

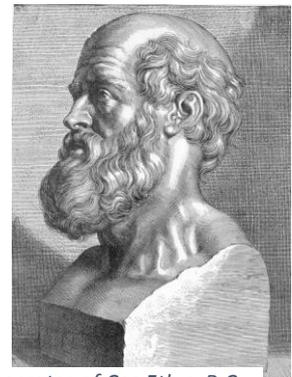
Chapter 1 Introduction to medical terminology

The main sources of medical terminology

Although medical terms have been drawn from many languages, a large majority are from Greek and Latin. Terms of Greek origin occur mainly in clinical terminology (e.g. *cardiology*, *nephropathia*, *gastritis*), Latin terms make up the majority of anatomical terminology (Nomina Anatomica) (e.g. *cor*, *ren*, *ventriculus*). There are, however, terms of different origin, taken from French (e.g. *massage*, *passage*, *plaque*, *pipette*, *bougie*), or from Italian (e.g. *varicella*, *belladonna*, *influenza*).

Greek in medical terminology

It is estimated that about three-fourths of medical terminology is of Greek origin. The main reason for this is that the Greeks were the founders of rational medicine in the golden age of Greek civilization in the 5th Century B.C. The Hippocratic School and, later on, Galen (the Greek from Asia Minor who lived in Rome in the 2nd century A.D.) formulated the theories which dominated medicine up to the beginning of the 18th Century. The Hippocratics were the first to describe diseases based on observation, and the **names given by them** to many conditions **are still used today**, for example, *arthritis*, *nephritis*, *pleuritis* (pleurisy).



Hippocrates of Cos 5th c. B.C.

A second reason for the large number of Greek medical terms is that the Greek language is quite **suitable for the building of compound words**.



Galen of Pergamon 2nd c. A.D.

When new terms were needed, with the rapid expansion of medical science during the last centuries, Greek words or Latin words with Greek endings were used to express the new ideas, conditions, or instruments. The new words follow the older models so closely that it is impossible to distinguish the two by their forms. Such recent words as *appendicitis*, *creatinine*, *cystoscope*, *epinephrine*, *streptococcus*, and many others do not appear different from the classical terms. The fact is that about one-half of our medical terminology is less than a century old. A third reason for using the classical roots is that they form an **international language**.

Latin in medical terminology

Greek medicine migrated to Rome at an early date, and many Latin terms crept into its terminology. Latin was the **language of science** up to the beginning of the 18th century, so all medical texts were written in Latin. Under the influence of the great anatomical work of Andreas Vesalius, *De humani corporis fabrica* (1543), the **terminology of anatomy is almost exclusively Latin**.



Andreas Vesalius A.D. 1514-1564

Did you know?

Believe it or not, **more than half of the words in the English dictionary are Latin**, and you are speaking, more or less, Latin every day!

And here are quite a few abbreviations that you may have used without ever having realized their original Latin content.

Match each Latin abbreviation with its full form, then with its English meaning.

<i>confer</i>	<i>ante meridiem</i>	<i>exempli gratia</i>	<i>per centum</i>
<i>Curriculum Vitae</i>	<i>circa</i>	<i>versus</i>	<i>Philosophiae Doctor</i>
<i>post meridiem</i>	<i>id est</i>	<i>Nota bene</i>	<i>post scriptum</i>
<i>Anno Domini</i>	<i>et alii</i>	<i>Requiescat in pace</i>	<i>et cetera</i>

<i>Latin</i>	<i>Abbr.</i>	<i>Meaning in English</i>
<i>Anno Domini</i>	A.D.	1) after midday, afternoon
	a.m.	2) around, about, approximately
	p.m.	3) and others, and co-authors; used in referring to authors or other people also involved in something
	c., ca., cca.	4) after what has been written; used at the end of informal letters
	C.V. or CV	5) may he/she rest in peace
	cf.	6) and so on..., and the others...
	e.g.	7) that is, in other words; used to explain the exact meaning of something mentioned before it
	et al.	8) course of life, a short written document about your education and past employment
	etc.	9) for example, for instance
	i.e.	10) for each one hundred; %
	N.B.	11) against
	P.S.	12) compare, used in references
	per cent.	13) in the year of the Lord; in the years of the Christian calendar era
	Ph.D.	14) before midday, before noon;
	R.I.P.	15) note well; used to make a reader pay attention to an important piece of information
	vs or v.	16) Teacher of Philosophy

Chapter 2 Anatomical positions, planes and directions

A) Body positions

Give the Latin name of the position based on the pictures.

In anatomy all the directional terms are referred to as the so called anatomical position of the body.



**Anatomical /
Erect position**

In ***erect*** position the body is in standing position.

(1) _____ **position** is a standard position of the body: standing erect, facing directly forward, feet pointed forward and slightly apart, and arms hanging down at the sides with palms facing forward. This position is used as a reference to describe sites or motions of various parts of the body.

In (2) _____ **position** the body is lying on the belly with the face down.

In (3) _____ **position** the body is lying on the back with the face up.



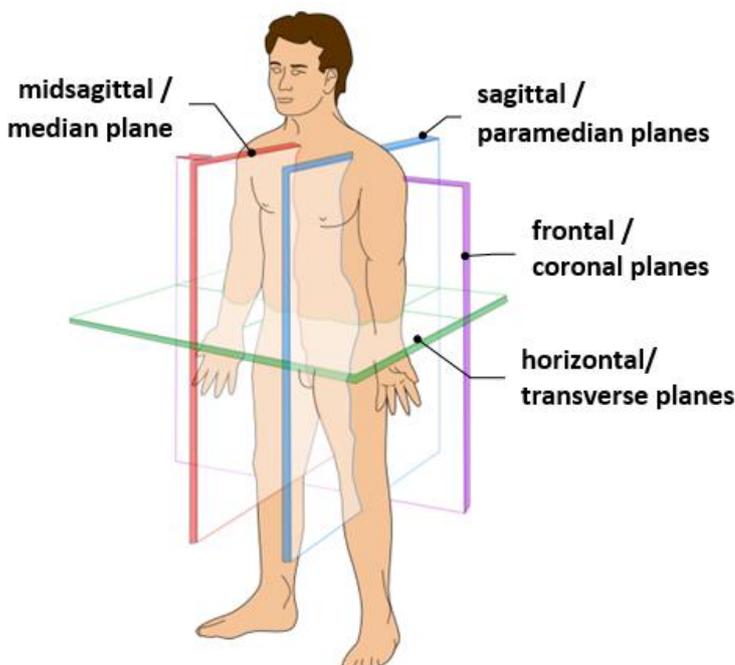
Supine



Prone

B) Anatomical planes of the body

Give the Latin name of each plane on the basis of the pictures.



1) _____ / _____ planes pass longitudinally through the body from side to side, at right angles to the median plane, dividing the body into front and back parts

2) _____ / _____ planes pass horizontally through the body, at right angles to the sagittal and frontal planes, and dividing the body into upper and lower portions.

3) _____ / _____ plane passes longitudinally through the middle of the body from front to back, dividing it into right and left halves.

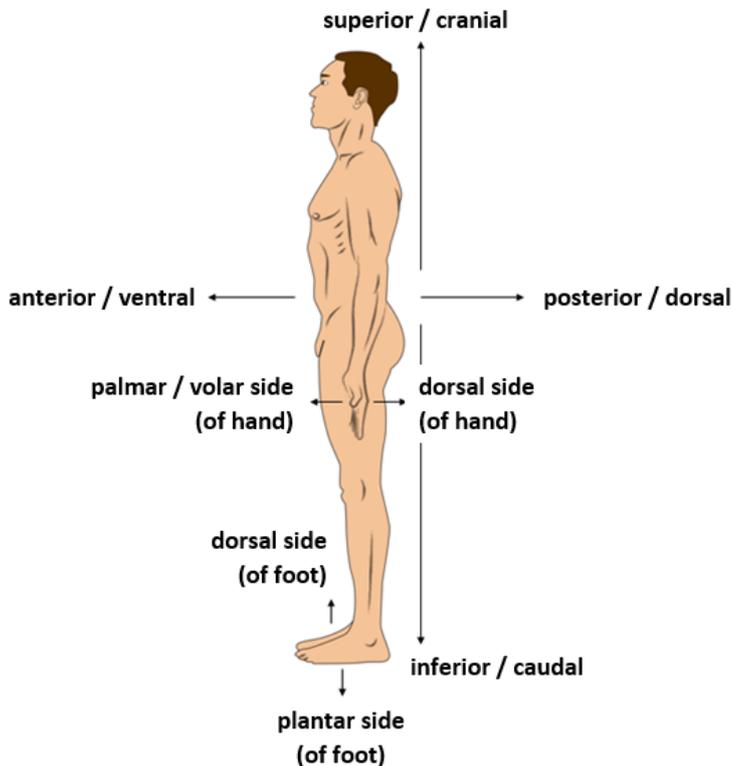
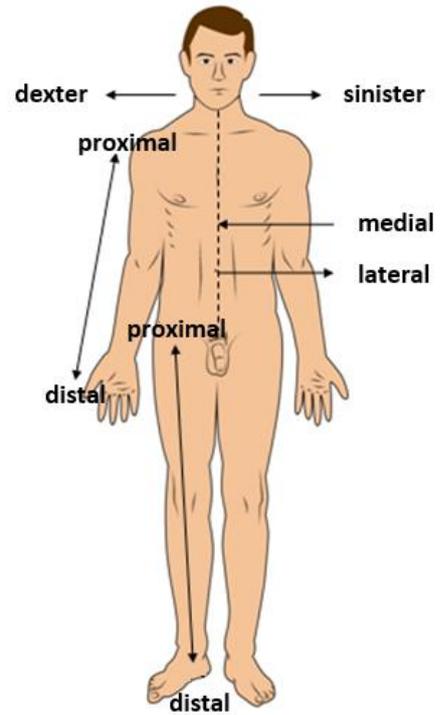
4) _____ / _____ planes are vertical planes passing through the

body parallel to the median plane, dividing the body into left and right portions.

C) Directional terms

Give the Latin terms based on the pictures.

- 1) located on the **right side**: _____
- 2) located on the **left side**: _____
- 3) situated **closer to the median plane** or **midline** of the body or a structure: _____
- 4) situated or extending **away from the median plane** of the body or a structure: _____
- 5) toward the **front side** or pertaining to the **belly surface**:
_____ / _____
- 6) toward the **back side** or pertaining to the **back**:
_____ / _____
- 7) **upper** part or toward the **head**: _____ / _____
- 8) **lower** part or pertaining to the **tail** (bone):
_____ / _____



- 9) **in the limbs, closer to the trunk** or origin: _____
- 10) **in the limbs, away from the trunk** or origin: _____
- 11) **front side of the hand**: _____
/ _____
- 12) **back side of the hand**: _____
- 13) **sole of the foot**: _____
- 14) **back** or upper part of the foot:

Further directional terms

external (L. *externus*): outer, situated near the outside

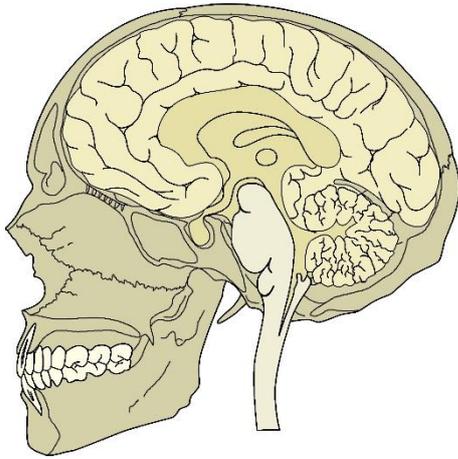
internal (L. *internus*): within or inside

superficial (L. *superficialis*): pertaining to or situated near the surface

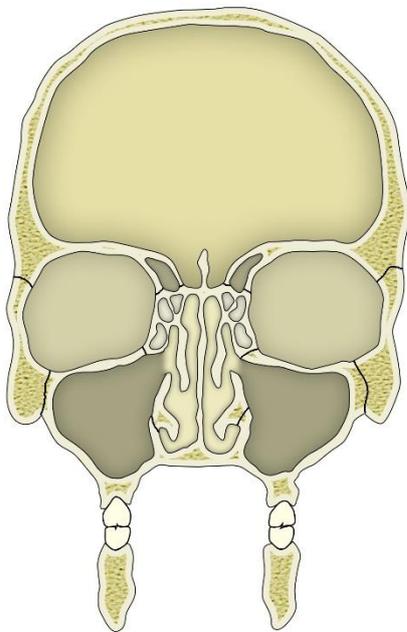
profundus: deep, situated at a deeper layer

Exercises

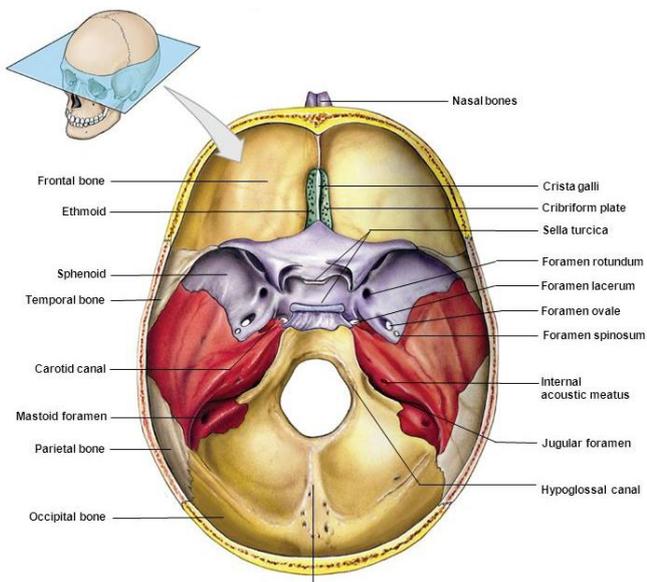
1. Write the name of the corresponding section of the skull.



_____ section of the skull



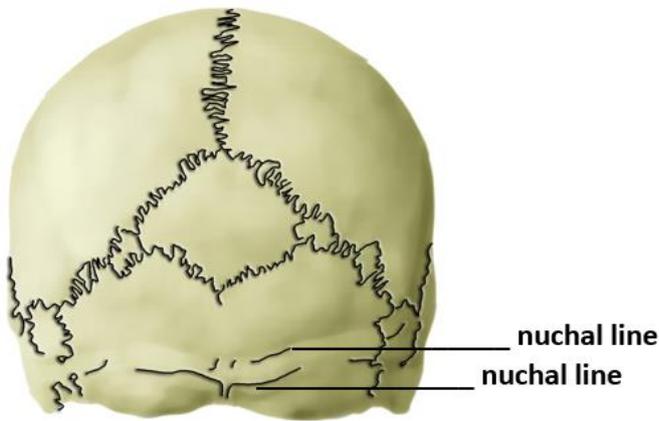
_____ section of the skull



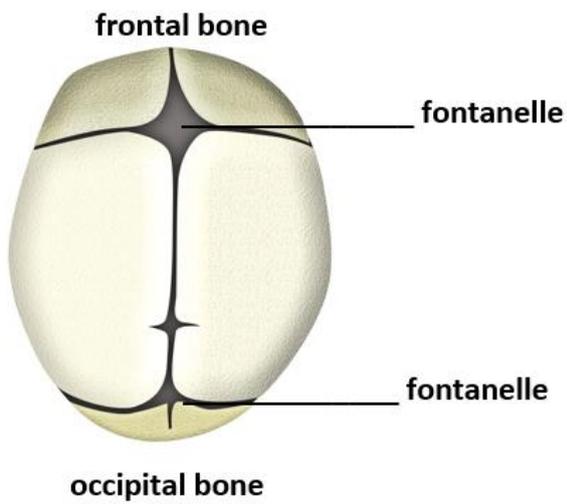
_____ section of the skull

2. Provide the missing directional terms in the pictures.

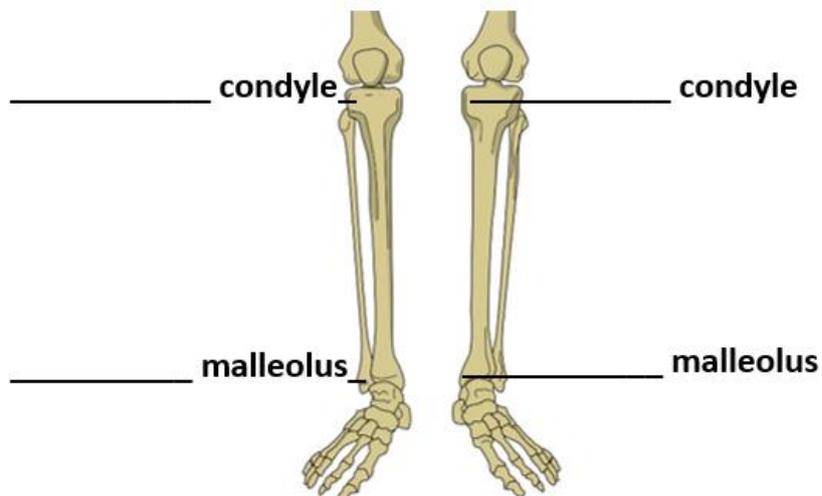
Nuchal lines



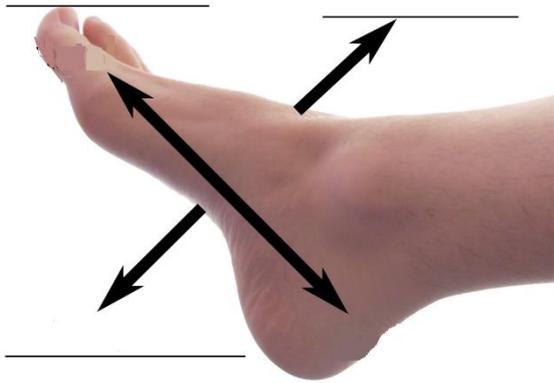
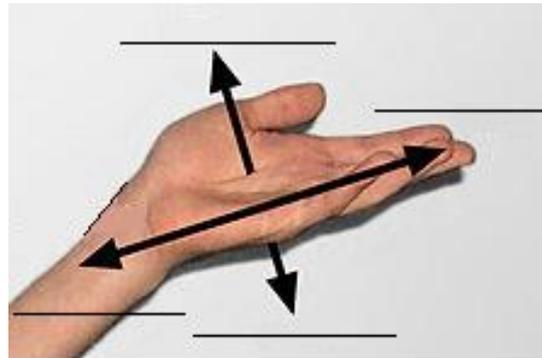
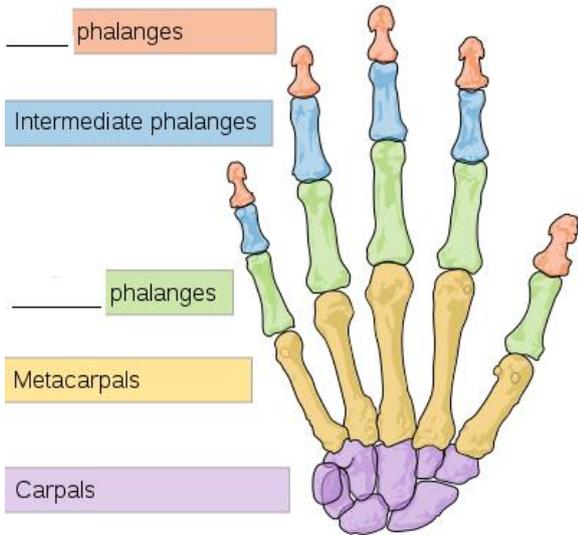
Fontanelles



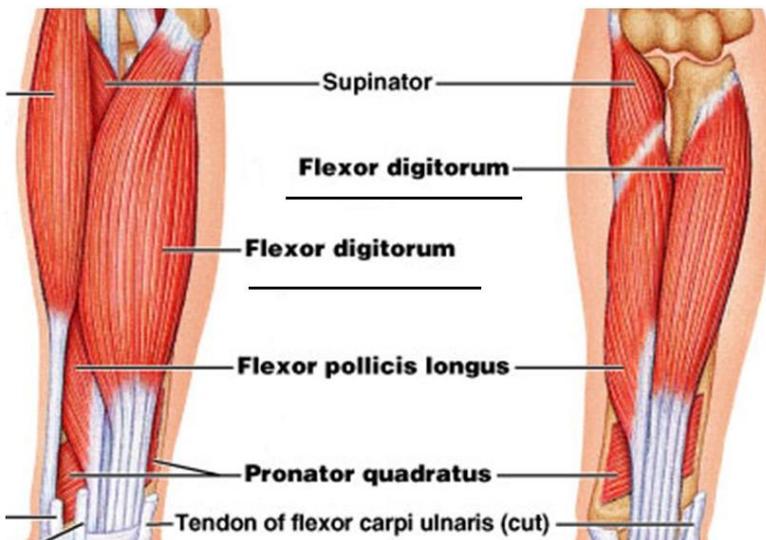
Condyles and malleoli



Hand, foot and phalanges



Flexor digitorum muscles - surface and deep layer



3. True – False Examine each of the following statements. If the statement is true, write T; if false, write F in the first blank, and then correct the statement by replacing the underlined word in the second blank.

E.g. The wrist is distal to the elbow.

T _____

A midsagittal plane divides the body into equal dexter and sinister parts.

A horizontal plane divides the body into anterior and posterior parts.

The chest is inferior to the belly.

The little finger is dexter to the thumb.

In anatomical position the palm is turned to the back.

In the prone position, a person is lying face-up.

4. Odd One Out Eliminate the one term that does not fit in with the rest. Explain your choice briefly.

palmar – ventral – caudal – anterior

plantar – sagittal – horizontal – frontal

cephalic – superior – distal – cranial

5. Synonyms Write a word that means the same as each of the following.

dorsal _____

cranial _____

inferior _____

frontal _____

palmar _____

anterior _____

6. Opposites. Write a word that means the opposite of each of the following.

superior _____

external _____

profundus _____

lateral _____

volar _____

dexter _____

plantar _____

proximal _____

7. Fill in the blanks with the appropriate word.

The thumb is on the _____ side of the hand, the little finger is on the _____ side of it.

Pectoralis major muscle is a surface muscle of the chest so its position is termed as _____.

The toes are at the _____ part of the lower limb.

The elbow is _____ to the wrist, and the wrist is _____ to the elbow.

The nails are on the _____ and _____ parts of the fingers or toes.

The bones are _____ to the muscles, but the skin is _____ to them.

The spinal column is _____ to the heart, but the breastbone is _____ to it.

The hip bones' position is _____ to the spinal column.

Heart is _____ to the stomach, the stomach is _____ to the heart.

Kidneys are _____ to the backbone.

Vocabulary 1 - Anatomical positions, planes and directions

<i>Term</i>	<i>Meaning in English</i>
anterior	directed toward or situated on the belly surface, front side
caudal	positioned toward the tailbone
cranial	positioned toward the head
dexter	right side
distal	in the limbs, away from the trunk
dorsal	positioned toward the back or back part of hand or foot
external	situated in the outside part of the structure
frontal / coronal plane	planes dividing the body into front and back parts.
horizontal /transverse plane	planes dividing the body into upper and lower parts
inferior	lower
intermediate	in between two other structures
internal	situated in the inner part of the structure
lateral	situated or extending away from the median plane of the body
medial	situated toward the median plane or midline of the body or a structure
median sagittal / median plane	the plane dividing the body into right and left halves
palmar / volar	pertaining to the anterior surface of the hand
plantar	pertaining to the sole of the foot
posterior	positioned toward the back
profundus	deep
proximal	in the limbs, closer to the trunk
sagittal plane	planes parallel to the median plane, dividing the body into left and right portions.
sinister	left side
superficial	situated on the surface of the structure
superior	upper
ventral	directed toward or situated on the belly surface