي	bêmemikî

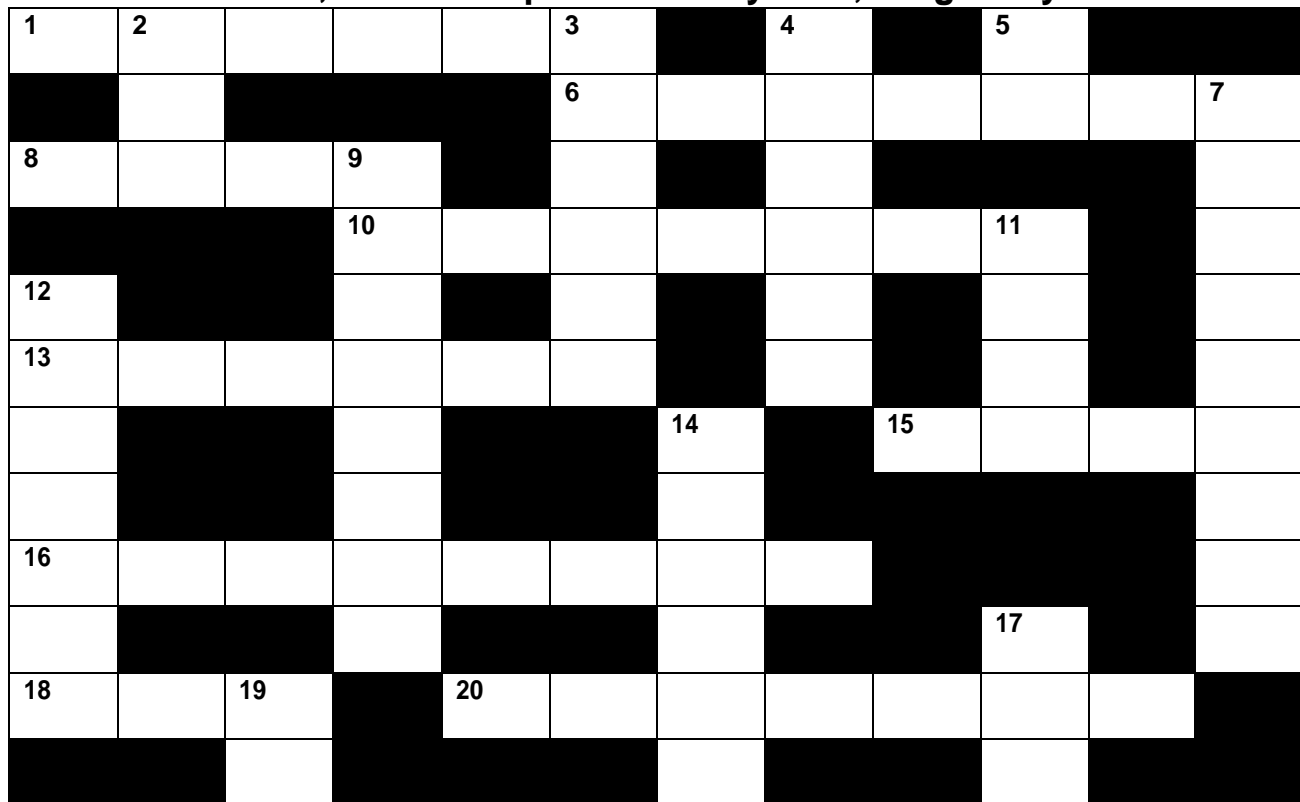
Roots Pertaining to Pregnancy and Birth:			الجذور للحمل و الولادة	Reg bo sik kirdin u ledayikbun
Roots	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
amnio	amnion, amniotic sac	diamniotic: developing in separate amniotic sacs	شَقُّ (تَمْرِيْق) الْأَغْشِيَةِ الْجَيْنِيَّةِ، شَقُّ السَّلَى	biřîni perdey korpele
embryo/o	embryo	embryonic: pertaining to the embryo	جَيْنِي	korpeleyî
fet/o	fetus	fetoscope: endoscope for examining the fetus	نَاطُورُ الْجَيْنِي	korpelebîni
toc/o	labor	eutocia: normal labor	وَلَادَةُ طَبِيعِيَّةٍ وَ سَهْلَةٌ	mindalġbunî asan u siruřtî

nat/i	birth	neonate: newborn	ولادة حديثة	nwêza, newzad
lact/o	milk	lactation: secretion of milk	إرضاع	şîrdan
galact/o	milk	galactagogue: agent that promotes the flow of milk	مُدِّرُ اللبن	handerî şîrdan
gravida	pregnant woman	multigravida: woman who has been pregnant two or more times	متعددة (متكررة) الحمل	jinî frezan
para	woman who has given birth	nullipara: woman who has never (nulli) given birth	عديمة الولادة	jinî nezok

Abbreviations:

Female Reproductive System			Pregnancy and Birth		
1-	BSE	Breast self-examination	17-	AB	Abortion
2-	BSO	Bilateral salpingo-oophorectomy	18-	AGA	Appropriate for gestational age
3-	CIN	Cervical intraepithelial neoplasia	19-	AI	Artificial insemination
4-	D&C	Dilation and curettage	20-	CS	Cesarean section
5-	DES	Diethylstilbestrol	21-	CPD	Cephalopelvic disproportion
6-	DUB	Dysfunctional uterine bleeding	22-	D&E	Dilatation and evacuation
7-	GYN	Gynecology	23-	EDC	Estimated date of confinement
8-	HCG	Human chorionic gonadotropin	24-	FHR	fetal heart rate
9-	HPV	Lutenizing hormone	25-	FTND	Full-term normal delivery
10-	HRT	Hormone replacement therapy	26-	FTP	Full-term pregnancy
11-	IUD	Intrauterine device	27-	GA	Gestational age
12-	LH	Lutenizing hormone	28-	IVF	In vitro fertilization
13-	NGU	Nongonococcal urethritis	29-	LMP	Last menstrual period
14-	PID	Pelvic inflammatory disease	30-	NB	Newborn
15-	STD	Sexually transmitted disease	31-	OB	obstetrics
16-	TAH	total abdominal hysterectomy	32-	SVD	Spontaneous vaginal delivery

Crossword Puzzle, Female Reproductive System; Pregnancy and Birth



Across

1. Neck of the uterus: root
6. Fallopian tube
8. Vagina: root
10. Outside the normal position
13. Tube between the uterus and external genitalia
15. Developing infant in the uterus from the third month of gestation: combining form
16. Premature separation of the placenta: _____ placentae
18. In, within: prefix
20. The outermost layer of the embryo; forms the inner portion of the placenta

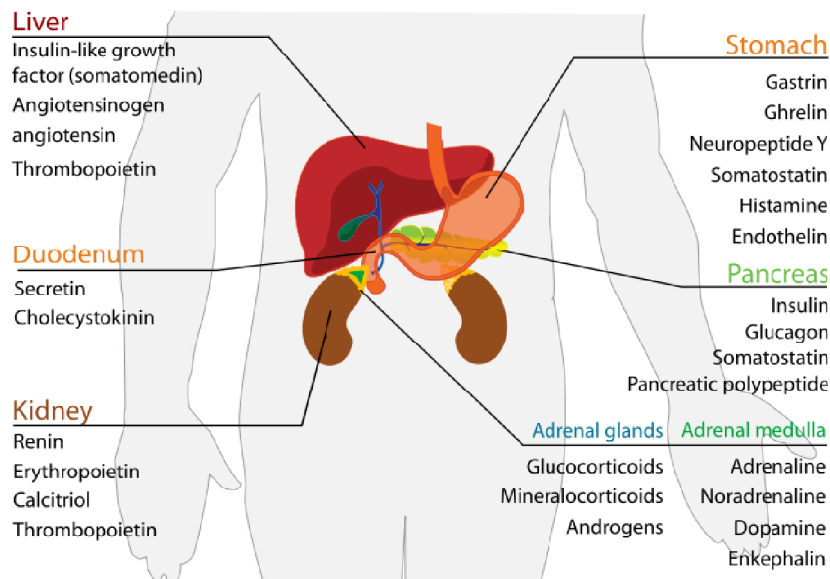
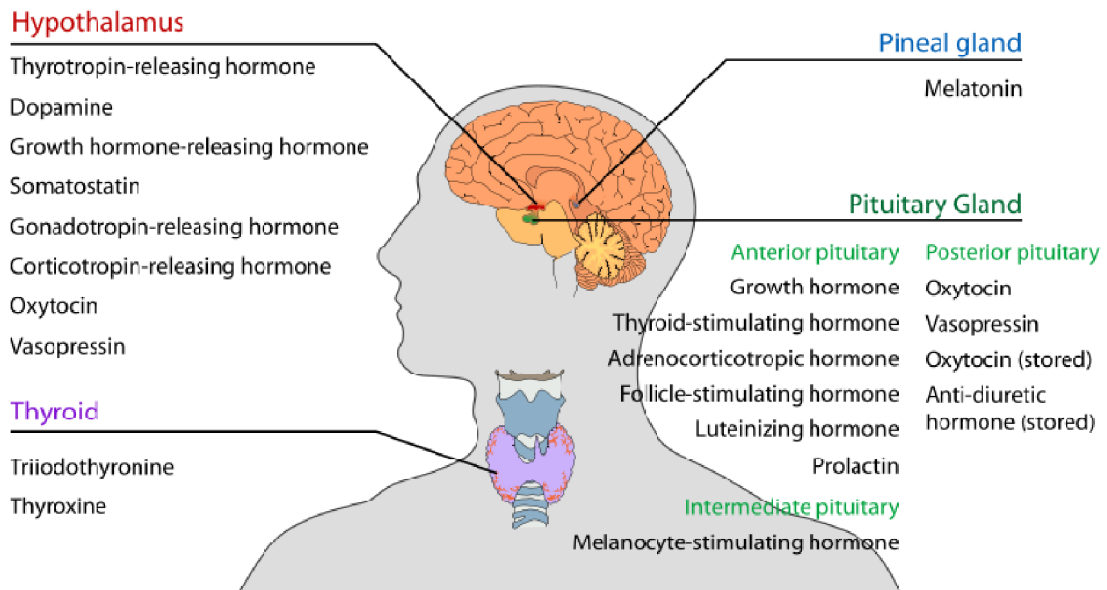
Down

2. Outside, away from: prefix
3. Against: prefix
4. Removal of tissue for laboratory study
5. The reproductive and urinary systems together: abbreviation
7. Substance or agent that causes birth abnormalities
9. The region between the thigh, including the genitalia
11. Hernia, localized dilation; suffix
12. To release an ovum from the ovary
14. Erectile tissue in the female: root
17. Labor : root
19. Down, without, removal: prefix

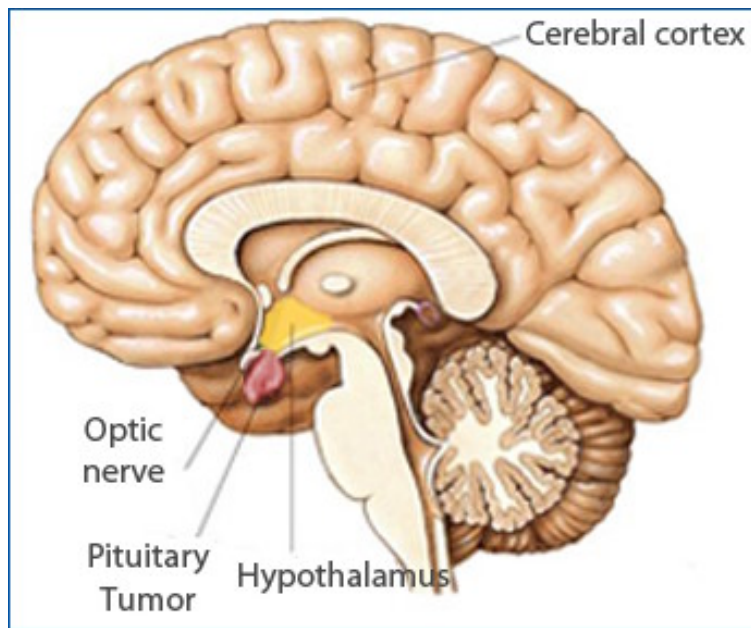
**Answers to Crossword puzzle,
Female Reproductive System; Pregnancy and Birth**

1 C	2 E	R	V	I	3 C		4 B		5 G	
	X				6 O	V	I	D	U	7 C
8 C	O	L	9 P		N		O			E
			10 E	C	T	O	P	I	11 C	R
12 O			R		R		S		E	A
13 V	A	G	I	N	A		Y		L	T
U			N			14 C		15 F	E	T
L			E			L				G
16 A	B	R	U	P	T	I	O			E
T			M			T		17 T		N
18 E	N	19 D		20 C	H	O	R	I	O	N
		E				R			C	

16. The Endocrine System:



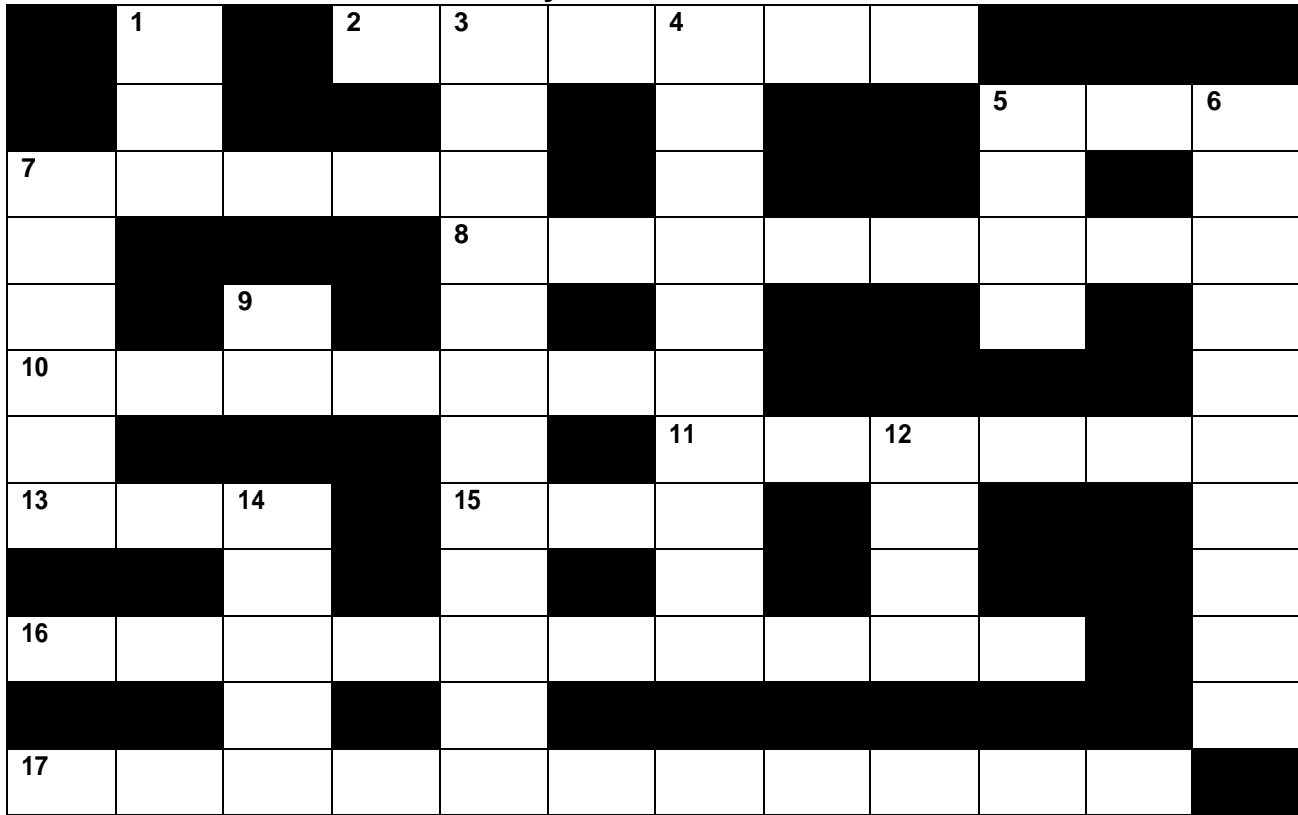
Roots Pertaining to the Endocrine Glands:			الجذور لغدد الصماء	Reg bo kwêre rijênekan
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
endocrine/o	endocrine glands or system	endocrinopathy: any disease of the endocrine glands	إعتلال صمّاوي، الاعتلال بالأفراز الداخلي	derde kefe rijên
pitutar	pitutary gland, hypophysis	pituitarism: condition caused by any disorder of pitutary function	قصور النخامية	kemukufî rijênî pîutarî
hypophys	pitutary gland, hypophysis	hypophyseal: pertaining to pitutary gland	نخامي	peywend be rijênî pîutarî
thyr/o thyroid/o	thyroid gland	parathyroidectomy: excision of the parathyroid gland	إستئصال الدريقات (جنيبة الدرقية)	birînî rijênî tenîšt pêşmile rijên
adren/o, adrenal/o	adrenal gland	adrenergic: activated (erg-) by or related to epinephrine (adrenaline)	أدرينالي الأثارة، أدرينالي الفاعل	edrînalîne çalakî
adrenocortic/o	adrenal cortex	adrenocortical: pertaining to the adrenal cortex	قشري كظري	peywend be dîwî derewey rijênî seru gurçîle
insul/o	pancreatic islets	insuloma: tumor of islet cells	ورم خلايا لانغرهانس في البنكرياس	luy xaney langerhansî penkiryas



Abbreviations:

1-	ACTH	Adrenocorticotrophic hormone	11-	HbA_{1c}	Hemoglobin A _{1c} ; glycohemoglobin
2-	ADH	Antidiuretic hormone	12-	¹³¹ I	Iodine 131 (radioactive iodine)
3-	BS	Blood sugar	13-	IDDM	Insulin-dependent diabetes mellitus
4-	CSII	Continuous subcutaneous insulin infusion	14-	NIDDM	Non-insulin-dependent diabetes mellitus
5-	DM	Diabetes mellitus	15-	OGTT	Oral glucose tolerance test
6-	FBG	Fasting blood glucose	16-	T₃	Triiodothyronine
7-	FBS	Fasting blood sugar	17-	T₄	Thyroxine; tetraiodothyronine
8-	FTI	Free thyroxine index	18-	T₇	Free thyroxine index
9-	GDM	Gestational diabetes mellitus	19-	TBG	Thyroxine-binding globulin
10-	GH	Growth hormone	20-	TSH	Thyroid stimulating hormone

Crossword Puzzle, Endocrine System



Across

2. An islet is a small _____
5. Measurement used to diagnose diabetes : abbreviation
7. Temperature: root
8. Sudden degeneration of the pituitary is pituitary _____
10. Diabetes affects the metabolism of _____
11. A form of hyperthyroidism is named for him
13. pituitary hormone that acts on the thyroid: abbreviation
15. Test for measuring hormones in the blood: abbreviation
16. Alternate name to the pituitary
17. Any disease of the adrenal gland

Down

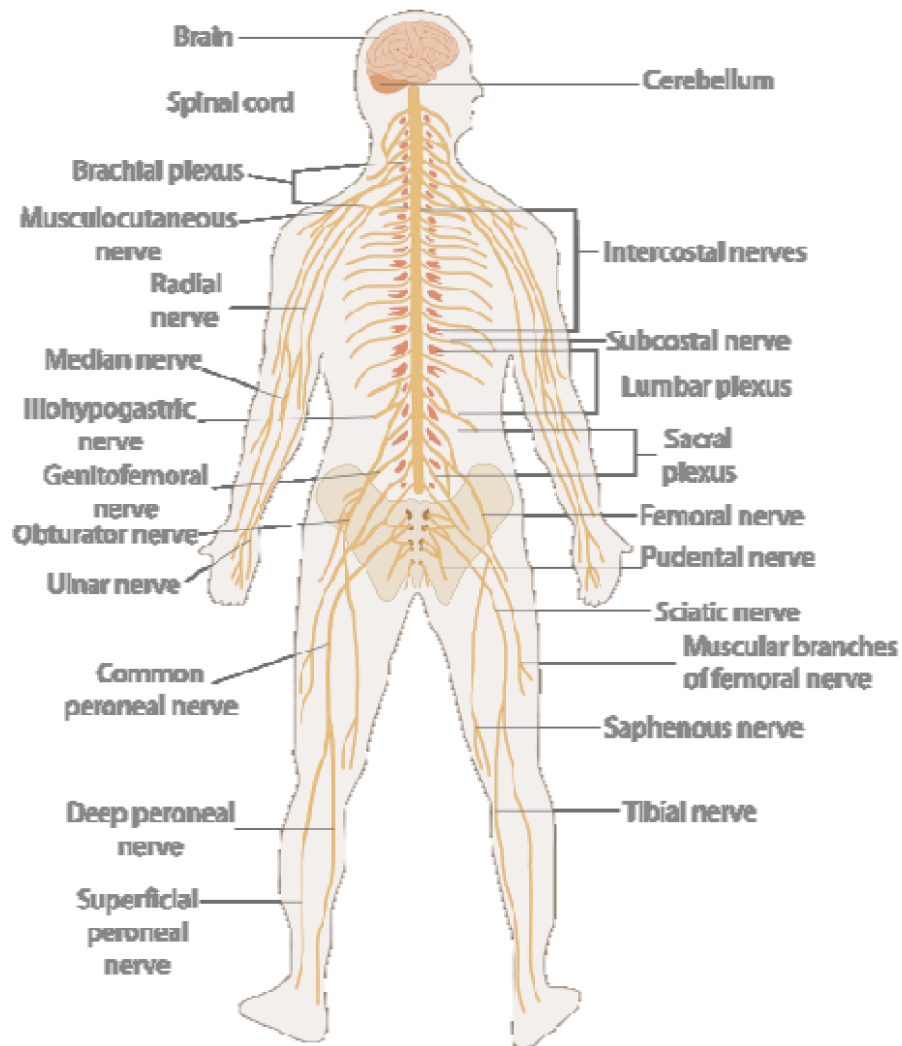
1. Pituitary hormone that controls water loss : abbreviation
3. Alternate name for growth hormone
4. Disorder caused by excess growth hormone in adults
5. A form of thyroid hormones in the blood
6. Excess sugar in the urine
7. The cells or tissues a hormone acts on
9. True, normal: prefix
12. Against: prefix
14. Over, abnormally high: prefix

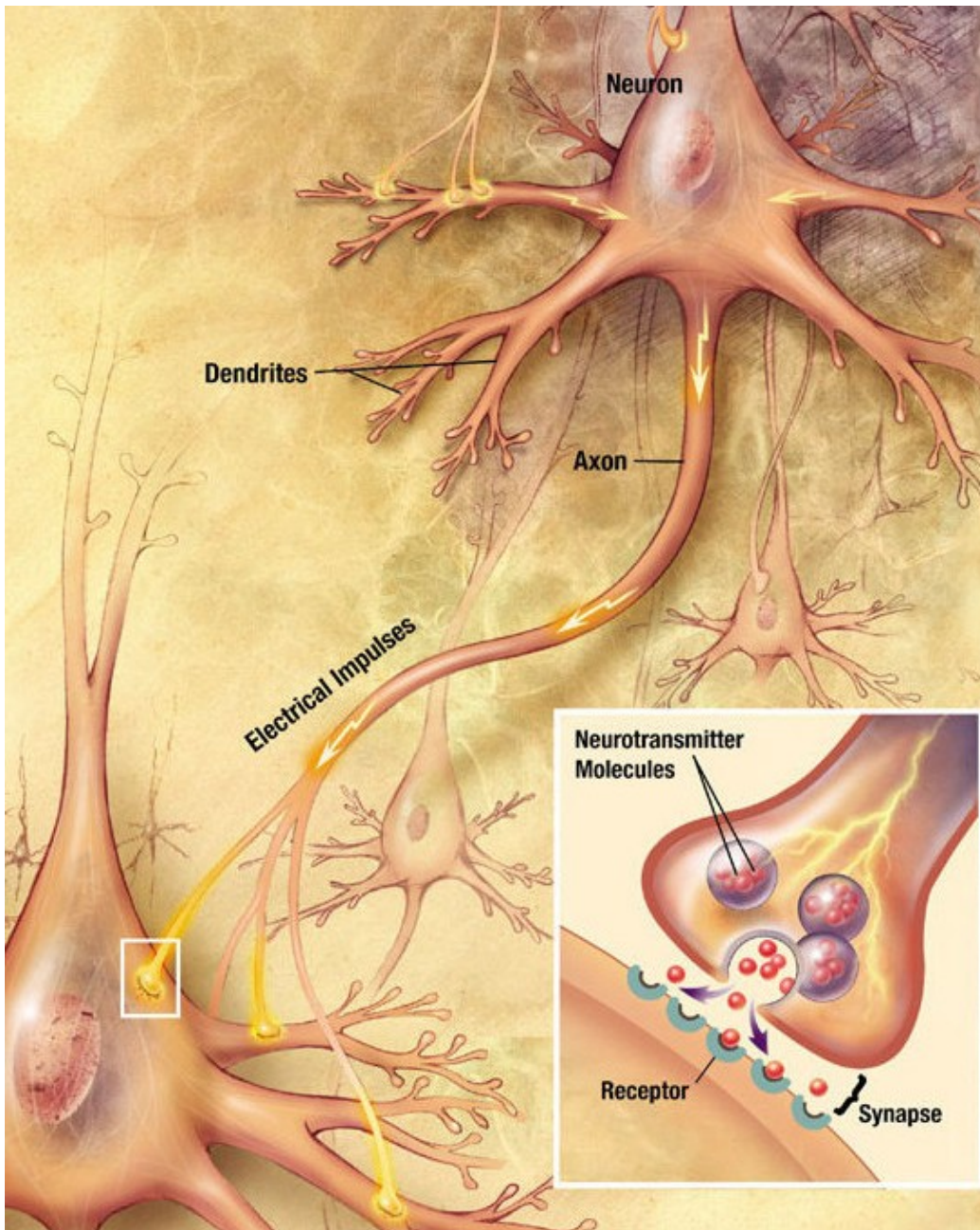
Answers to Crossword puzzle , Endocrine System

	¹ A		² I	³ S	L	⁴ A	N	D		
	D			O		C			⁵ F	⁶ P
⁷ T	H	E	R	M		R			R	L
A				⁸ A	P	O	P	L	E	X
R		⁹ E		T		M			E	C
¹⁰ G	L	U	C	O	S	E				O
E				T		¹¹ G	R	¹² A	V	E
¹³ T	S	¹⁴ H		¹⁵ R	I	A		N		U
		Y		O		L		T		R
¹⁶ H	Y	P	O	P	H	Y	S	I	S	I
		E		I						A
¹⁷ A	D	R	E	N	O	P	A	T	H	Y

17

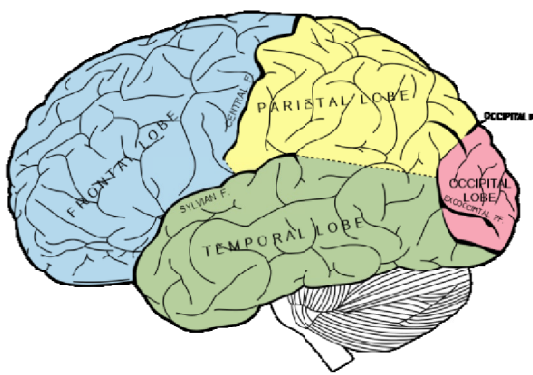
• The Nervous System and Behavioral Dis:





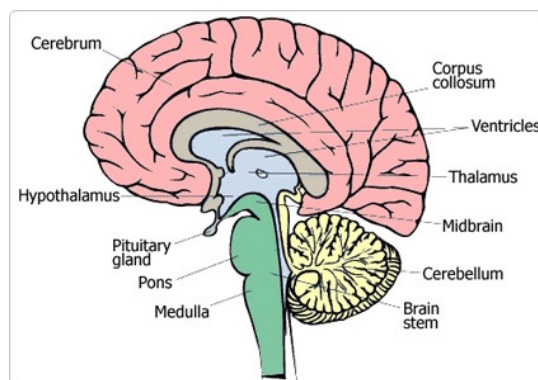
The neuron and the Electrical Impulses

Roots for the Nervous System and the Spinal Cord:			الجدور للجهاز العصبي والنخاع الشوكي	Reg bo koendamî heste demar u petke demar
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
neur/o, neur/i	nervous system, nervous tissue, nerve	neurotoxic: harmful or poisonous to a nerve or nervous tissue	سام للعَصَب، مُتلف للنسيج العَصَبِي	jehrawî bo demar u demare şane
gli/o	neuroglia	glioma: a neuroglial tumor	وَرَم دَبْقِي عَصَبِي	luy heste demar
gangli/o, ganglion/o	ganglions	ganglionectomy: surgical removal of a ganglion	إِسْتِنْصَال الْعُقْدَة الْعَصَبِيَّة	lêkirdinewey girêy demar
mening/o, meninge/o	meninges	meningocele: hernia of the meninges through the skull or spinal column	قَيْلَة سَحَائِيَّة مِنْ خِلَال الْجَمْجَمَة أَوْ الْعَمُود النِّخَاعِي	qořî (debebûnî) perdey mêşk
myel/o	1- spinal cord	1- myelodysplasia: abnormal development of the spinal cord	سوء النمو النخاعي	xirap geşekirdinî petke demar
	2-bone marrow	2- myeloma	ورم نخاعي	moxe êskelû
radicul/o	root of a spinal nerve	radiculopathy: any disease of a spinal nerve root	إِعْتِلَال جَدُور الْأَعْصَاب فِي النِّخَاع الشُّوكِي	nexoşî rege demarî petke demar



The four lobes of the cerebral cortex

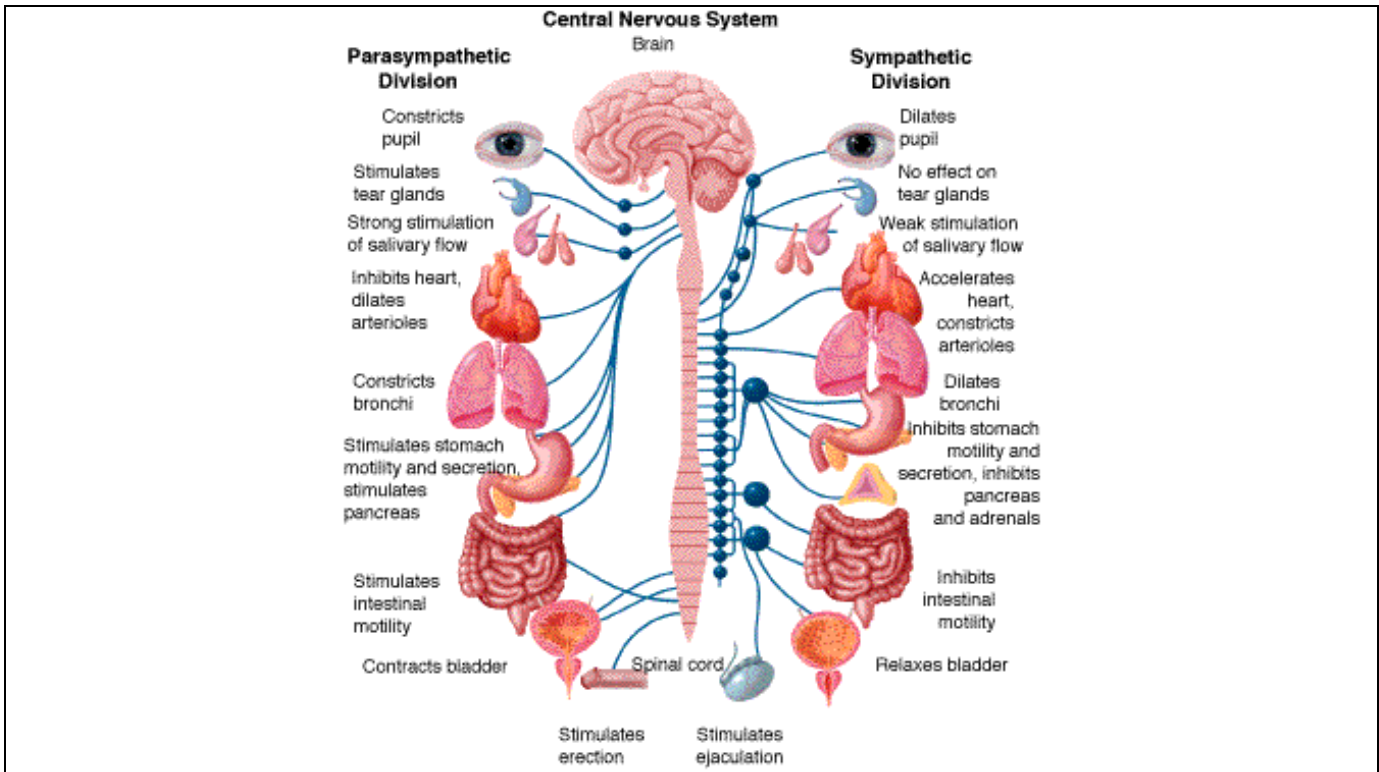
Roots for the Brain:			الجذور للمخ	Reg bo mêşk
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
encephal/o	brain	encephalomalacia: softening of brain tissue	تليين الدماغ	mêşkenermê
cerebr/o	cerebrum (loosely, brain)	decerebrate: having no cerebral function	مُنْتزِع الدماغ أو المخ	bêkarkirdinî mêşk
cortic/o	cerebral cortex, outer portion	corticospinal: pertaining to the cerebral cortex and spinal cord	قشري شوكي، قشري دماغي	tuwêkîî dirki
cerebell/o	cerebellum	intracerebellar: within the cerebellum	داخل المخيخ	naw mêşkoke
thalam/o	thalamus	thalamotomy: incision of the thalamus	بَضْعُ (شق) المهاد	birîni bêşkey mêşk
ventricul/o	cavity, ventricle	supraventricular: above ventricle	فوق البطين	seru sikole
medull/o	medulla oblongata (also spinal cord)	medullary : pertaining to the medulla	نُخاعي، نُبي	moxî, kirokî
psych/o	mind	psychosomatic: pertaining to the mind and body	نفسي بدني، عقلي جسماني	derunî cesteyî
narc/o	stupor, unconsciousness	narcosis: state of stupor induced by drugs	تخدير بواسطة الادوية	bêhoşî behoy dermanewe
somn/o, somn/i	sleep	somnolence: sleepiness	نُعاس	wenewizdan, xewlêkewtin



Suffixes for the nervous system:			اللاحقة للجهاز العصبي	Paşgir bo koendamî hest u cuîe
Suffixes	Meaning	Example & its definition	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-phasia	speech	heterophasia: uttering words that are different from those intended	التلفظ بغير المقصود	wifênekirdê
-lalia	speech, babble	coprolalia: compulsive use of obscene words (copro- means “feces”)	بذاءة الكلام	dempîsê
-lexia	reading	dyslexia: difficulty in reading	عسر القراءة	qursexwênê
-plegia	paralysis	tetraplegia: quadriplegia paralysis of all four limbs	شلل الاطراف الاربعة	îflîcî çuwar pel
-paresis	partial paralysis	hemiparesis: partial paralysis of one side of the body	شلل نصفي خفيف	suke nîwe îflîcî
-lepsy	seizure	narcolepsy: condition marked by sudden episodes of sleep	نوم لايقاوم، فترات نوم مفاجئة	nustinî kitupîf
-phobia	persistent, irrational fear	agoraphobia: fear of being in a public place (agora = “marketplace”)	رغبة (خوف) من الاماكن العامة	tirs le şiwênî gîştî
-mania	excited state, obsession	megalomania: exaggerated self-importance; “delusions of grandeur”	جنون العظمة	mezne şêtî



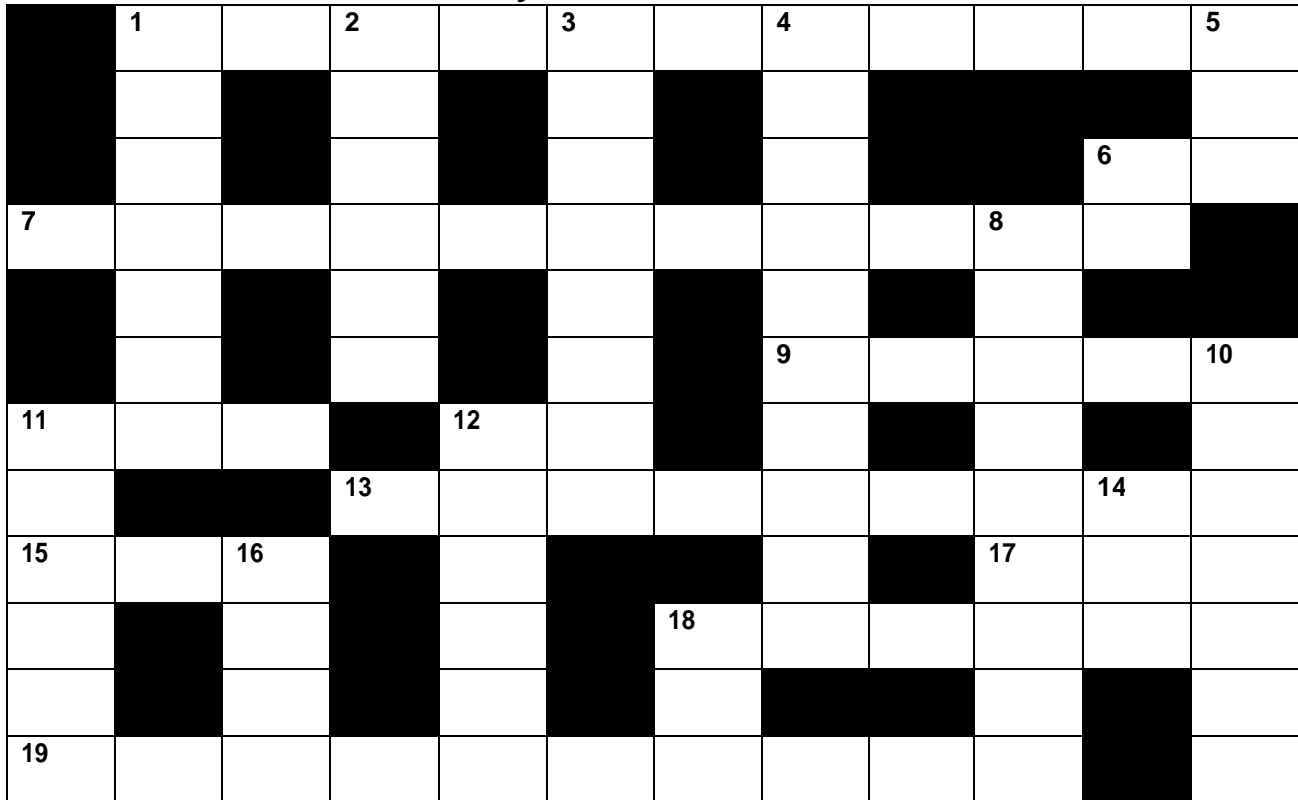
Tetraplegia : Quadriolegia



Abbreviations:

1-	ACh	Acetylcholine	13-	LMN	Lower motor neuron
2-	AD	Alzheimer disease	14-	LOC	Level of consciousness
3-	ANS	Autonomic nervous system	15-	LP	lumber puncture
4-	CBF	Cerebral blood flow	16-	MS	Multiple sclerosis
5-	CNS	Central nervous system	17-	NICU	neurological intensive care unit (also means neonatal intensive care unit)
6-	CP	Cerebral palsy	18-	NREM	Non-rapid eye movement (sleep)
7-	CSF	Cerebrospinal fluid	19-	OCD	Obsessive-compulsive disorder
8-	CVA	Cerebrovascular accident	20-	PNS	Peripheral nervous system
9-	CVD	Cerebrovascular disease	21-	REM	Rapid eye movement (sleep)
10-	DTR	Deep tendon reflexes	22-	TIA	Transient ischemic attack
11-	EEG	Electroencephalogram; electroencephalograph	23-	UMN	Upper motor neuron
12-	ICP	Intracranial pressure			

Crossword Puzzle, Nervous System



Across

1. A division of the autonomic nervous system
6. Dementia caused by multiple small strokes: abbreviation: ___ I ___
7. Inflammation of a spinal nerve root
9. Drug used to treat Parkinson disease
11. Electric study of the brain: abbreviation
12. Fluid around the brain and spinal cord: abbreviation: ___ ___ F
13. Instrument used for making computerized radiographic images
15. Order related to a patient's activity: abbreviation
17. A sudden, brief interruption of blood flow to brain tissue : (abbreviation)
18. Episodes associated with anxiety disorder
19. Mental state associated with sudden and loss of pleasure in life

Down

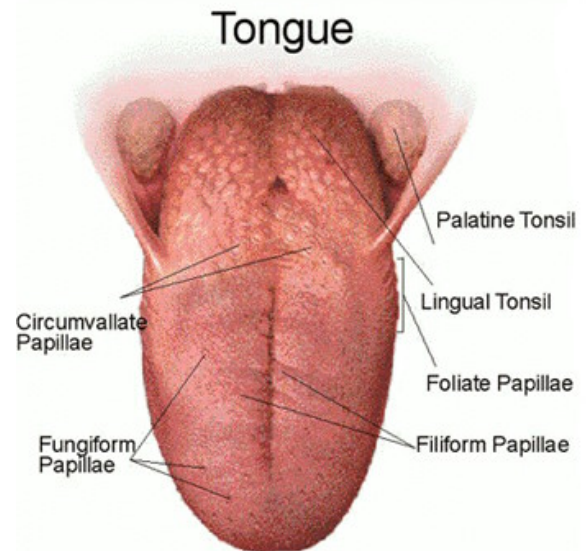
1. Junction between two neurons
2. Membranes around the brain and spinal cord: root
3. Localized dilation of a blood vessel
4. Paralysis of one side of the body
5. Slow-growing viral disease of the brain: abbreviation
6. Disease causing progressive loss of myelin in neurons: abbreviation
8. Feeling associated with depression and other behavioral disorders
10. Loss or defect in speech communication
11. Methods for study of the nervous system: ___ ___ ___ potentials
12. Type of brain injury caused by a blow: ___ ___ ___ ___ coup
14. Type of catheter: abbreviation: ___ ___ ___ C
16. Method for studying the brain involving auditory stimulation: abbreviation
18. All of the nervous system except the brain and spinal cord: abbreviation

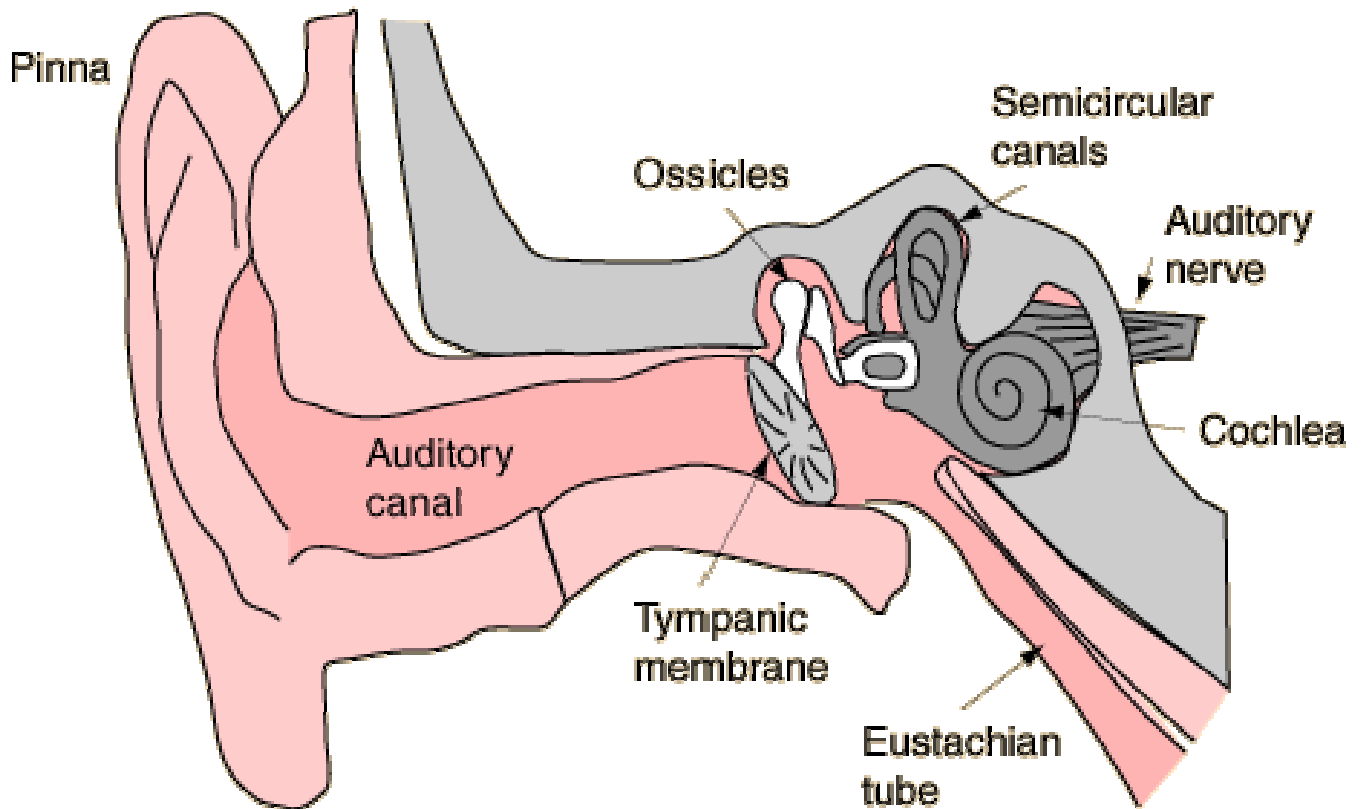
Answers to Crossword puzzle , Nervous System

	¹ S	Y	² M	P	³ A	T	⁴ H	E	T	I	⁵ C
	Y		E		N		E				I
	N		N		E		M			⁶ M	D
⁷ R	A	D	I	C	U	L	I	T	⁸ I	S	
	P		N		R		P		S		
	S		G		Y		⁹ L	D	O	P	¹⁰ A
¹¹ E	E	G		¹² C	S		E		L		P
V			¹³ T	O	M	O	G	R	A	¹⁴ P	H
¹⁵ O	O	¹⁶ B		N			I		¹⁷ T	I	A
K		A		T		¹⁸ P	A	N	I	C	S
E		E		R		N			O		I
¹⁹ D	E	P	R	E	S	S	I	O	N		A

18. The senses:

Suffixes Pertaining to the Senses:			اللاحقة للجهاز العصبي	Paşgir bo koendamî hest u cûlê demar
Suffixes	Meaning	Example & its definition	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-esthesia	sensation	cryesthesia: sensitivity to cold	شدة الحساسية للبرد	sermabirdefê
-algnesia	pain	hypolgesia: ↓ sensitivity to pain	ألم خفيف	suke êşê
-osmia	sense of smell	parosmia: abnormal (para-) sense of smell	إضطراب حاسة الشم	boneşewê
-geusia	sense of taste	pseudogeusia: false sense of taste	حس ذوق كاذب	gendeçêjê





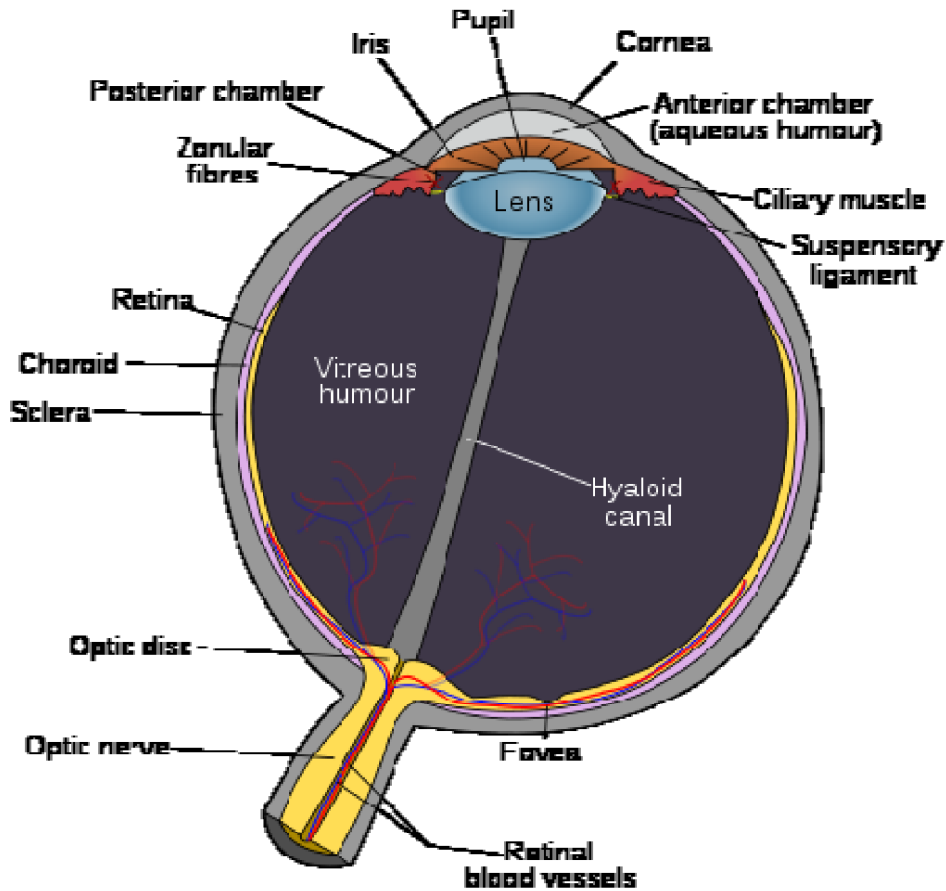
Roots Pertaining to the Ear and Hearing:			الجذور للأذن و السمع	Reg bo giwêw giwêgirtin
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
audi/o	hearing	audition: act of hearing	الأصغاء، حس السمع	hestî giwêgirtin
acous, acus, cus	sound, hearing	acoustic: pertaining to sound or hearing	سمعي، صوتي	bîstenî, dengî
ot/o	ear	ototoxic: poisonous or harmful to the ear	سام أو مُخرب للأذن (للسمع و التوازن)	jar u giwêtêkder
myring/o	tympanic membrane	myringotome: knife used for surgery on the eardrum	مبضع (مشرط) الطبلة	perdebîf

tympan/o	tympanic cavity (middle ear), tympanic membrane	tympanometry: measurement of transmission through the tympanic membrane and middle ear	قياس النقل خلال غشاء الطبلة والاذن الوسطى	perdegeyandin pêwî
salping/o	tube, eustachian tube	salpingoscopy: examination of the eustachian tube	تنظير أنبوب السمع	borî giwêbînî, ewstakîbînî
staped/o, stapedi/o	stapes	stapedectomy: excision of the stapes	إستئصال (قطع) العظم الركابي	awzengî birîn
labyrinth/o	labyrinth (inner ear)	labyrinthotomy: incision of the inner ear (labyrinth)	شق أو بضع الاذن الداخلي	birînî giwêy nawewe
vestibul/o	vestibule, vestibular apparatus	vestibulopathy: any disease of the vestibule of the inner ear	مرض الدهليز التوقعي في داخل الاذن	derde rafewî naw giwê
cochle/o	cochlea of inner ear	retrocochlear: behind the cochlea	خلف قوقعي الاذن	le pişt qaçîley pêçawpêçî giwê

Abbreviations:

The Senses : The Ear

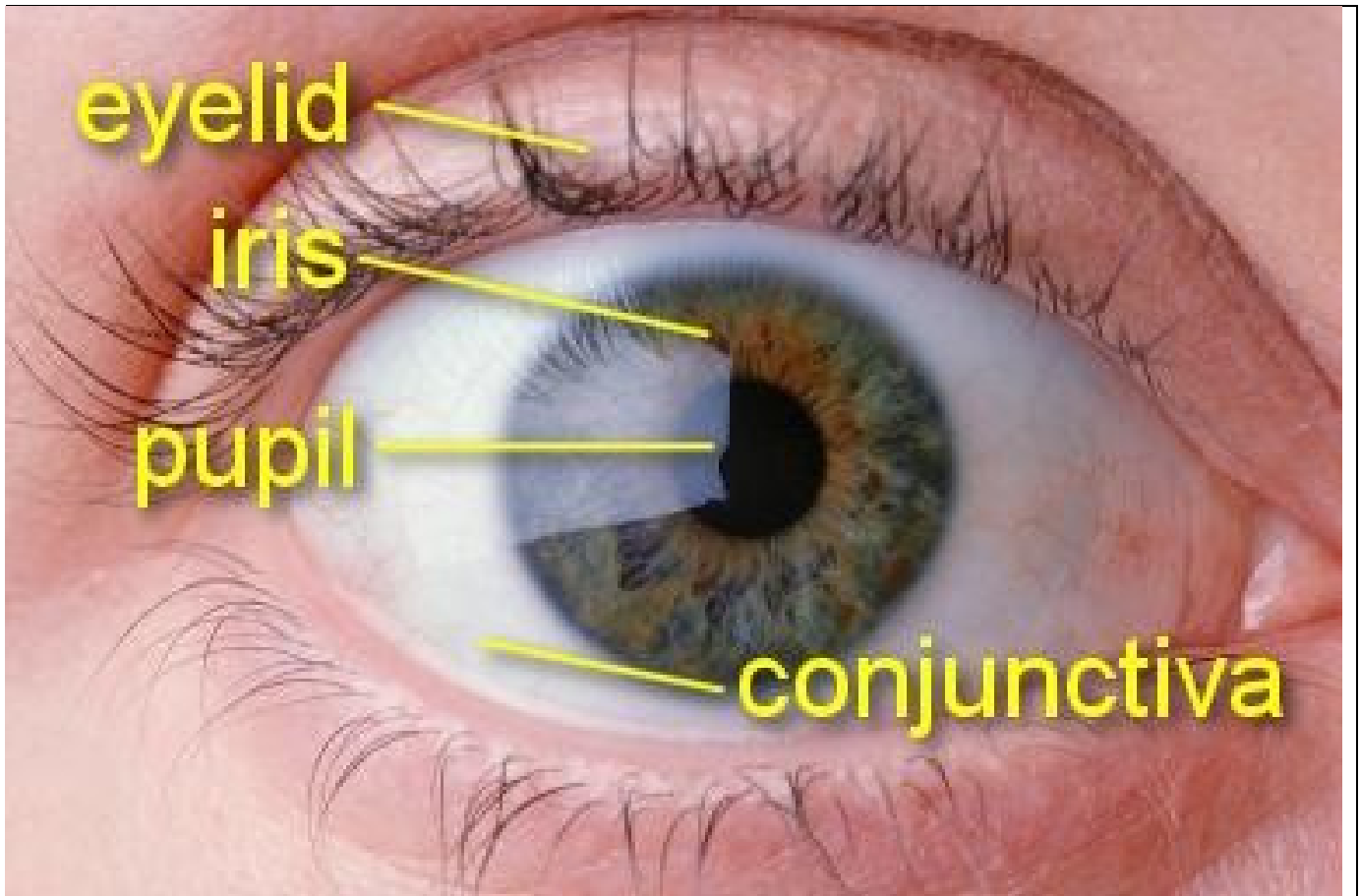
1-	ABR	Auditory brainstem response	8-	Hz	hertz
2-	AC	Air conduction	9-	OL	Otolaryngology
3-	BC	Bone conduction	10-	OM	Otitis media
4-	dB	Decibel	11-	ORL	Otorhinolaryngology
5-	ENG	electronystagmography	12-	ST	Speech threshold
6-	ENT	Ear, nose, and throat	13-	TM	Tympanic membrane
7-	HL	Hearing level	14-	TTS	Temporary threshold shift



Suffixes for the Eye and Vision:			اللاحقة للعين و النظر	Paşgir bo çaw u bînîn
Suffixes	Meaning	Example & its definition	معنى النموذج و اللاحقة معاً	Watay nimunew paşgir pêkewe
-opsia (ops=eye)	vision	heteropsia: unequal vision in the two eyes	اختلاف حدة الرؤية في العينين	ciyabînê
-opia	eye, vision	hemianopia: blindness in half the visual field	رؤية نصفية، عمى نصفي	nîwekiwêrê, nîwebînê
		presbyopia: progressively diminished ability to focus on near objects with age. Presby- = old	النظر الشيخوخي	pîrebînayî

Roots for the Eye and Vision:			الجذور للعين والنظر	Reg bo çaw u bînîn
Root	Meaning	Example & its definition	معنى النموذج والجذر معاً	Watay nimunew reg pêkewe
opt/o	eye, vision	optometer: instrument for measuring the refractive power of the eye	مقياس البصر، مبخار	bînînpêw
ocul/o	eye	dextrocular: pertaining to the right eye	يميني الرؤية	rastebîn
ophthalm/o	eye	exophthalmos: protrusion of the eyeball	جحوظ العين	derpoqînî topî çaw
scler/o	sclera	subsclearal: below the sclera	تحت الصلبة	jêr sipêney çaw
corne/o	cornea	circumcorneal: around the cornea	حول القرنية	dewrekofnîyay çaw
kerat/o	cornea	keratoplasty: plastic repair of the cornea; corneal transplant	رأب (تقويم، ترميم) القرنية	koñniyepîekirdin
lent/i	lens	lenticular: pertaining to the lens	عدسي: متعلق بالعدسة البلورية	hawêneyî
phak/o, phac/o	lens	aphakia: absence of a lens	غيبة العدسة	hawênenebûnê
uve/o	uvea	uveitis: inflammation of the uvea	التهاب العنبيية، التهاب الطبقة الوعائية البصلية	hawêne hewkirdin
chori/o, choroid/o	choroid	choroidal: pertaining to the choroids	مشيمي	hawefî, yollâşî
cycl/o	ciliary body, ciliary muscle	cycloplegic: pertaining to or causing paralysis of the ciliary muscle	شال العضلة الهدبية	birjange masulke îflîckere

ir, irit/o, irid/o	iris	iridotomy: incision of the iris	شق (بضع) القرحجية	biřinî rengêney çaw
pupil/o	pupil	iridopupillary: pertaining to the iris and the pupil	قرحجي بؤبؤي، قرحجي حدقي	rengêneyî
retin/o	retina	retinoschisis: splitting of the retina	انشقاق الشبكية	dirzbirdinî tofe



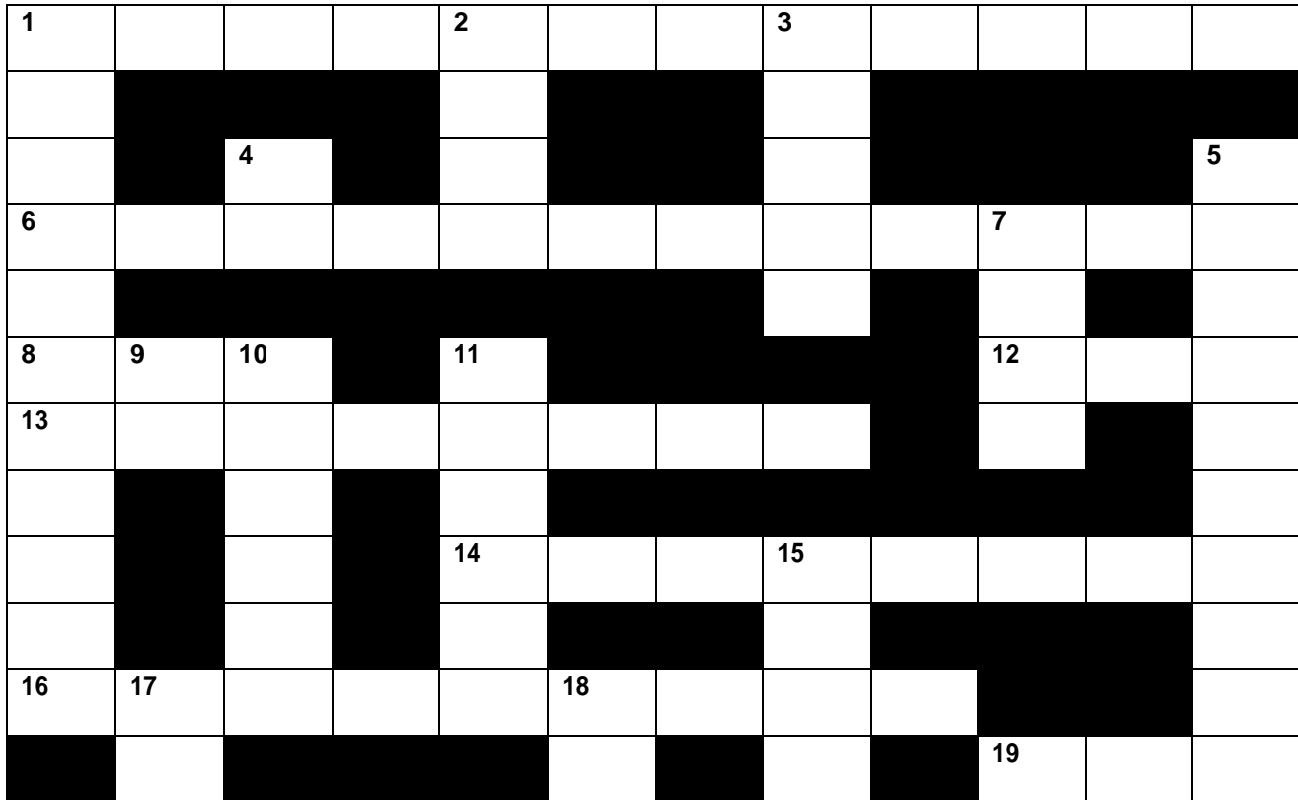
Roots for the External Eye Structures:			الجذور للمكونات الخارجية للعين	Reg bo pêkhate derekyekanî çaw
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
palpebr/o	eyelid	palpebral: pertaining to an eyelid	جفني	pêlwî
blephar/o	eyelid	symblepharon: adhesion of the eyelid to the eyeball	إلتصاق الجفن بال مقلة	pêlu be gilênewe nûsan
lacrim/o	tear, lacrimal apparatus	lacrimation: secretion of tears	تدمع، دمعان	firmêskfiştin
dacry/o	tear, lacrimal apparatus	dacryolith: stone in the lacrimal apparatus	حصاة دمعية	berdî firmêskefo
dacryocyst/o	lacrimal sac	dacryocystocele: hernia of the lacrimal sac	فتق الكيس الدمعي أو بروزه	debebûnî firmêskdan u derpeînî

Abbreviations:

The Senses : The Eye and Vision

1-	A, Acc	Accommodation	9-	HM	Hand movements
2-	As, AST	Astigmatism	10-	IOL	Intraocular lens
3-	cc	With correction	11-	IOP	Intraocular pressure
4-	Em	Emmetropia	12-	NV	Near vision
5-	EOM	Extraocular movement, muscles	13-	sc	Without correction
6-	ERG	electroretinography	14-	VA	Visual acuity
7-	ET	Esotropia	15-	VF	Visual field
8-	FC	Finger counting	16-	XT	Exotropia

Crossword Puzzle, The Senses



Across

1. Membranes that line the eyelids and cover the fronts of the eyes
6. Sharpness of vision
8. A light-sensitive cell of the retina
12. Lens implant: abbreviation
13. Eye disorder caused by increased pressure
14. Pertaining to tears
16. Inward deviation of the eye
19. Three: prefix

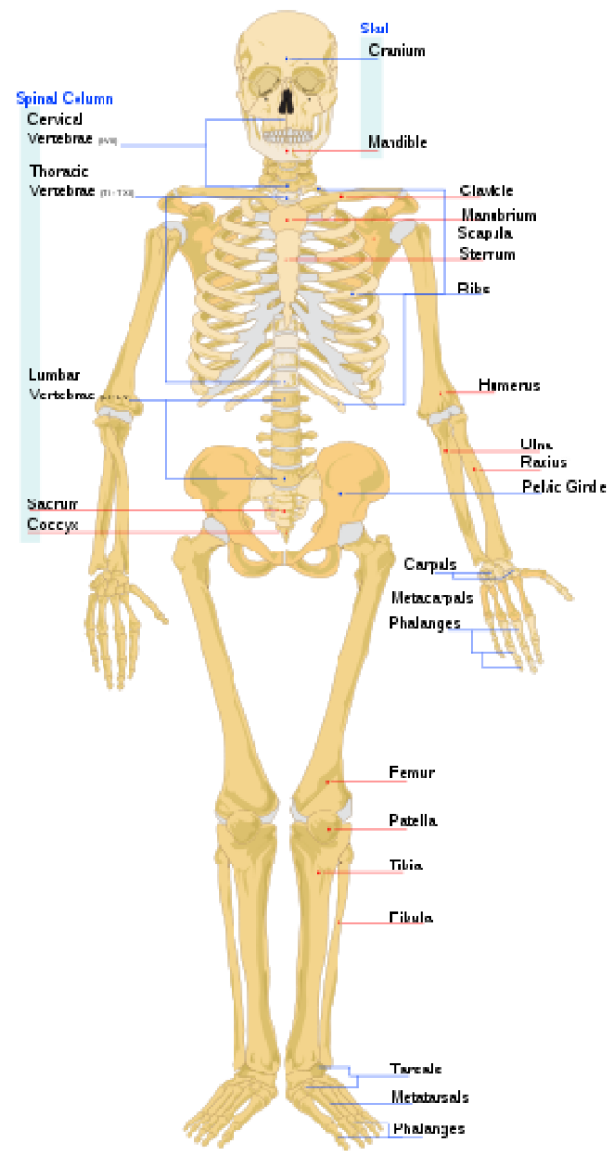
Down

1. Coordinated movement of the eyes toward fixation on the same point
2. The middle layer of the eye
3. The tectile sense
4. Left ear: abbreviation
5. Paralysis of the ciliary body
-----a
7. Iris: root
9. Medical specialty treating the ear and throat: abbreviation
10. Tear, lacrimal apparatus: combining form
11. Pertaining to the eye
15. Nose: root
17. Without correction: abbreviation
18. Right eye: abbreviation

Answers to Crossword puzzle , The Senses

¹ C	O	N	J	² U	N	C	³ T	I	V	A	E
O				V			O				
N		⁴ A		E			U				⁵ C
⁶ V	I	S	U	A	L	A	C	U	⁷ I	T	Y
E							H		R		C
⁸ R	⁹ O	¹⁰ D		¹¹ O					¹² I	O	L
¹³ G	L	A	U	C	O	M	A		D		O
E		C		U							P
N		R		¹⁴ L	A	C	¹⁵ R	I	M	A	L
C		Y		A			H				E
¹⁶ E	¹⁷ S	O	T	R	¹⁸ O	P	I	A			G
	C				D		N		¹⁹ T	R	I

19. The Skeleton:



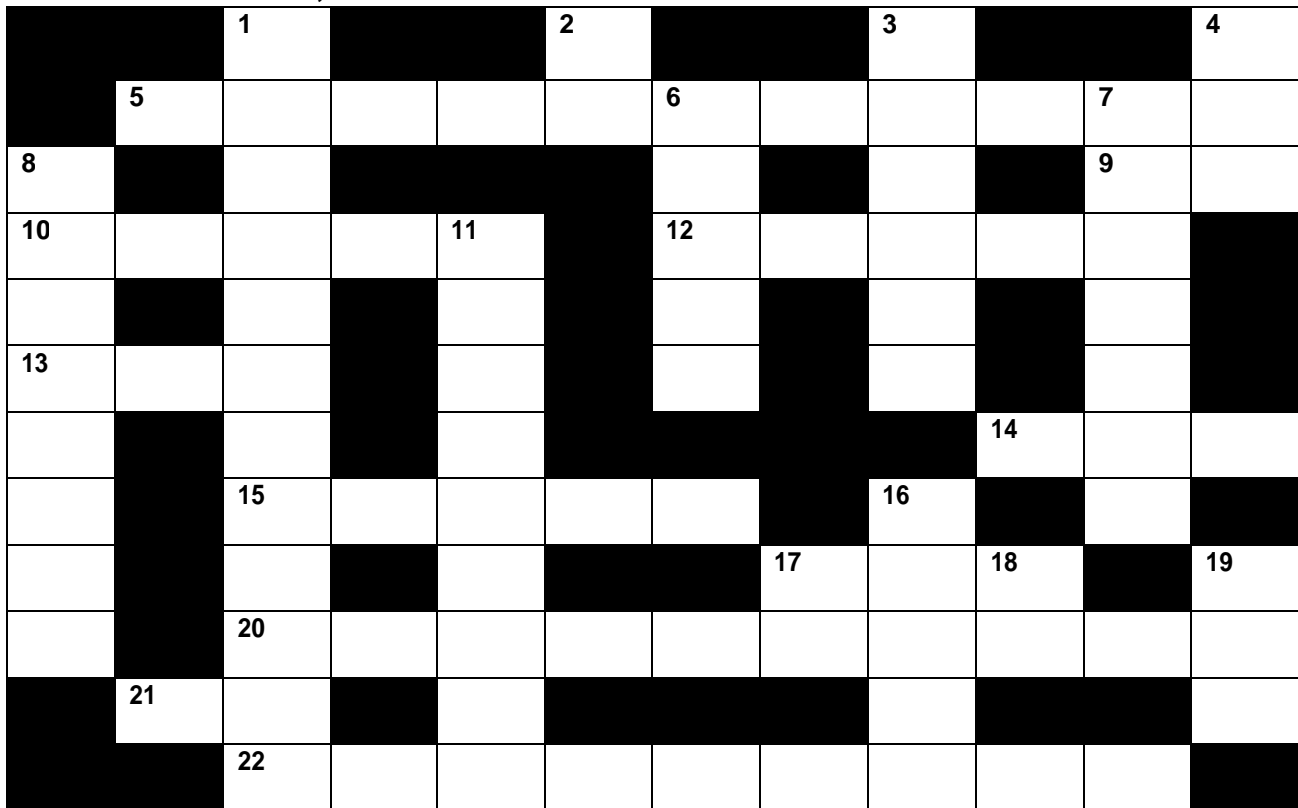
Roots for Bones, Joints and the Skeleton:			الجدور للعظام، المفاصل و الهيكل العظمي	Reg bo êsk, cumgew êske peyker
Root	Meaning	Example & its definition	معنى النموذج و الجدور معاً	Watay nimunew reg pêkewe
oste/o	bone	osteolytic: destroying or dissolving bone	حال العظام، متعلق بأنحلال العظام	êskpukaneweyî
myel/o	1- bone marrow	1- myeloblast: immature bone marrow cell	خليية غير ناضجة في مخ العظم	xaney pênegeyîwî moxî êsk
	2- spinal cord	2- myelocele	فتق (كيس) النخاع الشوكي	debebûnî (qorî) turekey dirke mox
chondr/o	cartilage	chondromalacia: softening of cartilage	تليين الغضروف	kiřkiřagenermê
arthr/o	joint	arthrosis: condition affecting a joint	داء المفاصل	derde cumge
synov/i	synovial fluid, joint, or membrane	asynovia: lack of synovial fluid	نقص إفراز الغشاء المفصلي	şilederdanî perdey cumge kemê
burs/o	bursa	bursotomy: incision into a bursa	بضع الجراب، شق الصرة	meşkebiřin
crani/o	skull, cranium	craniostosis: ossification of the cranial sutures	تعمم دروز القحف (الجمجمة)	êskandinî dirzekanî kelile
spondyl/o	vertebra	spondylolysis: destruction and separation of a vertebra	إنحلال فقري	biřbiřeşibûnewe
vertebr/o	vertebra, spinal column	paravertebral: before or in front of the spinal column	جنيب الفقار، جنيب العمود الفقري	tenîşt biřbiřey êsk
rachi/o	spine	rachischisis: fissure of the spine; spina bifida	إنشقاق (شقاق) الفقرة	dirz (leyekbunewe) y biřbiře êsk

cost/o	rib	costochondral: pertaining to a rib and its cartilage	ضَلْعِي غُضْرُوفِي	kırkıřage perasuyî
sacr/o	sacrum	presacral: in front of the sacrum	أَمَامُ فِقْرَةِ (عَظْمُ) الْعَجْزِ	berdem biřbiřey simtecolé (piřte qinig)
coccy, coccyg/o	coccyx	coccygeal: pertaining to the coccyx	عُصْعُصِي	klênçikeyî
pelvi/o	pelvis	pelvimetry: measurement of the pelvis	قِيَاسُ الْحَوْضِ	sêbendepêwan
ili/o	ilium	iliopelvic: pertaining to the ilium and pelvis	حَرَقَتِي حَوْضِي	sêbendew klôt

Abbreviations:

1-	AE	Above the elbow	14-	MTP	Metatarsophalangeal (joint)
2-	AK	Above the knee	15-	NSAIDs	Nonsteroidal anti-inflammatory drugs
3-	BE	Below the elbow	16-	OA	Osteoarthritis
4-	BK	Below the knee	17-	OI	Osteogenesis imperfecta
5-	BMD	Bone mineral density	18-	ORIF	Open reduction internal fixation
6-	C	Cervical vertebra; (C1-C7)	19-	PIP	Proximal interphalangeal
7-	Co	Coccyx; coccygeal	20-	RA	Rheumatoid arthritis
8-	DIP	Distal interphalangeal (joint)	21-	S	Sacrum; sacral
9-	DJD	Degenerative joint disease	22-	T	Thoracic vertebra; (T1-T12)
10-	Fx	Fracture	23-	THA	Total hip arthroplasty
11-	IM	Intramedullary	24-	TKA	Total knee arthroplasty
12-	L	Lumbar vertebra; (L1-L5)	25-	TMJ	Temporomandibular joint
13-	MCP	Metacarpophalangeal (joint)	26-	Tx	Traction

Crossword Puzzle, The Skeleton



Across

5. Study and treatment of the skeleton, muscles, and associated structures
9. Abbreviation used in taking medical histories
10. Deficiency of: suffix
12. Instrument for measuring joint angles: _ _ _ _ _ meter
13. New: prefix
14. Cold: root
15. First cervical vertebra
17. Twice per day: abbreviation
20. Breakdown and removal of bone
21. Type of arthritis: abbreviation
22. Slipping of a vertebra:
Spondylo _ _ _ _ _

Down

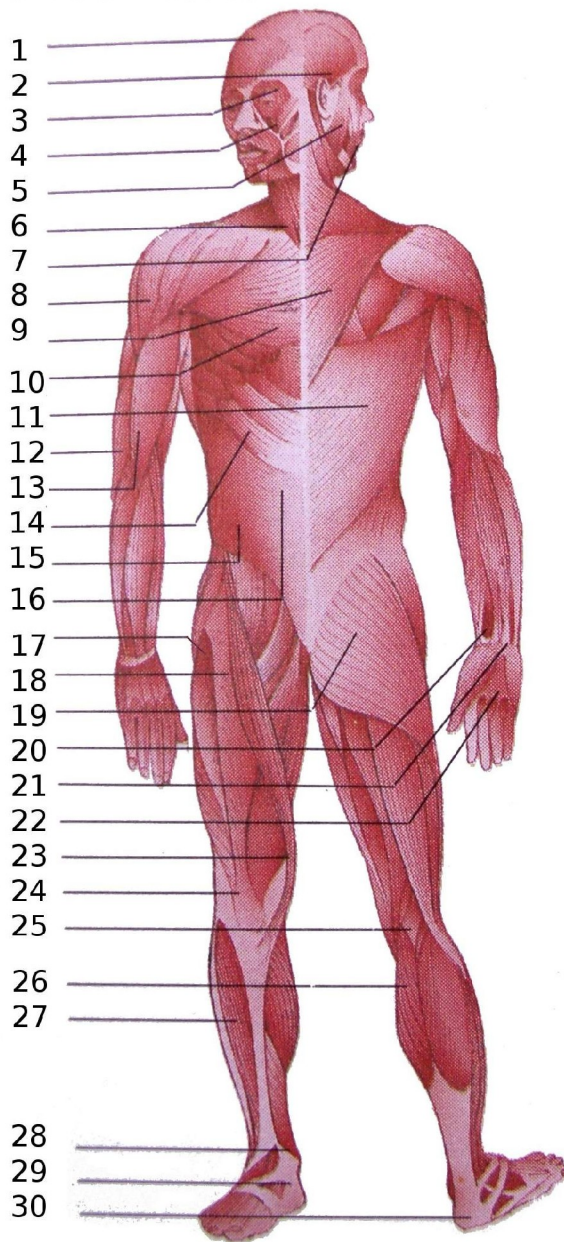
1. Pertaining to the cranium and sacrum
2. Last portion of the spinal column: abbreviation
3. Pain: suffix
4. Same, equal: prefix
6. A bone disease is named for him
7. Cartilage: combining form
8. Vertebra: combining form
11. Immobility of a joint
16. Stones: suffix
17. Blood pressure: abbreviation
18. Twice, twice: prefix
19. Meaning of the prefix tel/o

Answers to Crossword puzzle , The Skeleton

		¹ C			² C			³ O			⁴ I
	⁵ O	R	T	H	O	⁶ P	E	D	I	⁷ C	S
⁸ S		A				A		Y		⁹ H	O
¹⁰ P	E	N	I	¹¹ A		¹² G	O	N	I	O	
O		I		N		E		I		N	
¹³ N	E	O		K		T		A		D	
D		S		Y					¹⁴ C	R	Y
Y		¹⁵ A	T	L	A	S		¹⁶ L		O	
L		C		O			¹⁷ B	I	¹⁸ D		¹⁹ E
O		²⁰ R	E	S	O	R	P	T	I	O	N
	²¹ O	A		I				H			D
		²² L	I	S	T	H	E	S	I	S	

20. The Muscular System:

Skeletal muscles



Musculus ...

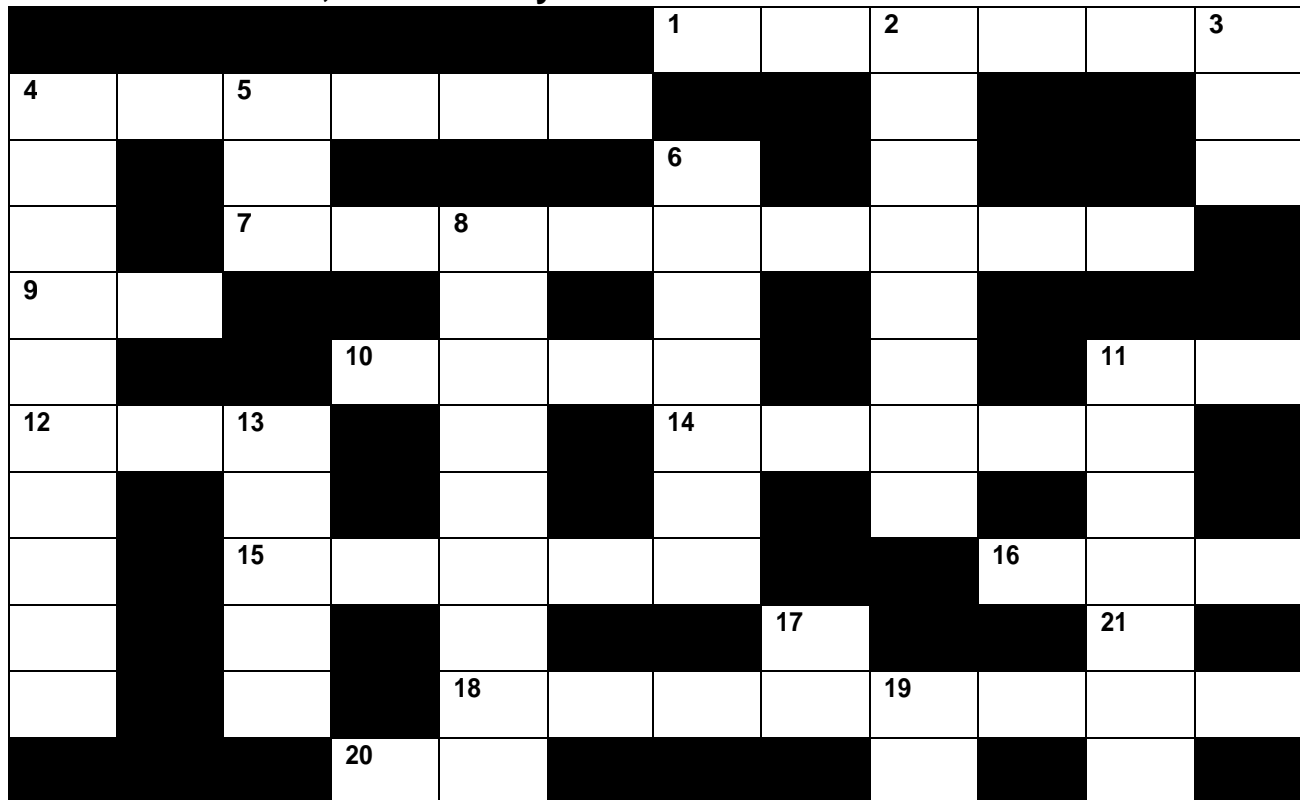
- 1: occipitofrontalis
- 2: temporoparietalis
- 3: orbicularis oculi
- 4: levator labii superior
- 5: masticatorii
- 6: sternocleidomastoideus
- 7: orbicularis oris
- 8: deltoideus
- 9: trapezius
- 10: pectoralis major
- 11: latissimus dorsi
- 12: triceps brachii
- 13: biceps brachii
- 14: serratus anterior
- 15: rectus abdominis
- 16: obliquus externus abdominis
- 17: tensor fascia lata
- 18: rectus femoris
- 19: gluteus maximus
- 20: pronator quadratus
- 21: flexor retinaculum
- 22: flexor digitorum communis
- 23: sartorius
- 24: quadriceps femoris
- 25: ischiocrurale
- 26: gastrocnemius
- 27: tibialis anterior
- 28: soleus
- 29: extensor retinaculum
- 30: triceps surae

Roots Pertaining to Muscles:			الجذور للعضلات	Reg bo masulke
Root	Meaning	Example & its definition	معنى النموذج و الجذر معاً	Watay nimunew reg pêkewe
my/o	muscle	myositis: inflammation of muscle	التهاب عضلي	hewkirdinî masulke
muscul/o	muscle	musculoskeletal: pertaining to muscle and skeleton	عضلي صقلي (الهيكل العظمي)	masulke peykeryî
in/o	fiber	inotropic: acting on muscle fibers	عضلي المفعول، عضلي الانجياز	karmasulkeyî
fasci/o	fascia	fasciodesis: suturing of a fascia to a tendon or other fascia	ربط أو تثبيت اللفافة	besterdirûnewe
ten/o, tendin/o	tendon	tenorrhaphy: suture of a tendon	رقو (خياطة) الوتر	jêdrûnewe
ton/o	tone	cardiotonic: having a strengthening action on the heart	مقو للقلب	dîl behêzkare
kine, kinesi/o, kinet/o	movement	dyskinesia: abnormality of movement	خلل الحركة، ضعف أو عسر الحركة الاختيارية	naîêkebizwê

Abbreviations:

1-	C(p)K	Creatine (phospho)kinase	4-	NMJ	Neuromuscular junction
2-	EMG	Electromyography, electromyogram	5-	OT	Occupational therapy
3-	MG	Myasthenia gravis	6-	ROM	Range of motion

Crossword Puzzle, Muscular System



Across

1. Around: prefix
4. Rod, such as a muscle cell: combining form
7. Muscle group at the back of the thigh
9. Not: prefix
10. Muscle tone: combining form
11. Down, without, removal: prefix
12. Disease caused by degeneration of motor neurons, with weakness, atrophy, and spasticity: abbreviation
14. Muscle that carries out a given movement, _____ mover
15. Lack of muscle tone
16. Referring to a joint in the foot: abbreviation
18. Adjective for a type of muscle contraction
20. Fiber: root

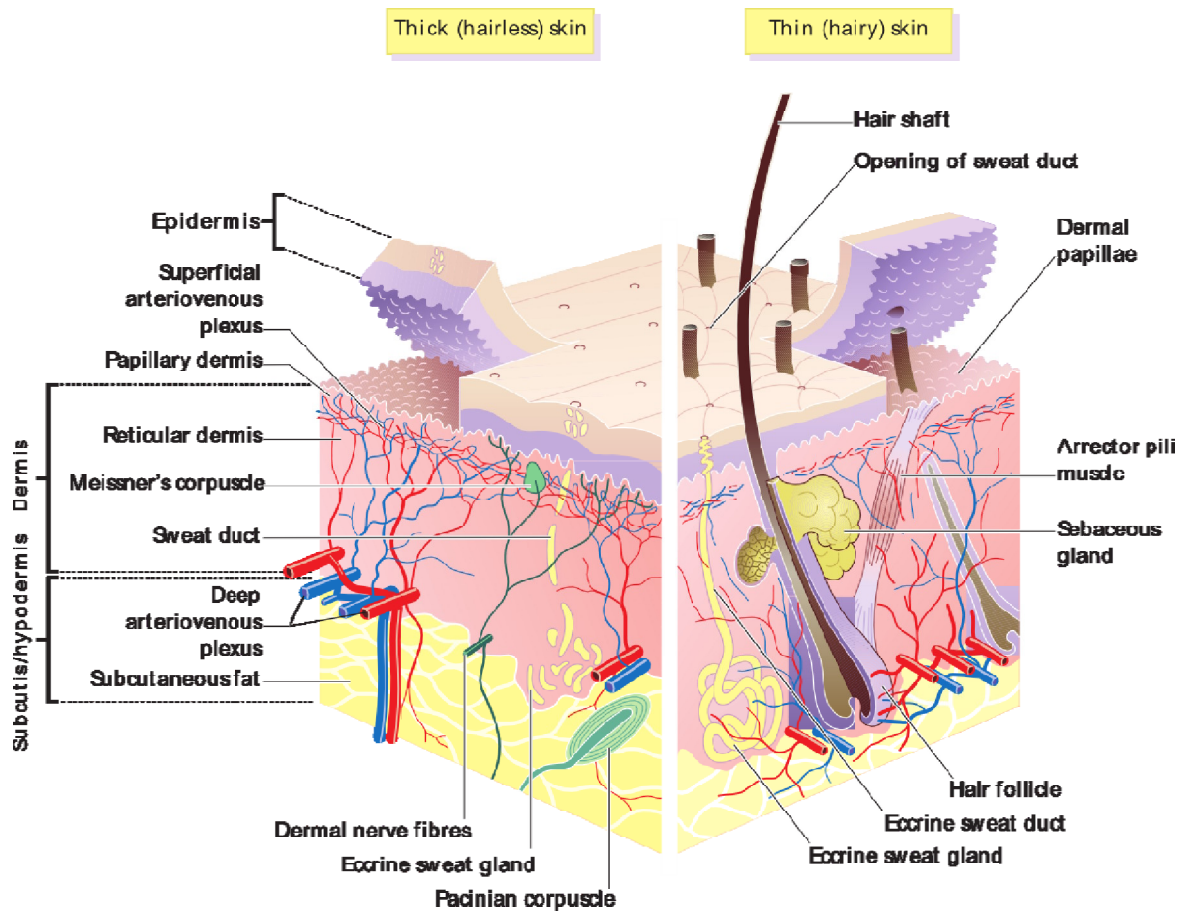
Down

2. Muscle of the forearm, brachio _____
3. Muscle: combining form
4. Referring to rheumatism
5. Neurotransmitter active in the muscular system: abbreviation
6. Wasting of tissue
8. Substance that stores oxygen in muscles
11. Muscle that covers the shoulder
13. Sudden involuntary muscle contraction
17. Health profession concerned with physical rehabilitation & prevention of disability: abbreviation
19. Health profession concerned with working to increase function and independence in daily life: abbreviation

Answers to Crossword puzzle , Muscular System

						1	C	I	2	R	C	U	3	M			
4	R	H	5	A	B	D	O			A			Y				
H			C				6	A			D			O			
E			7	H	A	8	M	S	T	R	I	N	G				
9	U	N			Y			R			A						
M				10	T	O	N	O			L			11	D	E	
12	A	L	13	S			G			14	P	R	I	M	E		
T			P			L			H			S			L		
O			15	A	T	O	N	Y				16	M	T	P		
I			S			B				17	P			O			
D			M			18	I	S	O	T	19	O	N	I	C		
				20	I	N				T			D				

21. The Skin:

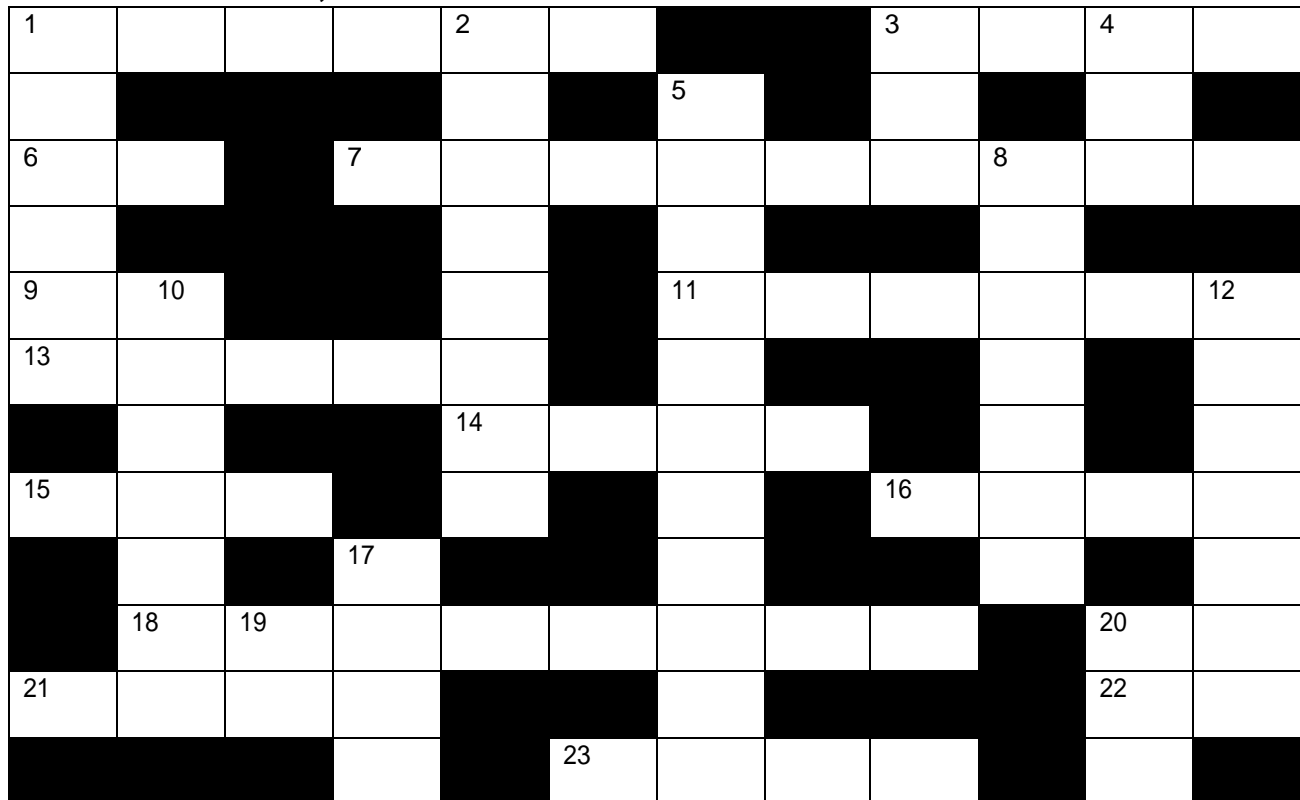


Roots Pertaining to the Skin:			الجذور للجلد	Reg bo pêst
Root	Meaning	Example & its definition	معنى النموذج والجذر معاً	Watay nimunew reg pêkewe
derm/o, dermat/o	skin	dermabrasion: surgical procedure used to resurface the skin and remove imperfections	سَنْفَرَة (سَجَّج) الجلد	pêst pakkirdin
kerat/o	keratin, horny layer of the skin	keratosis: horny growth of the skin	قَرَن، قَرَن _ تقران الجلد	pêsteŕeqê
melan/o	dark, black, melanin	melanosome: a small body in the cell that produces melanin	جسم صغير في الخلية يفرز الميلانين	mîlanosom: tenokeyekî xaney mîlanînderdere
hidr/o, idr/o	sweat, perspiration	hyperhidrosis: abnormally high production of sweat	فَرَط العرق	fre areqŕiştin
seb/o	sebum, sebaceous gland	seborrhea: excess flow of sebum	سَيْلان دُهْنِي تَقْشُرِي	fre çewrî pêst
trich/o	hair	trichomycosis: fungal infection of the hair	داءٌ شَعْرِي فُطْرِي	keŕwederdemû
onych/o	nail	onychia: inflammation of the nail and nail bed(not an-its ending)	التَّهَابُ الظُّفْرِ	hewkirdinî nînok, nînok hewkirdin

Abbreviations:

1-	BSA	Body surface area	6-	SCLE	Subacute cutaneous lupus erythematosus
2-	DLE	Discoid lupus erythematosus	7-	SLE	Systemic lupus erythematosus
3-	FTSG	Full-thickness skin graft	8-	SPF	Sun protection factor
4-	LE	Lupus erythematosus	9-	UV	ultraviolet
5-	PUVA	Psoralen UV-A			

Crossword Puzzle, The Skin



Across

1. Horny layer of the skin: combining form
3. Inflammation of a sweat gland: _ _ _ _ adenitis
6. Autoimmune disease that affects the skin :
abbreviation
7. Excess growth of hair
9. Within the skin: abbreviation
11. Viral disease that affects the skin
13. Skin: combining form
14. Sweat: combining form
15. Three : prefix
16. Scar: _ _ _ _ trix
18. Examination by pressing a glass plate against
the skin
20. True, good, easy: prefix
21. Half: prefix
22. Part of a medical history: _ _ H: abbreviation
23. Under, below, decreased: prefix

Down

1. Raised, thickened scar
2. pertaining to a hair
3. Measurement of packed
red cells: abbreviation
4. Abnormal, painful: prefix
5. Removal of scab tissue
8. Bacterial skin infection
common in children:
_ _ _ _ _ O
10. Remove dead tissue, as
from a wound
12. A layer, as of the skin
17. Meaning of the root
onych/o
19. A route of injection:
abbreviation
20. On, over: prefix

Answers to Crossword puzzle , The Skin

¹ K	E	R	A	² T	O			³ H	I	⁴ D	R
E				R		⁵ E		C		Y	
⁶ L	E		⁷ H	I	R	S	U	T	⁸ I	S	M
O				C		C			M		
⁹ I	¹⁰ D			H		¹¹ H	E	R	P	E	¹² S
¹³ D	E	R	M	O		A			E		T
	B			¹⁴ I	D	R	O		T		R
¹⁵ T	R	I		D		O		¹⁶ C	I	C	A
	I		¹⁷ N			T			G		T
	¹⁸ D	¹⁹ I	A	S	C	O	P	Y		²⁰ E	U
²¹ S	E	M	I			M				²² P	M
			L		²³ H	Y	P	O		I	

سو پاس و پیزانین

ئەو پەری سو پاس و پیزانین لە ناخی دڵەو پێشکەشە بە مامۆستای بە ئەمەك و دڵسۆزی نەتەو (مامۆستا جەمال عەبدول) کە بە پێداچوونەوێ زاراو کوردییەکان گیانی بەم زاراو پزیشکییانە بە خشی و بی ئەو پێداچوونەوێ ئەم بەرھەمە کالۆکریچ و ناتەواو دەرئەچوو، نەك هەر تەنھا هیوای ئێمە یە بە لکو ئەو هیوای نەتەو یە کە بەرپزی تەمەن درێژبیت.

Supas u pêzanîn

Ewpefî supas u pêzanîn le naxî dîlewe pêşkeşe be mamostay be emek u dîlsozî netewe (Mamosta Jamal Ebdul) ke be pêdaçûnewey zarawe Kurdîyekan giyanî bem zarawe pizîşkîyane bexşîw bê ew pêdaçûneweye em berheme kalûkirç u natewaw dereçû, nek her tenha hîway êmeye belku ewe hîway neteweye ke befêzî temen dirêj bêt.

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