

Basic Medical Terminology II



**SEMINAR 4:
NUMERALS
LATIN PREFIXES AND SUFFIXES**

REVISION

Change the given terms into sg./pl.

- cornu minus
cornua minora
- dentes molares superiores
dens molaris superior
- contra dolorem acrem
contra dolores acres
- symptoma morbi latentis
symptomata morborum latentium
- segmenta anteriora bulborum
segmentum anterius bulbi
- operatio post trauma gravissimum
operationes post traumata gravissima
- fractura membri inferioris
fracturae membrorum inferiorum
- amputationes digitorum minimorum
amputatio digiti minimi
- ala major
alae majores
- ante transfusionem necessariam
ante transfusiones necessarias

REVISION

Fill in missing endings



- Ramus inferior arteri...**ae**... gluta**e**... superior...**is**...
- Status post traum...**a**... grav...**e**...
- Infarctus pariet...**is** anterior...**is** ventricul...**i**.. cord...**is** sinistr...**i**..
- In muscul...**o**... latissim...**o**.... dors...**i**....
- Pulsus frequentissim...**us**... in febr...**i**.... acut...**a**...
- Exitus post collaps...**um** circulation...**is**.. major...**is**..
- Laesio muscul...**i**... longissim...**i**.... thorac...**is**..
- Doses medicament...**i**.. minim...**ae**...
- Iniectio contra dolor...**em** magn...**um**
- Ulcus peptic...**um** chronic...**um** in curvatur...**a**... minor...**e**...

NUMERALS – INTRODUCTION



TYPES:

1. **CARDINAL** NUMERALS unus, una, unum
2. **ORDINAL** NUMERALS secundus, a, um
3. **MULTIPLE** NUMERALS triplex, icis
4. **NUMERAL ADVERBS** quater

ORDINAL NUMERALS



1-10	11-12
primus, a, um	undecimus , a, um
secundus, a, um	duodecimus , a, um
tertius, a, um	
quartus, a, um	
quintus, a, um	
sextus, a, um	
septimus, a, um	
octavus, a, um	
nonus, a, um	
decimus, a, um	

- express the order in a sequence
- declined like the paradigms *nervus, vena, septum*
- in anatomy, ordinals are used only up to 12 (see the handout Numerals in anatomical and clinical terminology)

Match the numbers and letters, fill in missing endings
and read the ordinal numerals



B

1. Vertebra cervical__ _ C₇

C

2. Fractura vertebra_ coccyge__ _ Co₃

A

3. Contusio vertebr__ _ _ lumbal__ _ _ L₁-L₂

D

4. Vertebr__ _ sacral__ _ S₁-S₅

E

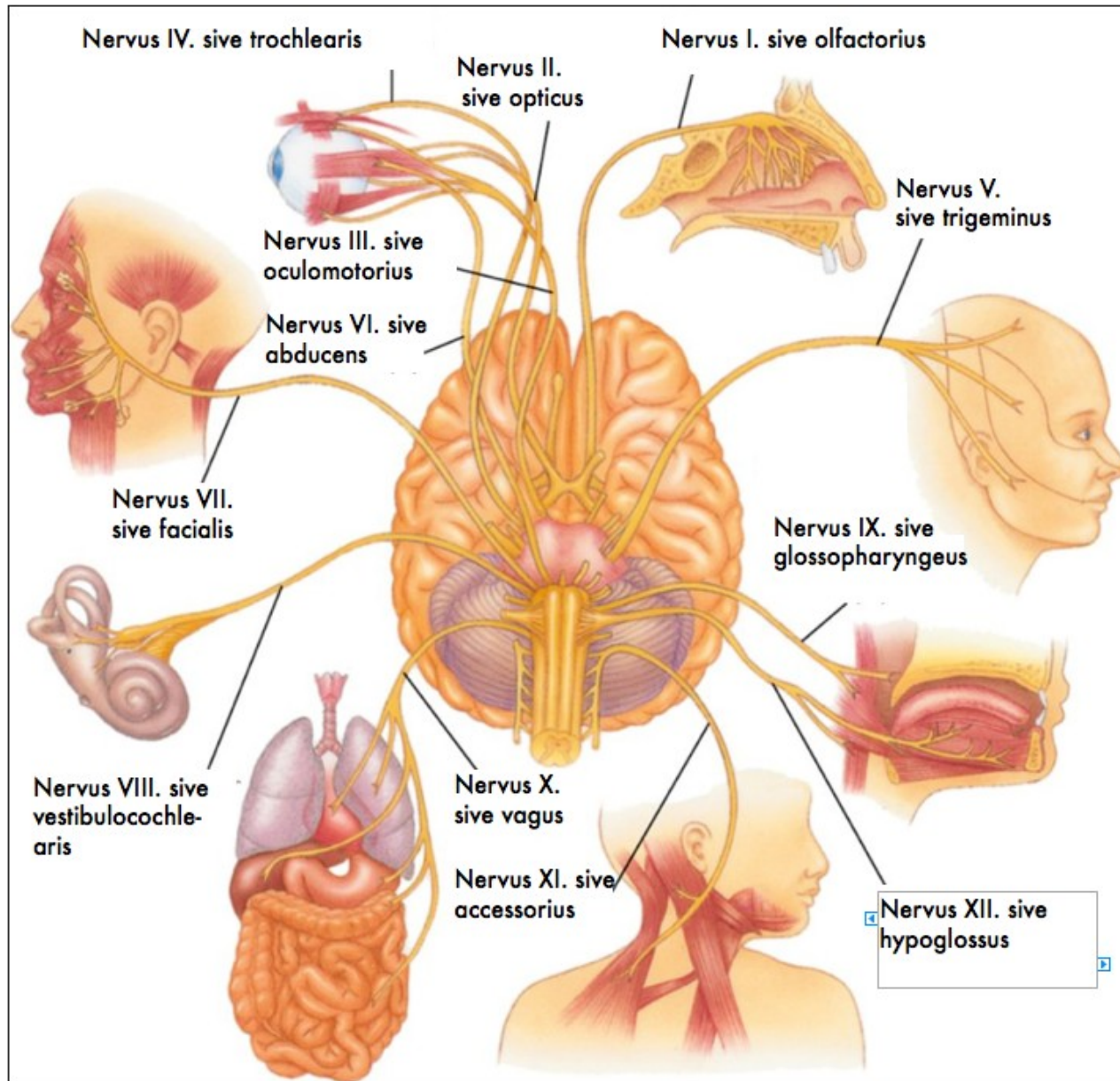
5. Operatio vertebr__ _ thoracic__ _ Th₈-Th₉

F

6. Columna vertebr__ _ _ _



NERVI CRANIALES



How to express a degree/stage of an injury/illness?



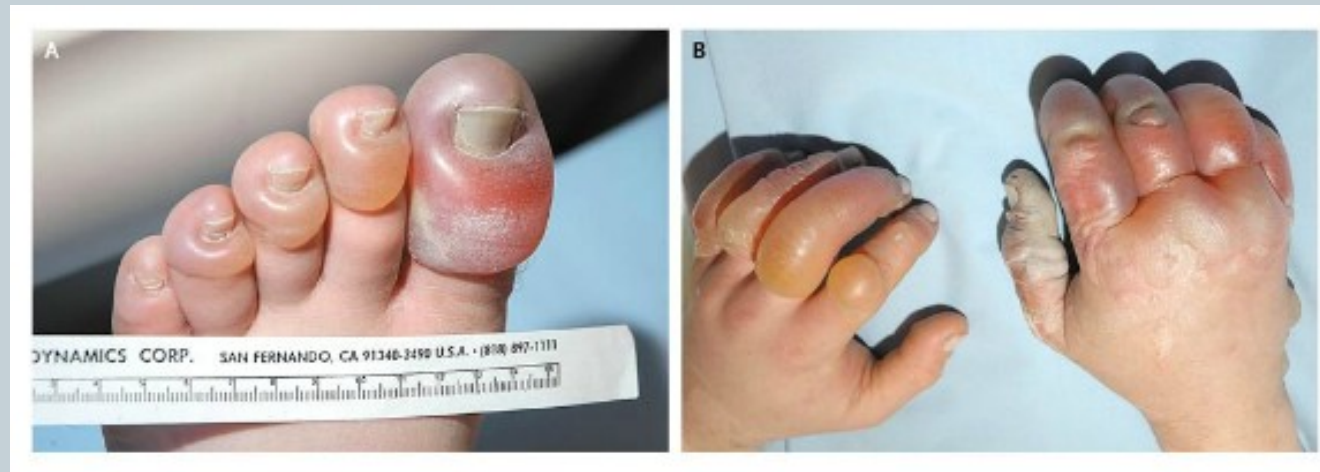
- using the noun **GRADUS** (us, m.) + ordinal numerals
- both the noun and the numeral are always in genitive!
- e.g. second degree burn of chest, neck and head
 - combustio pectoris, colli et capitis **gradus secundi**



Authentic diagnosis: translate the red parts



A 39-year-old man was found in a snowbank, with the ambient temperature -34 C. He had been reported missing the previous evening, after an argument with his girlfriend. The emergency services crew noticed the odor of alcohol in his breath. *Large*, clear *blisters* characteristic of severe frostbite were noted *on the hands and feet*. Of particular note were the *left great toe and right thumb with frostbite of the third grade*. Subsequently, the patient's *left great toe was amputated*.



blister = bulla, ae, f.

MULTIPLE NUMERALS



1-3	many
simplex, cis	multiplex, multiplicis
duplex, cis	
triplex, cis	

- express multiplicity
- nom. sg. *-plex*; gen. sg. *-plicis*
- declined like 3rd declension adjectives (paradigms *pelvis*, *rete*)

St. p. hysterectomiam abdominalem simplicem anno 2012/05

Pelvis renis l. dx. et ureter l. dx duplex

Tumor lobi superioris pulmonis l. sin. triplex

Metastases hepatis multiplices susp.

NUMERAL ADVERBS



1-4

semel

bis

ter

quater

- express frequency
- indeclinable !!!



Funiculus umbilicalis circum collum fetus semel/bis/ter in grav.

hebd. 40+4

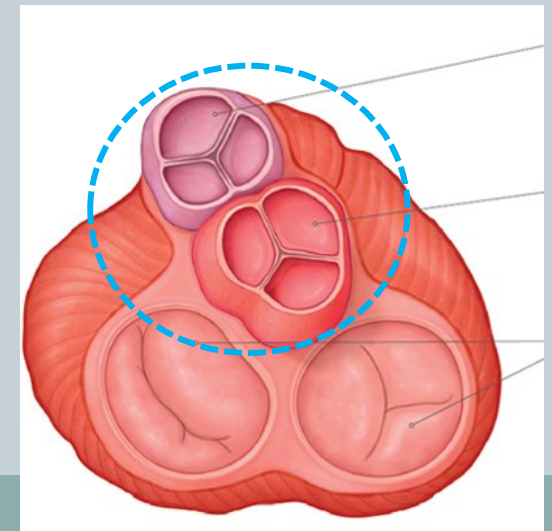
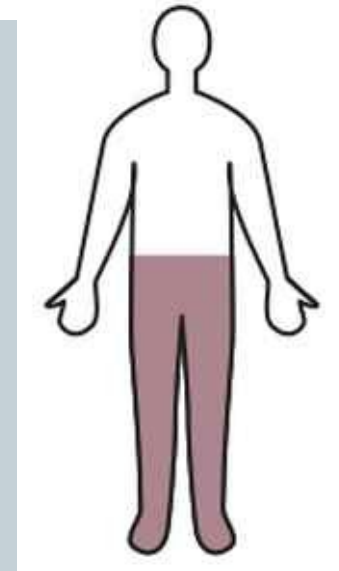
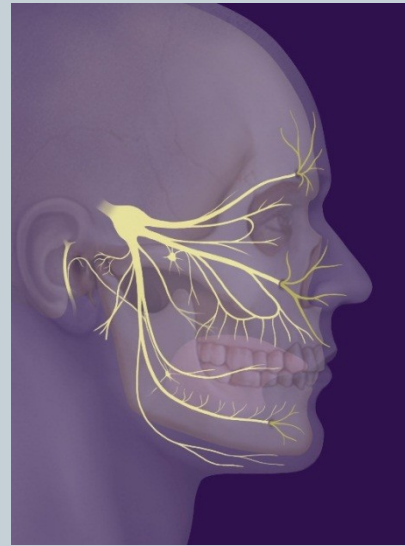
COMPOUNDS WITH NUMERAL COMPONENTS



ENGLISH	LATIN	Example	GREEK	Example
one	uni-	<i>unilateralis</i> <i>unigravida</i>	mono-	<i>monoplegia</i>
first	primi-	<i>primipara</i> <i>primigravida</i>		
two (i.e. twice)	bi-	<i>biceps</i> <i>bilateralis</i>	di-	<i>diplegia</i>
second	secundi-	<i>secundigravida</i>		
three	tri-	<i>triceps</i> <i>trigeminus</i>	tri-	<i>tricephalus</i>
four	quadri-	<i>quadriceps</i>	tetra-	<i>tetraplegia</i>
half	semi-	<i>semilunaris</i>	hemi-	<i>hemiplegia</i>
few			olig-o-	<i>oligodactylia</i>
many	mult-(i)-	<i>multangulus</i> <i>multicellularis</i>	poly-	<i>polydactylia</i> <i>polyarthrititis</i>
all, whole			pan-	<i>panplegia</i> <i>pandemia</i>

Match the given terms with corresponding pictures

- diplegia
- multangulus
- trigeminus
- polydactylia
- valvulae semilunares



Match the pictures with the terms given below

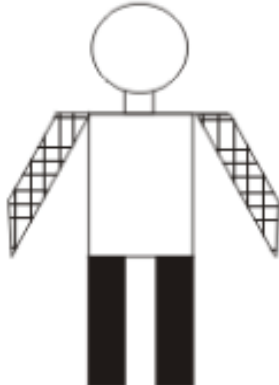


1



All four limbs are involved.

2



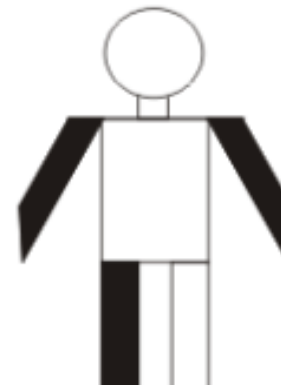
All four limbs are involved. Both legs are more severely affected than the arms.

3



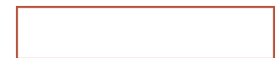
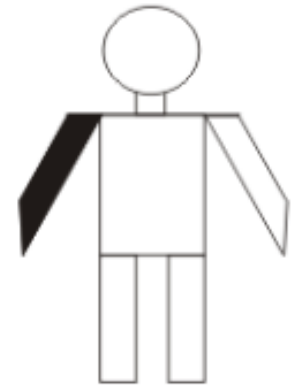
One side of the body is affected. The arm is usually more involved than the leg.

4



Three limbs are involved, usually both arms and a leg.

5



Only one limb is affected, usually an arm.

MONOPLÉGIA
TETRAPLEGIA

DIPLEGIA
HEMIPLEGIA

TRIPLEGIA
QUADRIPLEGIA

Use the given Greek roots to form terms corresponding to the definitions (Handout 4.2, task 2)

-PARESIS slight, partial paralysis, muscle weakness

-PLEGIA stroke, total paralysis

1. Partial paralysis of a single limb or one part of the limb
2. Paralysis of a single extremity
3. Paralysis of corresponding parts on both sides of the body
4. Complete paralysis of the lower half of the body including both legs
5. A slight paralysis or weakness of both legs
6. Paralysis affecting only one side of the body
7. Paralysis of an upper and a lower extremity and of the face
8. Paralysis of all four limbs
9. Muscular weakness affecting all four extremities
10. Paralysis of the whole body
11. Weakness on one side of the body

Number of pregnancies /childbirths = ordinal numeral + GRAVIDA/PARA



GRAVIDA

- number of pregnancies, regardless of result

PARA

- number of births after 20 weeks of pregnancy,
regardless of result,
stillbirth counted as 1,
multiple births /twins et al./ counted as 1

ABORTION

- miscarriage before 20 weeks of pregnancy

$G_8P_5A_3$

G_2P_2

$G_4P_3A_1$

-PARA and -GRAVIDA



0	NULLI-PARA	NULLI-GRAVIDA
1	UNI- /PRIMI-PARA	UNI- /PRIMI-GRAVIDA
2	SECUNDI-PARA	SECUNDI-GRAVIDA
3	TERTI-PARA	TERTI-GRAVIDA
4	QUARTI-/ QUADRI-PARA	QUARTI-GRAVIDA
5	QUINTI-PARA	QUINTI-GRAVIDA
6	SEXTI-PARA	SEXTI-GRAVIDA
7	SEPTI-PARA	SEPTI-GRAVIDA
8	OCTI-PARA	OCTI-GRAVIDA
9	NONI-PARA	NONI-GRAVIDA
10	DECI-PARA	DECI-GRAVIDA
MANY	MULTI/PLURI-PARA	MULTI/PLURI-GRAVIDA

Authentic diagnosis: translate the red parts



A 23-year-old woman (gravida 1, para 0) was admitted at 40+1 weeks gestation and underwent an *emergency caesarian section* due to *imminent hypoxia of the fetus*. As revealed during the section the *umbilical cord was twisted twice around the neck of the neonate*, furthermore the *umbilical cord* was noted to *have a compound knot*. Compound knots, as in this case, are rare.



hypoxia, ae, f. = a diminished availability of oxygen to the body tissues

LATIN AND GREEK PREFIXES

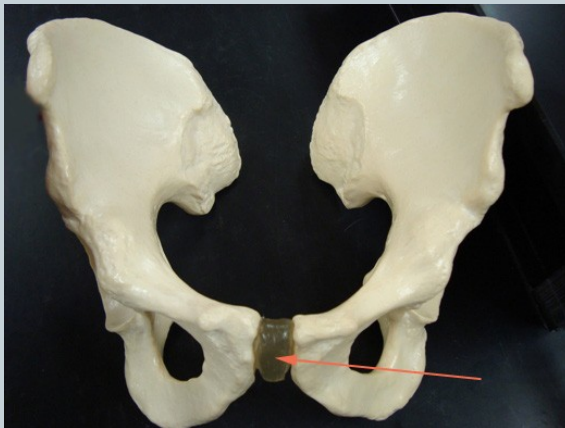
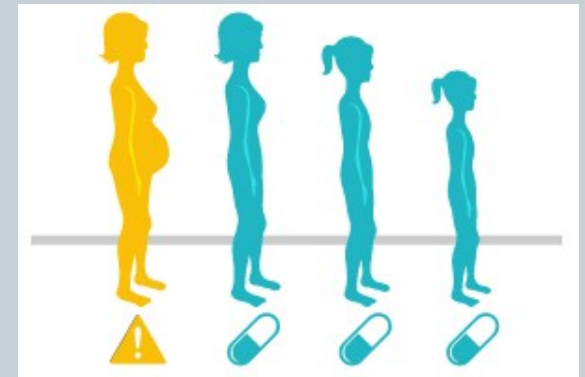
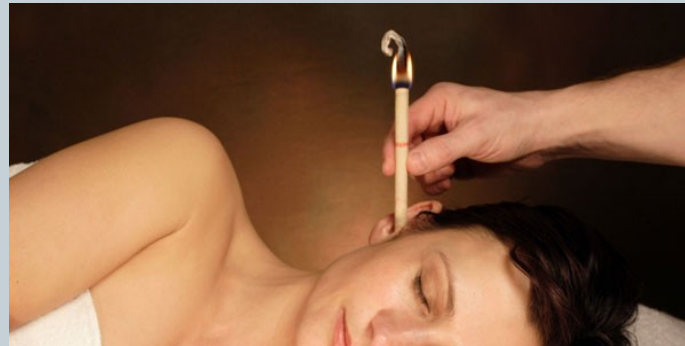


LATIN	Example	GREEK	Example
contra-	<i>contraindicatio</i>	ant-, anti-	<i>antibioticum, antipyreticum</i>
cum- (con-, com-, col-, cor)	<i>congenitus</i> <i>commotio</i>	syn-, sym-	<i>symphysis, syndroma</i>
de- (des-)	1) <i>descendens</i> 2) <i>desinfectio, deformatio</i>	1) cata- 2) Ø	<i>catarrhus</i> <i>Ø</i>
dis- (dif-, di-)	1) <i>dislocatio</i> 2) <i>dissimilis</i>	1) dia-, di-, ana- 2) a-, an-	<i>diagnosis, analysis</i> <i>atrophia, anaesthesia</i>
e-, ex- (ef-)	<i>exsanguinatio</i>	ec-	<i>ectopia</i>
in- (im-, il-, ir-)	<i>immaturus</i>	a-, an-	<i>atrophia, anaesthesia</i>
post-	<i>posttraumaticus</i>	met-, meta-	<i>metastasis, metabolismus</i>
re-	<i>reinfectio</i>	ana-	<i>anamnesis, anabiosis</i>

Match the given terms with corresponding pictures



contraindicatio – ectopia – catarhus – atrophia – anamnesis – symphysis



LATIN AND GREEK PREFIXES



LATIN	<i>Example</i>	GREEK	<i>Example</i>
per-	1) <i>peracutus, peraciditas</i> 2) <i>perforatus</i>	1) hyper- 2) dia	<i>hypertonia, hypertrophia</i> <i>diencephalon, diameter</i>
sub- (suc-, suf-, sup-, sus-)	1) <i>subfebrilis, subluxatio</i> 2) <i>subcutaneus</i>	hyp-, hypo-	<i>hypotrophia, hypotonia</i> <i>hypophysis, hypoglossus</i>
Ø		dys-	<i>dystrophia, dyspepsia</i>
Ø		eu-	<i>eutrophia, euthanasia</i>

Attach the Greek prefixes to the given root word to form terms corresponding to the definitions



EU- / HYPER- / A- / DYS- / HYPO- + TROPHIA

EU-

- state of normal nourishment and growth

DYS-

- progressive changes that may result from defective nutrition of a tissue or organ

HYPER-

- general increase in bulk of a part or organ, not due to tumor formation

HYPO-

- progressive degeneration of an organ or tissue caused by loss of cells

A-

- a wasting away of the body or of an organ or part, as from defective nutrition or nerve damage

LATIN NOUN SUFFIXES




<i>Noun ending</i>	<i>Meaning</i>	<i>Example</i>
-io	act, process	<i>commotio, inflammatio, laesio, transfusio</i>
-tor, -sor, -xor	agent	<i>levator, extensor, flexor</i>
-ura	result of an action	<i>sutura, fisura, incisura</i>
-itas	quality, state	<i>obesitas, surditas, mutitas</i>
-mentum	instrument, tool	<i>ligamentum, medicamentum</i>
-itis	inflammation	<i>perinephritis, encephalitis, otitis, nephritis</i>
-osis	degenerative or non-inflammatory disease	<i>arthrosis, hepatitis, sclerosis, stenosis</i>
-oma	tumour	<i>melanoma, adenoma, carcinoma, hepatoma</i>

LATIN ADJECTIVE SUFFIXES



<i>Adjective ending</i>	<i>Meaning</i>	<i>Example</i>
-alis, e; -aris, e; -icus, a, um; -acus, a, um; -eus, a, um; -aneus, a, um; -ivus, a, um; -inus, a, um; -arius, a, um; -itus, a, um	relation	<i>nasalis, cochlearis, hepaticus, cardiacus, pharyngeus, cutaneus, operativus, uterinus, coronarius, mellitus</i>
-osus, a, um	full of	<i>ulcerosus, venosus, periculosus</i>
-atus, a, um	equipped with	<i>dentatus, caudatus</i>
-bilis, e	possibility, ability	<i>operabilis</i>
-oideus, a, um -formis, e	shaped like, resembling	<i>coracoideus, thyroidea, cuneiforme</i>

Name the action performed by the given muscle

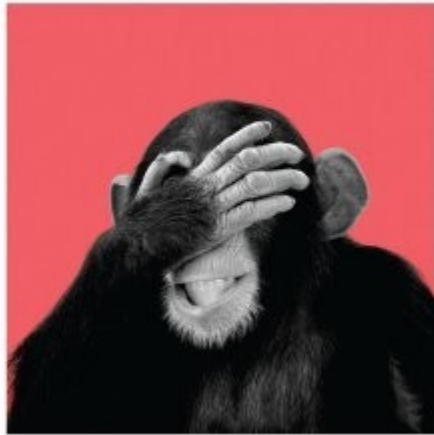


Musculus abductor pollicis longus	>> abductio, onis, f.
Musculus adductor hallucis longus	adductio, onis, f.
Musculus compressor urethrae	compressio, onis, f.
Musculus constrictor pharyngis medius	constrictio, onis, f.
Musculus depressor anguli oris	depressio, onis, f.
Musculus dilatator pupillae	dilatatio, onis, f.
Musculus extensor carpi	extensio, onis, f.
Musculus flexor digitorum profundus	flexio, onis, f.
Musculus levator glandulae thyr(e)oideae	levatio, onis, f.
Musculi rotatores thoracis	rotatio, onis, f.
Musculus tensor fasciae latae	tensio, onis, f.

Name defects of senses



surdomutitas, atis, f.



caecitas, atis, f.



surditas, atis, f.



mutitas, atis, f.

Derive terms from the given roots

(Handout 5.3, task 1)

BASIC WORD	DESCRIPTION	DERIVED TERM
brain cerebrum, i, n. encephalon, i, n.	related to brain	cerebralis
	small brain	cerebellum
	related to the small brain	cerebellaris
	inflammation of the brain	encephalitis
liver hepar, atis, n.	related to liver	hepaticus
	inflammation of liver	hepatitis
	cancerous tumour in liver	hepatoma
	degenerative disease of liver	hepatosis
thorn spina, ae, f.	related to the thorn/spine	spinalis
	full of thorns	spinosus
	provided with thorns	spinatus
	found above the thorny processes	supraspinatus / supraspinalis

Fill in parallel prefixes and derive required terms (Handout 5.3, task 2)



PARALLEL GREEK / LATIN PREFIX	ENGLISH DESCRIPTION	DERIVED LATIN TERM
pro- ⇒ ante-	forearm	antebrachium
endo- ⇒ intra-	inside the vein (adj. e.g. injection)	intravenosus
dia- ⇒ trans-	a process of transferring blood from a donor to a recipient	transfusio
circum- ⇒ peri-	a double-wall sac around the heart	pericardium
epi- ⇒ super-	being on the surface, opposite of profound	superficialis
peri- ⇒ circum-	located around the mouth	circumoralis
ecto- ⇒ extra-	outside the uterus	extrauterinus
meta- ⇒ post-	after the operation (e.g. state, condition)	postoperativus
hyper - ⇒ supra-	located above the kidney	suprarenalis
inter- ⇒ dia-	sheet of muscle separating the thorax from the abdomen	diaphragma