

# LATIN FOR STUDENTS OF DENTISTRY

COMPILED BY LÁSZLÓ RÉPÁS

DEBRECEN 2019

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## Preface

This textbook was written primarily for first year students of dentistry at the University of Debrecen with the aim of providing them a brief introduction into the Latin and Old-Greek background of medical terminology. Therefore, having only a short time for such a profound topic in the 1<sup>st</sup> year curriculum, we concentrate on the parts of vocabulary that are the most important for a first year student. So, the textbook leads the student step-by-step through the basic terms of anatomical terminology, starting with the basic terms, planes and directional terms, and then going on to the terms related to the body parts and regions, continuing with the skeleton and joints, and finally it includes terms related to the muscular system.

In terms of grammar, the textbook provides only a minimal level of grammar necessary for plural and adjective formation.

In order to help build a medical vocabulary a number of different exercises follow each vocabulary unit including matching, fill-in-the-blank, odd-one-out, diagram labelling, crosswords etc.

An online interactive e-learning site related to the textbook also helps students in studying the world of medical terms. See: [www.medi-lingua.hu](http://www.medi-lingua.hu)

We hope that the textbook functions as a useful tool in the field of teaching professional language of medicine and health sciences.

Debrecen, January 2019.

*László Répás*

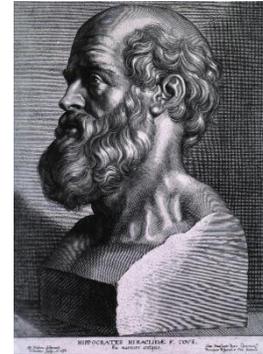
## Chapter 1 Introduction to medical terminology

### 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



Galen of Pergamon 2nd c. A.D.

Greek language is quite **suitable for the building of compound words**. 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

Source of pictures: Wikimedia Commons

### 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.*

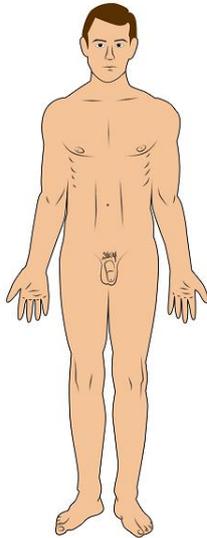
<i>confer</i>	<i>ante meridiem</i>	<i>exempli gratia</i>	<i>per centum</i>
<i>Curriculum Vitae</i>	<i>circa</i>	<i>versus</i>	<i>Philosophiae Doctor</i>
<i>post meridiem</i>	<i>id est</i>	<i>Nota bene</i>	<i>post scriptum</i>
<i>Anno Domini</i>	<i>et alii</i>	<i>Requiescat in pace</i>	<i>et cetera</i>

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



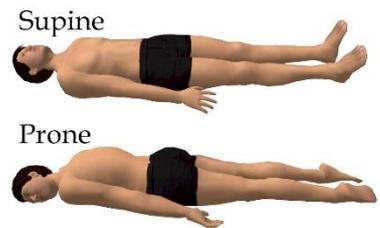
Anatomical position

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

(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.

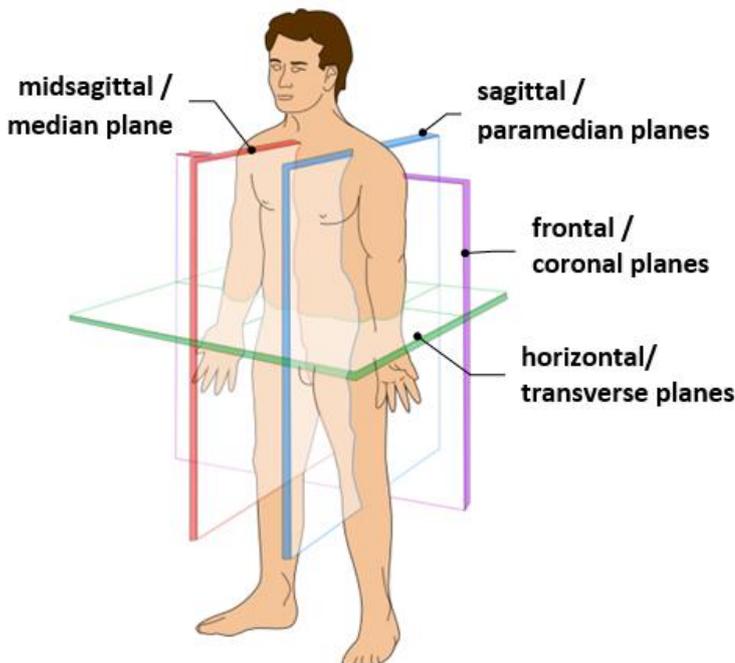
In (2) \_\_\_\_\_ **position** the body is lying on the belly with the face down.

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



### 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.

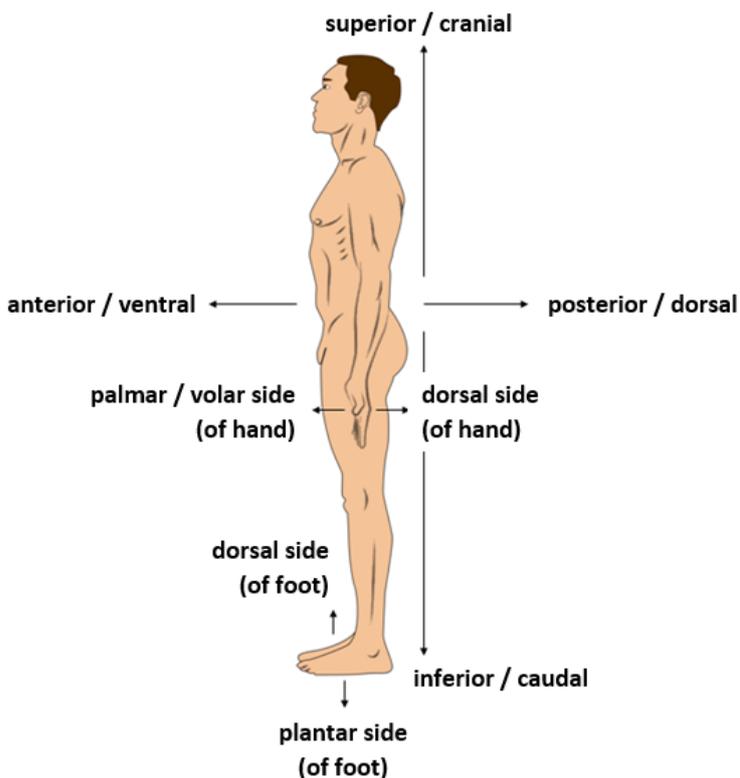
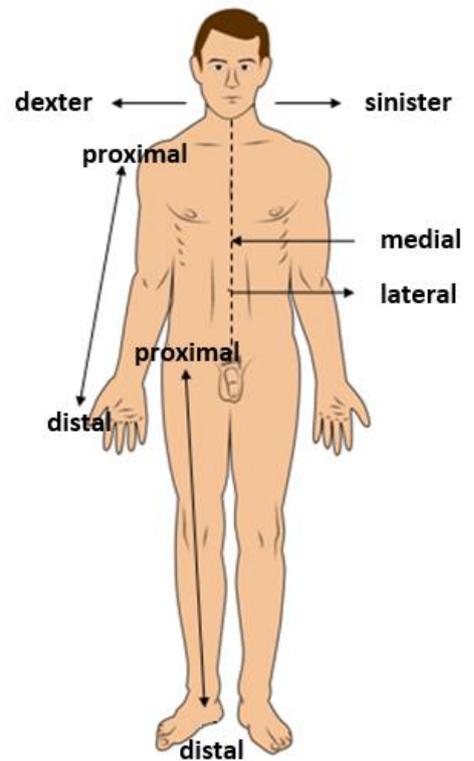
4) \_\_\_\_\_ / \_\_\_\_\_ planes are vertical planes passing through the

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**:  
\_\_\_\_\_

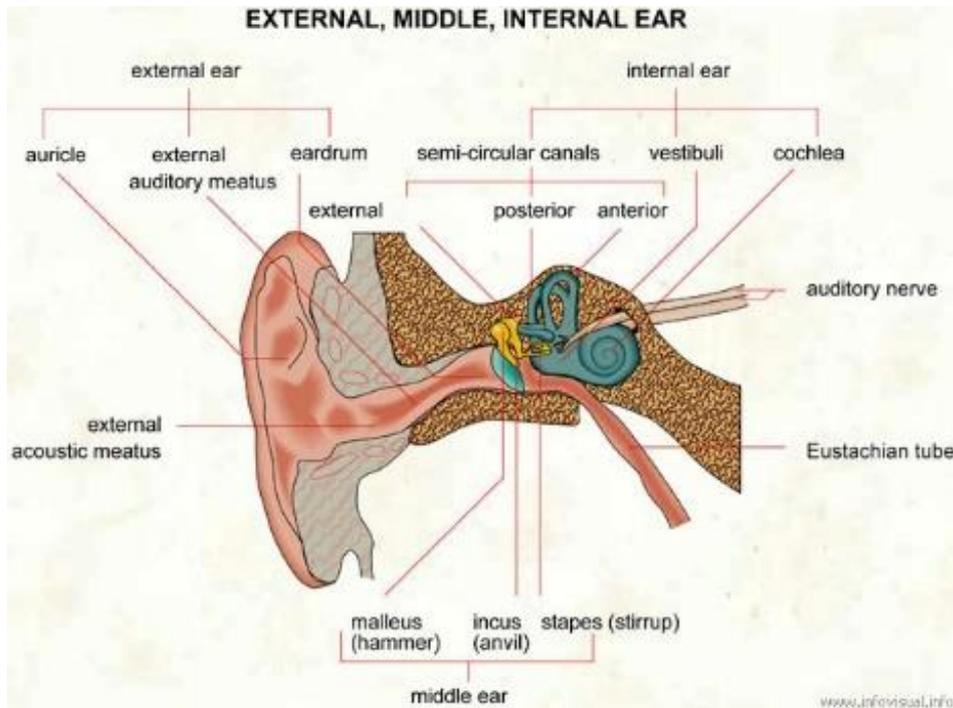
**Further directional terms**

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

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

**middle** (L. *medius/intermedius*): in the middle

E.g. the **external**, the **middle** and the **internal** ear

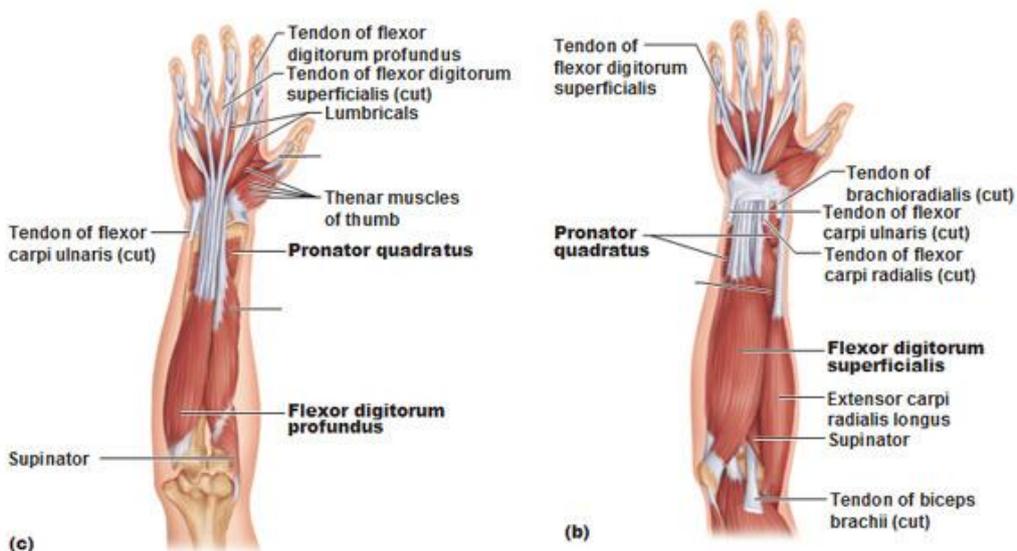
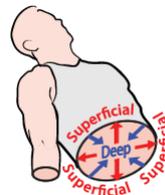


[www.infovisual.info](http://www.infovisual.info)

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

**profundus: deep**, situated at a deeper layer

<https://studentradiographer.com/?p=1013>

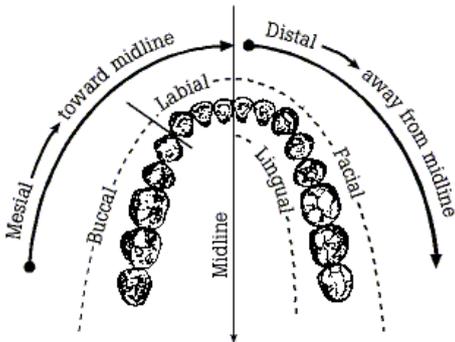


<https://i.pinimg.com/originals/6d/69/c8/6d69c8d7d25d40ae55dcb7ff5324c5fc.jpg>

## Directional and surface terms in dentistry

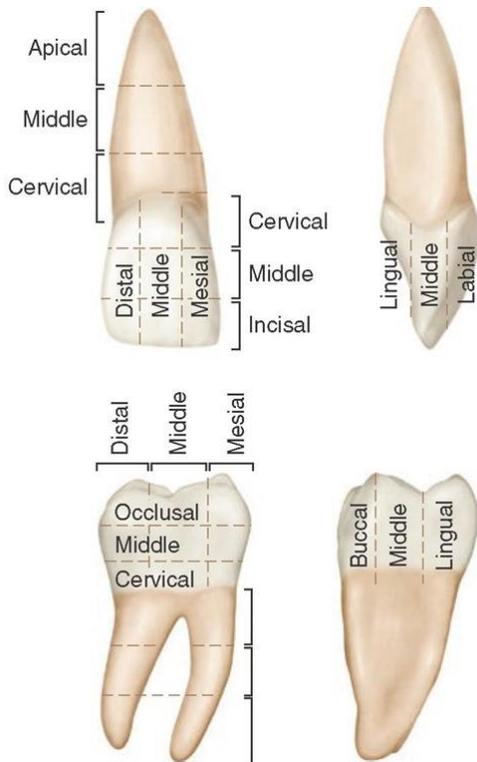
Fill in the blanks with the appropriate Latin word. Choose from the list:

**buccal, incisal, labial, cervical, mesial, distal, apical, lingual, occlusal, facial**



- \_\_\_\_\_ : the surface of the tooth closest to the midline
- \_\_\_\_\_ : the surface of the tooth furthest from the midline
- \_\_\_\_\_ : the surface of the tooth nearest the face
- \_\_\_\_\_ : the front surface of the front teeth, adjacent to the lip.
- \_\_\_\_\_ : the outer surface of the premolar and molar teeth, toward the cheeks.
- \_\_\_\_\_ : the surface of a tooth adjacent to the tongue.

<https://quizlet.com/296314107/dental-anatomy-terms-101-flash-cards/>



- \_\_\_\_\_ part of the root that is near the root tip(s)
- \_\_\_\_\_ part of the crown or the root that is near the clinical neck, where the crown meets the root
- \_\_\_\_\_ edge refers to the cutting edge of the *anterior* teeth, incisors, or canines.
- \_\_\_\_\_ surface refers to the biting surface of *posterior* teeth, premolars or molars.

[http://what-when-how.com/wp-content/uploads/2012/05/tmp18221\\_thumb1.jpg](http://what-when-how.com/wp-content/uploads/2012/05/tmp18221_thumb1.jpg)

### Further terms

**approximal surface:** the surface of a tooth which faces the adjacent tooth.

**coronal direction:** towards the crown of a tooth

**gingival direction:** towards the gingiva or gums, (similar to *cervical*)

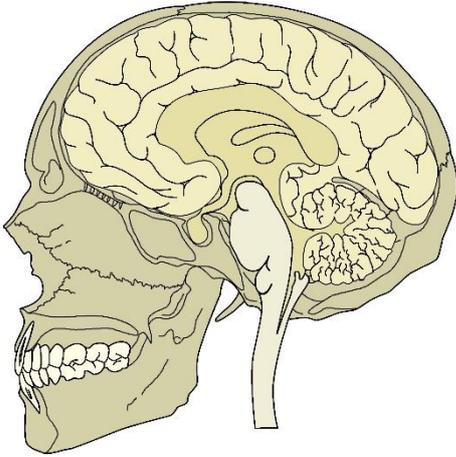
**oral surface:** the „inner” surface of the teeth which faces the oral cavity;

**palatal surface:** the „inner” surface of the upper, maxillary teeth, towards the hard palate

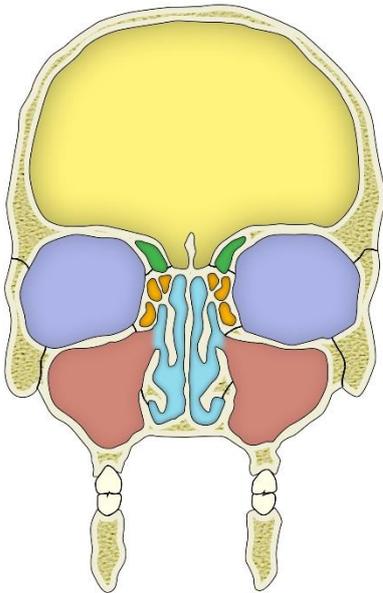
**vestibular surface:** adjacent to (or the direction towards) the inside of the cheeks and lips,

## Exercises

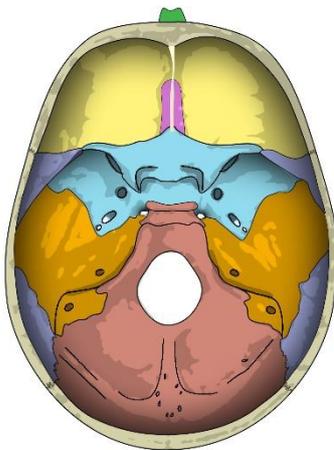
1. Write the name of the corresponding section of the skull.



\_\_\_\_\_ section of the skull



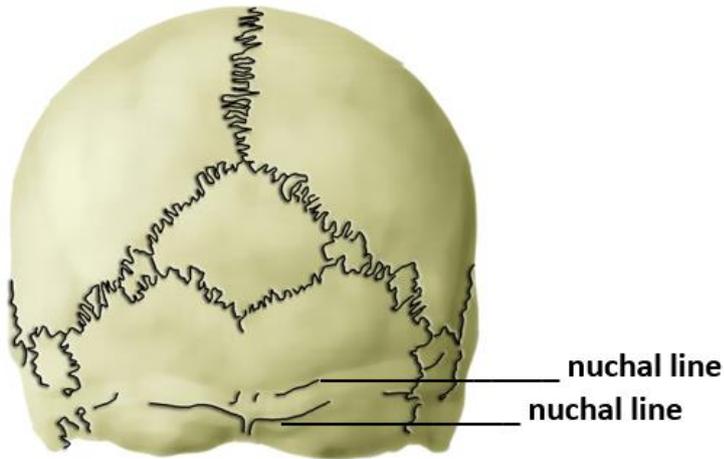
\_\_\_\_\_ section of the skull



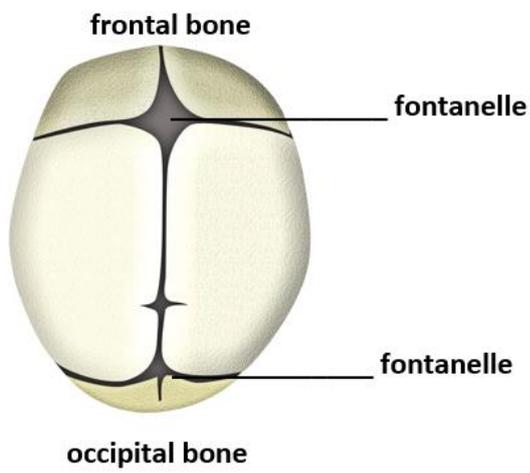
\_\_\_\_\_ section of the skull

2. Provide the missing directional terms in the pictures.

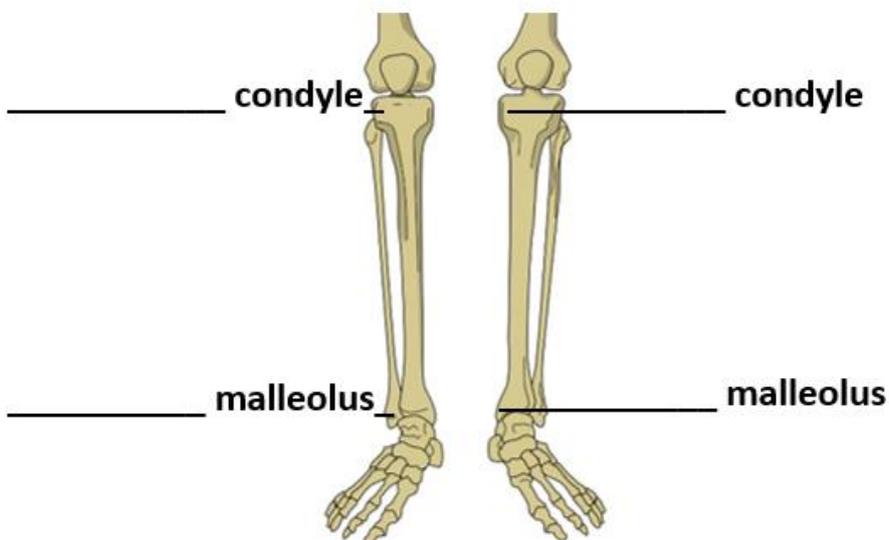
*Nuchal lines*



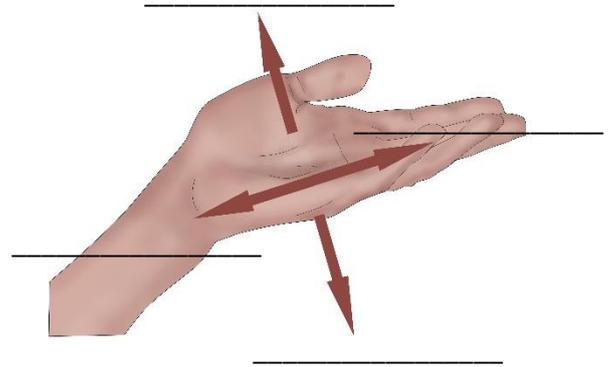
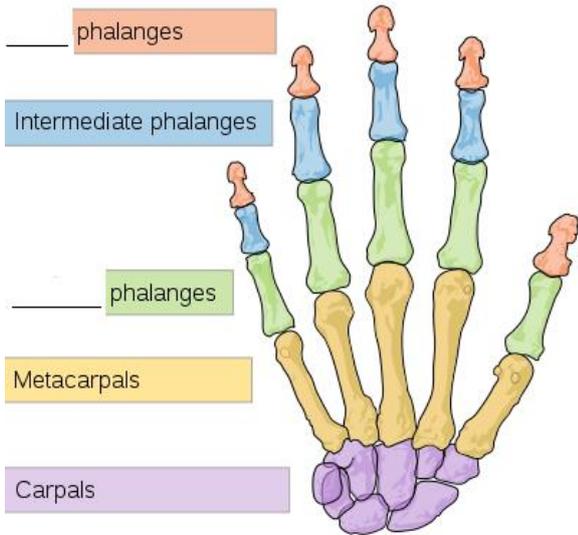
*Fontanelles*



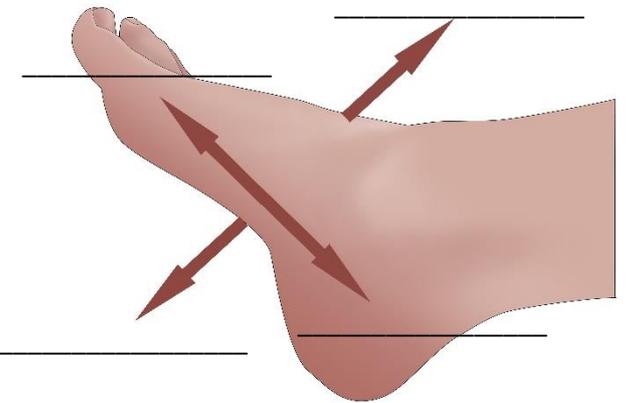
*Condyles and malleoli*



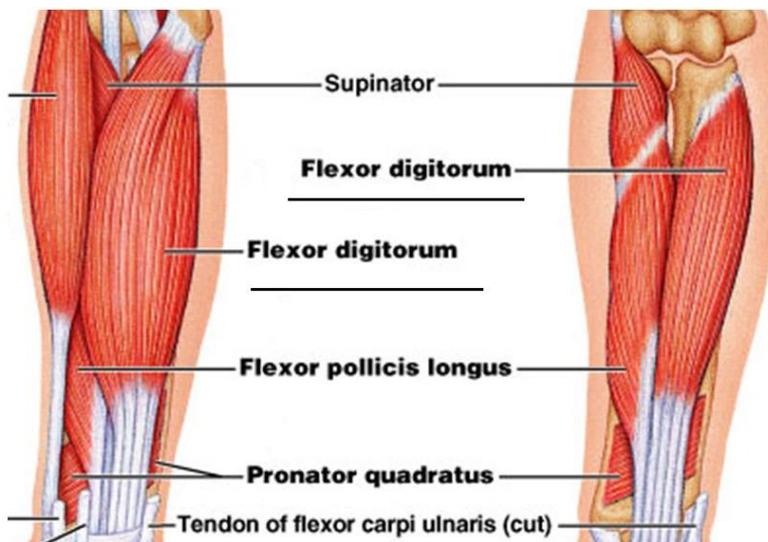
*Hand, foot and phalanges*



[https://en.wikipedia.org/wiki/Phalanx\\_bone](https://en.wikipedia.org/wiki/Phalanx_bone)

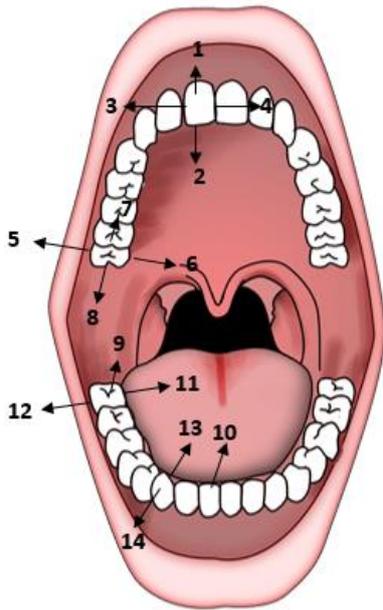


*Flexor digitorum muscles - surface and deep layer*



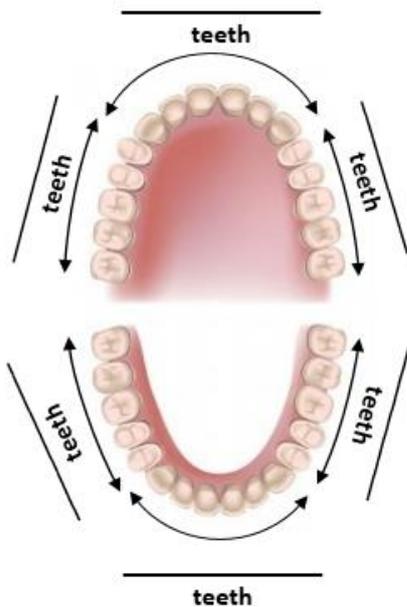
<http://slideplayer.com/slide/262851/>

Provide the names of the numbered surfaces of the teeth.



- 1 facial / \_\_\_\_\_
- 2 \_\_\_\_\_ / \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_ / \_\_\_\_\_
- 6 \_\_\_\_\_ / \_\_\_\_\_
- 7 \_\_\_\_\_
- 8 \_\_\_\_\_
- 9 \_\_\_\_\_ surface
- 10 \_\_\_\_\_ edge
- 11 \_\_\_\_\_ / \_\_\_\_\_
- 12 \_\_\_\_\_ / \_\_\_\_\_
- 13 \_\_\_\_\_ / \_\_\_\_\_
- 14 \_\_\_\_\_ / \_\_\_\_\_

Write the types of teeth on the lines based on their position.



<http://www.brookeorthodontics.com>

What do O.D. and O.S. stand for in this eye prescription?

Simple Prescription

Rx	SPH	CYL	AXIS
O.D.	-1.25	-0.50	010
O.S.	-1.00		

O.D.= Oculus \_\_\_\_\_

O.S.= Oculus \_\_\_\_\_

<https://www.quora.com>

**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. \_\_\_\_\_
- Anterior teeth have incisal edge. \_\_\_\_\_
- Posterior teeth have labial surface. \_\_\_\_\_
- A right mandibular canine tooth has a palatal surface. \_\_\_\_\_

**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.

**8. Match the following directional terms with the name of the parts they refer to.**

	<b>Medical term</b>	<b>Body part</b>
<p><b>gingival</b></p> <p><b>vestibular</b></p> <p><b>caudal</b></p> <p><b>buccal</b></p> <p><b>cranial</b></p> <p><b>palatal</b></p> <p><b>apical</b></p> <p><del><b>labial</b></del></p> <p><b>ventral</b></p> <p><b>coronal</b></p> <p><b>oral</b></p> <p><b>lingual</b></p> <p><b>dorsal</b></p> <p><b>cervical</b></p>	<i>labial</i>	lip
	_____	belly
	_____	back
	_____	(inside of) mouth,
	_____	gums
	_____	inside of lips and cheeks
	_____	cheeks
	_____	(root) tip
	_____	crown
	_____	hard palate
	_____	tail (bone)
	_____	neck
	_____	tongue
	_____	skull

## Vocabulary 1 - Anatomical positions, planes and directions

<i>Directional term</i>	<i>Meaning in English</i>
<b>anterior</b>	directed toward or situated on the belly surface, front side
<b>apical</b>	towards the root tip(s) of a tooth
<b>approximal</b>	the surface of a tooth which faces the adjacent tooth
<b>buccal</b>	towards the cheeks
<b>caudal</b>	positioned toward the tailbone
<b>cervical</b>	towards the neck (of a tooth)
<b>coronal</b>	towards the crown of a tooth.
<b>cranial</b>	positioned toward the head
<b>dexter</b>	right side
<b>distal</b>	in the limbs, away from the trunk; in the dental arch, the surface away from the midline
<b>dorsal</b>	positioned toward the back
<b>external</b>	situated near the outside
<b>facial</b>	the surface of the tooth nearest the face
<b>frontal / coronal</b>	planes dividing the body into front and back parts
<b>horizontal /transverse plane</b>	planes dividing the body into upper and lower parts
<b>gingival</b>	towards the gums (L. gingiva = gum)
<b>incisal</b>	the cutting edge of the anterior teeth, incisors, or canines
<b>inferior</b>	lower
<b>intermediate</b>	middle, in between two other structures
<b>internal</b>	inner or inside
<b>labial</b>	adjacent to the lip, the front side of the front teeth
<b>lateral</b>	situated away from the median plane of the body
<b>lingual</b>	towards the tongue, the inner surface of the lower teeth
<b>medial</b>	situated toward the midline of the body or a structure
<b>midsagittal / median plane</b>	the plane dividing the body into right and left halves
<b>mesial</b>	the surface of the tooth closest to the midline
<b>occlusal</b>	the biting surface of <i>posterior</i> teeth
<b>oral</b>	the „inner“ side of the teeth which faces the oral cavity;
<b>palatal</b>	towards the hard palate, the „inner“ side of the upper, maxillary teeth,
<b>palmar / volar</b>	pertaining to the anterior surface of the hand
<b>plantar</b>	pertaining to the sole of the foot
<b>posterior</b>	positioned toward the back
<b>profundus</b>	deep
<b>proximal</b>	in the limbs, closer to the trunk or origin
<b>sagittal plane</b>	planes parallel to the median plane, dividing the body into left and right portions
<b>sinister</b>	left side
<b>superficial</b>	situated on the surface of the structure
<b>superior</b>	upper
<b>ventral</b>	directed toward or situated on the belly surface
<b>vestibular</b>	the surface of the tooth nearest the area between the teeth and the cheeks (L. vestibulum = entrance hall)