

REVISION: CONNECT

partes	columna vertebralis	columnae vertebralis
processus	vertebrae lumbales	vertebrarum lumbalium
ruptura	ligamentum teres	ligamenti teretis
carcinoma	colon descendens	coli descendentis
sanatio	herpes simplex	herpetis simplicis
caries	dentes permanentes	dentium permanentium
bursa	musculus biceps brachii	musculi bicipitis brachii
inflammatio	appendix vermiformis	appendicis vermiformis
lamina	os ethmoidale	ossis ethmoidalis
fractura	ossa nasalia	ossium nasalium
therapia	morbus exacerbans	morbi exacerbantis
operatio	trauma grave	traumatis gravis
remedium	febris recurrens	febris recurrens

Comparison of adjectives



2ND WEEK

Comparison of adjectives



- Adjectives can express different levels of quality
 - 1st level – **POSITIVE**
 - ✦ expresses quality on its own
 - ✦ *in English: good, small, easy*
 - 2nd level – **COMPARATIVE**
 - ✦ compare differences between the qualities of two nouns
 - ✦ *in English: better, smaller, easier*
 - 3rd level – **SUPERLATIVE**
 - ✦ describe the quality of a noun that is the highest (or lowest) in degree compared to the members of the noun's group.
 - ✦ *in English: the best, the smallest, the easiest*

Types of comparison



- In Latin, as well as in English, there exist various ways of comparing adjectives:
 - **regular**
 - ✦ comparatives and adjectives are formed using suffixes
 - ✦ in English: small, smaller, the smallest
 - **irregular**
 - ✦ comparatives and superlatives have irregular forms
 - ✦ in English: good, better, the best
 - **periphrastic**
 - ✦ a multi-word expression has the same role as an inflection
 - ✦ in English: intelligent, more intelligent, the most intelligent
 - **incomplete**
 - ✦ no positive form of adjective, only comparatives (and superlatives) exist

Regular comparison - comparative



- *Positive*

LONGUS, A, UM gen. LONG-I

BREVIS, E gen. BREV-IS

- *Comparative*

- take genitive stem of the adjective and add endings:

- -ior (m+f), -ius (n), genitive ending for all 3 genders: -ioris

- declined like the **3rd declension consonant stems**

LONGIOR, LONGIUS, gen. LONGIORIS

BREVIOR, BREVIUS, gen. BREVIORIS

Declining of comparatives



	singular		plural	
nom.	brevior	brevius	breviores	breviora
gen.	brevioris		breviorum	
acc.	breviorem	brevius	breviores	breviora
abl.	breviore		brevioribus	

Comparative forms are declined according to paradigms DOLOR (M., F.) and CORPUS (N.)

Genitive ending is for all 3 genders: – IORIS.

simplex, simplicis -> simplicior (m., f.), simplicius (n.) -> g. sg.: **simplicioris** (m., f., n.)

latus, a, um -> latior (m., f.), latius (n.) -> g. sg.: **latioris**

LATIN AND GREEK DECLENSIONS

Declens.		I.			II.				III.					IV.		V.
Paradigm		<i>vena</i>	<i>systole</i>	<i>diabetes</i>	<i>nervus</i>	<i>septum</i>	<i>nephros</i>	<i>colon</i>	<i>dolor</i>	<i>corpus</i>	<i>pelvis</i>	<i>dosis febris</i>	<i>rete</i>	<i>ductus</i>	<i>genu</i>	<i>facies</i>
Gender		f.	f.	m.	m.	n.	m.	n.	m. + f.	n.	m. + f.	m. + f.	n.	m.	n.	f.
S i n g u l a r	1.	-a	-e	-es	-us/-er	-um	-os	-on	?	?	-is/-es	-(s)is/ -xis/-osis	-ar/-e/ -al	-us	-u	-es
	2.	-ae	-es	-ae	-i	-i	-i	-i	-is	-is	-is	-is/-eos	-is	-us	-us	-ei
	4.	-am	-en	-am	-um	1	-um	1	-em	1	-em	-im/-in	1	-um	1	-em
	6.	-a	-e	-a	-o	-o	-o	-o	-e	-e	-e / (-i)	-i	-i	-u	-u	-e
P l u r a l	1.	-ae	-ae	-ae	-i	-a	-i	-a	-es	-a	-es	-es	-ia	-us	-ua	-es
	2.	-arum	-arum	-arum	-orum	-orum	-orum	-orum	-um	-um	-ium	-ium	-ium	-uum	-uum	-erum
	4.	-as	-as	-as	-os	1	-os	1	-es	1	-es	-es	1	-us	1	-es
	6.	-is	-is	-is	-is	-is	-is	-is	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ebus
		+ Adj. of 1st decl. F			+ Adj. of 2nd decl. M	+ Adj. of 2nd decl. N		+Compa -rative forms of adj. M+F	+ Com parative forms of adj. N	+ Adj. of 3rd decl. M + F		+ Adj. of 3rd decl. N				

Regular comparison - superlative



- *Positive*

LONGUS, A, UM gen. LONG-I

BREVIS, E gen. BREV-IS

- *Superlative*

- take genitive stem of the adjective and add endings:

- -issimus (m), a (f), um (n) – declined like **1+2 decl. adjectives**

LONGISSIMUS, A, UM

BREVISSIMUS, A, UM

Irregular and incomplete comparison



○ Irregular comparison

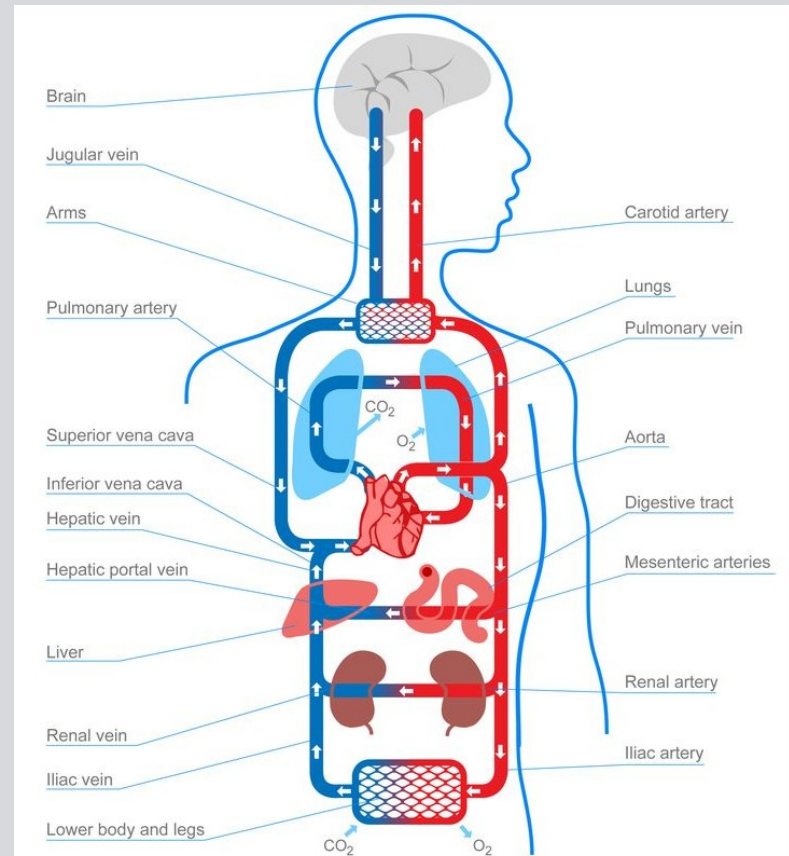
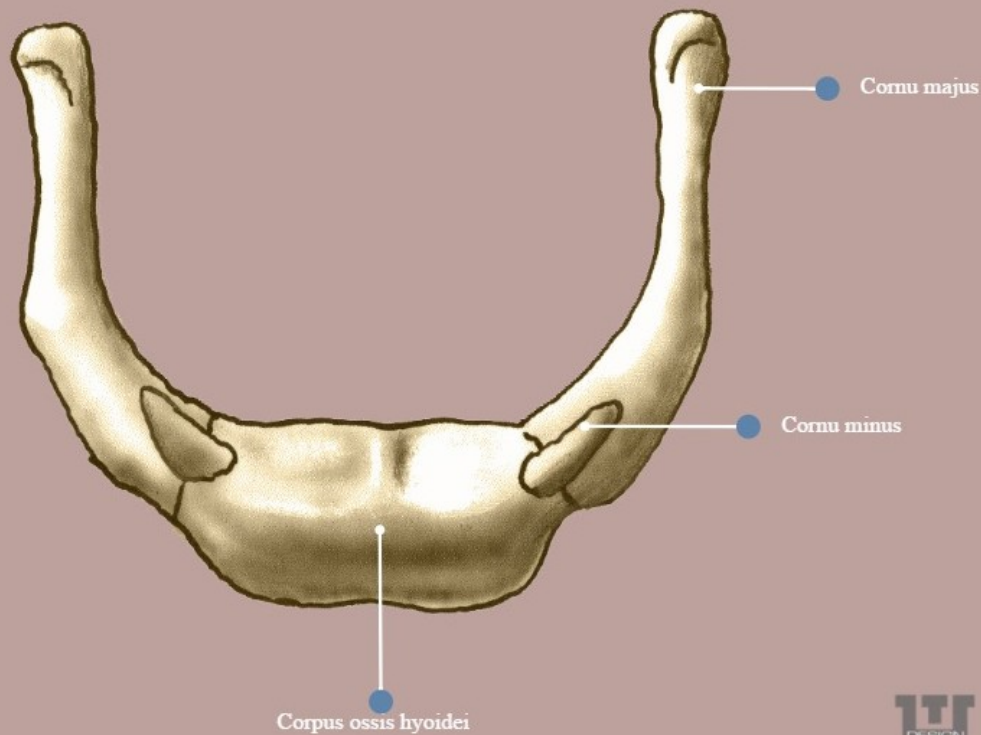
- | | | |
|----------|--------------|----------------|
| ○ magnus | major, majus | maximus, a, um |
| ○ parvus | minor, minus | minimus, a, um |

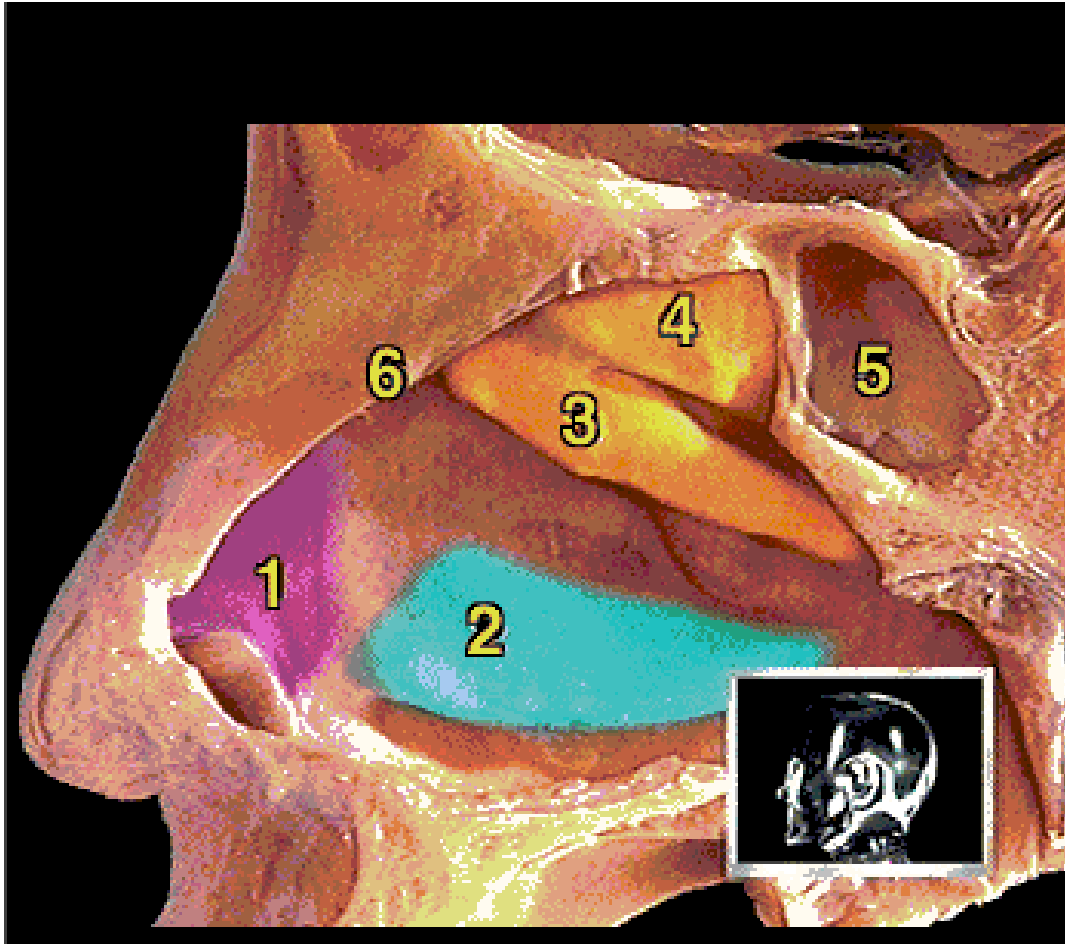
○ Incomplete comparison

- forms used to describe positions on human body, derived from prepositions, having only comparative and superlative forms
- ante anterior, ius
- post posterior, ius postremus, a, um
- supra superior, ius supremus, a, um
- infra inferior, ius infimus/imus, a, um
- intra interior, ius intimus, a, um

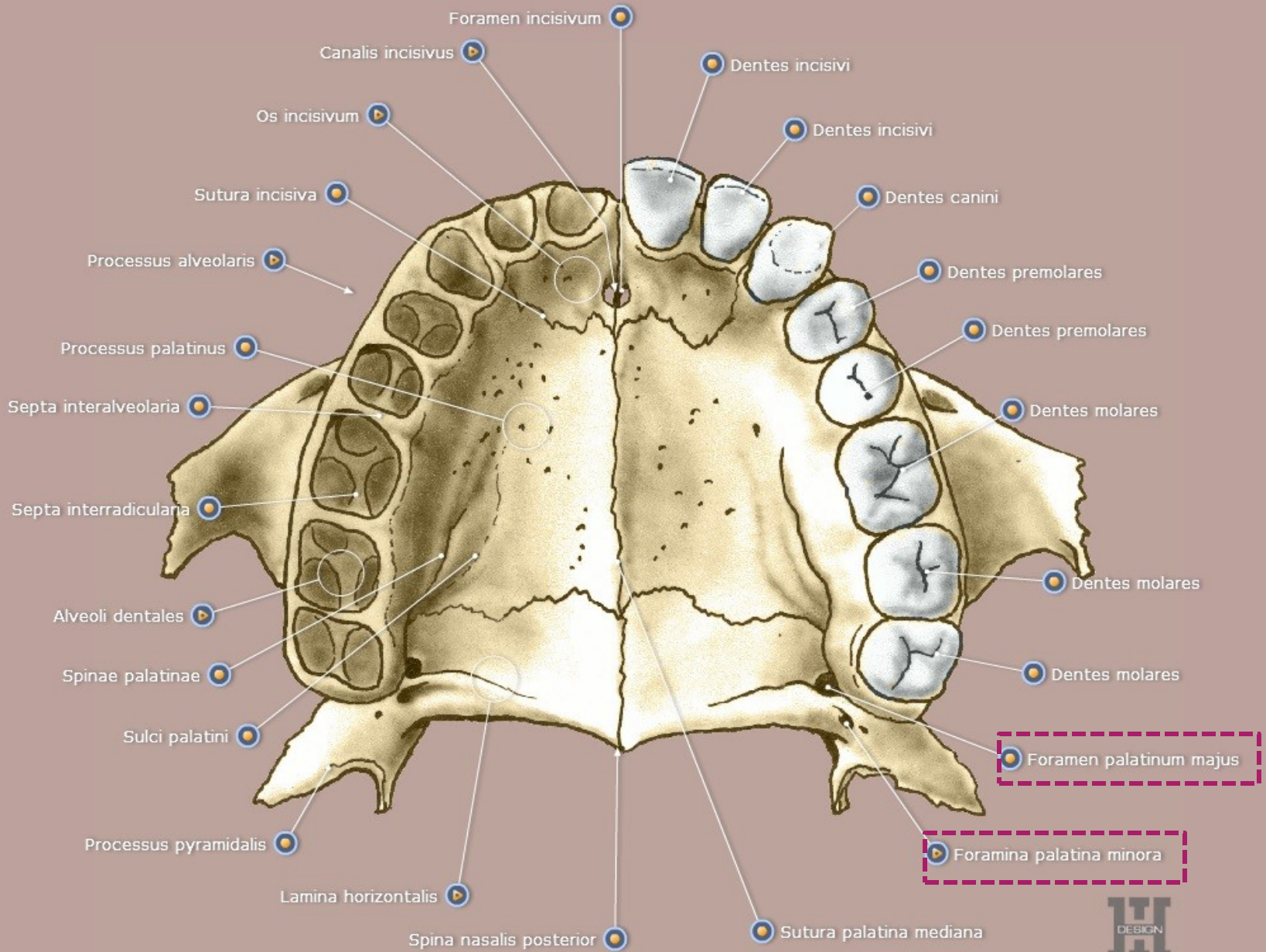
Use of Comparatives in Anatomical Terminology

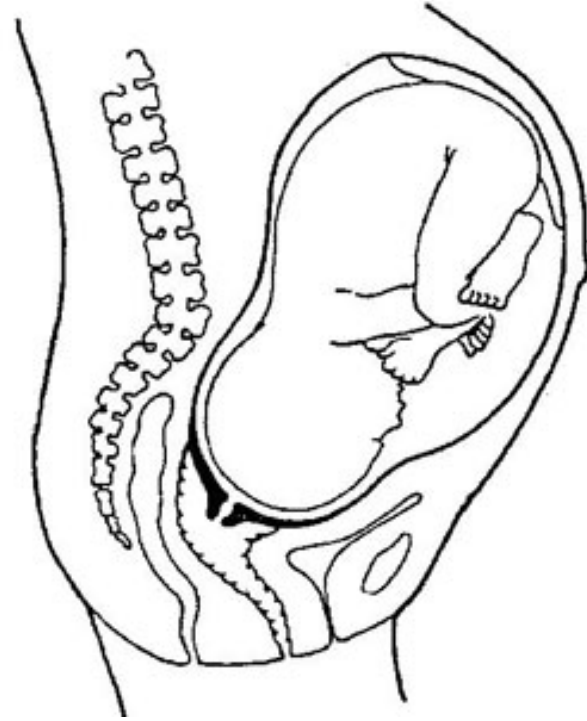
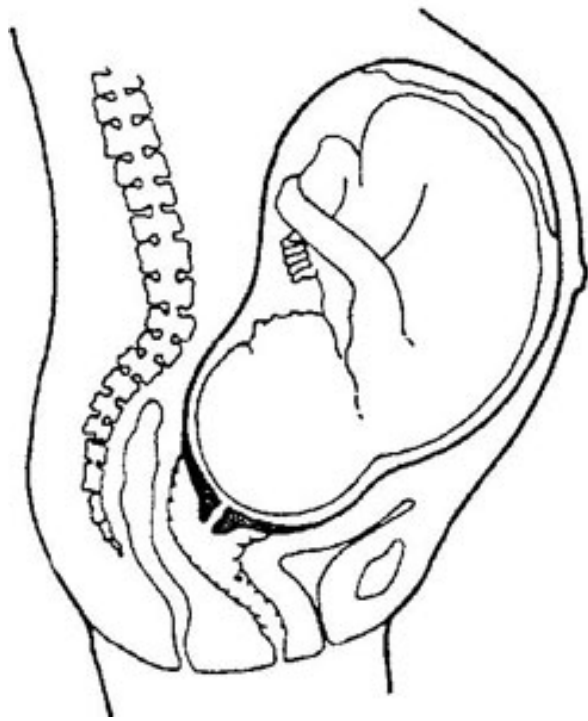
- Comparative forms are used in anatomical terminology when two phenomena of the same kind occur or when we want to denote location:
 - *circulatio sanguinis major / minor*
 - *cornu majus / minus ossis hyoidei*





- 1 cartilago lateralis
- 2 concha nasalis *inferior*
- 3 concha nasalis media
- 4 concha nasalis *superior*
- 5 sinus sphenoidalis
- 6 septum nasi

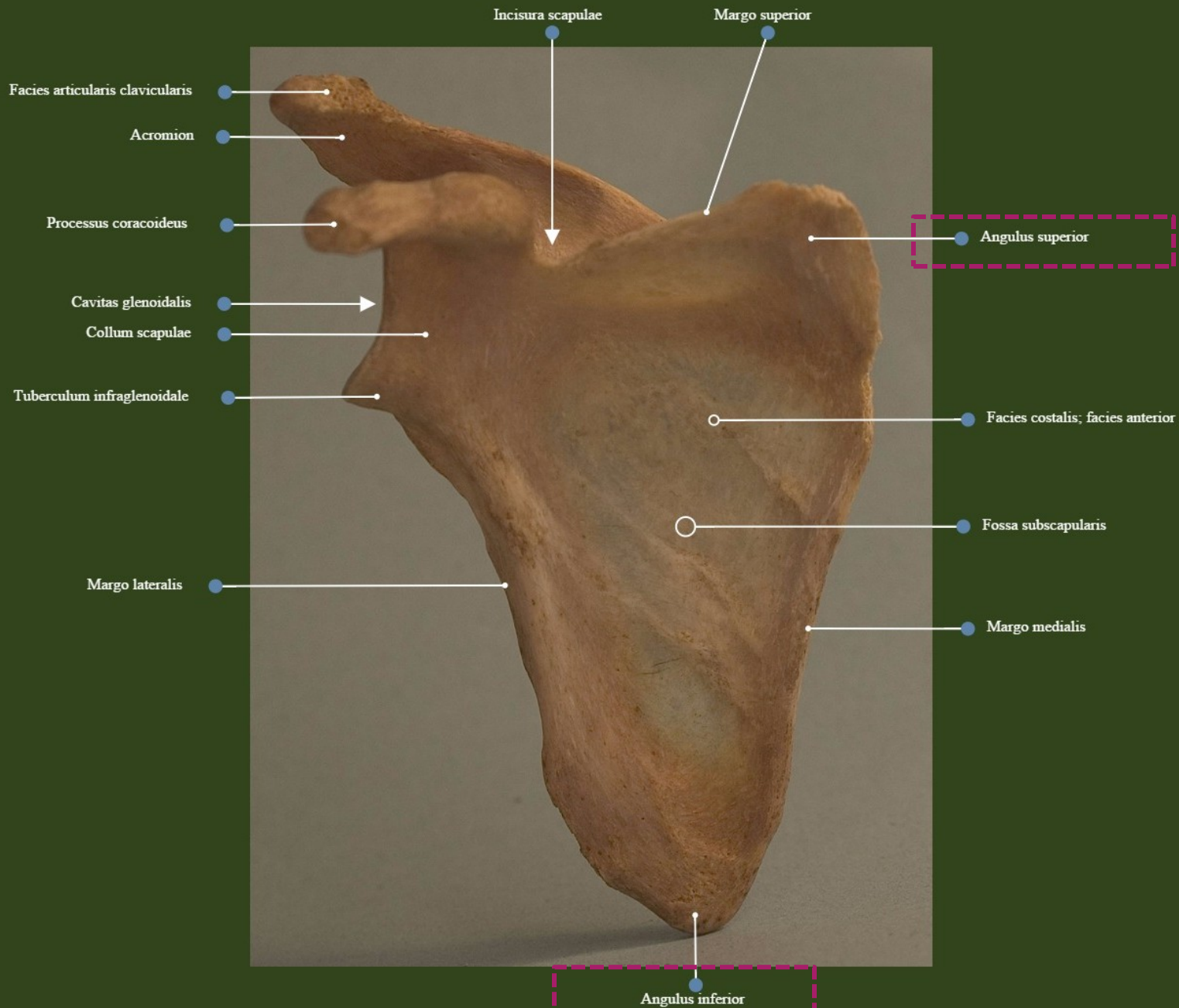




praesentatio occipitis

anterior

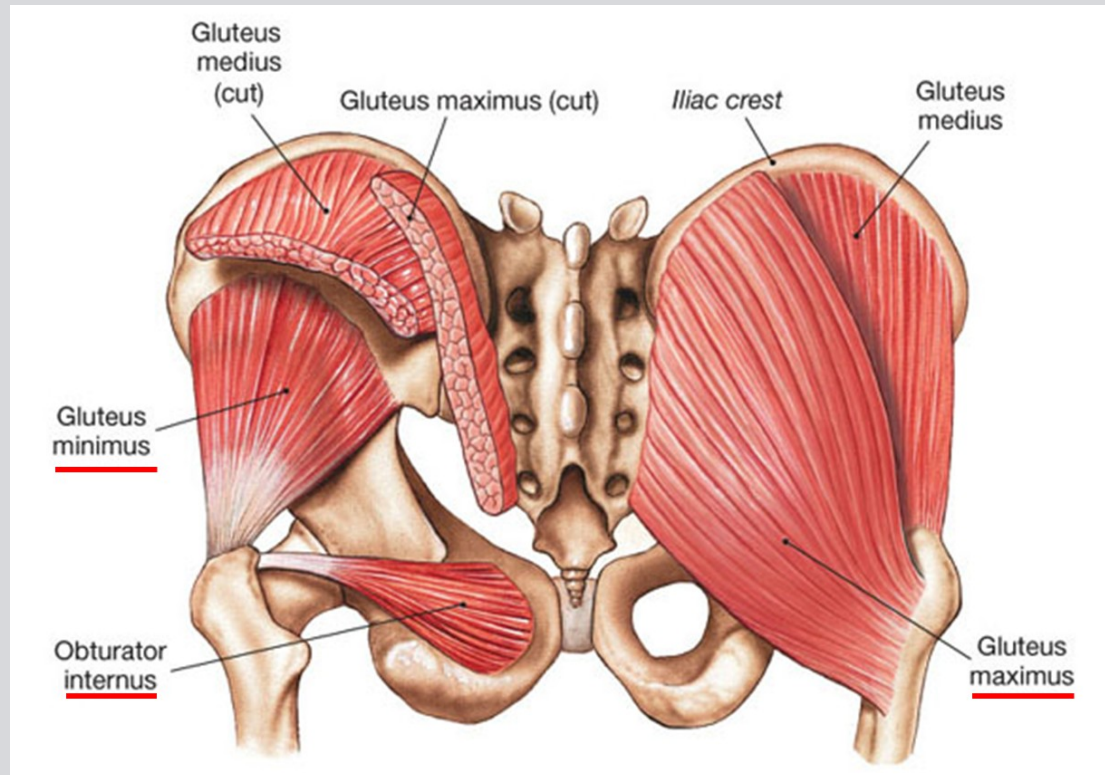
posterior

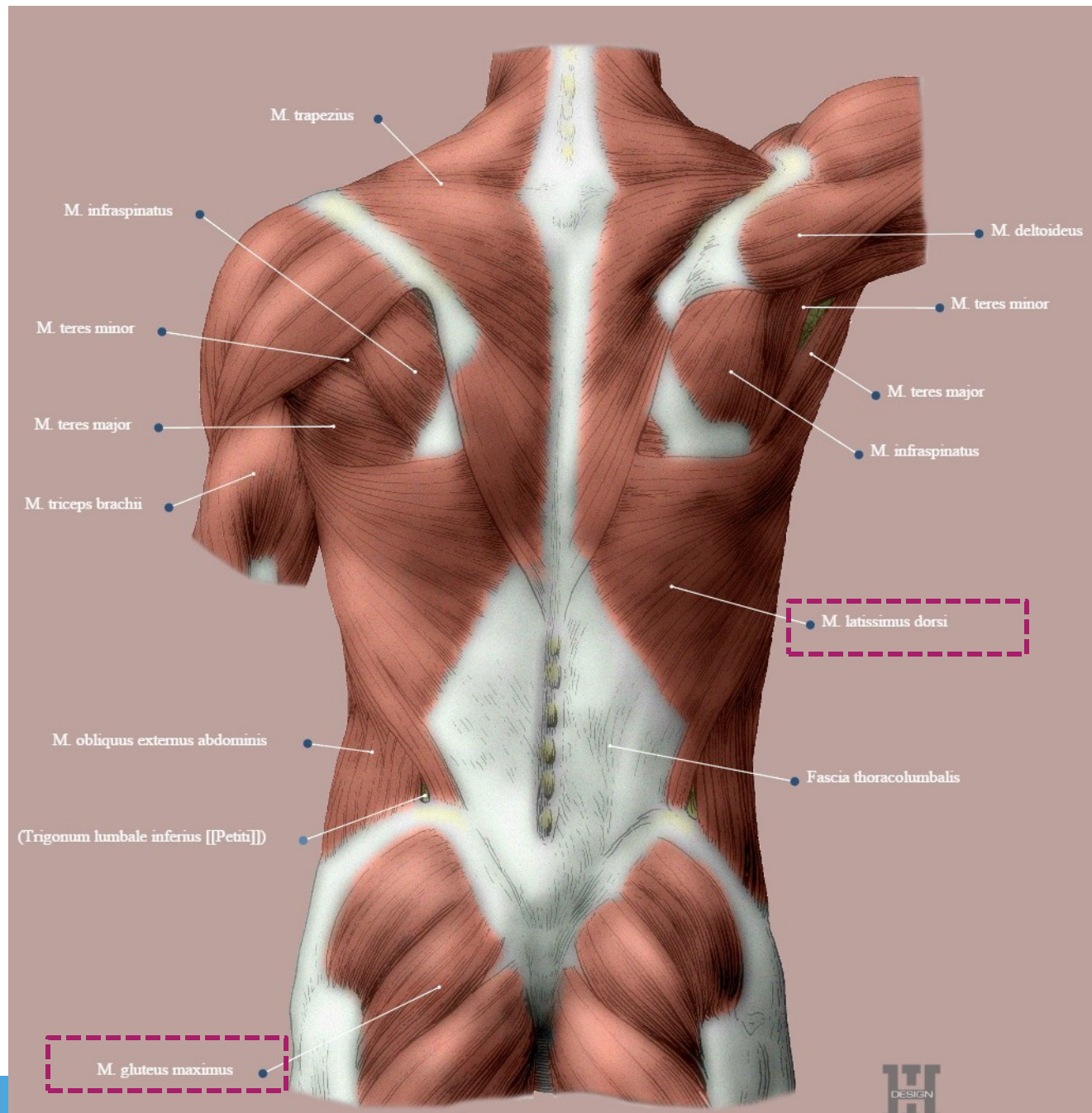


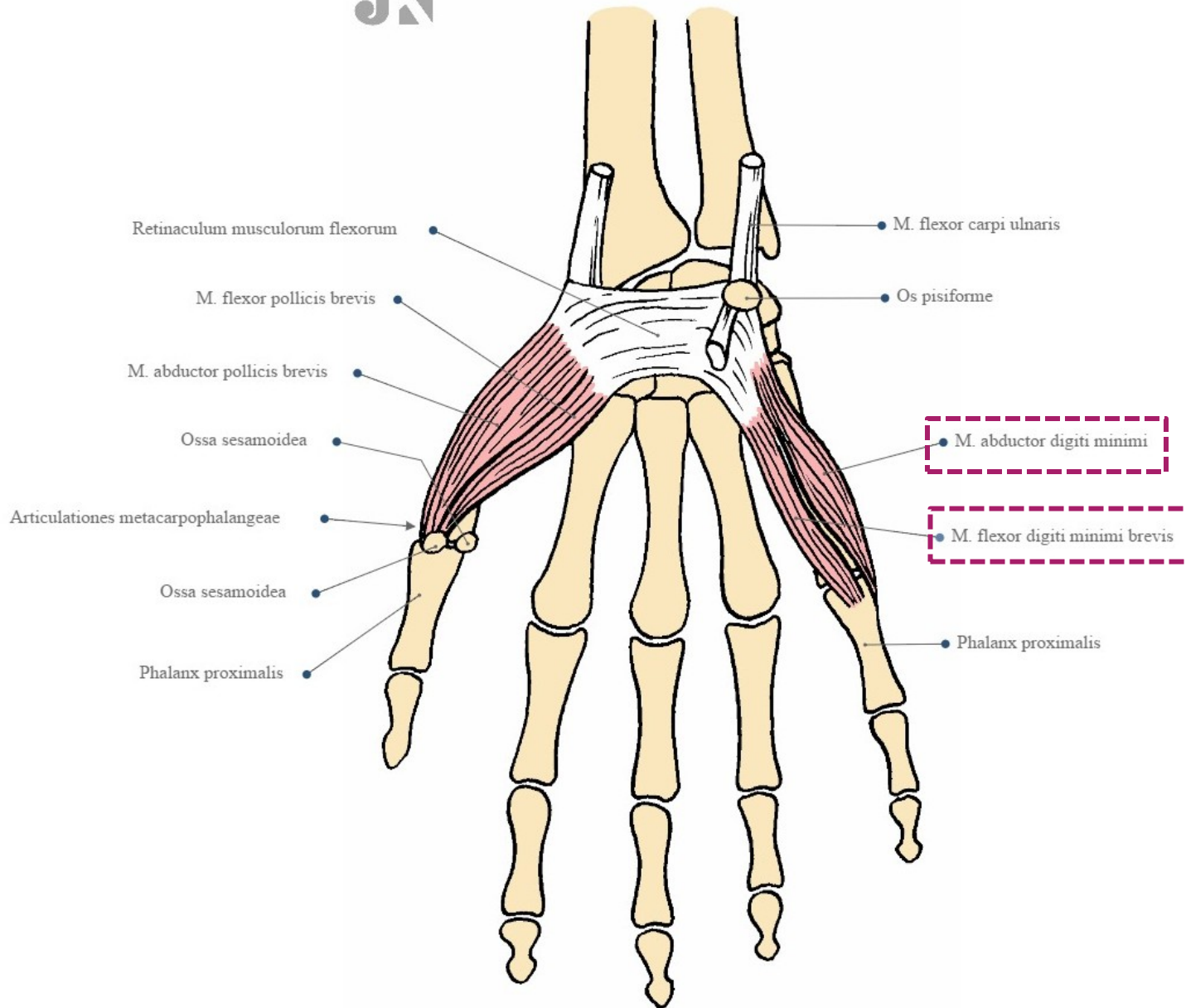
Use of Superlatives in Anatomical Terminology



- Superlative forms are used when more than 2 phenomena of the same kind occur to denote the highest quality of a phenomenon
 - e.g.: musculus gluteus maximus / medius / minimus







Form comparatives and superlatives from given adjectives



POSITIVE	COMPARATIVE	SUPERLATIVE
parvus, a, um	minor, minus	minimus, a, um
brevis, e	brevior, ius	brevissimus, a, um
fortis, e	fortior, ius	fortissimus, a, um
acutus, a, um	acutior, ius	acutissimus, a, um
magnus, a, um	maior, maius	maximus, a, um
longus, a, um	longior, ius	longissimus, a, um
gravis, e	gravior, ius	gravissimus, a, um
profundus, a, um	profundior, ius	profundissimus, a, um
latus, a, um	latior, ius	latissimus, a, um

FILL IN COMPARATIVES AND SUPERLATIVES IN CORRECT FORMS



minimus, a, um

musculus abductor digiti minimi

minor, minus

cornu minus ossis hyoidei

superior, ius

defectus arcus dentalis superioris

intimus, a, um

musculi intercostales intimi

inferior, ius

amputatio membri inferioris

imus, a, um

arteriae lumbales imae

anterior, ius

peritoneum parietale anterius

latissimus, a, um

ruptura musculi latissimi dorsi

posterior, ius

arteria temporalis profunda posterior

CREATE MEANINGFUL DIAGNOSES



- pro / dosis / infantibus / maxima
 - dosis maxima pro infantibus
- oris / chronicum / superioris / ulcus / labii
 - ulcus chronicum labii superioris oris
- sepsim / propter / lateris / amputatio / membri / sinistri / inferioris
 - amputatio membri inferioris lateris sinistri propter sepsim
- gastritidis / minoris / suspicio / gradus
 - suspicio gastritidis gradus minoris
- inferioris / dextri / rami / et / ossis / fractura / superioris / pubis / lateris
 - fractura rami superioris et inferioris ossis pubis lateris dextri

TRANSLATE



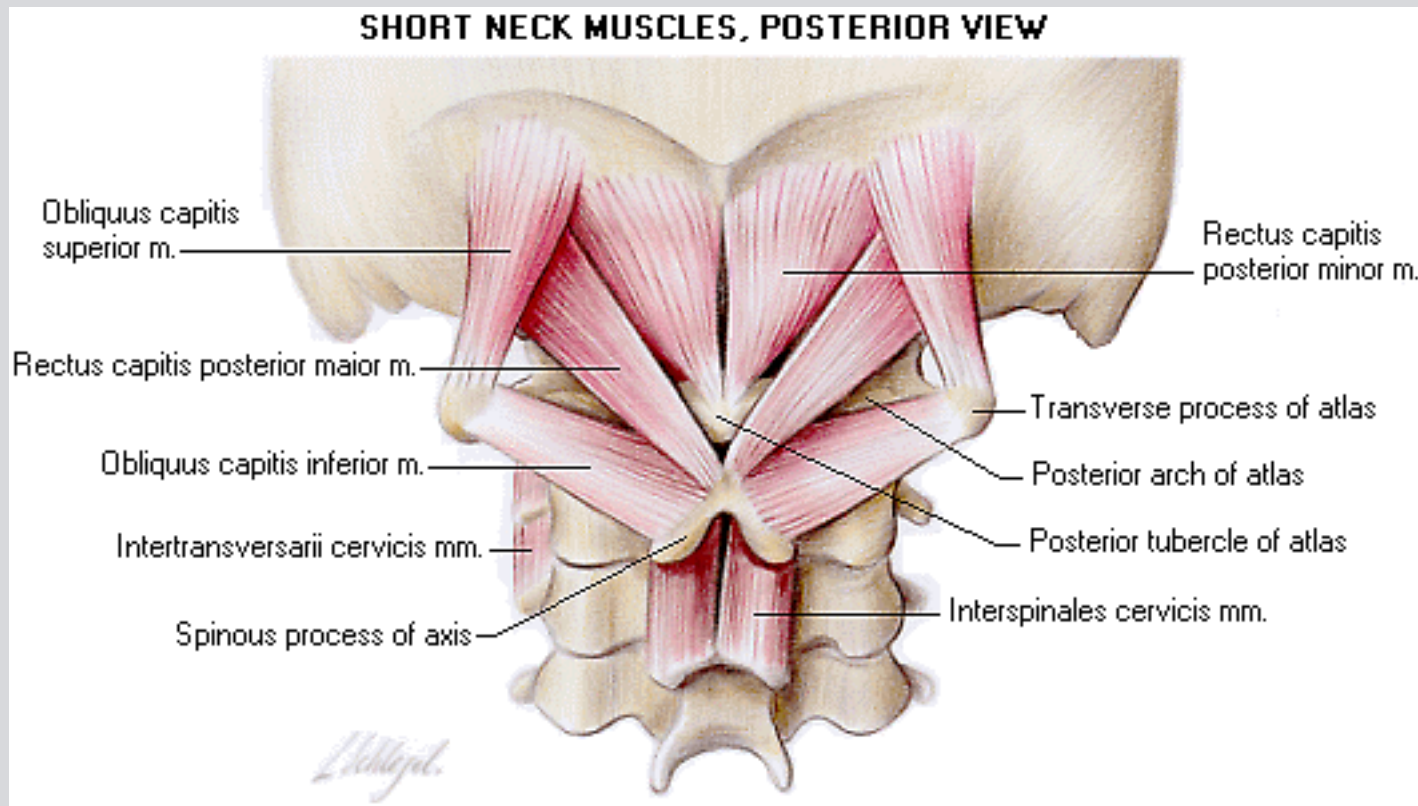
- shorter bone
 - *os brevis*
- more severe injury
 - *trauma gravius*
- bigger danger
 - *periculum majus*
- bigger sublingual duct
 - *ductus sublingualis major*
- in the upper hollow vein
 - *in vena cava superiore*
- the longest muscle of the upper limb
 - *musculus longissimus membri superioris*
- lesser curvature of ventricle of heart
 - *curvatura minor ventriculi cordis*

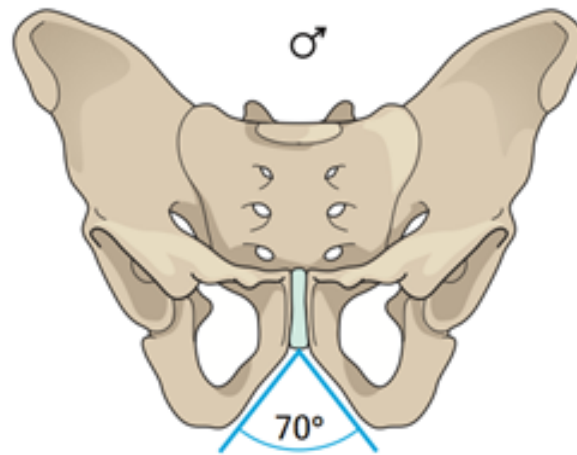
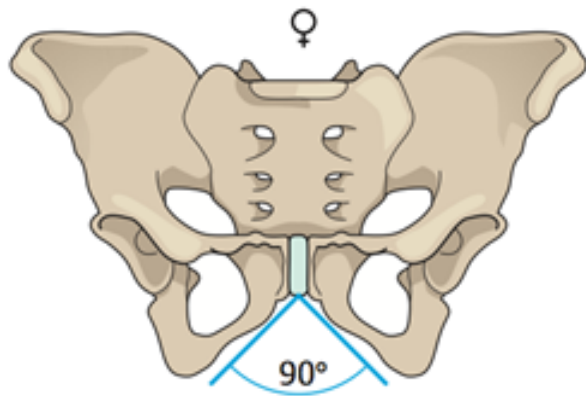
TRANSLATE



- posterior deep temporal artery
 - *arteria temporalis profunda posterior*
- fracture of the middle phalanx of the smallest finger
 - *fractura phalangis mediae digiti minimi*
- the most recent infarction
 - *infarctus recentissimus*
- the most frequent disease
 - *morbis frequentissimus*
- the innermost layer of oesophagus
 - *tunica intima oesophagi*
- amputation of the lower limb due to gangraena caused by diabetes mellitus
 - *amputatio extremitatis inferioris propter ganreaenam e diabeta mellito*

Put the correct Latin anatomical terms





True False

1. Pelvis feminina levior est.

✓

2. Pelvis masculina latior est.

✓

3. Apertura superior pelvis feminae major est.

✓

4. Cavitas pelvis feminae angustior est.

✓

5. Os sacrum pelvis masculinae brevius est.

✓

6. Os sacrum pelvis feminae latius est.

✓

7. Foramina obturatoria pelvis feminae majora sunt.

✓

8. Acetabula femina majora sunt.

✓

9. Coccyx femina brevior est.

✓

10. Angulus alarum ossis ilii masculini minor est.

✓

11. Promontorium femininum minus est.

✓

12. Symphysis pubica femina longior est.

✓

HOW DO WE DERIVE WORDS IN MEDICAL TERMINOLOGY



- **1) Derivation**
 - a) Prefix: ante-brachium; ana-lysis
 - b) Suffix: brachi-alis; nephr-itis
 - c) Prefix + suffix: ante-brachi-alis; para-neph-itis
- **2) Composition:** prim-i-para; pneum-o-thorax
- **3) Derivation + composition:** nas-o-lacrim-alis;
haemat-ur-ia
- **4) Abbreviation:** DM; CT; HIV, AIDS
- **5) Borrowings:** shock; stress

BASIC TERMINOLOGY

Medical words, like many other words consist of 3 basic component parts:



PREFIX	WORD ROOT	SUFFIX
	PORT	
RE	PORT	
IM	PORT	
SUP	PORT	
EX	PORT	
TRANS	PORT	
	PORT	ER
	PORT	ABLE
TRANS	PORT	ABILITY

PREFIXES



- **ORIGIN:** LATIN/GREEK prepositions and their phonological variants
- **ROLE:** SPECIFY/RESTRICT/CHANGE/ALTER the meaning of the derived word
 - **Ad-**ductor vs. **Ab-**ductor
- **POSITION:** AT the BEGINNING of the word
- **MEANING:**
 - **TIME/PLACE**
 - **DEGREE**
 - **DEVIATION/CORRECTNESS**

SUFFIXES

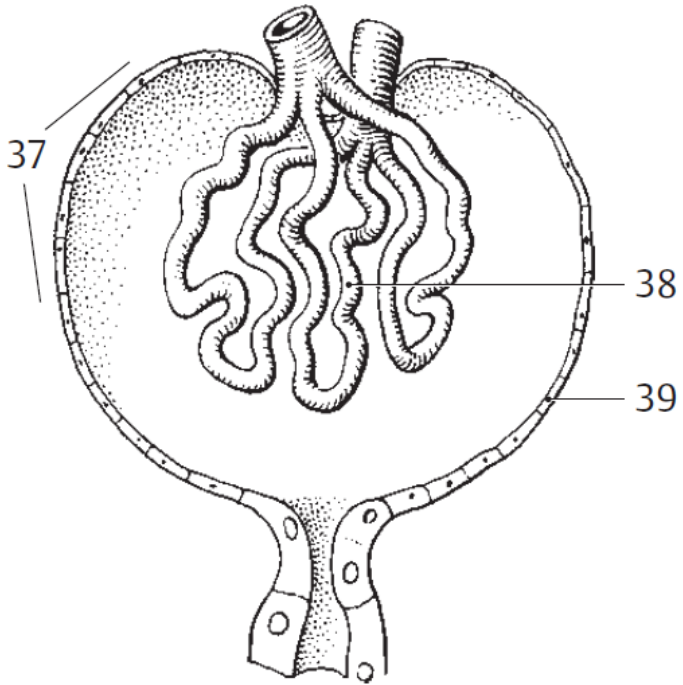


- **ROLE:** SPECIFY/RESTRICT/CHANGE/ALTER the meaning of the derived word
 - English example: teach vs. teacher
 - e.g. adductio vs. adductor
 - e.g. nephrosis, nephritis, nephroma
- **POSITION:** AT the END of the word
- **MEANING:**
 - **NOUN ENDINGS: STATE, QUALITY, FORM OF DISEASE,...**
 - **ADJECTIVE ENDINGS: RELATION, POSSIBILITY, ABILITY, SHAPE,...**

Diminutives



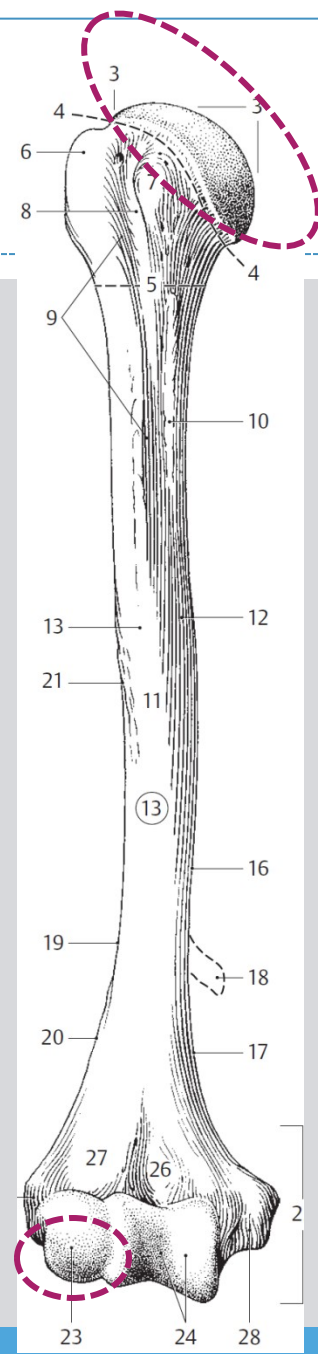
- A diminutive creates a meaning of ‘small’ or ‘little’.
 - English example: kittie, sweetie, Maggie,...
- In Latin, the diminutive is formed from another noun by the addition of a suffix to its genitive stem:
 - -(i)culus, a, um e.g. *canaliculus* (small canal)
 - -ulus, a, um e.g. *capitulum* (small head)
 - -olus, a, um e.g. *alveolus* (small cavity or pit)
 - -illus, a, um e.g. *pupilla* (pupil; the dark circular aperture at the centre of the iris of the eye)
 - -ellus, a, um e.g. *cerebellum* (posterior brain mass, lit. small brain)
- **Latin diminutives are always of the same gender like the nouns they are derived from.**



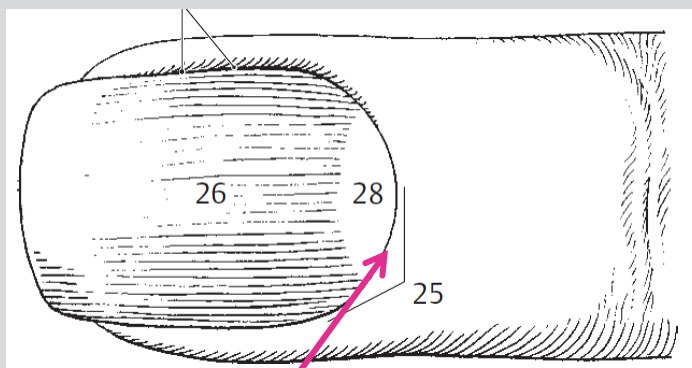
37 corpusculum renale

38 glomerulus

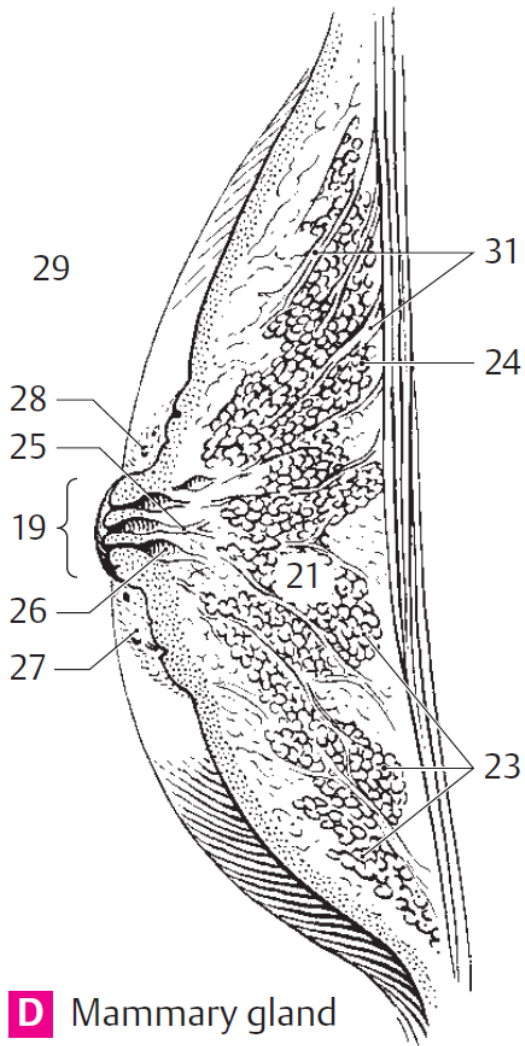
39 capsula glomerularis



caput humeri
x
capitulum humeri



cuticula unguis



papilla mammae 19

lobi glandulae mammariae 23

lobuli glandulae mammariae 24

areola mammae 27

glandulae areolares 28

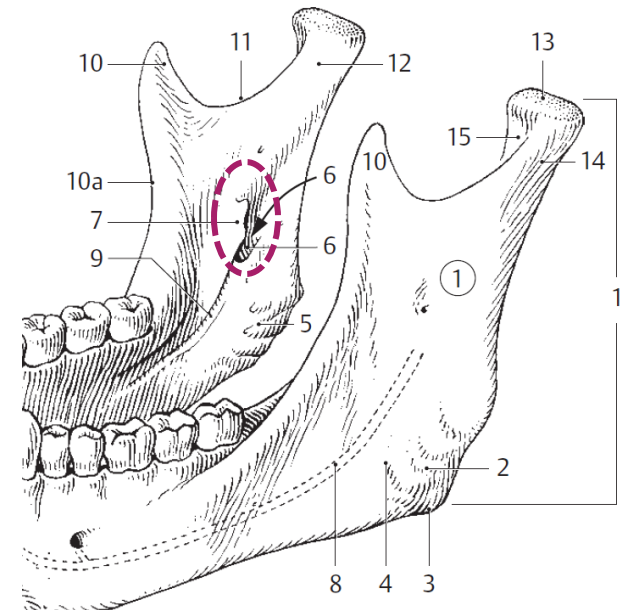
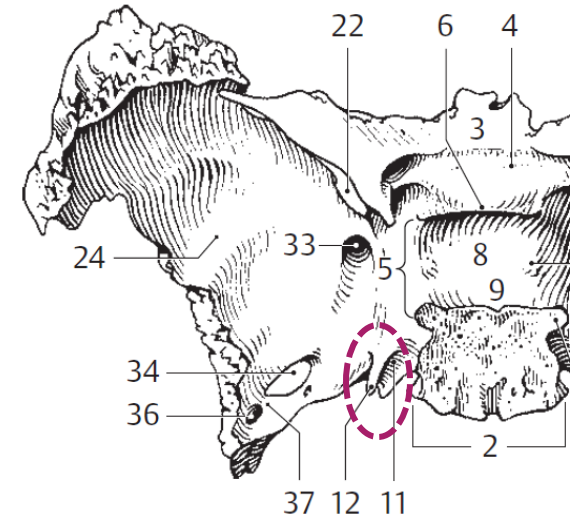
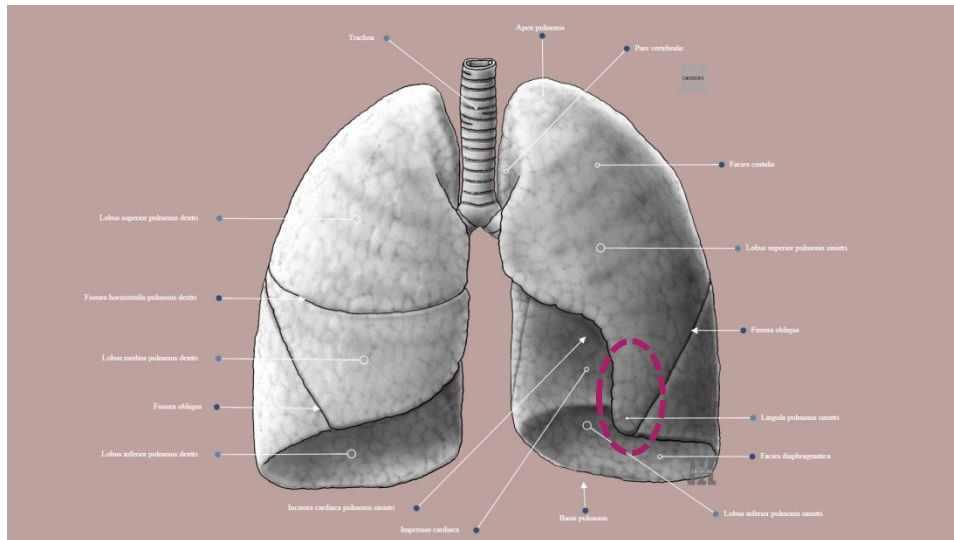
ligg. suspensoria mammaria 31

lingula (< *lingua*)

= *little projection, process*

E.g.:

- sphenoidalis
- pulmonis sinistri
- mandibulae



Give nouns from which following diminutives are derived:



capitulum *caput, itis, n.*
nodulus *nodus, i, m.*
cerebellum *cerebrum, i, n.*
lingula *lingua, ae, f.*
cuticula *cutis, is, f.*
denticulus *dens, dentis, m.*
vasculum *vas, vasis, n.*

ossiculum *os, ossis, n.*
venula *vena, ae, f.*
geniculum *genu, us, n.*
canaliculus *canalis, is, m.*
arteriola *arteria, ae, f.*
areola *area, ae, f.*

Form diminutives:



lobus *lobulus*

ductus *ductulus*

anus *anulus*

frenum *frenulum*

valva *valvula*

mus *musculus*

venter..... *ventriculus*

vena..... *venula*

septum..... *septulum*

fossa *fossula*

tuber *tuberculum*

corpus *corpusculum*

glans *glandula*

auris *auricula*



A 16-year-old boy was admitted to the hospital after being found unconscious in a snow bank at 6 a.m. on New Year's Day. He had been well until the night before admission, when he attended a party where alcohol was consumed. He was last seen at approximately 11 p.m. Approximately 2 hours later, his friends and family noticed his absence and notified police; a search was begun. At approximately 6 a.m., he was found unconscious in a snowbank by local firefighters and police officers.

The ambient temperature was -15°C (5°F), with a wind-chill factor of approximately -29°C (-20°F). He was partially undressed with his pants down and his right boot off; his limbs were buried in the snow, and a layer of ice surrounded his right foot.

Diagnosis:

Stage 3 hypothermia.

Stage 3 frostbite with diffuse distal small-vessel thrombosis and impending partial limb loss.

