

VETERINÁRNÍ A FARMACEUTICKÁ UNIVERZITA  
BRNO

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**FARMACEUTICKÁ FAKULTA**  
Ústav cizích jazyků a dějin veterinárního lékařství

**PROFESSIONAL LATIN  
FOR PHARMACISTS**

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evropský  
sociální  
fond v ČR



EVROPSKÁ UNIE



MINISTERSTVO ŠKOLSTVÍ,  
MLÁDEŽE A TĚLOVÝCHOVY



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UNIVERSITY OF VETERINARY  
AND PHARMACEUTICAL SCIENCES BRNO

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**FACULTY OF PHARMACY**

Department of Foreign Languages and History of Veterinary Medicine

**Professional Latin for Pharmacists**

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## *Preface*

This Latin textbook is mainly intended for a two-semester course of the pharmacy master study program where it is extremely desirable that every prospective pharmacist has very professional knowledge of Latin as this is absolutely essential to the understanding of pharmaceutical terminology and to the proper handling of medical prescriptions. This textbook is designed to furnish that necessary modicum.

The book, which is divided into 18 lessons, provides a selection of grammatical topics, some basics of pharmaceutical lexicology and one lesson also deals with the right writing and reading of medical prescriptions. At the end of the textbook there is added a revision lesson which can enable the students to check their knowledge gained in each of the chapters. The textbook also contains a complete list of pharmaceutical abbreviations in common use and a comprehensive Latin-English and English-Latin dictionary and the picture attachment with the basic description of human body and plants.

The authors hope that this textbook will contribute to students' obtaining and strengthening their knowledge which will be employable in their future professional lives.

*Authors*

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# Unit 1

## Introduction unit

### Latin Alphabet and Pronunciation

The Latin language is a dead language belonging among the Indo – European languages where we can include many other languages as Anatolian, Indo – Iranian, Baltic, Albanian, Celtic, Germanic, Greek, Italic or Slavic and many others. At present the Latin alphabet consists of 24 letters: Aa, Bb, Cc, Dd, Ee, Ff, Gg, Hh, Ii, Kk, Ll, Mm, Nn, Oo, Pp, Qq, Rr, Ss, Tt, Uu, Vv, Xx, Yy, Zz. Originally there were missing some letters and these were concretely Jj, Kk, Yy and Zz . At that time for instance instead of the letter Jj there was used Ii but later in the medical or pharmaceutical terminology they started to replace this Ii with Jj what concretely happened at the beginning of the word and in front of a vowel or in the middle of the word between two vowels; as e.g. juniperus, jejenum etc. The other missing letter was also Kk which appeared only by words of Greek origin as e.g. kynophobia. The same has to be said in the relation to the letters Yy and Zz which could be also found only by words being of Greek origin as e.g. otodynia, zoonosis etc.

The Latin pronunciation is quite simple but different comparing to the English language. There exist three groups of sounds in Latin - vowels: short vowels (a, e, i, o, u, y) and long vowels (ā, ē, ī, ō, ū, ŷ ), diphthongs (ae, oe, eu) and consonants (e.g.: b, c, d, r, s, l, m, n p, x etc.). The vowels are both: short and long, the diphthongs are only long.

#### Vowels: short

- a** pronounced like **sun** (e.g. **lagoena** - bottle)
- e** pronounced like **member** (e.g. **cellula** – cell)
- i** pronounced like **sister** (e.g. **pericardium** – pericardium )
- o** pronounced like **not** (e.g. **oculus** – eye)
- u** pronounced like **put** (e.g. **substantia** – substance)
- y** pronounced like **body** (**lympa** – lymph)

## Vowels: long

- ā** pronounced like **ask** (**frāctus** - broken)
- ē** pronounced like **term** (**artēria** - artery)
- ī** pronounced like **need** (**prīmula** - primule)
- ō** pronounced like **more** (**gelatinōsus** - jelly)
- ū** pronounced like **boom** (**cūra** - cure)
- ȳ** pronounced like **analysis** (**hypophȳsis** - hypophesis) – can be found mostly by words of Greek origin.

**Note: In written texts there often happens that the length of vowels is not marked and this practice was used in this textbook as well.**

## Diphthongs

- ae** pronounced like **aethyl** (**caecus** – blind)
- oe** pronounced like **care** (**foeniculum** – fennel)
- eu** appearing only by words of Greek origin and they are pronounced in the phonetic way “eu” i.e. **therapeuticus** (**eucalyptus**)

**Note: the diphthong “oe” is pronounced like o–e in the phonetic manner and this is concretely at the end of the words of Greek origin: apnoe, dyspnoe.**

## Consonants:

- b** pronounced like in **basis** (**brachium** - arm)
- c** pronounced like in **tsar** when followed by vowels e, i y and by diphthongs ae, oe and eu (**cellula** – cell, **acetum** - acid, **caecus** – blind) or it can be pronounced like **-k-** when c is followed by a, o,u (**causa**, **capsula** - capsule, **compositus** – composed e.g.)
- ch** pronounced like **chlorine** (**chromicus** – chromic), this consonant can appear only by words of Greek origin
- d** pronounced like **dentist** (**dexter** – right)
- f** pronounced like **form** (**felleus** – gally)

- g** pronounced like **g**astric (**g**landula – gland) and when followed by u + a vowel the pronunciation is **gv** (unguentum – ointment)
- h** pronounced like in **h**allux (**h**aemorrhagia – bleeding)
- j** pronounced like in **y**es; (it can be written as both as i and j) (**i**uvenis – young or **i**njectio - injection)
- k** mostly substituted by c (as above) but it can be found only by words of Greek origine e. g. **k**eratinum
- l** pronounced like in **l**iver (**l**acrima - lacrimae)
- m** pronounced like **m**emory (**m**agister - magister)
- n** pronounced like **n**atural (**n**ervus - nerv) when followed by i the pronunciation is harder (e.g. **n**anismus, manipulation etc.)
- p** pronounced like in **p**rescription (**p**asta - paste) but when followed by h as “ph” (mostly by words of Greek origin), then the pronunciation is -f- (physiologia physiology, pharmacia - pharmacy)
- q** pronounced like **q**uality (quartus – the fourth ); notice that the group q+u is pronounced like **kv**
- r** pronounced like **r**emedy (without using uvular “r”; e.g. **r**igor - stiffness), when followed by h there is a little aspiration (**r**hisoma – rhizome)
- s** pronounced like **s**kin (**s**eparatio - separation) and also pronounced like **z** as in **z**ebra but this can only happen when s appears between two vowels or when preceded by l, r, n as e.g. nasus, pulsus etc.
- t** pronounced like **t**onsil (totalis - total) when followed by i then the pronunciation is harder e.g. tibia – tibia; when followed by h there is a little aspiration e.g. **t**horax and if followed by ia, ie, io, iu then the pronunciation is ts (operatio – operation)
- v** pronounced like **v**iolent (**v**aseline - vaseline)
- x** pronounced like **x**xygen (**x**eroderma - dry skin)
- z** pronounced like **z**inc (**z**oophilia – sexual deviation oriented to animals) but generally –z- appears really minimally as mentioned above

### **Length of Syllables and the Accent in Latin**

In Latin the syllables can be both short and long depending if there is in the word short or long vowel, but the length is mostly marked only under special grammatical or phonetic circumstances. If the length has to be marked then there is used a little comma above the letter



as e.g. s̄anātiō. But nowadays as mentioned above it is not shown therefore you will not find it marked here as well.

The accent is distinguished in Latin texts using the mark ´. Basically in words of two syllables the accent falls on the first syllable as cōxa, pūlmō. In words of more syllables the accent falls on the penult which is the syllable next to the last if it is long; otherwise on the antepenult which is the second syllable from the last ; e.g. pa – pa´ - ver but pa-pa´-ve- ris (poppy). But relating to the medical or pharmaceutical terminology the accent is again not marked or taken into consideration.

### **Basic Grammatical Categories**

In Latin there existed really sophisticated system of grammatical categories but in relation to Latin professional terminology only some of them are fundamental for understanding it. The most important ones used in pharmaceutical, medical and veterinary terminology are

**Word types**, concretely they are:

1. noun - substantivum
2. adjective - adiectivum
3. pronoun - pronomen
4. numeral - numerale
5. verb - verbum
6. adverb - adverbium
7. preposition - praepositio
8. conjunction - conjunctio
9. interjection - interiectio
10. particular - particula

### **Latin Nouns**

There are four basis categories relating to nouns:

**1<sup>st</sup> Gender:** M - masculine F - feminine, N - neutral

**2<sup>nd</sup> Number:** Latin nouns can express either singular number or plural number

**3<sup>rd</sup> Case:** Latin nouns change their suffix form according to their circumstances in the sentence. In Latin there exist six following cases:

1. nominative (abbr. nom.)

2. genitive (abbr. gen.)
3. dative (abbr. dat.)
4. accusative (abbr. accus.)
5. vocative (abbr. voc.)
6. ablative (abbr. abl.)

**Note: The pharmaceutical terminology nearly never used the vocative and therefore it will not be explained or shown in the following chapters.**

**4<sup>th</sup> Declension:** We distinguish five declensions of nouns.

### Latin Declensions

In Latin we divide the nouns into 5 groups (declensions) and each noun belonging to the particular declension is declined in the same way. These declensions are distinguished according to their stem sound (the sound at the end of the part of the word which is left after the removal of the genitive plural ending).

	<b>sample</b>	<b>gen. pl</b>
Group 1: 1 <sup>st</sup> declension -A- stems	gutta	gutt- <b>a</b> -rum
Group 2: 2 <sup>nd</sup> declension -O- stems	sirupus	sirup- <b>o</b> -rum
Group 3: 3 <sup>rd</sup> declension - consonant – stems	dolor	dolo- <b>r</b> -um
+ -I- stems	auris	aur- <b>i</b> -um
Group 4: 4 <sup>th</sup> declension -U- stems	processus	processu- <b>u</b> -m
Group 5: 5 <sup>th</sup> declension -E- stems	facies	faci- <b>e</b> -rum

### Latin Adjectives

Basically the adjectives are words expressing the quality of nouns and they are classified as attributes. An attribute may be close – expressed by an adjective or loose - expressed by a noun in genitive.

Latin adjectives are declined in the same way as nouns belonging to them as the adjective follows the corresponding noun in **gender, number and case**. The adjectives can be divided only into three first declensions.

## Latin Verbs

Verbs in Latin are divided into four conjugations according to the ending of the infinitive stem which is the vowel at the end of the verb remaining after the removal of the infinitive ending -re. The four conjugations are:

1<sup>st</sup> conjugation: long -ā- stems: san-ā-re

2<sup>nd</sup> conjugation: long -ē- stems: vid-ē-re

3<sup>rd</sup> conjugation: short -e- stems: scrib-e-re

(irregular 3<sup>rd</sup> conjugation: short -e- stems: recip-e-re)

4<sup>th</sup> conjugation: long -ī- stems: aud -ī-re

The other grammatical categories will not be relevant in pharmaceutical terminology and therefore they will not be commented or explained any more.

## Unit 2

### Latin Nouns of the 1<sup>st</sup> Declension (-A- Stems)

### Latin Adjectives of the 1<sup>st</sup> Declension

Nouns ending in the vowel **-a** in the nominative of singular and in **-ae** in the genitive of singular (e.g. gutta, ae – drop) are declined according to this paradigm. Most of them are of a feminine gender, only a few of them can be of a masculine gender (e.g. dentista, ae, M; anatagonista, ae, M).

#### Paradigm: gutta

##### Singular (sg.)

1. gutt-a
2. gutt-ae
3. gutt-ae
4. gutt-am
6. gutt-a

##### Plural (pl.):

- gutt-ae
- gutt-arum
- gutt-is
- gutt-as
- gutt-is

#### Case endings of the 1<sup>st</sup> declension:

##### sg.

1. -a
2. -ae
3. -ae
4. -am
6. -a

##### pl.

- ae
- arum
- is
- as
- is

#### Adjectives of the 1<sup>st</sup> Declension:

There are some adjectives which belong to the 1<sup>st</sup> declension e.g. amara (bitter), dextra (right), pura (clean) which correspond with their noun (which they belong to) and therefore they are of a female gender. We decline them in the same way as the nouns of this declension.

**Example of this paradigm: gutta pura**

**sg.**

1. gutta pura
2. gutt-ae pur-ae
3. gutt-ae pur-ae
4. gutt-am pur-am
6. gutt-a pur-a

**pl.**

- gutt-ae pur-ae
- gutt-arum pur-arum
- gutt-is pur-is
- gutt-as pur-as
- gutt-is pur-is

**Note: a noun + an adjective they have the same case, gender and number but sometimes the declension may vary depending on the type of the noun. It is the noun that indicates these three categories – the gender, number and case; the adjective conforms to the noun and follows the noun.**

**Exercises:**

**1 Read and translate:**

Lagoena. Tinctura. Scatula. Costa. Vertebrae. Clavicula. Mandibula et maxilla. Venae et arteriae. Arteria coronaria. Vesica fellea. Vesica urinaria. Tibia sinistra. Fibula dextra. Spina scapulae. Vena cava. Valvulae venarum. Glandula thyreoidea. Fascia lata. Fractura complicata. Ruptura tunicae mucosae.

Aqua purificata. Tinctura amara. Olla pastae. Lagoena aquae carminativae. Scatula pulmonariae herbae. Capsulae gelatinosae in scatula. Tabuleta obducta. Lagoena mixturae. Ad chartas certas. Capsulae gelatinosae in scatula. Valerianae guttae.

**2 Add the attributes to these given expressions and change the suffixes if necessary:**

tunica mucosa (lingua, vesica urinaria)

aqua (purus, a, um)

fractura (vertebra, costae, fibula sinistra)

scatula (tabuletae, herba, capsulae gelatinosae)

spina (scapula)

therapia (chirurgicus, a, um)

### 3 Form plural:

fibula dextra, ruptura tunicae mucosae, spina scapulae, fractura complicata, lagoena aquae carminativae, olla pastae, vesica urinaria, fascia lata, vertebra fracta, ruptura aortae, melissae herba, planta primulae, mixtura menthae et matricariae

### 4 Translate into Latin:

a jelly capsule, a bottle of distilled water, tincture of chamomile, composed tablets, gallipot, white wax, complicated fracture of collar bone, mucous membrane, thoracic vertebrae

### Survey of the main pharmaceutical abbreviations used in prescriptions:

Latin abbreviation:	Complete Latin form	English meaning:
amp.	ampulla	ampoule
aq.	aqua	water
aq. purif.	aqua purificata	purified water
aq. ophth.	aqua ophthalmica	ophthalmic water
c.f.(form)	cum formula	with a copy of a prescription
caps., cps.	capsula, capsulae	capsule
gtt., gutt.	gutta, guttae	drop
herb.	herba	herb
lag.	lagoena	bottle
mixt.	mixtura	mixture
oll.	olla	gallipot
past., pst.	pasta	paste
scat.	scatula	box
sig.	signatura, signum	signature
tab(l)., tbl.	tabuletta, tabulettae	tablet
tct., tinct.	tinctura	tincture

## Vocabulary:

ad	to, into
aqua, ae, F	water
amarus, a, um	bitter
arteria, ae, F	artery
capsula, ae, F	capsule
carminativus, a, um	against flatulence
cavus, a, um	hollow
clavicula, ae, F	collar bone
complicatus, a, um	complicated, difficult
coronarius, a, um	coronary
costa, ae, F	rib
dexter, a, um	right
felleus, a, um	of gall
fibula, ae, F	fibula
fractura, ae, F	fracture
gelatinosus, a, um	jelly
glandula, ae, F	gland
gutta, ae, F	drop
herba, ae, F	plant
charta, ae, F	chart
lagoena, ae, F	bottle
mandibula, ae, F	lower jaw
maxilla, ae, F	upper jaw
mixtura, ae, F	mixture
mucosus, a, um	mucosal
obductus, a, um	coated
olla, ae, F	galipot
pasta, ae, F	paste
pulmonarius, a, um	pulmonary
purificatus, a, um	purified
ruptura, ae, F	rupture
scapula, ae, F	shoulder blade
scatula, ae, F	box
sinister, a, um	left

spina, ae, F	back spine
tabuleta, ae, F	tablet, pill
thyroideus, a, um	thyroid
tibia, ae, F	tibia
tinctura, ae, F	tincture
tunica, ae, F	tunic, layer, coat
urinarius, a, um	urinary
valvula, ae, F	valve
vena, ae, F	vein
vertebra, ae, F	vertebra
vesica, ae, F	bladder

### **Living Latin phrases:**

Historia magistra vitae.

In memoriam.

Secundum naturam.

Pro forma

### **Vocabulary to Living Latin phrases:**

magistra, ae, F= teacher, female master; vita, ae, F = life; memoria, ae, F = memory; secundum (prep. with accus.) = according to; pro (prep. with abl.) = for, because of



## Unit 3

### Latin Nouns of the 2<sup>nd</sup> Declension (-O- Stems)

### Latin Adjectives of the 2<sup>nd</sup> Declension

#### Nouns of the 2<sup>nd</sup> Declension:

Nouns ending in the nominative of singular with the suffix **-us** or **-er** and with **-i** in the genitive of singular (e.g. *sirupus, i, M*; *nervus, i, M*) are declined according to this paradigm. The vowel **-e-** may be omitted in this declension: e.g. *cancer, cancr-i* against *puer, pue-ri, M* (boy). The representant of this masculine paradigm is: **sirupus, i, M**. Most nouns of the 2<sup>nd</sup> declension are of a masculine gender, only a few of them are of a feminine gender (e.g. *methodus, i, F* etc.). The neutrum paradigm is very close to masculine suffixes; i.e. in the nominative of singular it finishes in the ending **-um** and in **-i** in the genitive of singular (e.g. *atrium, i, N*; *organum, i, N* etc.). The main neutrum representant is **unguentum, i, N** (ointment).

#### Paradigm of masculine nouns: *sirupus*

Singular (sg.)	Plural (pl.)
1. <i>sirup -us</i>	<i>sirup-i</i>
2. <i>sirup-i</i>	<i>sirup-orum</i>
3. <i>sirup -o</i>	<i>sirup-is</i>
4. <i>sirup -um</i>	<i>sirp-os</i>
6. <i>sirup -o</i>	<i>sirup-is</i>

#### Case endings of the 2<sup>nd</sup> masculine declension

sg.	pl.
1. <b>-us, -er</b>	<b>-i</b>
2. <b>-i</b>	<b>-orum</b>
3. <b>-o</b>	<b>-is</b>
4. <b>-um</b>	<b>-os</b>
6. <b>-o</b>	<b>-is</b>

### **Paradigm of neuter nouns: unguentum**

<b>sg.</b>	<b>pl.</b>
1. unguent <b>-um</b>	unguent- <b>a</b>
2. unquent- <b>i</b>	unguent- <b>orum</b>
3. unguent- <b>o</b>	unguent- <b>is</b>
4. unguent- <b>um</b>	unguent- <b>a</b>
6. unguent- <b>o</b>	unguent- <b>is</b>

### **Case endings of the 2<sup>nd</sup> neuter declension**

<b>sg.</b>	<b>pl.</b>
1. - <b>um</b>	- <b>a</b>
2. - <b>i</b>	- <b>orum</b>
3. - <b>o</b>	- <b>is</b>
4. - <b>um</b>	- <b>a</b>
6. - <b>o</b>	- <b>is</b>

### **Adjectives of 2<sup>st</sup> Declension:**

There are some adjectives which belong to the 2<sup>st</sup> declension and they have two forms, one form for masculines e.g. amar**us**, long**us** and one for neuters, e.g. amar**um** long**um**. Remember that feminine form is amara, longa etc. and consequently they are declined according to the 1<sup>st</sup> declension (gutta).

### **Example of the 2<sup>nd</sup> masculine paradigm together with an adjective:**

<b>Singular (sg.)</b>	<b>Plural (pl.)</b>
1. musculus long <b>us</b>	muscul- <b>i</b> long- <b>i</b>
2. muscul- <b>i</b> long- <b>i</b>	muscul- <b>orum</b> long- <b>orum</b>
3. muscul- <b>o</b> long- <b>o</b>	muscul- <b>is</b> ling- <b>is</b>
4. muscul- <b>um</b> long- <b>um</b>	muscul- <b>os</b> long- <b>os</b>
6. muscul- <b>o</b> long- <b>o</b>	muscul- <b>is</b> long- <b>is</b>

### **Example of the 2<sup>nd</sup> neuter paradigm together with and adjective:**

<b>sg.</b>	<b>pl.</b>
1. extract <b>um</b> sicc <b>um</b>	extract- <b>a</b> sicc- <b>a</b>
2. extract- <b>i</b> sicc- <b>i</b>	extract- <b>orum</b> sicc- <b>orum</b>

- |                                       |                                    |
|---------------------------------------|------------------------------------|
| 3. extract- <b>o</b> sicc- <b>o</b>   | extract- <b>is</b> sicc- <b>is</b> |
| 4. extract- <b>um</b> succ- <b>um</b> | extract- <b>a</b> sicc- <b>a</b>   |
| 6. extract- <b>o</b> sicc- <b>o</b>   | extract- <b>is</b> sicc- <b>is</b> |

**Note: noun+adjective of the same declension are again in the same case, gender and number.**

**Exercises:**

**1 Read and translate:**

Musculus rectus. Musculi obliqui. Suppositorium glyceroli. Septum nasi. Ventriculus cerebri. Cancer ventriculi. Humerus dexter. Atrium sinistrum. Palatum durum. Ligamenta carpi. Tunica mucosa intestini crassi. Morbi contagiosi. Rubeola. Varicella. Ruptura tunicae mucosae recti.

Betulae folium. Aurantii sirupus. Olla vaselini flavi. Hyperici extractum. Lana gossypii depurata. Ligamentum latum. Cavum uteri. Fractura radii. Periculum in mora. Sub signo veneni.

**2 Change the words in brackets:**

ligamentum latum (uterus), fractura (digitus secundus), locus (musculus profundus), post (fractura costae), cum (digitus fractus), ad (cavum + cranium), in (vitrum album), cum (glandula thyreoida), rami (nervus opthalmus), fractura (cerebrum parvum), membrana interossea (antebrachium)

**3 Give the opposites:**

ramus dexter, cavum parvum organum sanum, , ligamentum latum, remedium compositum, musculus profundus, nasus extremus, extractum siccum

#### 4 Translate into Latin:

danger of rupture of a finger, extract of sirup for adult persons, after the fracture of wide ligament of uterus, pill under the tongue, distilled water in a bottle, branches of nerves, contagious disease of German measles, under the sign of posion, ligament of uterus

#### List of the main prescription abbrevitiations in pharmacy:

<b>Latin abbreviation:</b>	<b>Complete Latin form</b>	<b>English meaning:</b>
ac., acid	acidum	acid
	acidus	acid, sour
acet.	acetum	vinegar
	aceticus	vinegary
anhydr.	anhydricus	anhydrous
aquos.	aquosus	hydrous
arom.	aromaticus	aromatic
comp.	compositus	composed
conc.	concentratus	concentrated
dil(ut)	dilutus	dilute
empl.	emplastrum	plaster
extr.	extractum	extract
fol.	folium, folia	leaf
glob.	globula	globule
guttator.	guttatorium	dropper, drop-glass
hydr.	hydrosus	hydrous
isoton.	isotonicus	isotonic
liq.	liquidus	liquid
no.	numero	in number
obd.	obductus	covered
ol.	oleum	oil
ol.	oleosus	oily
ophth.(al).	ophthalmicus	ophthalmic
pro adult.	pro adultis	for adults
pro baln.	pro balneo	for bath

pro med.	pro medico	for a physician
s.a.	sine antimicrobico	without an antimicrobial ingredient
s.s.v.	sub signo veneni	under the sign of poison
sic.(c)	siccus	dry
sir.	sirupus	syrup
supp.	suppositorium, suppositoria	suppository
ung.	unguentum	ointment
ven.	venenum	poison
vit.	vitrum	medicine bottle

### Vocabulary:

ad (preposition with acc.)	preposition to, towards
atrium, i, N	atrium
aurantium, i, N	orange
betula, ae, F	birch
cancer, i, M	cancer
carpus, i, M.	carpus, wrist
cerebrum, i, N.	brain
contagiosus, a, um	contagious
cranium, i, N	skull
crassus, a, um	thick
cum (preposition with abl.)	with
depuratus, a, um	purified
digitus, i, M	finger
durus, a, um	hard
extractum, i, N	extract
fascia, ae, F	fascia, serious tissue covering
flavus, a, um	yellow
folium, i, N	leaf
glycerolum, i, N	glycerine
gossypium, i, N	cotton wool
humerus,i, N	humerus

hypericum, i, N	Aaron's beard (herb)
chamomilla, ae, F	chamomile
in (preposition with acc.+abl.)	in, into, within, inside
intestinum, i, N	intestine
lana, ae, F	wool
latus, a, um	wide
ligamentum, i, N	ligamentum
locus, i, M	place, location
matricaria, ae, F	camomile
melissa, ae, F	melissa (herb)
mora, ae, F	hesitation
morbus, i, M	disease, illness
musculus, i, M	muscle
nasus, i, M	nose
obliquus, a, um	oblique
palatum, i, N	palate
periculum, i, N	danger
primula, ae, F	primrose
radius, i, M	radius, ray
rectum, i, N	rectum
rectus, a, um	direct
rubeola, ae, F	rubeolla, German measles
sanus, a, um	heathy
septum, i, N	septum
signum, i, N	sign
sirupus, i, M	syrup
sub (prep. with acc. +abl.)	under
suppositorium, i, N	suppository
uterus, i, M	uterus, womb
valeriana, ae, F	valerian (herb)
varicella, ae, F	measles
vaselinum, i, N	vaseline
venenum, i, N	poision
ventriculus, i, M	ventricle, stomach
vitrum, i, N	glass

**Living Latin phrases:**

Curriculum vitae.

De facto.

Magister pharmaciae.

Periculum in mora.

Post scriptum (P.S).

**Vocabulary to Living Latin phrases:**

magister, i, M = teacher, master; de (prep.with ablat.) = about; factum, i, N = fact,, mora, ae, F= hesitation,; scriptum, i, N = writing

## Unit 4

### Latin Nouns of the 3rd Declension (Consonant Ending Roots and -I- Stems)

#### Nouns of the 3<sup>rd</sup> Declension

We decline according to this paradigm the nouns which are finished in the nominative of singular with different endings: e.g. masculine: -o, -os, -or, -en, -es, -er, -is etc.; feminine: -s, -x, -tas, -is, -do etc.; neuter -us, -men, etc. but in the genitive of singular they have always the same ending -is. **Not all nouns belonging to this type have the same number of syllables in nominative and genitive of singular;** e.g. nom. sg. dol-or (2) and gen. sg. dol-or-is (3) or nom. sg. car-ti-la-go (4), gen. sg. car-ti-la-gi-nis (5). Such nouns are called the different-number-syllable nouns. The main representative of this paradigm is **dolor, ris, M** (pain).

The nouns with the same number of syllables e.g. nom. sg. au-ris (2), gen. sg. au-ris (2) are called the same-number-syllable nouns. The main representative of this paradigm is **auris, is, F** (ear). It is necessary to remember the form of nominative and genitive of singular and as well as the noun gender otherwise your case forms cannot be correctly declined. Notice that the genitive forms and their genders are always given in the vocabulary. The neutrum representative is **corpus, oris, N** (body).

#### Paradigm of masculine + feminine nouns with different number of syllables – dolor (pain):

Singular (sg.)	Plural (pl.)
1. dolor	dolor-es
2. dolor-is	dolor-um
3. dolor-i	dolor-ibus
4. dolor-em	dolor-es
6. dolor-e	dolor-ibus



**Paradigm of masculine + feminine nouns with the same number of syllables- auris (ear):**

<b>sg.</b>	<b>pl.</b>
1. aur-is	aur-es
2. aur-is	aur-ium
3. aur-i	aur-ibus
4. aur-em	aur-es
6. aur-e	aurib-ibus

**Case endings of 3<sup>rd</sup> masculine and femine declension:**

<b>sg.</b>	<b>pl.</b>
1. - different endings	-es
2. -is	-um, -ium
3. -i	-ibus
4. -em	-es
6. -e	-ibus

**Paradigm of neuter nouns with different number of syllables – corpus (body):**

<b>sg.</b>	<b>pl.</b>
1. corp-us	corpor-a
2. corpor-is	corpor-um
3. corpor-i	corpor-ibus
4. corp-us	corpor-a
6. corpor-e	corpor-ibus

**Paradigm of neuter nouns with neuter endings: -e,-al, -ar e.g. cochlear (spoon):**

<b>sg.</b>	<b>pl.</b>
1. cochle-ar	cochlear-ia
2. cochlear-is	cochlear-ium
3. cochlear-i	cochlear-ibus
4. cochle-ar	cochlear-ia
6. cochlear-i	cochlear-ibus

### Case endings of 3<sup>rd</sup> neuter declension:

sg.	pl.
1. - different endings	<b>-a, -ia</b>
2. <b>-is</b>	<b>-um, -ium</b>
3. <b>-i</b>	<b>-ibus</b>
4. = nominative	=nominative
6. <b>-e, -i</b>	<b>-ibus</b>

**Notes: M noun of 3<sup>rd</sup> declension + adjective of 2<sup>nd</sup> declension e.g.: dolor magnus**

sg.	pl.
1. dolor magnus	dolor- <b>es</b> magn- <b>i</b>
2. dolor- <b>is</b> magn- <b>i</b>	dolor- <b>um</b> magn- <b>orum</b>
3. dolor- <b>i</b> magn- <b>o</b>	dolor- <b>ibus</b> magn- <b>is</b>
4. dolor- <b>em</b> magn- <b>um</b>	dolor- <b>es</b> magn- <b>os</b>
6. dolor- <b>e</b> magn- <b>o</b>	dolor- <b>ibus</b> magn- <b>is</b>

### Exercises:

#### 1 Read and translate:

Caput femoris. Auris media. Os sacrum Pes sinister. Ren deformatus. Commotio cerebri. Luxatio congenita coxae dextrae. Musculus adductor pollicis. Cavitas thoracis. Apex pulmonis. Cortex cerebri. Partes corporis. Laesio thoracis. Deformatio pulmonis sinistri. Per os. Per rectum. Pulvis adpersorius. Solutio ad desinfectionem. Iniectiones intravenosae. Remedia pro infantibus. Sal amarum. Remedium contra tussim Papaveris flos. Valerianae radix. Lagoena alcoholis. Cochlear foeniculi mellis. Herba cum radice. Saccharum lactis. Mixture pro iniectione. Flos niger.

## 2 Change the terms using the following words in brackets:

vulnus (lacer, a, um), aqua pro (injectio), piper (niger, a, um), extractum fluidum contra (dolor), post (operatio+tumor), dolor acutus (caput +femur), vulnus (abdomen), auris ante (operatio), cavitas (septum nasi), luxatio (digitus secundus), cum (vulnus sectum),

## 3 Give the opposites:

tumor benignus, tussis sine febris, color niger, extractum siccum, abductor, femur sinistrum, articulatio post operationem, contra ulcus ventriculi, sanatio per primam intentionem

## 4 Translate into Latin:

transfusion of blood, intravenous injections, bottle of solution, congenital damage of hip, medicament for the treatment, adpersory powder for children, internal ear, antibiotics against cough, symptoms of the inflammation

## List of the main prescription abbreviations in pharmacy:

Latin abbreviation: meaning:	Complete Latin form	English
aq. pro inj.	aqua pro iniectio	water for injection
cort.	cortex	peel, bark
crm.	cremor	cream
emuls.	emulsio	emulsion
exp. *	expeditio, expeditiones	expedition
fl.	flos, flores	flower
inj.	iniectio	injection
l.a.	lege artis	in accordance with law
liq.	liquor	liquid
lot.	lotio	lotion
p.	pars, partes	part(s)
pro inf.	pro infantibus	for children

pro inj.	pro iniectio	for injection
pro ord.	pro ordinatione	for ordination
p(u)lv. ads.	pulvis adpersorius	adpersory powder
rad.	radix	root
s.n.	suo nomine	under the name
sem.	semen	sperm
sol.	solutio	solution
sol.conc.	solutio concentrata	concentrated solution
sol.ol.	solutio oleosa	oily solution
susp.	suspensio	suspension

*\* In case of using this abbreviation on the external drug packaging it means the date of expiry (expiration date)                      exspiratio                      expiration*

### **Vocabulary:**

abductor, oris, M	muscle the role of which is abducting from the body
adductor, oris, M	muscle drawing the part towards to the body
adpersorius, a, um	adpersory
alcohol, lis, M	alcohol
apex, icis, M	apex, top point
auris, is, F	ear
caput, itis, N	head
cavitas, atis, F	cavity, hollow
cochlear, ris, N	spoon
commotio, onis, F	commotion, concussion, shock
congenitus, a, um	congenial, native
corpus, oris, N	body
cortex, ticis, M	cortex, outer part of the organ, bark
coxa, ae, F	hip
deformatus, a, um	deformed
desinfectio, onis, F	disinfection

femur, oris, N	femur, thigh bone
flos, oris, M	flower
piper, eris, N	pepper
foeniculum, i, N	fennel
infans, ntis, M or N	child
inienctio, onis, F	injection
intravenosus, a, um	intravenous
lac, tis. N	milk
laesio, onis, F	lesion, damage
luteus, a, um	yellow
luxatio, onis, F	luxation, dislocation
medius, a, um	mediary, middle
mel, mellis, N	honey
niger, a, um	black
os, oris, N	mouth
os, ossis, N	bone
papaver, ris, N	poppy
pars, tis, F	part
pes, pedis, M	foot, leg
pollex, icis, M	thumb
pulmo, onis, M	lung
pulvis, eris, M	powder
radix, icis, M	root
remedium, i, N	medicament, pill
ren, nis, M	kidney
sacer, a, um	holy, sacral
saccharum, i, N	sugar
sal, is, M or N	salt
solutio, onis, F	solution
sulf(ph)us, uris, N	sulphur
suspensio, onis, F	suspension
thorax, acis, M	chest, thorax
tussis, is, F	coughing

**Living Latin phrases:**

De iure.

Medicinae universae doctor.

Mens sana in corpore sano.

Periculum mortis.

**Vocabulary to Living Latin phrases:**

ius, ris, N = justice, law; mens, tis, F = mind, thinking; mors, tis F = death

## Unit 5

### Greek Nouns of the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Declensions

Most of the Greek nouns belonging to the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> declensions changed their forms and accommodated their original Greek paradigms and suffixes into Latin suffixes: e.g. anatomia, anaemia, bronchus, haemorrhagia, cranium and many others by which we do not find any differences when declining them. But some of them have still preserved their original Greek endings and so they have different suffixes. The most important examples are: **systole and diabetes in the 1<sup>st</sup> declension and dosis and gramma in the 3<sup>rd</sup> declension.** The 2<sup>nd</sup> declension does not have any substantial changes comparing to their Latin forms.

#### 1<sup>st</sup> Declension:

Latin paradigm:	Greek paradigm	Greek paradigm
<b>Gutta (feminines)</b>	<b>diabetes (masculines)</b>	<b>systole (feminines)</b>
<b>Singular (sg.)</b>	<b>sg.</b>	<b>sg.</b>
1. gutt-a	diabet-es	systole-e
2. gutt-ae	diabet-ae	systole-es
3. gutt -ae	diabet-ae	systol-ae
4. gutt-am	diabet-am, (or Greek suffix -en)	systole-en
6. gutt-a	diabet-a (or Greek suffix -e)	systole-e

Latin paradigm:	Greek paradigm:
<b>Plural (pl.)</b>	<b>pl. - does not exist</b>
1. gutt-ae	
2. gutt-arum	
3. gutt-is	
4. gutt-as	
6. gutt-is	

### Plural of Greek paradigm:

In plural the 1<sup>st</sup> Greek declension does not exist and if we need to form their plural endings we use the standard Latin plural suffixes of the 1<sup>st</sup> declension.

### 2<sup>nd</sup> Declension:

Similarly as you could see in the first declension there are again some of the nouns of Greek origin in the 2<sup>nd</sup> declension which have kept their original Greek endings. But their different Greek suffixes are not as numerous as comparing to these ones in the 1<sup>st</sup> declension.

<b>M Latin paradigm:</b>	<b>M Greek paradigm</b>	<b>N Latin parad.</b>	<b>N Greek paradigm</b>
<b>sirupus</b>	<b>nephros (kidney)</b>	<b>unguentum</b>	<b>colon (intestinum)</b>
<b>Singular (sg.)</b>	<b>sg.</b>	<b>sg.</b>	<b>sg.</b>
1. sirupus	nephros	unguentum	col-on
2. sirup-i	nephri	unguent-i	col-i
3. sirup-o	nephro	ungent-o	col-o
4. sirup-um	nephrum	ungent-um	col-on
6. sirup-o	nephro	ungent-o	col-o
<b>Latin Plural (pl.)</b>	<b>Greek pl.</b>	<b>Latin pl.</b>	<b>Greek pl.</b>
1. sirupi	nephri	unguent-a	col-a
2. sirup-orum	nephrorum	unguent-orum	col-orum
3. sirup-is	nephri-is	ungent-is	col-is
4. sirup-os	nephros	ungent-a	col-a
6. sirup-is	nephri-is	ungent-is	col-is

As you can see above in plural there are no changes comparing the Latin and Greek declensions.

### 3<sup>rd</sup> Declension

As there was shown in the first and second declensions there are again some of the nouns of Greek origin in the 3<sup>rd</sup> declension which have kept their original Greek endings.



**Greek paradigm of masculine + feminine nouns with different number of syllables:**

**The main representative: parotis, tidis, F**

**M+F Latin Paradigm**

**dolor**

**sg.**

**pl.**

**(no suffix changes between L and G)**

1. dolor

dolor-es

2. dolor-is

dolor-**um**

3. dolor-i

dolor-**ibus**

4. dolor-em

dolor-es

6. dolor-e

dolor-**ibus**

**M+F Greek Paradigm**

**parotis (parotis gland)**

**sg.**

**pl.**

parot-is

parotid-es

parotid-is

parotid-**um**

parotid-i

parotid-**ibus**

parotid-em

parotid-es

parotid-e

parotid-**ibus**

**Note: By this Greek paradigm we can also sometimes find the suffix: -itis, -itidis , F which means the inflammatory disease; e.g. gaster + itis= gastritis, itidis, F.**

**Greek paradigm of nouns with the same number of syllables:**

**The main representative: dosis, is, F (dose is English)**

**F Latin Paradigm**

**auris**

**sg.**

**pl.**

1. aur-is

aur-es

2. aur-is

aur-**ium**

3. aur-i

aur-**ibus**

4. aur-em

aur-es

6. aur-e

aurib-**ibus**

**F Greek paradigm**

**dosis**

**sg.**

**pl.**

dosis

dos-es

dos-is(-eos)

dos-**ium**

dosi

dos-**ibus**

dos-**im(-in)**

dos-es

dos-i

dos-**ibus**

**Note: By this Greek paradigm we can also sometimes find the suffix: -osis, -is, F which means the non-inflammatory disease; e.g. arthron+osis= arthrosis, is, F**

**Greek paradigm of neuter nouns with different number of syllables:**

**The main representative: gramma, tis, N**

## N Latin Paradigm

**corpus**

**sg.**

1. corp-us

2. corpor-is

3. corpor-i

4. corp-us

6. corpor-e

**pl.**

corpor-a

corpor-um

corpor-ibus

corpor-a

corpor-ibus

## N Greek Paradigm

**gramma**

**sg.**

gramma

gramat-is

gramat-i

gramm-a

grammat-e

**pl.**

grammat-a

gramat-um

grammat-ibus(-is)

grammat-a

gramma-tibus(-is)

**Note:** By this Greek paradigm we can also sometimes find the suffix: -oma, -omatis, N which means the growth of the substance (organ) which it belongs to; e.g. lipos+oma = lipoma, omatis, N (e.g. carcinoma, osteoma etc.)

## Exercises:

### 1 Translate the following expressions and identify the Greek suffixes:

1. Enteron. Nephros. Ophthalmos. Encephalon. Raphe palate. Apnoe. Dyspnoe. Systema vasorum. Musculus masseter. Glandula parotis. Parotitis infectiosa. Lobus hepatis. Hepatitis infectiosa. Tunica mucosa ureteris. Sympomata gastritidis. Coma ex traumate capitis. Solutio pro narcosi. Remedium contra bronchitidem acutam. Signa anaemiae. Haemorrhagia e causa ignota.

Remedium contra diarrhoeam. Aqua ophthalmica. Remedia stomachica.

### 2 Change the words in brackets:

apnoe (congenitus, a, um), remedium contra (haemorrhagia), vitrum (aqua ophthalmica), symptomata (diabetes, coma, encephalitis), emesis post (operatio), trauma (encephalon), carcinoma (colon), emesis post (narcosis)

## **Vocabulary:**

aden, adenos, i, N (M)	gland
appendicitis, itidis, F	appendicitis
appendix, icis, F	appendix
apnoe, es, F	breathing arrest
carcinoma, atis, N	carcinoma
colon, i, N	large intestine
coma, atis, N	coma
derma, atis, N	skin
diabetes, ae, M	diabetes
diastole, es, F	diastole
diarrhoea, ae, F	diarrh(o)ea
dyspnoe, es, F	dysfunction of breathing
dosis, is, F	dose
emesis, is, F	vomiting
enteron, i, N	intestine
encephalon, i, N	brain
gramma, atis, N	gram
gargarisima, matis, N	gargling water
haemorrhagia, ae. F	bleeding
hepar, atis, N	liver
larynx, gis, F	larynx
lipos, i, M	oil
narcosis, is. F	narcose
nephros, i, M	kidney
osteoma, atis, N	osteoma
raphe, es, F	suture
prognosis, is, F	prediction
trauma, atis, N	wound, injury
systole, es, F	systole

## **Living Latin phrases:**

Alma mater.

Mel in ore, fel in corde.

Timor mortis.

Patientia vincit omnia.

**Vocabulary to Living Latin phrases:**

almus, a, um = nutrient; fel, fellis, N = gall; timor, ris, M = fear, anxiety; patientia, ea, F =  
patience; vincio, ire = overcome; omnis, e = all, everything

## Unit 6

### Adjectives of the 3<sup>rd</sup> Declension

#### Adjectives in Latin Generally

The adjectives in Latin can be generally divided **into two groups**; the first group into which there belong the adjectives of **the 1<sup>st</sup> and 2<sup>nd</sup> declension** (e.g. fractus, a, um; gelatinosus, a, um; dexter, a, um etc.). They have three possible endings for three genders relating the noun which they belong to - e.g. sirupus compositus or gutta amara or extractum fluidum. But besides them there also exists the other group of adjectives which are the adjectives of **the 3<sup>rd</sup> declension** and they have completely different grammatical rules.

#### Adjectives of the 3<sup>rd</sup> Declension

The adjectives belonging to the third declension can be basically divided into three different groups: **3 - endings adjectives with three special suffixes or three endings** for each gender a different one e.g. acer M; acris F; acre N (sharp) then there exist **2 - endings adjectives with two special suffixes or two endings**; one common ending for masculines and feminines and one special ending for neuters; e.g. brevis (short) the same ending for masculines and feminines, breve – one special ending for neuters. And then there exist **1 - ending adjectives or 1 - suffix or one ending adjectives** with one ending for all three genders e.g. simplex.

There appears just 1 ending **simpl -ex** (simple) which is the same for all genders M, F and N. But this one ending **-ex** can be also different e.g. vetus (old), prominens (prominent), biceps etc. and again just this 1 endings represents one common suffix for M, F and N.

#### 3 endings:

sg:

	M	F	N
1.	acer	acris	acre
2.		acr-is	
3.		acr-i	

#### 2 endings:

	M	F	N
	brevis		breve
		brev-is	
		brev-i	

#### 1 ending:

	M	F	N
			simplex
			simplic-is
			simplic-i

4. **acr-em**    acre

6.     **acr-i**

**brev-em**    breve

**brev-i**

**simplic-em**    simplex

**simplic-i**

**pl:**

M    F    N

1. **acr-es**    **acr-ia**

2.     **acr-ium**

3.     **acr-ibus**

4. **acr-es**    **acr-ia**

6.     **acr-ibus**

M    F    N

**brev-esbrev-ia**

**brev-ium**

**brev-ibus**

**brev-esbrev-ia**

**brev-ibus**

M    F    N

**simplic – es**    **simplic-ia**

**simplic-ium**

**simplic-ibus**

**simplic-es**    **simplic-ia**

**simplic-ibus**

## Exercises:

### 1 Read and translate into English:

Os deformans. Ramus communicans. Mors post dosim letalem. Ulcus perforans. Sclerosis multiplex. Delirium tremens. Trauma grave. Dolor acer.

Remedium cardinale, adiuvens, corrigens, constituens. Mixtura solvens. Sapo medicinalis. Dosis aequalis. Dosis letalis. Pulvis effervescens. Saccharum solubile. Tabulettae fortes. Solutio versicolor et decolor. Capsulae enterosolventes. Peroralia liquida et semisolidia. Olivae oleum virginale.

### 2 A) Join the following nouns with correct forms of adjectives :

*Example:*

*oleum*                      *virginalis, virginale:*                      *oleum virginale*

saccharum	solubilis, solubile
sirupus	arteficialis, arteficiale
capsula	mollis, molle
planta	medicinalis, medicinale
dosis	letalis, letale
remedium	cardinalis, cardinale
dolor	acer, acris, acre
expeditio	originalis, originale

### B) change the above couples into plural:

*Example:*                      *oleum virginale:*                      *olea virginalia*

### 3 Fill in proper endings:

*Example:*

*remedium adiuvan...:*                      *remedium adiuvens*

lagoena sirupi simplic....., emplastrum medicinal....., succus recen....., unguentum simpl....., pasta zinci moll....., mors post dosim letal....., tabulettae fort....., mixtura solven.....

#### 4 Translate into English:

the dose of simple syrup, simple ointment, fresh juice, original package, medical herb, a bottle with colourless solution, intravenous and intramuscular injection, death after a lethal dose, liquid extract, semi-hard medicine administrated by mouth

#### Vocabulary

acer, cris, cre	sharp
ascendens, entis	ascending
brevis, e	short
capsula, ae, F	capsule
commitans, antis	accompanying
communicans, antis	communicating, connecting
decolor, oris	colourless
deformans, antis	disfiguring, deformed
delirium tremens, entis	state of complete drunkenness
descendens, entis	descending
enterosolvens, entis	soluble in the intestine
fortis, e	strong
gravis, e	heavy, hard, difficult
hypoglossus, a, um	under the tongue
letalis, e	lethal
liquidus, a, um	liquid
mollis, e	soft
multiplex, multiplicis	multiple
perforans, antis	penetrating
peroralis, e	administered through the mouth
progreiens, entis	proceeding
ramus, i, N	branch



semisolidus, a, um	half hard
simplex, cis	simple
solubilis, e	soluble
spondylitis, itidis, F	inflammation of vertebrae
tuber,eris, N	tubercle
ulcus, eris, N	ulcer
versicolor, oris	colourful
virginalis, e	virginal

**Living Latin phrases:**

Homo mortalis, opus immortale.

Experientia docet.

Bona fide.

Ars longa, vita brevis.

**Vocabulary to Living Latin phrases:**

opus, eris, N = work, art; experientia, ae, F = experience, doceo,ere (doctum) = teach; fides, ei, F = goodwill, believe, trust; ars, tis, F = art

## Unit 7

### Prepositions in Latin:

In Latin as well as in other languages prepositions are incapable of inflection and they always precede the words (a noun or nouns and adjectives) which they control. Generally where English mostly always puts the prepositions Latin always employs the inflection to show the relation between or among the words.

But of course in Latin there are also certain relations expressed by prepositions but comparing to English the amount of them is rather low. Moreover the use of Latin prepositions is only limited to two cases - the accusative and the ablative.

#### Prepositions with accusative are:

Preposition	English meaning	Example
<b>ad</b>	to, up	ad usum veterinarium
<b>ante</b>	before, in front of	ante pilulam gelatinosam
<b>contra</b>	against	contra febrim
<b>intra</b>	inside	intra musculum
<b>extra</b>	outside	extra periculum
<b>supra</b>	above	supra linteum
<b>infra</b>	under	infra genu dextrum
<b>post</b>	after, afterward	post mortem
<b>per</b>	through	per os
<b>propter</b>	because of	propter tumorem
<b>trans</b>	over	trans cutem

#### Prepositions with ablative are:

<b>a, ab</b>	off, away	ab ovo
<b>cum</b>	with	cum febrim
<b>de</b>	about	de remediis

<b>e,ex</b>	from, because of	e vitro
<b>pro</b>	for	pro narcosi
<b>sine</b>	without	sine dolore

It has to be noticed that there are two prepositions **in** (in, inside) and **sub** (under) which can be used with either accusative or ablative depending on its meaning. When you can ask: where to? meaning direction - then use the accusative. When you ask where in? meaning location - then use the ablative.

Eg.: Where to? In ven**am**. Where in? In vena**.** Where to? Sub scapul**am**. Where in? Sub scapula**.**

### **Exercise:**

#### **1 Translate into English:**

Status post collapsum. Remedium contra vomitum. Morbus cum febr*i*. Iniectio contra dolorem. Abortus post trauma grave. Dolores ante operationem. Sepsis in regione abdominali. Dermatitis e contactu cum acidis. Sanatio cum defectu.  
Pro balneo. Per os. Per rectum. Suppositoria pro infantibus. Remedium ad usum internum. Dosis maxima pro die. Unguentum ad usum externum.

#### **2 Change the endings of nouns according their prepositions:**

amputatio sine (narcosis)  
remedium contra (febris)  
emulsio pro (usus veterinarius)  
status post (operatio)  
pro (balneum externum)  
ex (oculus sinister)  
ad (lagoena pura)  
febris cum (dolor)

**3 Put the prepositions in these following expressions into their opposite forms:**

febris ante abortum

post operationem cordis

sine defectu genus sinistri

ex oculo sinistro

ante trauma capitis

supra nasum fractum

extra uterum

ad lagoenam puram

## Unit 8

### Latin Nouns of the 4<sup>th</sup> and 5<sup>th</sup> Declensions (-U- and -E- Stems)

#### Nouns of the 4<sup>th</sup> Declension:

We decline according to this paradigm the nouns which are finished in the nominative of singular with **-us** and in the genitive of singular they have the ending **-us**. The main representative is **processus, us, M** (projection or protrusion or bulge). The genitive of singular is **-us** and it differs from the nominative of singular only by the length which does not have to be marked. The nouns belonging to the 4<sup>th</sup> declension are mostly masculine (apart from a few exceptions e.g. manus, us, F - hand). There are also some neuters e.g. **genu, us, N** (knee).

**Note: there are neither any adjective of the 4<sup>th</sup> nor any adjectives of the 5<sup>th</sup> declension.**

#### Paradigm of masculine (+a few feminines):

<b>Singular (sg.)</b>	<b>Plural (pl.):</b>
1. process- <b>us</b>	process- <b>us</b>
2. processus- <b>us</b>	process- <b>uum</b>
3. process- <b>ui</b>	process- <b>ibus</b>
4. process- <b>um</b>	process- <b>us</b>
6. process- <b>u</b>	process- <b>ibus</b>

#### Case endings of 4<sup>th</sup> masculine and femine declensions:

<b>sg.</b>	<b>pl.</b>
1. <b>-us</b>	<b>-us</b>
2. <b>-us</b>	<b>-uum</b>
3. <b>-ui</b>	<b>-ibus</b>
4. <b>-um</b>	<b>-us</b>
6. <b>-u</b>	<b>-ibus</b>

### Paradigm of neuter nouns:

<b>sg.</b>	<b>pl.</b>
1. gen- <b>u</b>	gen- <b>ua</b>
2. gen- <b>us</b>	gen- <b>uum</b>
3. gen- <b>u</b>	gen- <b>ibus</b>
4. gen- <b>u</b>	gen- <b>ua</b>
6. gen- <b>u</b>	gen- <b>ibus</b>

### Case endings of 4<sup>th</sup> neuter declension:

<b>sg.</b>	<b>pl.</b>
1. <b>-u</b>	<b>-ua</b>
2. <b>-us</b>	<b>-uum</b>
3. <b>-u</b>	<b>-ibus</b>
4. <b>-u</b>	<b>-ua</b>
6. <b>-u</b>	<b>-ibus</b>

### Nouns of the 5<sup>th</sup> Declension:

We decline according to this paradigm the nouns which are finished in nominative of singular with **-es** e.g. **faci-es** (face) and in the genitive of singular they have the ending **-ei** e.g. **faci-ei**. The paradigm sample is **facies, ei. F** (face). They are almost entirely feminine (apart from a few exceptions e.g. **dies, ei, M** - day).

### Paradigm of masculine (+a few feminines):

<b>Singular (sg.)</b>	<b>Plural (pl.):</b>
1. <b>faci-es</b>	<b>faci-es</b>
2. <b>faci-ei</b>	<b>faci-erum</b>
3. <b>faci-ei</b>	<b>faci-ebus</b>
4. <b>faci-em</b>	<b>faci-es</b>
6. <b>faci-e</b>	<b>faci-ebus</b>

**Case endings of 5<sup>th</sup> masculine and femine declensions:**

<b>sg.</b>	<b>pl.</b>
1. -es	-es
2. -ei	-erum
3. -ei	-ebus
4. -em	-es
6. -e	-ebus

**Exercises:**

**1 Read and translate:**

Apparatus respiratorius. Arcus vertebrae. Facies interna. Apparatus digestorius. Ductus lymphaticus. Musculi faciei. Partus complicatus. Genu sinistrum. Organa sensuum. Per aspectionem. Per auscultationem. Collapsus circulatorius. Dermatitis e contactu cum acidis. Extractio dentis molaris propter cariem. Fractura processus transversae sine laesione medullae spinalis.

Pro balneo. Per rectum. Species stomachicae. Lagoena spiritus. Quercus cortex. Remedium contra vomitum. Myrtillii fructus recens. Remedium ad usum internum. Dosis maxima pro die. Unguentum contra decubitus profundos. Species aromaticae. Effectus medicamenti.

**2 Add a corresponding loose attribute to each expression:**

*Example: lagoena (+spiritus compositus) lagoena spiritus compositi*

articulatio (+ genu sinistrum)

arcus (+vertebrae thoracicae)

fractura (+manus dextra)

effectus (+species pectorales)

sanatio (+ abscessus + palpebra)

collapsus (+systema respiratorius)

### 3 Translate into Latin:

internal ear, breathing tract, complicated birth, the collapse of circulatory tract, dental caries inside the mouth, fresh fruit of the orange, the contact with acids, vomiting after the operation, deep bedsores after the operation, sanation of deep bedsores, remedy for external use, urological tea, aromatic tea for the treatment of the respiratory organs

#### Vocabulary:

acidum, i, N	acid
ad (prep. with accus.)	to, for, towards
apparatus, us, M	apparatus
arcus, us M	arch
aromaticus, a, um	aromatic
aspectio, onis, F	watching
auscultatio, onis, F	hearing
balneum, i, N	bath
caries, ei, F	dental caries
circulatorius, a, um	circulating
collapsus,us, M	collapse
contactus, us, M	contact
contra (prep. with accus.)	against
cortex, ticus, M	peeling, outer part of the body, bark
cum (prep. with. abl.)	with
decubitus, us, M	decubitus, bedsore, pressure ulcer
dermatitis, itidis, F	inflammation of skin
dies, ei, M	day
ductus, us, M	duct
effectus, us, M	effect
facies, ei, F	face
fructus, us, M	fruit
internus, a, um	internal
lymphaticus, a, um	lymphatic
myrtilium, i, N	mirth



organum, i. N	organ
partus, us, M	birth
per (prep. with accus.)	through
pro (prep. with ablat.)	for
processus, us M	process, projection, outgrowth
profundus, a, um	deep
quercus, us, F	oak
recens, ntis	fresh
rectum, I, N	bottom
respiratorious, a,um	breathing
sensus, us, M	sense
sine (prep. with abl.)	without
species, ei. F	species, mixture
spiritus, us, M	spirit
stomachicus, a, um	stomachic, gastric
urologicus, a, um	urological
usus, us, M	use
vomitus, us. M	vomiting

**Living Latin phrases:**

Medicina omnium artium nobilissima.

Vis maior.

Repetitio est mater studiorum.

**Vocabulary to Living Latin phrases:**

omnis, e = all, everything; ars, is, F = art; nobilis, e = noble; vis, is, F = power, puissance;  
repetitio, onis, F = revision; est = is

## Unit 9

### Comparison of Adjectives in Latin

The adjectives are capable to express different degrees of their quality and for this the Latin language uses comparison forms. There are three degree for expressing it. The basic (1st) level, which is the adjective found in the vocabulary, is called the positive (e.g. complicatus, a, um; letalis, e etc.) and such an adjective means the standard level of its adjective quality. The higher (2nd) degree is called the comparative and the highest (3rd) degree is called the superlative. More details relating the comparative and superlative will be explained below.

The comparison of adjectives is divided into four groups:

1<sup>st</sup> Regular

2<sup>nd</sup> Irregular

3<sup>rd</sup> Periphrastic

4<sup>th</sup> Incomplete

**1<sup>st</sup> Regular comparative and superlative of adjectives:** the comparative is made using special suffixes: **-ior (M+F) and -ius (N)** which have to be added to the genitive stem and it does not make any difference if you form these comparatives from the adjective belonging to the 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> declensions. The superlative suffixes are: **-issimus (M), -issima(F), -issimum (N)** which have to be added to the genitive stem and again it does not make any difference if you form these superlatives from the adjective belonging to the 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> declensions.

#### Positive

M + F + N

the adjective (basic form)

e.g.:

longus, a, um

brevis, e

#### Comparative

M + F, N

comparative suffix

**-ior,-ius**

long**-ior**, long**-ius**

brev**-ior**, brev**-ius**

#### Superlative

M + F +N

superlative suffix

**-issimus,-a,-um**

long**-issimus, a, um**

brev**issimus, a, um**

acer, is, e

acr-ior, acr-ius

acerr-imus, a, um

**The comparative forms are declined as dolor (M+F) and corpus (N).**

	sg.			pl.		
	M	F	N	M	F	N
1.		acrior			acriores	acriora
2.		acrioris			acriorum	
3.		acriori			acrioribus	
4.		acriorem			acriores	acriora
6.		acriore			acrioribus	

**The superlative forms of all adjectives are declined according to the 1<sup>st</sup> and 2<sup>nd</sup> declensions: e.g. longissimus, acerrimus, difficillimus like sirupus; longissima, acerrima, difficillima like gutta; longissimum, acerrimum, difficillimum like unguentum.**

e.g.:

sg.	pl.
1. musculus longissimus	musculi longissimi
2. musculi longissimi	musculorum longissimorum
3. musculo longissimo	musculis longissimis
4. musculum longissimum	musculos longissimos
6. musculo longissimo	musculis longissimis

**Note. Some adjectives can have their stem ending finished in -l. -r: e.g. similis, acris etc. In such a case they form the superlative just by „doubling“ this stem consonant, e.g. simillimus, acerrimus etc.**

The most frequently used adjective belonging to this group are:

similis,e = similar

difficilis,e = difficult

facilis, e = easy

dissimilis,e = dissimilar

**2<sup>nd</sup> Irregular comparison of adjectives:**

In Latin there also exist some irregular adjectives having different stems for their comparative and superlative. The most frequently used are stated below:

<b>Positive</b>	<b>Comparative</b>	<b>Superlative</b>
magnus,a,um (large, big)	maior, maius (larger, bigger)	maximus,a,um (the largest)
parvus,a,um (small)	minor, minus (smaller)	minimus,a,u (the smallest)
bonus,a,um (good)	melior, melius (better)	optimus,a,um (the best)
malus,a,um (bad)	peior, peius (worse)	pessimus,a,um (the worst)
multus,a,um (many,much)	plures, plura (more)	plurimi,ae, a (the most numerous)

**NOTE: As you can see the superlative and comparative of multus occur usually in plural form. The genitive form of plures, plura is plurium!**

### 3<sup>rd</sup> Periphrastic comparison of adjectives:

This comparison is used in these adjectives where the root ends in a vowel (e.g. necessari-us = necessary, dubi-us = disputable) and they form their comparative and superlative by the means of the adverb **magis** = more, **maxime** = the most. That is as follows:

<b>Positive</b>	<b>Comparative</b>	<b>Superlative</b>
necessarius,a,um	magis necessarius,a,um	maxime necessarius,a,um
dubius, a, um	magis dubius, a, um	maxime dubius, a, um

### 4<sup>th</sup> Incomplete comparison of adjectives:

This way of forming comparative and superlative can seem as very strange but it existed in Latin and it has been used up to now. Some prepositions can form something like “regular comparative and superlative” and they serve to denote positions on human and animal body (e.g. membrum superius, membrum inferius). Most of the commonly used are stated below:

<b>Positive (preposition)</b>	<b>Comparative</b>	<b>Superlative</b>
ante	anterior, ius	<i>does not exist</i>
post	posterior, ius	postremus, a, um

supra	superior, ius	supremus, a, um
		summus, a, um
infra	inferior, us	infimus, a, um
		imus, a, um
intra	interior, ius	intimus, a, um
extra	exterior, ius	extremus, a, um

### Exercises:

#### 1 Translate into English:

Vena cordis minima. Tunica intima. Pars corporis mollis, mollior, mollissima. Circulatio sanguinis maior. Musculus longissimus capitis. Transfusio sanguinis maxime necessaria. Operatio facillima. Pulsus frequentior. Prognosis optima. Infarctus recentissimus. Causa morbi maxime dubia. Symptomata simillima.

Dosis maxima. Unguentum simplicissimum. Pulvis subtilissimus. Solutio fortior. Venenum acerrimum. Medicamentum optimum. Remedium fortissimum.

#### 2 Give comparatives and superlatives of the adjectives in the following couples:

*Example: prognosis mala: prognosis peior, prognosis pessima*

prognosis mala

dosis parva

pulvis subtilis

aqua pura

symptomata similia

prognosis dubia

solutio fortis

curatio facilis

**3 Use the expressions from the exercise 2 with the preposition “cum”:**

*Example: cum prognosi peiore, pessima*

**4 Fill in missing endings in superlative:**

*Example: ante operationem difficillimam*

ante operationem difficill....., dosis maxim....., post infarctum recent.....,  
vaselinum subtil....., sirupus puri....., amputatio digiti mini.....,  
tinctura acer.....

**5 Tranlate into Latin:**

the most dubious cause of death, the box of the most subtle powder for children, bottle of pure water, injection into the lower extremity, the strongest solution, the most necessary transfusion of blood, the best and the worst prognosis.

**Vocabulary:**

causa, ae, F	cause, reason
flexura, ae, F	bend
frequens, entis	frequent
meatus, us, M	meatus, passage
parvus, a, um	small
recens, entis	recent, fresh
symptom, atis, N	symptom
teres, teretis	round

**Living Latin phrases:**

Optimus medicus etiam philosophus.

Optima res est bona valetudo.

Melius est corpore aegrotare quam animo aegrotare.

**Vocabulary to Living Latin phrases:**

etiam = also; res, ei, F = thing, matter; est = is; valetudo, inis, F = health; aegroto, are  
(aegrotus) = be ill, sicken; quam = than; animus, i, M = spirit

# Unit 10

## Latin Numerals

The numerals in Latin, mainly in pharmaceutical Latin, are quite essential. They are divided into four groups. The first group which indicates the basic number is called **cardinals**, the second one denoting the order is named **ordinals**, the multiplicity can be expressed by numerals called **multiples** and they can also express how many times something is or should be done, taken and in such a case they are also called **numeral adverbs**. The last group is called **distributive numerals** and they express the number by which something is distributed etc., e.g. how many pills are there distributed in the package etc.

### 1<sup>st</sup> Cardinal numbers

As shown below only three of the basic low cardinal numerals can be declined: unus, a, um = one, duo, duae, duo = two, tres, tres, tria = three. They are declined as follows:

	M	F	N
1.	<b>unus</b>	<b>una</b>	<b>unum</b>
2.		<b>un-ius</b>	
3.		<b>un-i</b>	
4.	<b>un-um</b>	<b>un-am</b>	<b>un-um</b>
6.	<b>un-o</b>	<b>un-a</b>	<b>un-o</b>

	M	F	N
1.	<b>duo</b>	<b>duae</b>	<b>duo</b>
2.	<b>du-orum</b>	<b>du-arum</b>	<b>du-orum</b>
3.	<b>du-obus</b>	<b>du-abus</b>	<b>du-obus</b>
4.	<b>du-os</b>	<b>du-as</b>	<b>du-o</b>
6.	<b>du-obus</b>	<b>du-abus</b>	<b>du-obus</b>



	M	F	N
1.	tres	tres	tria
2.		tri- <b>um</b>	
3.		tri- <b>bus</b>	
4.	tres	tres	tria
6.		tri- <b>bus</b>	

**NOTE: The above stated numerals behave like adjectives (close attributes), i.e. they conform to the noun they belong to in number, gender and case: unus digitus, una gutta, duae pilullae etc.**

**The higher numerals up to two hundred are indeclinable.**

**Table No. 1 - Cardinal numerals**

Arabic	1-10	Arabic	11-20	Arabic	21-100	Arabic	200-300
1	<b>I</b> unus, una, unum	11	<b>XI</b> undecim	21	<b>XXI</b> viginti unus	200	<b>CC</b> ducenti, ae, a
2	<b>II</b> duo, duae, duo	12	<b>XII</b> duodecim	30	<b>XXX</b> triginta	300	<b>CCC</b> trecenti, ae, a
3	<b>III</b> tres, tres, tria	13	<b>XIII</b> tredecim	40	<b>XL</b> quadraginta	400	<b>CD</b> quadringenti, ae, a
4	<b>IV</b> quattuor	14	<b>XIV</b> quattuordecim	50	<b>L</b> quingenta	500	<b>D</b> quingenti, ae, a
5	<b>V</b> quinque	15	<b>XV</b> quindecim	60	<b>LX</b> sexaginta	600	<b>DC</b> sescenti, ae, a
6	<b>VI</b> sex	16	<b>XVI</b> sedecim	70	<b>LXX</b> septuaginta	700	<b>DCC</b> septingenti, ae, a
7	<b>VII</b> septem	17	<b>XVII</b> septendecim	80	<b>LXXX</b> octoginta	800	<b>DCCC</b> octingenti, ae, a
8	<b>VIII</b> octo	18	<b>XVIII</b> duodeviginti	90	<b>XC</b> nonaginta	900	<b>CM</b> nongenti, ae, a
9	<b>IX</b> novem	19	<b>XIX</b> undeviginti	100	<b>C</b> centum	1000	<b>M</b> mille
10	<b>X</b> decem	20	<b>XX</b> viginti			2000	<b>MM</b> duo milia

**Note:**

In tens the last two numerals (18, 19; 28, 29; 38, 39 etc.) in front of a whole number are subtracted from the following whole number e.g.: 18 = 2 subtracted from 20 = duo - de- viginti, 19 = un - de- viginti, 28 = duo - de- triginta, 29 = un- de- triginta. Normally, these numbers are written as one word, hyphen is just used for better understanding: duodetriginta etc.

But we never subtract from one hundred: 98 = nonaginta octo, 99 = nonaginta novem.

**Note:** One hundred - centum is indeclinable in singular, but in plural (i.e. from 200 = ducenti, ae, a up to 900 = nongenti, ae, a they are declined like 1<sup>st</sup> and 2<sup>nd</sup> declensions: sirupus, gutta, unguentum in plural, e.g. ducentae guttae etc.

Mille is indeclinable in singular, in plural it has the same forms as the example cochlear i.e. milia, milium, milibus.

**2<sup>nd</sup> Ordinal numerals** which are used for denoting the order in a sequence are declinable and basically they are inflected like sirupus, gutta, unguentum. They behave like adjectives in the function of close attributes so they conform to the noun belonging to them in number, gender and case, e.g. digitus primus etc.

The most needed ordinal numbers mostly in anatomy are only up to the 12<sup>th</sup> and they are as follows:

1 <sup>st</sup>	primus, a, um
2 <sup>nd</sup>	secundus, a, um; (alter, a, um)
3 <sup>rd</sup>	tertius, a, um
4 <sup>th</sup>	quartus, a, um
5 <sup>th</sup>	quintus, a, um
6 <sup>th</sup>	sextus, a, um
7 <sup>th</sup>	septimus, a, um
8 <sup>th</sup>	octavus, a, um
9 <sup>th</sup>	nonus, a, um
10 <sup>th</sup>	decimus, a, um
11 <sup>th</sup>	undecimus, a, um
12 <sup>th</sup>	duodecimus, a, um

**3<sup>rd</sup> Multiple numerals** are used to express the multiplicity for which they add the suffix –plex (nom.sg), -plicis (gen.sg). They are declined like one-ending adjectives of the 3<sup>rd</sup> declension. The most frequently used are:

simplex, simplicis	simple
duplex, duplicis	double
triplex, triplicis	triple
quadriplex, quadruplicis	quadruple
multiplex, multiplicis	multiple

**Numeral adverbs** belong among indeclinable numerals and as said above they express the frequency of an action which should be performed, taken etc. The basic ones are:

semel	once
bis	twice
ter	three times
quater	four times
quinqüies	five times

**4<sup>th</sup> Distributive numerals** specify the exact number by which something is distributed. They are declinable and use the plural of nouns belonging to the 1<sup>st</sup> and 2<sup>nd</sup> declensions: e.g. singuli, ae, a like sirupi, guttae, unguenta.

singuli, ae, a	= by one
bini, ae, a	= by two
terni, ae, a	= by three
quaterni, ae, a	= by four

**Note:**

**In pharmaceutical Latin the fragments are expressed in the following way:**

<b>1 g</b>	<b>= unum gramma</b>
<b>0.1g</b>	<b>= unum decigramma</b>
<b>0.01g</b>	<b>= unum centigramma</b>
<b>0.001</b>	<b>= unum milligramma</b>

## Exercises:

### 1 Read and translate:

Ventriculus quartus cerebri. Tres partes ossis coxae. Quattuor extremitates. Tria capita. Viginti dentes decidui. Unus dens molaris. Triginta tres vertebrae columnae vertebralis. Quattuor cava cordis. Duae facies hepatis. Fissura prima et secunda. Os metacarpale tertium. Duodecim nervi capitis. Quinque sensus. Septem vertebrae cervicales. Musculus biceps. Digitus quintus seu minimus.

Extractio amygdalae amarae grammata duo. Terni pulveres per diem. Dosis octo tabulettarum. Viginti quinque guttae tincturae stomachicae. Unum cochlear sirupi. Undecim grammata adipis lanae cum aqua.

### 2 Express the following numerals in words and connect them with given expressions:

- 10     gramma unguenti
- 30     tabuletta mollis
- 29     iniectio intravenosa
- 21     gutta solutionis
- 100    glyceroli suppositorium
- 1000   millilitrum aquae destillatae
- 100    grammata spiritus

### 3 Give cardinal and ordinal numerals with the following expressions:

*Example: os metacarpale unum, os metacarpale primum*

- 1+     os metacarpale
- 2+     phalanx
- 3+     unguentum
- 4+     cavum
- 5+     digitus
- 6+     cellula

- 7+ costa
- 8+ dens
- 9+ cochlear
- 10+ tabuleta
- 11+ injectio
- 12+ nervus

**4 Give the amounts of the following expressions:**

*Example: unum decigramma extracti*

- 1 + decigramma + extractum
- 30 + dosis + peroralis, e
- 3 + cochlear + sirupus + dulcis, e
- 5 + expeditio + originalis, e + tabuleta
- 100 + centigramma + aqua+ destillatus, a, um
- 200+ gutta + extractum+ amygdala
- 1000+ milligramma+ solutio

**5 Translate into Latin:**

one original package, ten equal doses, 6 milligrams of the quinine bark, 25 tablets in a box, 8 drops of an extraction, 70 grams of valerian tea, 1000 grams of concentrated ethanol, twice a night, three times a day

**Vocabulary:**

adeps lanae	wool fat,
adeps, adipis, M	fat
amygdala, ae, F	almond
bilateralis, e	bilateral
cinchona, ae, F	quinine
cortex, icis, M	bark

dens deciduus	milky tooth
dens molaris	molar tooth
dens, entis, M	tooth
dulcis, e	sweet
ethanolum, i, N	ethanol
expeditio, onis, F	packing
extractio, onis, F	extract
extremitas, atis, F	extremity, limb
fissura, ae, F	fissure, groove
hepar, tis, N	liver
insufficiencia, ae, F	insufficiency
os coxae	pelvic bone
os metacarpale	metacarpal bone
purificatus, a, um	purified
species, erum, F /PL!/ tinctura stomachica	tea
valva, ae, F	stomach tincture
	valve

**Living Latin phrases:**

Tres faciunt collegium.

Primum est non nocere.

Alter ego.

Summa summarum.

Pathologia physiologiam illustrat.

**Vocabulary to Living Latin phrases:**

facio, ere (factum) = do, perform, create; non = not, negation; noceo, ere = harm, damage;

illustro, are (illustratum) = explain, exemplify, illustrate

## Unit 11

### Basic Verbal Forms in Latin.

In Latin the conjugation of verbs uses a much more extended use of inflection as nouns or adjectives but since the pharmaceutical Latin employs the verbs mostly in giving the instructions on a prescription there will be explained only some of their basic grammatical categories. Generally the verbs are used as the word category denoting any activity performed by any person or subject and they are classified according to their root vowels into four categories (conjugations) as follows:

1<sup>st</sup> conjugation: san-**ā**-re (to heal, to treat)

2<sup>nd</sup> conjugation: vid-**ē**-re (to see)

3<sup>rd</sup> conjugation: scrib-**e**-re (to write)

3<sup>rd</sup> irr. conjugation: recip- **e**-re (to take)

4<sup>th</sup> conjugation: aud-**ī**-re (to hear)

**Note: But remember that the length is usually not marked in the textbook.**

As mentioned above the Latin system of verbal forms is quite extended but very logical. The most important verbal forms being necessary for pharmaceutical terminology are the following ones:

#### Indicative present active:

##### 1<sup>st</sup> conjugation

sg.	pl.
1. sano	sanamus
2. sanas	sanatis
3. sanat	sanant

#### Indicative present passive

sg.	pl.
sanor	sanamur
sanaris	sanamini
sanatur	sanantur



## **2<sup>nd</sup> conjugation**

<b>sg.</b>	<b>pl.</b>	<b>sg.</b>	<b>pl.</b>
1. video	videmus	videor	videmur
2. vides	videtis	videris	videmini
3. videt	vident	videtur	videntur

## **3<sup>rd</sup> conjugation**

<b>sg.</b>	<b>pl.</b>	<b>sg.</b>	<b>pl.</b>
1. scribo	scribimus	scribor	scribimur
2. scribis	scribitis	scriberis	scribimini
3. scribit	scribunt	scribitur	scribuntur

**Note: Within the 3<sup>rd</sup> conjugation we can find also some irregular verbs belonging partly to the 3<sup>rd</sup> and partly to the 4<sup>th</sup> conjugation. The most important example is the verb recipio, recipere (to take) which is extremely frequently used in pharmacy and therefore it is mentioned here as well.**

<b>sg.</b>	<b>pl.</b>	<b>sg.</b>	<b>pl.</b>
1. recipio	recipimus	recipior	recipimur
2. recipis	recipitis	reciperis	recipimini
3. recipit	recipiunt	recipitur	recipiuntur

## **4<sup>th</sup> conjugation**

<b>sg.</b>	<b>pl.</b>	<b>sg.</b>	<b>pl.</b>
1. audio	audimus	audior	audimur
2. audis	auditis	audiris	audimini
3. audit	audiunt	auditur	audiuntur

## Imperative

As in English also in Latin we form the imperative of the 2<sup>nd</sup> person of singular and plural and this is done simply by abstracting the infinitive ending –re (in singular) and by adding the –te suffix in plural:

	<b>sg.</b>	<b>pl.</b>	<b>English meaning</b>
1 <sup>st</sup>	Sana!	Sanate!	Treat!
2 <sup>nd</sup>	Vide!	Videte!	See!
3 <sup>rd</sup>	Scribe!	Scribite!	Write!
3 <sup>rd</sup> irr.	Recipe!	Recipite!	Take!
4 <sup>th</sup>	Audi!	Audite!	Hear!

## Subjunctive

The subjunctive in the present tense both active and passive is quite necessary and the 3<sup>rd</sup> persons of singular and plural are formed by:

- changing the root vowel **-a-/-ā-** into **-e-/-ē** (1<sup>st</sup> conjugation)
- changing the root vowel **-e-** into **-a-/-ā-** (3<sup>rd</sup> conjugation) or adding the vowel **-a-/-ā-** behind the root vowel (2<sup>nd</sup> and 4<sup>th</sup> conjugations).

### Subjunctive in active voice

1<sup>st</sup> conjugation: san-**ā**-re – san - **E** – **t** (he should be healed); san - **E** - **nt** (they should be healed)

2<sup>nd</sup> conjugation: vid-**ē**-re – vide - **A** - **t** (he should be seen); vide - **A** - **nt** (they should be seen)

3<sup>rd</sup> conjugation: scrib-**e**-re - scrib- **A** – **t** (he should be written); scrib - **A** - **ntur** (they should be written)

3<sup>rd</sup> conjugation: recip-**e**-re – recipi - **A** - **t** (he should be taken); recipi - **A** - **nt** (they should be taken)

4<sup>th</sup> conjugation: aud-**ī**-re – audi - **A** - **t** (he should be heard); audi - **A** - **nt** (they should be heard)

### Subjunctive in passive voice

The passive voice in the subjunctive form is done by adding the suffix **-tur** for the 3<sup>rd</sup> person of singular and **-ntur** for the 3<sup>rd</sup> person of plural:

1<sup>st</sup> conjugation: san-**ā**-re – san - **Ē** - **tur** (it is to be healed); san - **E** - **ntur** (they are to be healed)

2<sup>nd</sup> conjugation: vid-**ē**-re – vide - **Ā** - **tur** (it is to be seen); vide - **A** - **ntur** (they are to be seen)

3<sup>rd</sup> conjugation: scrib-**e**-re - scrib- **Ā** - **tur** (it is to be written); scrib - **A** - **ntur** (they are to be written)

3<sup>rd</sup> conjugation: recip-**e**-re – recipi - **Ā** - **tur** (it is to be taken); recipi - **A** - **ntur** (they are to be taken)

4<sup>th</sup> conjugation: aud-**ī**-re – audi - **Ā** - **tur** (it is to be heard); audi - **A** - **ntur** (they are to be heard)

If the negation of this verbal form is necessary to be formed then we use the expression **ne** (ne recipiatur = it is not to be taken, it cannot be taken). But the common negation is **non** (e.g., in imperative: **non recipe**)

## **Irregular verb**

### **ESSE (to be), indicative of present tense:**

est - he, she, it is

sunt - they are

## **Exercises:**

### **1 Read and translate:**

Sana. Misce cum pulvere. Vasa organa nutriunt. Para extractum chamomillae. Serva aquam in lagoena. Destillate solutionem. Da ad chartas ceratas. Praepara desinfectionem pro injectione. Da medicamentum in scatulam. Misce massam pilularum pro adultis. Massa flava in quinque partes aequales dividatur. Para extractum contra dolorem permanentem. Da sirupum pro infantibus. Da injectionem pro anaesthesia. Detur cum formula. Divide pulverem adpersorium in tres scatulas. Praeparetur serum antiasthmaticum. Ad guttas opthalmologicas adde guttatorium. Mixtura filtretur in vitrum sterilisatum. Punctio genus post diem tertium ne

repetatur. Ante operationem instrumenta sterilisentur. Misce, fiant pilulae lege artis! Operatio ne postponatur! Vulnus desinficiatur. Dentur tales doses numero septem. Misceatur unguentum contra decubitus in regione sacrali. Recipe pulverem ter per diem, bis per noctem. Contra tussim dentur species pectorales. Multi sunt morbi contagiosi. Recipe cacao olei quantum satis, ut fiant suppositora numero X. Tinctura in vitro guttatorio sit.

## 2 Find the corresponding conjugation of the following verbs:

da, recipe, dividuntur, sana, cura, audi, vide, divide, misce, signa, da, adde, recipiatur, dividantur, sanetur, curetur, audiantur, misceatur, signetur, dentur, addatur, fiat

## 3 Tranlate into Latin:

give and sign, 50 grams of ointment should be mixed with distilled water, a solution should be made, mix until you make a solution, prepare the pills for children, the medical prescription should be signed, divide the mass into ten equal parts

## Vocabulary:

addo, ere, (additus)	add
antitetanicus, a, um	against tetanus
ars, tis, F	art
audio, ire, (auditus)	hear
ceratus, a,um	cerated, wax-coated
curo, are (curatus)	treat, heal
desinfectio, ere (desinfectus)	disinfect
destillo, are (destillatus)	distill
digital, alis, M	digitalis, medical plant
divido, ere (divisus)	divide
do, are (datus)	give
extractum, i, N	extract
filtra, are (filtratus)	filter, filtrate
fio, fieri (factus)	become
frigidus, a,um	cold

guttatorium, ii, N	dropper
lege artis	according to the laws of pharmacy or other disciplines
misceo, ere (mixtus)	mix
mixtura, ae, F	mixture
paro, are (paratus)	prepare
quantum satis	the amount which is needed
repeto, ere (repetitus)	repeat
sano, are (sanatus)	heal
serum, i, N	serum
servo, are (servatus)	serve, conserve
signo, are (signatus)	sign
solvo, ere (solvens)	solute
species pectorales	decoction to heal a cough
species, erum, F	mixture of dried plants
steriliso, are (sterilisatus)	sterilise
sum, esse	be
sumo, ere (sumptum)	take
talis, e	such
vitrum, i, N	bottle

### **Living Latin phrases:**

Quid morbi est?

Experto credite!

Fac totum!

Ignorantia non est argumentum.

Mortui vivos docent.

### **Vocabulary to Living Latin phrases:**

quid = what, which; credo, ere (creditus) = believe, trust; facio, ere (factum) = do, manage, ignorantia, ae, F = dumbness,

## Unit 12

### Medical Prescription

The medical prescription is a written order issued by the physician to the pharmacist and it exactly states which medicaments should be dispensed to the patient.

A complete prescription consists of the following parts:

- 1<sup>st</sup> Date and name of the patient
- 2<sup>nd</sup> Superscription
- 3<sup>rd</sup> Inscription
- 4<sup>th</sup> Subscription
- 5<sup>th</sup> Signature
- 6<sup>th</sup> Name of physician

Basically there exist two types of prescriptions: the original which relates to the mass produced medicaments and the individually prepared medicaments for the patient depending on individual physician's or patient's requirements. But generally there are not any substantial differences between these two types. The main differences are:

1<sup>st</sup> ORIGINAL (or MASS MADE) PACKING - the name of the drug is stated exactly as it is on the packing and the quantity of the packing is given in Roman figures (Latin denotation of the numeral is in accusative)

2<sup>nd</sup> INDIVIDUALLY PREPARED remedy by a pharmacist (i.e., "magistraliter"): the particular components are stated in the following order:

- 1<sup>st</sup> remedium cardinale
- 2<sup>nd</sup> remedium adiuvars
- 3<sup>rd</sup> remedium corrigens
- 4<sup>th</sup> remedium constituens

and these singular componens are expressed in genitive, the quantity (in grams) is given in accusative and quantities are given in Arabic decimal figures.

**Note how to write the grams:**

<b>1</b>	=	<b>gramma, tis, N</b>
<b>0,1</b>	=	<b>decigramma, atis, N</b>
<b>0,01</b>	=	<b>centigramma, atis, N</b>
<b>0,001</b>	=	<b>milligramma, atis, N</b>

In medical prescriptions we use exact pharmaceutical abbreviations. Their complete list is stated at the end of the textbook.

*Examples:*

*Ex 1:*

Rp.

Paralen

Exp. orig. No. II (duas)

D.S. 3 x 1 tbl.

How to read it: Recipe Paralen, expeditiones originales numero duas, da signa

It means in English: Take Valium, two pieces of original package, label (mark) three tablets per day

*Ex 2:*

Rp.

Celaskon

Exp.orig No. II (duas)

D.S. 3 x 1 tbl three times a day one tablet

How to read it: Recipe Celaskon, expeditiones originales numero duas, da, signa

It means in English: Take Celaskon, two pieces of original package, label (mark) three times a day one tablet

*Ex 3:*

Rp.

Phenobarbitali        0,02

Bromisovali         0,2

M.F.pulv.

D.t.d. No. XX (viginti)

D.S. three times a day 1 dose

How to read it:        Recipe Phenobarbitali centigrammata duo  
                              Bromisovali decigrammata duo  
                              Misce fiat pulvis  
                              Dentur tales doses numero viginti  
                              Da signa

It means in English: Take two centigrams of phenobarbital  
                              two decigrams of bromisoval  
                              mix until it becomes powder  
                              evenly divide into twenty doses  
                              label (mark) three times a day one dose

### **Exercises:**

#### **1        Form parts of medical prescriptions:**

Divide the mass into two equal parts.

Dissolve in 500 milligrams of water.

Mix the solution, sign and give into the dark brown bottle.

Mix four parts of solution with 1000 miligrams of distilled water.

Mix, pills should be done according to the law of science.

Give two bottles of the belladonna extract.

Take 20 milligrams of the sulphuric powder.



**2 Read the following pharmaceutical prescriptions:**

Rp.

Tanakan tbl.

Exp.orig. No III (tres)

D.S. Three times daily one tablet

Rp.

Ophthalmo-Framykoin ung. ophth.

Exp.orig. No I (unam)

D.S. Three times daily put the ointment into the right eye

Rp.

Potassii bromidi 0,8

Chloralis hydratis 0,5

Tincturae hyoscyami 0,25

Syrupi aurantii 0,75

M.f.sol.

D.S. Teaspoonful in water at bedtime

Rp.

Extracti canabis indicae 0,5

Acidi salicylici 0,2

Olei terebinthinae 0,05

Acidi acetici glacialis 0,2

Cocainae 0,1

Fac pastam

D.S. Apply a thin coating over the corn every night as long as necessary

# Layout of Prescription Form

**Code of Insurance Company** [ ] **Serial Number** [ ]

**PRESCRIPTION**

**Surname and Name** [ ]

**Number of Policyholder** [ ] **f.** [ ]

**Address** [ ]

**Rp.** **Gr.** [ ] **Code** [ ]

**Kalii jodidi** **1,0** **remedium cardinale**

**Ephedrini hydrochloridi** **0,2** **remedium adiuvans**

**Thymi sirupi comp.** **20,0** **remedium corrigens**

**Aquae purif.** **ad 100,0** **remedium constituens**

**M.f. sol.** **Code** [ ]

**D. ad lag.**

**D.S. three times per day one spoon**

**Date:** [ ]

**Stamp of Medical Institution** [ ] **Prepared by** [ ] **Expanded by** [ ]

# Unit 13

## Latin and Greek Prefixes

### Short survey of pharmaceutical and medical terminology

The Latin language, even though it is a dead language which is not longer used for common communion, but despite this it is not completely dead as serving besides others as the language of medical, pharmaceutical and veterinary terminology and this helps to the communication among physicians, pharmacists and some other related scientists. It is very constituent, logical and organized and it is still productive and even changing language today. The Latin pharmaceutical terminology having to form exact terminological names makes use not only of the Latin language but also of the Greek language. The professional Latin and Greek expressions are formed by using their word roots and by:

- a) extending them by (Latin or Greek) prefixes
- b) extending them by (Latin or Greek) suffixes
- c) extending them by (Latin and Greek) both prefixes and suffixes
- d) composition of two or more stems of Latin or Greek origins
- e) combining all the possibilities mentioned above.

### Latin and Greek Prefixes

Latin and Greek prefixes play an important role in the really exact pharmaceutical terminology and they mostly define the specific professional meaning of the appropriate word. Originally, most prefixes in Latin and Greek terminology were standard prepositions or they were something like “particles” which did not have the meaning of its own.

The practical forming of these new professional expressions is performed by adding an appropriate Latin or Greek prefix to the word’s root. Contrary to Latin, the Greek prefixes are more productive. As said above the most of prefixes originated from Latin and Greek prepositions. Some of these prepositions existed on their own as they were e.g. **ad**, **ante**, **circum** etc. which gave the origin to such nouns as **adductor**, **antebrachium**, **circumflexus** etc. But some prefixes did not exist „solely” as e.g. **dys** - **dysfunctio** but they started to be used in the same way.

## Latin prefixes

### 1. Latin prefixes which originated from Latin prepositions:

prefix	meaning	example
<b>a-,ab-, abs-</b>	away from, distance	ab-usus
<b>ad,-af-,ac-,ap-,as-</b>	towards, to, joining	ad-ductor
<b>ante-</b>	before, in front of	ante-positio
<b>circum-</b>	around	circum-ferentia
<b>contra-</b>	against	contra-indicatio
<b>cum:com-,co-,cor-con-,col-</b>	with, together	co-agulatio
<b>de-, des-</b>	from, downwards	des-infectio
<b>dis-</b>	away from	dis-penso
<b>e-, ex-, ef-</b>	away from	ex-tractum
<b>extra-</b>	outside	extra-cellularis
<b>in-, il-, im-, ir-</b>	inside, within	in-fusum
<b>in-, il-, im-, ir-</b>	negation	in-solubilis
<b>infra-</b>	below, under	infra-scapularis
<b>inter-</b>	between	inter-osseus
<b>intra-</b>	inside	intra-muscularis
<b>ob-, oc-, op-, o-, os-</b>	opposite, behind	ob-ductus
<b>per-</b>	through, during	per-oralis
<b>per-</b>	excessive	per-acutus
<b>post-</b>	after, behind	post-operativus
<b>prae-</b>	earlier, before	prae-scriptio
<b>pro-, prod-</b>	before, in front of	pro-cessus
<b>sub-, suc-, suf-, sup-, sus-</b>	below, under	sup-positorium
<b>super-, supra-</b>	above	supra-renalisis
<b>trans-, tra-</b>	across, over	trans-fusio

**2. Prefixes which came into origin from special “parts” which did not exist “solely”:**

prefix	meaning	example
<b>dys-</b>	negative, spreading, dividing	dys-funcio
<b>in-, il-, im-, ir-</b>	negative	in-
operabilis,		in- sufficientia
<b>re-, red-</b>	repetition (again)	re-cidivus, re-
infecio		
<b>se-, sed-</b>	separation	se-paranda, se-lectio

**Greek prefixes**

prefix	meaning	example
<b>a-, an-</b>	negation	a-vitaminosis
<b>ana-</b>	up, again, repeated	ana-lysis
<b>anti-</b>	against	anti-bioticus
<b>apo-</b>	away from, of	apo-theke
<b>cata-, kata-</b>	downwards	cata-racta
<b>dia-</b>	through, dissolution	dia-lysis
<b>di-</b>	twice	di-gastricus
<b>dys-</b>	disorder	dys-pepsia
<b>ecto-, ec-, exo-</b>	outside, displaced	ecto-derma
<b>en-, em-</b>	in, inside	em-bolia
<b>endo-</b>	inside	endo-cardium
<b>epi-, ep-</b>	over, at	epi-glottis
<b>hypo-, hyp-</b>	under, below	hypo-physis
<b>hyper-</b>	above, over	hyper-aciditas
<b>meta-, met-</b>	over, after	meta-stasis

<b>para-, par-</b>	at, beside	para-plegia
<b>peri-</b>	around	peri-osteum
<b>pro-</b>	before, earlier	pro-phylaxis
<b>syn-, sym-</b>	with, together	sym-ptoma

## Exercise

### 1 Translate:

Dens praemolaris. Fascia antebrachii. Vasa afferentia et efferentia. Dilatio cordis. Peritonitis chronica. Carcinoma cum metastasibus. Glandula suprarenalis. Arteria interossea. Caput musculi adductoris. Arteria circumflexa. Morbus recidivus. Infractio ossis. Morbus subacutus, acutus, peracutus. Tumor inoperabilis. Exsanguinatio post rupturam arteriae femoralis. Praemediatio. Adstringentia. Expectorantia. Injectio subcutanea, intramuscularis, intravenosa. Analgeticum contra dolorem. Contraceptiva. Praescriptio medicamenti lege artis. Acidum dilutum. Remedium constituens. Analysis sanguinis. Contraindicatio remedii. Venena et separanda. Applicatio peroralis.

### 2 Give opposites to the following expressions:

postoperativus  
hypertonia  
mobilis  
hypofunctio  
subaciditas  
ad usum externum  
supraorbitalis  
musculus adductor  
hypertonia

### 3 Make new expressions using given prefixes and translate them:

dis:	locatio	prae:	maturus	sub:	totalis	re:	infectio
	similis		carcinoma		chronicus		destillatus
	torsio		vertebralis		mucosus		sutura
	functio		natalis		cutaneus		positio

### 4 Make words with given meanings using suitable prefixes:

amputatio:	repeated amputation
oralis:	given through the mouth
cephalon:	inside the head
tomia:	repeated cutting
bioticus:	against life
physis:	growing together
osteum:	around the bone

### 5 Translate:

the premature birth, higher tension, reposition of the bone, diluted acid, repeated infection of contagious disease, subcutaneous injection, medicaments causing shrinkage, low acidity, pills administered through the mouth

### Vocabulary:

abscessus, us, M	abscess, localized collection of pus burried in tissues
adstringentia	medicine causing shrinkage
afferens, entis	afferent
amputatio, onis, F	amputation
apoplexia, ae, F	apoplexy, an apoplectic stroke
bios ( <i>Greek</i> )	life
contraceptivum, I, N	medication for the birth control
contraindicatio, onis, F	factors that increase the risk involved in using a particular drug

dyspepsia, ae, F	impairment of digestion
efferens, entis	efferent
epicardium, ii, N	the layer of serous pericardium on the surface of the heart
epinephriticus, a, um	pertaining to the adrenal gland
expectorantia	expectorant, agent dissolving sick mucus
hypertonia, ae, F	excessive tone of the skeletal muscles
ignotus, a, um	unknown
infusio, onis, F	infusion
intramuscularis, e	into the muscle
kefale (cephalon) ( <i>Greek</i> )	head
massa, ae, F	mass
metastasis, is, F	metastasis, transfer of disease from one organ to another
osteon (osteum) ( <i>Greek</i> )	bone
otos (otis) ( <i>Greek</i> )	ear
paranephriticus, a, um	paranephric, near the kidney
perimetrium,ii, N	the serous coat of the uterus
physis ( <i>Greek</i> )	grow
polyneuritis, idis, F	inflammation of many nerves
praemediatio, onis,	premedication, a drug treatment given to a patient before a medical procedure
praemolaris, e	premolar
praescriptio, onis, F	prescription
remedium constituens	vehicle, agent used as a solvent in the solution
separanda	medicaments that must be separated from others
subclavius, a, um	under the clavicle
subcutaneus, a, um	under the skin
suppositorium, ii, N	a medicated mass to be introduced into a body orifice
tome (tomia)	cut, cutting
venenum, i, N	venom, poison



## Unit 14

### Latin and Greek Suffixes

Latin and Greek suffixes determine mostly the grammatical rules i.e. the gender, the number or the case; but contrary to it they can have also some specific professional meanings as well. This is for instance the inflammatory ending **-itis**: gastr-**itis** or diminutive ending **-ulus**: lobulus etc. The formation using both suffixes and prefixes at the same time is quite standard practice in Latin. The Latin or Greek suffixes have to be added to the end of the word-stems which are the bearers of its meaning. These suffixes can be added either to nouns or to adjectives and they are fixed directly to the stem of the noun or the adjective. The most frequently used Latin and Greek suffixes are as follows:

#### 1. Latin suffixes added to the nouns:

suffix	meaning	example
<b>-ia, -antia, -entia</b>	quality, state	dement-ia, subst-antia, virul-entia
<b>-bra, -brum</b>	instrument, organ	cere-brum (brain)
<b>-ina, -inum</b>	science, concrete names	offic-ina, vac-inum
<b>-io, itio, -sio, -xio</b>	activity or result	circula-tio, iniec-tio
<b>-itas</b>	quality, state	obesi-tas, qual-itas
<b>-ium</b>	concrete names	remed-ium
	chemical substances	acid-um, calc-ium
<b>-men</b>	mean, result of action	medica-ment
<b>-mentum</b>	mean, result of an activity	instru-mentum medica-mentum
<b>-or</b>	physical and psychical state	tum-or, rub-or
<b>-tor, -xor, -sor</b>	agent	flex-or,
audit-or		

<b>-ura</b>	activity, result	incis-ura, fract-ura
<b>-tus, -sus, -xus</b>	status, action	par-tus, us-
<b>us</b>		

## 2. Latin diminutives (the gender does not change from the original noun):

<b>-elleus, -ella, -ellum</b>	cereb-ellum (from cerebrum)
<b>-culus, -a, -um</b>	corpus-cullum (little body)
<b>-illus, -illa, -illum</b>	pup-illa (pupil)
<b>-olus, -ola, -olum</b>	arteri-olum
<b>-ulus, -ula, ulum</b>	cell-ula

## 3. Latin suffixes of adjectives

suffix	meaning	example
<b>-aceus</b>	matter of which the phenomenon is formed	amyl-acues (of starch)
<b>-alis</b>	relation, appurtenance	later-alis
<b>-aris</b>	relation, appurtenance	cappil-aris
<b>-arius</b>	appurtenance, coherence	coron-arius
<b>-atus</b>	similar to, equipped	pulver-atus
<b>-ax</b>	tendency, disposition	cap-ax (having capacity)
<b>-bilis</b>	possibility, qualification	solu-bilis, sana-bilis
<b>-eus</b>	matter of which phenomenon is formed	sanguin-eus
<b>-icus</b>	appurtenance, coherence	optic-us
<b>-idus</b>	quality, appetence	frig-idus
<b>-ilis</b>	possibility, qualification	ut-ilis, mob-ilis
	relation, appurtenance	solub-ilis, infant-ilis
<b>-inus</b>	appurtenance, coherence	palat-inus

<b>-ius</b>	appurtenance, coherence	poster-ius
<b>-ivus</b>	coherence	abort-ivus
<b>-ix</b>	tendency to, deposition	fel-ix
<b>-lentus</b>	full of	puru-lentus, viru-lentus
<b>-neus</b>	matter of which the phenomenon is formed	subcuta-neus
<b>-orius</b>	having the function of	olfact-orius
<b>-osus</b>	having the function of	cari-osus, ven-osus
<b>-ox</b>	tendency to, disposition	prae-ox
<b>-tus</b>	equipped with, similar to	denta-tus

#### 4. Greek suffixes

suffix	meaning	example
<b>-ia</b>	denotes a disease	ischem-ia, pneumon-ia
<b>-ismus</b>	condition, status	albin-ismus
<b>-oideus/-isodes</b>	similarity to	xiph-oideus (xyph-oideus)
<b>-it is</b>	inflammatory process inflammatory disease	arthri-itis
<b>-oma</b>	usually a new growth of a tumor	oste-oma, lip-oma
<b>-osis</b>	state or character of a disease	tubercul-osis

## Exercises:

### 1 Read and translate:

Lobulus thymi. Ossicula auditus. Caniculus lacrimalis. Bronchitidis bilateralis. Necrosis post operationem gravem. Morbus respiratorius. Cancer sanabilis. Pars lateralis. Infectio purulenta. Corpusculum parvum.

Opium pulveratum. Solutiones aequosae et spirituosae et oleosae. Linimenta ad usum externum. Emulsio oleosa. Vitrum operculatum. Charta cerata.

### 2 Make adjectives from the following nouns using suffixes -alis, -aris, -ilis:

*Example: febris - febrilis*

superficies, latus, nasus, facies, musculus, ulna, tonsilla; tempus, costa, lumbus, pulmo, iuvenis

### 3 Translate into Latin:

aromatic water, returning disease, soluble powder, pills against chronic inflammation of joints, danger of meningitis, venous network of the brain, the anamnesis necessary for a good diagnosis, universal arteriosclerosis, prevention of hypertension, pathologic forming of bone matter, liquid and dry extracts, the deformation of lateral part

## Vocabulary:

amylum, i, N	starch
brachialis, e	brachial
caudatus, a, um	caudate
ceratus, a, um	waxy
convergens, ntis	convergent
divergens, ntis	divergent
focalis, e	focal

gaster, tris, F  
glans, ndis, F  
hypertensio, onis, F  
immunis, e  
invalidus, a, um  
levator, oris, M  
linimentum, i, N  
meningitis, iridia, F  
necrosis, is, F  
obesita, atis, F

stomach  
gland  
hypertension  
immune  
invalid, with a handicap  
levator, the muscle pushing up  
ointment  
meningitis  
necrosis, decay  
obesity

## Unit 15

### Latin and Greek Compound Words

#### Compound words in pharmaceutical and medical terminology

Compound words are within Latin professional terminology very frequent. They are created by putting two or more word-roots together. These roots can be of Latin or Greek origin and they can be created from various word categories – nouns, adjectives, numerals and verbs as e.g. oculo-guttae (oculus + gutta), malformatio (malus + formatio), primipara (primus + parere) etc. Sometimes we may also find so called hybrids what means we can combine Latin and Greek components together; this is e.g. dysfunctio = dys a Greek prefix + functio a Latin word. The individual categories are not limited when putting them together. Mostly we also combine these compound words with different Latin and Greek prefixes or suffixes what enables to express more precious meaning of them.

#### Latin compound words

term	components	meaning
<b>1<sup>st</sup> group</b>		
<b>Noun+noun</b>	cerebrospinalis (cerebrum+spina) sternocostalis (sternum+costa)	cerebrospinal sternocostal
<b>2<sup>nd</sup> group</b>		
<b>Adjective+noun</b>	multicellularis (multus+cellula) malformatio (malus+formatio)	multicellular malformation
<b>3<sup>rd</sup> group</b>		
<b>Noun+verb</b>	ossificatio (os+facere) lactifer (lac+ferre)	ossification milkconducting
<b>4<sup>th</sup> group</b>		
<b>Adjective+verb</b>	purificatus (purus+facere)	purified

	dextropositio (dexter+positio)	right position
<b>5<sup>th</sup> group</b>		
<b>Numeral + noun</b>	secundi-gravida	woman pregnant for the second time
	tri-lobatus (tres+lobus)	trilobate
<b>6<sup>th</sup> group</b>		
<b>Numeral + verb</b>	primipara (primus+parere)	woman giving birth for the first time
	ambivalens (ambo+valere)	ambivalent
<b>7<sup>th</sup> group</b>		
<b>Numeral+adjective</b>	bilateralis (bis + lateralis)	bilateralis
	primigravida (primus+gravis)	woman pregnant for the first time
being		

### **Greek compound words**

term                      derived of original meaning                      example (+meaning if necessary)

#### **1<sup>st</sup> group**

##### **Mostly used nouns**

<b>haem(at)-o</b>	haima = blood	haem-o-globinum
<b>hydr-o</b>	hydor = water	hydr-o-cephalia (forming water in head)
<b>pyo-</b>	pyon = pus	py-uria = pus in urine
<b>uro-</b>	uron = urine	ur-eamia = urine in blood
<b>pyr-o</b>	pyr = fire	pyr-omania = obsession to set fire

## 2<sup>nd</sup> group

### Mostly used adjectives:

<b>auto-</b>	autos = the same, by oneself	auto-trophia = auto-trophy
<b>brady-</b>	bradys = slow	brady-cardia = slower cardiac action
<b>macr-o-</b>	macros = long	macro-scopia = observation by naked eye
<b>micr-o-</b>	micros = small	micro-scopia = observation of small objects
<b>poly-</b>	polys = numerous	poly-morphismus = polymorphic
<b>pseudo-o-</b>	pseudes = false, wrong	pseudo-cystis = false cyst
<b>tachy-</b>	tachos = fast	tachy-cardia = faster cardiac action

## 3<sup>rd</sup> group

### Mostly used numerals:

<b>mono-</b>	monos = one, unique	mono-bromatus
<b>di-</b>	dyo = two	di-sacharidum
<b>tri-</b>	treis = three	tri-gonum (triangle)
<b>tetra-</b>	tettares = four	tetra-plegia (handicap of four limbs)
term	derived of original meaning	example (+meaning if necessary)

## 4<sup>th</sup> group

### Most frequently used second-position expressions:

<b>-aemia</b>	aemia, haima = blood	leucaemia (insufficiency of red blood cells)
<b>-algia</b>	algos = pain	nephralgia (pain of kidneys)



<b>-ectomia</b>	ektome = excision	hysterectomy (surgical excision of the womb)
<b>-genes</b>	gennaō = give a birth	cryptogenes (of unknown origin)
<b>-logia</b>	logos = science	pathologia
<b>-mania</b>	mania = obsession	toxicomania
<b>-rrhagia</b>	rhegnymi = bleeding	enterorrhagia (bleeding from the intestines)
<b>-scopia</b>	scopeo = observe, see	laparoscopia
<b>-stomia</b>	chirurgial ending	tracheostomia = tracheostomy
<b>-therapia</b>	therapia = treatment	pharmacotherapy
<b>-trophia</b>	trofe = nutrition	heterotrophia (nutrition on other substances which were prepared from different organisms)

## Exercises:

### 1 Translate into English:

Macrocytus. Erytrocytus. Microfracura. Coma hypoglycaemicum. Gastroectomia subtotalis. Immobilitas membrorum. Dysfunctio renum gravis. Tracheotomia. Pandemia influenzae. Uraemia post dysfunctionem renum gravum. Neuropathia. Pyodermia. Haemostatica. Dermatologica. Chemotherapy. Phytotherapy. Laparoscopia. Gastrorrhagia. Gastrologia. Cardiopathia.

### 2 Say the term in the opposite meaning:

tachycardia, macrosomnia, bradypnoe, polysacharidum, heterogenes, subtotalis, mobilitas, dysfunctio, isomorphismus, allopathia

### 3 Translate into Latin:

malformation of the heart, urinary calculi, nasolacrimal duct, pregnancy outside the uterus, abnormally large heart, fear of closed rooms, pain originating in nerves, handicap on three limbs, abnormally small body growth, artificial outlet of the large intestine at the body surface

#### Vocabulary:

allopathia, ae, F	allopathy
autointoxicatio, onis, F	autointoxication
autotrophia, ae, F	autotrophy
bacteriaemia, ae, F	bacteriaemia
bradycardia, ae, F	bradycardia
cardialgia, ae, F	pain in the cardiac region
enterorrhagia, ae, F	bleeding inside intestines
gastralgia, ae, F	pain in the stomach region
gastrodynia, ae, F	pain in the stomach region
gastrorrhagia, ae, F	bleeding inside the stomach
gastrospasmus, i, M	spasm inside the stomach
haematologia, ae, F	science relating the blood
haematuria, ae, F	urine in the blood
hydrophobia, ae, F	fear of water
hydrotherapia, ae, F	therapy using water
macrocytus, i, M	extremely large blood cell
megalocardia, ae, F	extremely large heart
myocytus, i, M	muscle cell
myospasmus, i, M	spasm of the muscle
nephrectomia, ae, F	excision of kidney
otalgia, ae, F	pain in the ear
otodynia, ae, F	pain in the ear
pathologia, ae, F	science relating pathology
pharmacotherapia, ae, F	pharmaceutical therapy
pneumothorax, cis, M	air inside the thoracic cavity
pyuria, ae, F	pus in urine
tracheostomia, ae, F	excision of trachea

urophobia, ae, F

fear of nature urination

zoophobia, ae, F

fear of animals

# Unit 16

## Revision

### Revision U 1 – 5

#### 1 Translate into English:

Remedium ad usum internum.

Lagoena aquae destillatae.

Musculus flexor.

Cavum oris.

Capsulae gelatinosae in scatula.

Guttae in vitro.

Brachium sinistrum.

Papaveris flos.

Tabulattae fortes.

Aurantii sirupus.

Olivae oleum raffinatum.

Olla vaselini albi.

#### 2 Translate into Latin:

Ointment for external usage.

Transfusion of blood because of complicated operation.

Concentrated solution of acid.

Distillated extract of herbs.

Water in the flask.

Original package.

Death after a lethal dose.

Complicated operation.

### **3 Decline the following couples in Latin:**

Fractura complicata.

Injectio intravenosa.

Rremedium bonum.

Sal amarum.

Cancer benignus.

Extractum siccum.

Vulnus lacerum.

Tinctura amara.

Acidum sulphuricum.

### **Revision U 6 - 10**

#### **Exercises:**

#### **Task 1 Translate into English**

Liquidus ad desinfectionem.

Luxatio congenita coxae dextrae.

Capsulae gelatinosae in vitro.

Tabulatta effevescens.

Species stomachicae.

Dosis originalis una.

Expeditiones originales tres.

Musculus pectoralis maior.

Pulvis subillimus.

Inflamatio ventriculi.

Mixtura destillata pro iniectioe.

Post amputationem femoris sinistri.

Octo ossa carpalia.

Ter per diem.

Scatula cum viginti tabulettis.

Mors die sexto post operationem.

Fractura duarum costarum complicata.

**Task 2 Put the adjectives in these short expressions into their comparative and superlative: forms:**

Sanatio facilis.

Dolor acer.

Trauma grave.

Os breve.

Prognosis bona.

Periodus longa.

Infarctus recens.

Pars mollis.

**Task 3 Put the words in brackets into their right forms:**

contusio (genu+sinister, a, um)

operatio propter (trauma +gravis, e)

scatula (species+pectoralis, e)

lagoena (spiritus+dilutus, a, um)

olla (unguentum+simplex)

scatula cum (pulvis+mollis, e)

expeditio (remedium)

contractio (cor) sine (dolor)

**Revision U 11 - 15**

**Task 1 Decline:**

Dosis therapeutica.

Pulvis compositus.

Dens molaris.

Manus dextra.

Species stomachicae.

Expeditiones originales tres.

Oleum originale.

Una facies interna.

Capsula entroslovens.

Gramma unum.

**Task 2 Translate these short expressions into English:**

Graviditas extrauterina secundigravidae.

Ostium appendicitis.

Dextropositio cordis.

Xenophobia sine causa.

Narcomania.

Claustrophobia.

Tetragravidia cum hemmorrhagia gravis.

Malformatio columnae vertebralis congenita.

**Task 3 Put these words into their opposite meaning:**

tachycardia

macrosomnia

polysacharidum

hyperglycaemia

dyspnoe

monosacharidum

bradykynesis

autotrophia

**Task 4 Change the words in brackets into their right forms:**

collum (femur)

carcinoma (insanabilis, e)

fractura (vertebra cervicalis,e)

foramen (ischiadicus,a, um + minor, us)

therapia (diabetes +melitus, a,um)

recipe (3 tabuletta)

dentur (2 suppositorium)

operatio cum (narcosis + intravenosus, a, um)

sanatio propter (luxatio +coxa)

**Task 5 Explain the exact meaning of these words:**

contraindicatio

pneumothorax

primigravida

carcinogenes

phytootherapia

laparoscopia

pseudocystis

tracheostomia

psychopathia

pandemia

enterorrhagia

**Task 6 Read the following pharmaceutical prescriptions:**

Rp.

Aspirin tbl.

Exp.orig. No II (duas)

D.S. Three times daily one tablet

Rp.

Maxitrol ung. ophth.

Exp.orig. No I (unam)

D.S. Three times daily put the ointment into the right eye

Rp.

Quinnini sulfatis dihydrici 0,2

Papaverini hydrochloride 0,05

Lactosi q. s. ut f. pulv.

D.t.d. No XXX (triginta) ad caps. gelat.

D.S. One pill per night



## Unit 17

### Survey of Pharmaceutical Prescription Abbreviations

In medicine and pharmacy it is quite common practice to abbreviate all possible Latin words except of cases where the confusion could appear. The pharmaceutical abbreviations include the names of ingredients, amounts and directions to the pharmacist which were formerly fully written in Latin. The names of the drugs which could be confusing or not being exact are not written in abbreviations to avoid the possibility of a serious mistake. A complete list of established abbreviations follows:

#### A

aa (p. aeq.)	ana (partes aequales)	of each, in the same amount
aa ad	ana ad	of each to ... (something)
ac., acid.	acidum; acidus	acid; acidus, sour
acet.	acetum; aceticus	vinegar
ad caps. gelat.	ad capsulas gelatinosas	in (into) gelatinous capsules
ad inf. med.	ad informationem medici	for the doctor's information
ad man. med.	ad manus medici	to (into) doctor's hands
ad us. ext.	ad usum externum	for external use
ad us. int.	ad usum internum	for internal use
ad us. propr.	ad usum proprium	for his/her own (personal) use
ad us. vet.	ad usum veterinarium	for veterinary use
ad vitr.	ad vitrum	into the bottle
add.	adde, addatur, addantur	add
agit.	agita	shake
amp.	ampulla	ampoule
anhydr.	anhydricus	anhydrous, without water
aq.; aquos.	aqua; aquosus	water, of water
aq. dest.	aqua destillata	distilled water
aq. pro inj.	aqua pro injectione	water for the injection
aq. purif.	aqua purificata	purified water

aq. steril.	aqua sterilisata	sterilized water
aq. ophth.	aqua ophthalmica	ophthalmic water
arom.	aromaticus	aromaticus
<b>B</b>		
bac.	bacillus	stick, chopstick
<b>C</b>		
c.	cum	with
c. f.	cum formula	with a copy of a prescription
comp.	compositus	composed
conc.	concentratus	concentrated
cor.	cortex	peel, bark
crm.	cremor	cream
<b>D</b>		
d.; D.; dent.	da; detur; dentur	give, let it be given, let them be given
D. ad amp.	da ad amplullas	give into the ampoules
D. ad caps.	da ad capsulas	give into the capsules
D. ad lag.	da ad lagoenam	give into the bottle
D. ad scat.	da ad scatulam	give into the boxes
D. ad vitr.	da ad vitrum	give into the glass bottle
D. c. f.	detur cum formula	let it be given with a prescription
D. S.	da signa; detur signetur	give and sign, let it be given and signed
D. t. d.; Dent. tal. dos.	dentur tales doses	let such same doses be given
dil.; dilut.	dilutus	diluted
Div.	divide	divide, to be dived
Div. in d. aeq.	divide in doses aequales	divide in the same doses
dos.	dosis; doses	dose, doses
<b>E</b>		
exp.	expeditio	expedition

		original expedition
effer.	effervescens	effervescent
exp. orig.	expeditio originalis	original packaging
extr.	extractum	extract
empl.	emplastrum	plaster
emul.	emulsio	emulsion
<b>F</b>		
f.	fiat; fiant	make, let it (them) be made
flav.	flavus	yellow
fl.; flor.	flos; flores	flower, herb
fol.	folium; folia	leaf, leaves
fr., fruct.	fructus	fruit
ft. empl.	fiat emplastrum	let a plaster be made
ft. emul.	fiat empulsio	let an emulsion be made
ft. infus.	fiat infusum	let an infusion be made
ft. mass	fiat massa	let a mass be made
ft. pil.	fiat pilulae	let pills be made
ft. solut.	fiat solutio	let a solution be made
ft. ungu.	fiat unguentum	let an ointment be made
<b>G</b>		
garg.	gargarisma	gargle
glob.	globulus	globule, ball
gtt.	gutta, guttae	drop, drops
guttat.	guttatorium	by drops
<b>H</b>		
hyd.; hydr.	hydrosus	of water, hydrous
herb.	herba	plant, flower
H.	hora	hour
H.D.	hora decubitus	at the hour of retiring
H.S.	hora somni	at the hour of sleep
<b>I</b>		
isoton.	isotonicus	isotonic

inj.	iniectio	injection
in. d.	in dies	daily
int.	internus	internal
<b>L</b>		
lag.	lagoena	bottle, flask
l. a.	lege artis	in accordance with the legislation
liq.	liquor; liquidus	liquid
lot.	lotio	lotion
<b>M</b>		
m. (M.)	misce	mix
mac.	macera	macerate
mag.	magnus	large
mas.	massa	mass
M. d. s.	misce, da, signa; miscetur, detur, signetur	mix, give and label (sign); let it (them) be given, mixed and signed
M. f.	misce, fiat	mix until it becomes
M.f. mixt.	misce, fiat mixtura	mix until it becomes the mixture
M.f.plv.	misce, fiat pulvis	mix until there becomes the pill
M.f. sol.	misce, fiat solutio	mix until there becomes the solution
M.f.sp.	misce, fiant species	mix until there becomes the tea mixture
M. f. ung.	misce, fiat unguentum	mix until there becomes the ointment
minut.	minutum	minute
muc.	mucilago	mucilage
<b>N</b>		
No.	numero	in number

non rep.	non repetatur	let it not be repeated
<b>O</b>		
orig.	originalis	original
obd.	obductus	coated
ol.	oleum	oil
ophth.	ophthalmicus	eye, ophthalmic, ocular
O.M.	omni mane	every morning
O.N.	omni nocte	every night
<b>P</b>		
p. a.	pro anylysi	for analysis
part. vic.	partitis vicibus	equal parts
pas., pastil.	pastillum	a small lozenge
pil.	pilula	pill
p. aeq.	partes aequales	in the same amount (portion)
p. d.	pro dosi	for a (sole) dose
p. die	pro die	per day, daily
peroral.; p. o.	peroralis	per oral, used by mouth
pot.	potus	a drink
pro adult.	pro adultis	for adults
pro inf.	pro infantibus	for children (infants)
P. P. A.	phiala prius agitate	after shaking a bottle
P. R. N.	pro re nata	occasionally
pulv.	pulvis, pulveres	powder
pulv. ads.	pulvis adspersorius	adspersory powder
<b>Q</b>		
q. s.	quantum satis	as much as needed
Q. L.	quantum libet	as much as you please
Q. P.	quantum placet	as much as you please
Qq.	quaque	each, every
Qq. hor.	quaque hora	every hour
Q. S.	quantum sufficiat or quantum	as much as may be sufficient
Q. V.	satis	as much as you please
	quantum vis	

**R**

R.; Rp.; Rc.; Rec.	recipe	take
rec.	recens	fresh
rep.; rept.; rpt.	repetatur	repeat, let it be repeated

**S**

s.	satis	enough
S.; sig.	signa, signetur	label
	signatura	labelling
s. a.	sine antimicrobico	without any microbiological additions
s. n.	suo nomine	under its name
scat.	scatula	box
sem.	semen	semen, sperm
sic.	siccus	dry
solv.	solve	dissolve
sir.	sirupus	syrup
sp.; spec.	species	tea mixture
spir.; spirit.	spiritus	spirit, alcohol
sub sig. ven.; s. s. v.	sub signo veneni	under the labelling (name) poison

**T**

t.d.	tales doses	in such doses
tab(l).tbl.	tabulleta, tabulletae	tablet, tablets
tct.,tinct.	tinctura	tincture

**U**

ung.	ungunetum	ointment
utend.	untedum	to be used

**V**

ven.	venenum	poison, venom
vit.	vitrum	glass bottle
virid.	viridus, a, um	green

## **Unit 18**

### **Chemical Nomenclature**

The chemical nomenclature in Latin is basically divided into two types, the first one is called the Latin traditional formulary nomenclature and the second one is named the Latin international formulary nomenclature.

The traditional Latin formulary nomenclature presents the classical middle European nomenclature which started to be used at the time of the validity of Austrian formulary nomenclature and this nomenclature was also later overtaken into the first edition of the Czechoslovakian formulary nomenclature issued in the year 1947 and a few years later again used in the following Czechoslovakian formulary nomenclature. But in the new Czech formulary nomenclature issued in the years 1997, 2002, 2005 and 2009 there has been consistently applied the international Latin formulary nomenclature. There exist a number of differences between these two types.

#### **1<sup>st</sup> Nomenclature of elements**

All the chemical elements except phosphorus and sulphur are the neuter nouns of the second declension. They are finished in nominative of singular in their ending –um or –ium (genitive –i, -ii). The exceptions - phosphorus is a masculine noun of the second declension and sulphur is a neuter noun of the third declension. The most commonly used elements are for instance aluminium, arsenum, barium, calcium, chloridum, hydrogenium, ferrum, kalium and many others.

#### **2<sup>nd</sup> Nomenclature of inorganic compounds**

##### **2.1 Nomenclature of oxides**

The traditional Latin formulary nomenclature terms of oxides consists of the term of the element and the adjective oxydatum for a common oxide, oxydatulum for a lower oxide and

peroxydatum for a higher oxide. Or the oxide is considered as the anhydride of the oxide and the multiples of oxygen are denominated with the numerical prefixes.

#### Examples

Chem. abbrev.	Latin	type
CaO	Calcium oxydatum	common oxide
FeO <sub>2</sub>	Ferrum oxydatum	common oxide
FeO	Ferrum oxydatulum	lower oxide
MnO <sub>2</sub>	Manganum peroxydatum	lower oxide

The Latin international formulary nomenclature forms the terms of oxides with the regard to the number of oxygen atoms inside the molecule, eventually the number of atoms. This international term consists of the substantive genitive of the element and of the nominative of the substantive oxidum using a suitable numerical prefix.

#### Examples

Cu <sub>2</sub> O	Dicupri oxidum
CuO	Cupro oxidum
Cr <sub>2</sub> O <sub>3</sub>	Dichromii trioxidum
CrO <sub>2</sub>	Chromii dioxidum

## 2.2 Nomenclature of peroxides

The Latin traditional formulary nomenclature term uses the nominative of the element and the adjective peroxydatum.

The Latin international formulary nomenclature term consists of the genitive of the element and the nominative of the substantive peroxidum

#### Examples

Chem. abbrev.	traditional term	international term
H <sub>2</sub> O <sub>2</sub>	Hydrogenium peroxydatum	Hydrogenii peroxidum
Na <sub>2</sub> O <sub>2</sub>	Natrium peroxydatum	Natrii peroxidum



### 2.3 Nomenclature of hydroxides

Latin terms of hydroxides are formed similarly as the terms of oxides this is concretely used for both types - traditional or international formulary nomenclature. In the traditional nomenclature instead of the adjective oxydatum there is used hydroxydatum, in the international nomenclature there is used instead of oxidum hydroxidum

#### *Examples*

Chem. abbrev.	traditional term	international term
NaOH	Natrium hydroxydatum	Natrii hydroxidum
Ca(OH) <sub>2</sub>	Calcium hydroxydatum	Calcii hydroxidum
Al(OH) <sub>3</sub>	Aluminium hydroxydatum	Aluminii hydroxidum

### 2.4. Nomenclature of hydroxide- and oxide- salts (alkali salts)

The Latin traditional formulary nomenclature term is created from the nominative of the element and the adjective of the acid with the prefix sub-, or the nominative of the element and the adjective of the acid which is completed with the adjective basicum.

#### *Example*

Chem. abbrev.	traditional term
SbNO <sub>3</sub> (O)	Stibium subnitricum Stibium nitricum basicum

The Latin international formulary nomenclature - the term of these salts consists of the genitive of the Latin element and the nominative of the anion of particular salt with the prefix sub-. If the salt appears in the hydroxide or oxide form, there is no particular term in the international formulary nomenclature.

#### *Example*

Chem. abbrev.	international term
SbCl(O)	Stibii subchloridum (used for both alkali or no alkali)
BiNO <sub>3</sub> (OH) <sub>2</sub>	Bismuthi subnitrans (used for both alkali or no alkali)

## 2.5 Nomenclature of acids

### 2.5.1. Oxygen acids

The traditional and international Latin formulary nomenclature of oxygen acids uses the substantive acidum and the adjective consisting of the Latin element and the suffix –icum for higher acid and –osum for lower acid, eventually with the prefix per- for higher acids or hypo- for lower acids.

#### *Example*

Chem. abbrev.	traditional and international terms
HClO	Acidum hypochlorosum
HClO <sub>2</sub>	Acidum chlorosum
HClO <sub>3</sub>	Acidum chloricum

### 2.5.2 No oxygen acids

The traditional and international Latin formulary nomenclature of no oxygen acids consists of the substantive acidum and the adjective having the prefix hydro- and the Latin element and the suffix –icum.

#### *Example*

Chem. abbrev.	traditional and international terms
HCl	Acidum hydrochloricum
HBr	Acidum hydrobromicum

## 2.6. Nomenclature of salts

### 2.6.1. Nomenclature of salts of oxygen acids

The Latin traditional formulary nomenclature term is composed of the nominative of the Latin element and the adjective of the acid.

The Latin international formulary nomenclature term consists of the genitive of the Latin element and the nominative of the salt (suffix -is for lower oxidative number and suffix -as for common or higher oxidative number).

### *Examples*

Chem. abbrev.	traditional term	international term
NaClO	Natrium hypochlorosum	Natrii hypochloris
NaClO <sub>2</sub>	Natrium hypochlorosum	Natrii hypochloris
NaClO <sub>3</sub>	Natrium chloricum	Natrii chloras
NaClO <sub>4</sub>	Natrium perchloricum	Natrii perchloras

#### **2.6.1.1. Nomenclature of hydrogen salts**

The Latin traditional formulary nomenclature term consists of the nominative of the Latin element and the adjective of the acid with the prefix hydro- or bi- (nowadays there is not recommended to use the prefix bi-).

The Latin international formulary nomenclature term – the presence of “acid hydrogen” in salt in its Latin term is expressed by using the prefix hydrogeno- in front of the appropriate salt (anoint). The number of hydrogen atoms is expressed with the numerical prefix (the prefix mono- is usually not stated).

### *Example*

Chem. abbrev.	traditional term	international term
NaHSO <sub>2</sub>	Natrium hydrosulfuricum	Natrii hydrogenpsulfas

#### **2.6.2. Nomenclature of salts of no oxygen acids**

The Latin traditional formulary nomenclature term is composed of the nominative of the Latin element which is formed from the cation and the adjective is formed from the Latin element which creates this anion with the suffix -atum, possibly also with the numerical prefix.

The Latin international formulary nomenclature terms of salts of no oxygen acids are formed by the genitive of the Latin element and the nominative of the salt term.

### *Example*

Chem. abbrev.	traditional term	international term
NaCl	Natrium chloratum	Natrii chloridum
NaF	Natrium fluoratum	Natrii fluoridum

### 2.6.2.1. Nomenclature of hydrogen salts

The Latin traditional formulary nomenclature term is created from the nominative of the Latin element and the adjective being formed from the Latin element which creates the anion with the prefix hydro- or bi - (nowadays there is not recommended to use the prefix bi-) and the suffix -atum

Chem. abbrev.	traditional term
KHF <sub>2</sub>	kalium hydrofluoratum

The Latin international formulary nomenclature – the presence of “acid hydrogen” in the salt is expressed by using the prefix hydrogeno- in front of the appropriate salt term (anion). The number of hydrogen atoms is expressed by the numerical prefix (the prefix mono- is usually not stated).

Chem. abbrev.	international term
NaHCO <sub>3</sub>	Natrii hydrogenocarbonas

### 2.6.3. Nomenclature of salt of acids with different oxidative number (valence) of elements of cations

The Latin traditional formulary nomenclature creates the differentiation of the oxidative number using the other adjective “oxydatum” (for salt with higher number of cation) or oxydulatum (for salt with lower oxidative number).

The Latin international formulary nomenclature performs this differentiation using the change of the element term (genitive -i for higher oxidative number and -osi for lower oxidative number).

#### *Example*

Chem. abbrev.	traditional term	international term
Fe <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	Ferrum sulfuricum oxydatum	Ferri sulfas
CuCl <sub>2</sub>	Cuprum chloratum oxydatum	Cupri chloridum

#### 2.6.4. Nomenclature of binary salts

The Latin traditional formulary nomenclature - the salt with two cations uses nominatives of the Latin elements (the order is given with the increasing oxidative number).

Chem. abbrev.	traditional term
K <sub>2</sub> SO <sub>4</sub>	Kalium lithium sulfuricum

The Latin international formulary nomenclature – the terms of binary salts are formed by the genitive of the elements and the nominative of the ion or ions of the particular acid.

Chem. abbrev.	international term
CaCl <sub>2</sub> ·H <sub>2</sub> O	Calcii chloridum hypochloris

#### 2.7. Nomenclature of hydrates

A large number of elements can be found in different hydrate form. In the Latin international formulary nomenclature the terms of hydrates are formed using the adjectives hydricus, a, um with the numerical prefix, by no water hydrates using the adjective anhydricus, a, um.

Chem. abbrev.	international term
CaSO <sub>4</sub> · 2H <sub>2</sub> O	Calcii sulfas dihydricus
NaCO <sub>3</sub> · H <sub>2</sub> O	Natrii carbonas monohydricus

### 3<sup>rd</sup> Nomenclature of organic compounds

#### 3.1. Nomenclature of one word basic substances

The Latin traditional and international formulary nomenclature is coincident as e.g. Saccharosum, Paracetamolium.

#### 3.2. Nomenclature of acids

The Latin traditional and international formulary nomenclature is coincident, i.e. acids have either one-word term, e.g. Phenobarbitalium or the term is formed from the substantive acidum and the adjective consisting of the fixed part of the Latin term of the element and the suffix -icum, e.g. acidum aceticum.

### 3.3. Nomenclature of salts

#### 3.3.1 Nomenclature of acid salts with one-word terms

In both Latin traditional and international formulary nomenclature the term of the salt is formed from the nominative of the acid and the adjective with the suffix –icum (calcicum, magnesicum, natricum, zincicum etc.), e.g. Phenobarbitalum natricum, Ampicillinum natricum etc.

#### 3.3.2 Nomenclature of acid salts with two-word terms

The principle is the same for the traditional and international formulary nomenclature when forming the terms of inorganic salts.

#### *Example*

Chem. abbrev.	traditional term	international term
C <sub>7</sub> H <sub>5</sub> NaO <sub>2</sub>	Natrium benzoicum	Natrii benzoas
C <sub>6</sub> H <sub>7</sub> KO <sub>2</sub>	Kalium sorbicum	Kalii sorbas

#### 3.3.3 Nomenclature of salts on organic basis

The Latin traditional formulary nomenclature – the term is formed by the nominative of the organic basis and the adjective of the acid. In accordance with the rules of IUPAC there is applied the “anion” nomenclature for salts with the basis of tertiary or quaternary nitrogen (in this case both types are supposed as amino salts). The endings –inium and –onium indicate that there is dealt with the salt of organic basis but from its name it is not possible to identify which type it is concretely.

The Latin international formulary nomenclature – the terms of salts on organic basis (with the exception of halogenoid salt on organic basis with tertiary nitrogen) they are formed from the genitive of the organic basis and the nominative of the anion of the particular salt. From the name of the medicament with the exception of halogenoid salt it is not possible to specify if there is dealt with the basis of tertiary or quaternary nitrogen. By the halogenic salts on organic basis with tertiary nitrogen there is added to the term of the anion of the halogenic salt the prefix hydro-. By salts with quaternary nitrogen there should be applied the rule of “anion” ending of the basis (e.g. cetrimonium, gen. cetrimonii).

*Example*

traditional term	international term
Pilocarpinium nitricum	Pilocarpini nitras
Hydroxocobalaminium aceticum	Hydroxocobalamini acetas
Procainium chloratum	Procaine hydrochloridum

In a large number of salts there can also appear their shortened chemical terms approved by the WHO as INN (International Non-proprietary Names) within particular groups as e.g. besilas, hyclas or triflutas.

### 3.4. Nomenclature of hydrates

Similarly as for the inorganic compounds – in the Latin traditional and international formulary nomenclature there is added to the compound the adjective hydricus, a, um, possibly with the numerical prefix.

*Example*

traditional term	international term
Coffeinum monohydricum	Coffeini monohydricum
Calcium lacticum trihydricum	Calcii lacticum trihydricum

### 3.5. Nomenclature of esters

#### 3.5.1 Nomenclature of esters of common acids and simple hydroxyderivates

The Latin traditional formulary nomenclature is formed by the nominative of the alkyl or aryl and the basic anion of the acid with the suffix –icum.

The international Latin formulary nomenclature of esters of this type is formed by the genitive of the alkyl or aryl, for example ethylis and the nominative of the group representing the particular acid, possibly also methyl, phenyl etc. and the nominative of the group which represents the particular acid, eventually acetas.

*Example*

traditional term	international term
Methylum salicylicum	Methalis salicylas
Benzylum bonzoicum	Benzylis benzoas

### 3.5.2 Nomenclature of esters of acids and hydrogen derivate with more complicated structures

To esters of this type there is mostly assigned a particular INN term e.g. gefarnatum or tocofenoxanum.

In the Latin traditional formulary nomenclature the terms of esters are formed with the nominative of the INN term of the hydroxiderivate and the adjective formed with the anion of the acid and with the suffix –icum. The international Latin formulary nomenclature of this type is formed by the genitive of the hydroxi derivate (or INN term of hydrogi derivate) and the nominative of the group which represents the particular acid (i.e. formed in the similar way as salts).

#### *Example*

traditional term

Erythromycinum ethylsuccinicum

Estradiolum benzoicum

international term

Erythromycini ethylsuccinas

Estradioli benzoas



# Vocabulary

## Latin – English

### A

abductor, oris, M	muscle the role of which is abducting from the body
abscessus, us, M	abscess, localized collection of pus burried in tissues
acer, cris, cre	sharp
acidum, i, N	acid
ad	to, into
ad (prep. with accus.)	to, for, towards
addo, ere, (additus)	add
adductor,oris, M	muscle drawing the part towards to the body
aden, i, N ( <i>Latin</i> )	gland
adenos, I, (M) ( <i>Greek</i> )	gland
adeps lanae	wool fat,
adeps, adipis, M	fat
adpersorius, a, um	adpersory
adstringentia,	medicine causing shrinkage
afferens, entis	afferent
alcohol, lis, M	alcohol
allopathia, ae, F	allopathy
amarus, a, um	bitter
amputatio, onis, F	amputation
amygdala, ae, F	almond
amylum, i, N	starch
antitetanicus, a, um	against tetanus
apex, icis, M	apex, top point
apnoe, es, F	breathing arrest
apoplexia, ae, F	apoplexy, an apoplectic stroke
apparatus, us, M	apparatus
appendicitis, itidis, F	appendicitis
appendix, icis, F	appendix
aqua, ae, F	water
arcus, us M	arch
aromaticus, a, um	aromatic
ars, tis, F	art

arteria, ae, F	artery
ascendens, entis	ascending
aspectio, onis, F	watching
atrium, i, N	atrium
audio, ire, (auditus)	hear
aurantium, i, N	orange
auris, is, F	ear
auscultatio, onis, F	hearing
autointoxicatio, onis, F	autointoxication
autotrophia, ae, F	autotrophy

## **B**

bacteriaemia, ae, F	bacteriaemia
balneum, i. N	bath
betula, ae, F	birch
bilateralis, e	bilateral
bios (Greek)	life
brachialis, e	brachial
bradycardia, ae, F	bradycardia
brevis, e	short

## **C**

cancer, i, M	cancer
capsula, ae, F	capsule
capsula, ae, F	capsule
caput, itis, N	head
carcinoma, atis, N	carcinoma
cardialgia, ae, F	pain in the cardiac region
caries, ei, F	dental caries
carminativus, a, um	against flatulence
carpus, i, M.	carpus, wrist
caudatus, a, um	caudate
causa, ae, F	cause, reason
cavitas, atis, F	cavity, hollow
ceratus, a, um	cerated, wax-coated, waxy
cerebrum, i, N	brain
chamomilla, ae, F	chamomile

charta, ae, F	chart, firm paper, paper
cinchona, ae, F	quinine
circulatorius, a, um	circulating
clavicula, ae, F	collar bone
cochlear, ris, N	spoon
collapsus,us, M	collapse
colon, i, N	large intestine
coma, atis, N	coma
commitans, antis	accompanying
commotio, onis, F	commotion, concussion, shock
communicans, antis	communicating, connecting
complicatus, a, um	complicated, difficult
congenitus, a, um	congenial, native
convergens, ntis	convergent
contactus, us, M	contact
contagiosus, a, um	contagious
contra (prep. with accus.)	against
contraceptivum, I, N	medication for the birth control
contraindicatio, onis, F	factors that increase the risk involved in using a particular drug
coronarius, a, um	coronary
corpus, oris, N	body
cortex, icis, M	bark, cortex, peeling, outer part of the body
costa, ae, F	rib
coxa, ae, F	hip
cranium, i, N	skull
crassus, a, um.	thick
cum (prep. with. abl.)	with
curo, are (curatus)	treat, heal

## D

decolor, oris	colourless
decubitus, us, M	decubitus, bedsore, pressure ulcer
deformans, antis	disfiguring, deformed
deformatus, a, um	deformed
delirium tremens, entis	status of complete drunkenness
dens, entis, M	tooth
dens deciduus	milky tooth

dens molaris	molar tooth
depuratus, a, um.	purified
derma, atis, N	skin
dermatitis, itidis, F	inflammation of skin
descendens, entis	descending
desinfectio, ere (desinfectus)	disinfect
desinfectio, onis, F	disinfection
destillo, are (destillatus)	distill
dexter, a, um	right
diabetes, ae, M	diabetes
diarrhoea, ae, F	diarrh(o)ea
diastole, es, F	diastole
dies, ei, M	day
digital, alis, M	digitalis, medical plant
digitus, i, M	finger
divergens, ntis	divergent
divido, ere (divisus)	divide
do, are (datus)	give
dosis, is, F	dose
ductus, us, M	duct
dulcis, e	sweet
durus, a, um	hard
dyspepsia, ae, F	impairment of digestion
dyspnoe, es, F	dysfunction of breathing

## **E**

effectus, us, M	effect
efferens, entis	efferent
emesis, is, F	vomiting
encephalon, i, N	brain
enteron, i, N	intestine
enterorrhagia, ae, F	bleeding inside intestines
enterosolvens, entis	soluble in the intestine
epicardium, i, N	the layer of serous pericardium on the surface of the heart
epinephriticus, a, um	pertaining to the adrenal gland
ethanolum, i, N	ethanol
expectorantia	expectorant, agent dissolving sick mucus

expeditio, onis, F  
extractio, onis, F  
extractum, i, N

packing  
extraction  
extract

extremitas, atis, F

extremity, limb

## F

facies, ei, F  
fascia, ae, F  
felleus, a, um  
femur, oris, N  
fibula, ae, F  
filtro, are (filtratus)  
fio, fieri (factus)  
fissura, ae, F  
flavus, a, um  
flexura, ae, F  
flos, oris, M  
focalis, e  
foeniculum, i, N  
folium, i, N  
fortis, e  
fractura, ae, F  
frequens, entis  
frigidus, a, um  
fructus, us, M

face  
fascia, serious tissue covering  
of gall  
femur, thigh bone  
fibula  
filter, filtrate  
become  
fissure, groove  
yellow  
bend  
flower  
focal  
phenycul, type of plant  
leaf  
strong  
fracture  
frequent  
cold  
fruit

## G

gargarisima, matis, N  
gaster, tris, F  
gastralgia, ae, F  
gastrodynia, ae, F  
gastrorrhagia, ae, F  
gastrosasmus, i, M  
gelatinosus, a, um  
glandula, ae, F  
glans, ndis, F

gargling water  
stomach  
pain in the stomach region  
pain in the stomach region  
bleeding inside the stomach  
spasm inside the stomach  
jelly  
gland  
gland

glycerolum, i, N	glycerine
gossypium, i, N	cotton wool
gramma, atis, N	gram
gravis, e	heavy, hard, difficult
gutta, ae, F	drop
guttatorium, ii, N	dropper

## H

haematologia, ae, F	science relating the blood
haematuria, ae, F	urine in the blood
haemorrhagia, ae, F	bleeding
hepar, atis, N	liver
hepar, tis, N	liver
herba, ae, F	plant
humerus, i, N	humerus
hydrofobia, ae, F	fear of water
hydrotherapia, ae, F	therapy using water
hypericum, i, N	Aaron's beard (herb)
hypertensio, onis, F	hypertension
hypertonia, ae, F	excessive tone of the skeletal muscles
hypoglossus, a, um	under the tongue

## I

ignotus, a, um	unknown
immunis, e	immune
in (preposition with acc.+abl.)	in, into, within, inside
infans, ntis, M or N	child
infusio, onis, F	infusion
iniectio, onis, F	injection
injectio, onis, F	injection
insufficiencia, ae, F	insufficiency
internus, a, um	internal
intestinum, i, N	intestine
intramuscularis, e	into the muscle
intravenosus, a, um	intravenous, into the vein
invalidus, a, um	invalid, with a handicap

## K

kefale (cephalon) (*Greek*)

head

## L

lac, tis. N

milk

laesio, onis, F

lesion, damage

lagoena, ae, F

bottle

lana, ae, F

wool

larynx, gis, F

larynx

latus, a, um

wide

lege artis

according to the laws of pharmacy or other disciplines

letalis, e

lethal

levator, oris, M

levator, the muscle pushing up

ligamentum, i, N

ligamentum

linimentum, i, N

ointment

lipos, i, M

oil

liquidus, a, um

liquid

locus, i, M

place, location

luteus, a, um

yellow

luxatio, onis, F

luxation, dislocation

lymphaticus, a, um

lymphatic

## M

macrocytus, i, M

extremely large blood cell

mandibula, ae, F

lower jaw

massa, ae, F

mass

matricaria, ae, F

camomile

maxilla, ae, F

upper jaw

meatus, us, M

meatus, passage

medius, a, um

mediary, middle

megalocardia, ae, F

extremely large heart

mel, mellis, N

honey

melissa, ae, F

melissa (herb)

meningitis, itidis, F

meningitis

metastasis, is, F

metastasis, transfer of disease from one organ to another

misceo, ere (mixtus)

mix

mixtura, ae, F

mixture

mollis, e

soft

mora, ae, F	hesitation
morbus, i, M	disease, illness
mucosus, a, um	mucosal
multiplex, multiplicis	multiple
musculus, i, M	muscle
myocytus, i, M	muscle cell
myospasmus, i, M	spasm of the muscle
myrtilium, i. N	mirth

## N

narcosis, is, F	narcose
nasus, i, M	nose
necrosis, is, F	necrosis, decay
nephrectomia, ae, F	excision of kidney
nephros, i, M	kidney
niger, a, um	black

## O

obductus, a, um	coated
obesitas, atis, F	obesity
obliquus, a, um	oblique
olla, ae, F	galipot
organum, i. N	organ
os coxae	pelvic bone
os metacarpale	metacarpal bone
os, oris, N	mouth
os, ossis, N	bone
osteoma, atis, N	osteoma
osteon (osteum) ( <i>Greek</i> )	bone
otalgia, ae, F	pain in the ear
otodynia, ae, F	pain in the ear
otos (otis) ( <i>Greek</i> )	ear

## P

palatum, i, N	palate
papaver, ris, N	poppy
paranephriticus, a, um	paranephric, near the kidney



paro, are (paratus)	prepare
pars, tis, F	part
partus, us, M	birth
parvus, a, um	small
pasta, ae, F	paste
pathologia, ae, F	science relating pathology
per (preposition with accus.)	through
perforans, antis	penetrating
periculum, i, N	danger
perimetrium, ii, N	the serous coat of the uterus
peroralis, e	administered through the mouth
pes, pedis, M	foot, leg
pharmacotherapia, ae, F	pharmaceutical therapy
physis ( <i>Greek</i> )	grow
piper, eris, N	pepper
pneumothorax, cis, M	air inside the thoracic cavity
pollex, icis, M	thumb
polyneuritis, idis, F	inflammation of many nerves
praemediatio, onis, F	premedication, a drug treatment given to a patient before a medical procedure
praemolaris, e	premolar
praescriptio, onis, F	prescription
primula, ae, F	primrose
pro (prep. with ablat.)	for
processus, us, M	process, projection, outgrowth
profundus, a, um	profound, deep
prognosis, is, F	prediction
progrediens, entis	proceeding
pulmo, onis, M	lung
pulmonarius, a, um	pulmonary
pulvis, eris, M	powder
purificatus, a, um	purified
pyuria, ae, F	pus in urine
<b>Q</b>	
quantum satis	the amount which is needed
quercus, us, F	oak

## R

radius, i, M	radius, ray
radix, icis, M	root
ramus, i, N	branch
raphe, es, F	suture
recens, entis	recent, fresh
rectum, i, N	rectum, bottom
rectus, a, um	direct
remedium constituens	vehicle, agent used as a solvent in the solution
remedium, i, N	medicament, pill, remedy
ren, nis, M	kidney
repeto, ere (repetitus)	repeat
respiratorious, a, um	breathing
rubeola, ae, F	rubeolla, German measles
ruptura, ae, F	rupture

## S

saccharum, i, N	sugar
sacer, a, um	holy, sacral
sal, is, M or N	salt
sano, are (sanatus)	heal
sanus, a, um	heathy
scapula, ae, F	shoulder blade
scatula, ae, F	box
semisolidus, a, um	half hard
sensus, us, M	sense
separanda	medicaments that must be separated from others
septum, i, N	septum
serum, i, N	serum
servo, are (servatus)	keep, conserve
signo, are (signatus)	sign (verb)
signum, i, N	Sign (noun)
simplex, cis	simple
sine (prep. with abl.)	without
sinister, a, um	left
sirupus, i, M	syrup

solubilis, e	soluble
solutio, onis, F	solution
solvo, ere (solvens)	solute
species pectorales	decoction to heal a cough
species, ei, F	species
species, erum, F (pl.)	mixture of dried plants, tea
spina, ae, F	back spine
spiritus, us, M	spirit
spondylitis, itidis, F	inflammation of vertebrae
steriliso, are (strerilisatus)	sterilise
stomachicus, a, um	stomachic, gastric
sub (prep.+abl.)	under
subclavius, a, um	under the clavicle
subcutaneus, a, um	under the skin
sulf(ph)us, uris, N	sulphur
sum, esse	be
sumo, ere (sumptum)	take
suppositorium, i, N	suppository, a medicated mass to be introduced into a body orifice
suspensio, onis, F	suspension
symptom, atis, N	symptom
systole, es, F	systole

## T

tabuletta, ae, F	tablet, pill
talis, e	such
teres, teretis	round
thorax, acis, M	chest, thorax
thyroideus, a, um	thyroid
tibia, ae, F	tibia
tinctura stomachica	stomach tincture
tinctura, ae, F	tincture
tome (tomia)	cut, cutting
tracheostomia, ae, F	a hole made into the trachea
trauma, atis, N	wound, injury
tuber, eris, N	tubercle
tunica, ae, F	tunic, layer, coat
tussis, is, F	coughing

## U

ulcus, eris, N	ulcer
urinarius, a, um	urinary
urologicus, a, um	urological
urophobia, ae, F	fear of nature urination
usus, us, M	use
uterus, i, M	uterus, womb

## V

valeriana, ae, F	valerian (herb), type of plant
valvula, ae, F	valve
valva, ae, F	valve
varicella, ae, F	measles
vaselinum, i, N	vaseline
vena, ae, F	vein
venenum, i, N	poision
venenum, i, N	venom, poison
ventriculus, i, M	ventricle, stomach
versicolor, oris	colourful
vertebra, ae, F	vertebra
vesica, ae, F	bladder
virginalis, e	virginal
vitrum, i, N	glass
vitrum, i, N	bottle
vomitus, us, M	vomiting

## Z

zoophobia, ae, F	fear of animals
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## English – Latin

### A

Aaron's beard (herb)	hypericum, i, N
abductor, muscle the role of which is abducting from the body	abductor, oris, M
abscess	abscessus, us, M
accompanying	commitans, antis
acid	acidum, i, N
add	addo, ere, (additus)
adductor, muscle drawing the part towards to the body	adductor,oris, M
adrenal	epinephriticus, a, um
adspersory	adspersorius, a, um
afferent	affrenens, entis
against	contra (prep. with accus.)
against	contra (prep. with accus.)
against tetanus	antitetanicus, a, um
alcohol	alcohol, lis, M
allopathy	allopathia, ae, F
almond	amygdala, ae, F
amputation	amputatio, onis, F
apex, top point	apex, icis, M
apoplexy, an apoplectic stroke	apoplexia, ae, F
apparatus	apparatus, us, M
appendicitis	appendicitis, itidis, F
appendix	appendix, icis, F
arch	arcus, us M
aromatic	aromaticus, a, um
art	ars, tis, F
artery	arteria, ae, F
ascending	ascendens, entis
atrium	atrium, i, N
autointoxication	autointoxicatio, onis, F
autotrophy	autotrophia, ae, F

### B

back spine	spina, ae, F
bacteriaemia	bacteriaemia, ae, F
bark	cortex, icis, M
bath	balneum, i. N
be	sum, esse
become	fio, fieri (factus)
bend	flexura, ae, F
bilateral	bilateralis, e
birch	betula, ae, F
birth	partus, us, M
bitter	amarus, a, um
black	niger, a, um
bladder	vesica, ae, F
body	corpus, oris, N
bone	os, ossis, N
bone	osteon (osteum) ( <i>Greek</i> )
bottle	lagoena, ae, F
bottle	vitrum, i, N
bottom	rectum, I, N
box	scatula, ae, F
brachial	brachialis, e
bradycardia	bradycardia, ae, F
brain	cerebrum, i, N
brain	encephalon, i, N
branch	ramus, i, N
breathing	respiratorious, a, um
breathing arrest	apnoe, es, F
<b>C</b>	
camomile	matricaria, ae, F
cancer	cancer, i, M
capsule	capsula, ae, F
carcinoma	carcinoma, atis, N
cardiomegaly	megalocardia, ae, F
carminatory	carminativus, a, um
carpus, wrist	carpus, i, M.

caudate	caudatus, a, um
cause, reason	causa, ae, F
cavity, hollow	cavitas, atis, F
cavus, hollow	cavus, a, um
cerated, wax-coated	ceratus, a, um
chamber, stomach	ventriculus, i, M
chamomile	chamomilla, ae, F
chart	charta, ae, F
chart, firm paper	charta, ae, F
chest, thorax	thorax, acis, M
child	infans, ntis, M or N
circulating	circulatorius, a, um
coated	obductus, a, um
cold	frigidus, a, um
collapse	collapsus, us, M
collar bone	clavicula, ae, F
colourful	versicolor, oris
colourless	decolor, oris
coma	coma, atis, N
commotion, concussion,	commotio, onis, F
communicating, connecting	communicans, antis
complicated, difficult	complicatus, a, um
congenial, native	congenitus, a, um
contact	contactus, us, M
contagious	contagiosus, a, um
contraceptive	contraceptivum, I, N
contraindication	contraindicator, onis, F
convergent	convergens, ntis
coronary	coronarius, a, um
cortex, outer part of the organ, bark	cortex, ticus, M
cotton wool	gossypium, i, N
coughing	tussis, is, F
cut, cutting	tome (tomia)
<b>D</b>	
damage	laesio, onis, F
danger	periculum, i, N

day	dies, ei, M
decoction to heal a cough	species pectorales
decubitus, bedsore, pressure ulcer	decubitus, us, M
deep	profundus, a, um
deformed	deformatus, a, um
delirium, state of complete drunkenness	delirium tremens, entis
dental caries	caries, ei, F
descending	descendens, entis
diabetes	diabetes, ae, M
diarrh(o)ea	diarrhoea, ae, F
diastole	diastole, es, F
digitalis, medical plant	digital, alis, M
direct	rectus, a, um
disease, illness	morbus, i, M
disfiguring, deformed	deformans, antis
disinfect	desinfectio, ere (desinfectus)
disinfection	desinfectio, onis, F
distill	destillo, are (destillatus)
divergent	divergens, ntis
divide	divido, ere (divisus)
dose	dosis, is, F
drop	gutta, ae, F
dropper	guttatorium, ii, N
duct	ductus, us, M
dysfunction of breathing	dyspnoe, es, F
dyspepsia	dyspepsia, ae, F

## **E**

ear	auris, is, F
ear	otos (otis) ( <i>Greek</i> )
effect	effectus, us, M
efferent	efferens, entis
epicardium, the layer of serous pericardium on the surface of the heart	epicardium, ii, N
ethanol	ethanolum, i, N
expectorant, agent dissolving sick mucus	expectorantia
extraction	extractio, onis, F



extract  
extremity, limb

## F

face  
fascia, serious tissue covering  
fat  
femur, thigh bone  
fibula  
filter  
filtrate  
finger  
fissure, groove  
flower  
focal  
foot, leg  
for  
fracture  
frequent  
fresh  
fruit

## G

galipot  
gargle  
give  
gland  
gland  
glass  
glycerine  
gram  
grow

## H

haemorrhage  
haemorrhage from the stomach  
half hard  
hard

extractum, i, N  
extremitas, atis, F

facies, ei, F  
fascia, ae, F  
adeps, adipis, M  
femur, oris, N  
fibula, ae, F  
filtro, are (filtratus)  
fílto, are (filtratus)  
digitus, i, M  
fissura, ae, F  
flos, oris, M  
focalis, e  
pes, pedis, M  
pro (prep. with ablat.)  
fractura, ae, F  
frequens, entis  
recens, ntis  
fructus, us, M

olla, ae, F  
gargarisima, matis, N  
do, are (datus)  
aden, adenos, i, N (M) (*Greek*)  
glandula, ae, F, glans, ndis, F (*Latin*)  
vitrum, i, N  
glycerolum, i, N  
gramma, atis, N  
physis (*Greek*)

haemorrhagia, ae, F  
gastrorrhagia, ae, F  
semisolidus, a, um  
durus, a, um

head	caput, itis, N ( <i>Latin</i> )
head	kefale (cephalon) ( <i>Greek</i> )
heal	sano, are (sanatus)
hear	audio, ire, (auditus)
hearing	auscultatio, onis, F
heathy	sanus, a, um
heavy, hard, difficult	gravis, e
hematology	haematologia, ae, F
haematuria, urine in the blood	haematuria, ae, F
hesitation	mora, ae, F
hip	coxa, ae, F
hollow	cavus, a, um
holy, sacral	sacer, a, um
honey	mel, mellis, N
humerus	humerus, i, N
hydrophobia	hydrophobia, ae, F
hydrotherapy	hydrotherapia, ae, F
hypertension	hypertensio, onis, F
hypertonia	hypertonia, ae, F
hypoglossal, under the tongue	hypoglossus, a, um
<b>I</b>	
immune	immunis, e
in, into, within, inside	in (preposition with acc.+abl.)
infusion	infusio, onis, F
injection	inienctio, onis, F
insufficiency	insufficiencia, ae, F
internal	internus, a, um
intestinal hemorrhage	enterorrhagia, ae, F
intestine	enteron, i, N ( <i>Greek</i> )
intestine	intestinum, i, N ( <i>Latin</i> )
intramuscular	intramuscularis, e
intravenous	intravenosus, a, um
invalid, with a handicap	invalidus, a, um
<b>J</b>	
jelly	gelatinosus, a, um

## K

kidney

nephros, i, M (*Greek*)

kidney

ren, nis, M (*Latin*)

## L

large intestine

colon, i, N

larynx

larynx, gis, F

leaf

folium, i, N

left

sinister, a, um

lesion

laesio, onis, F

lethal

letalis, e

levator, the muscle pushing up

levator, oris, M

life

bios (*Greek*)

ligamentum

ligamentum, i, N

liquid

liquidus, a, um

liver

hepar, atis, N

lower jaw

mandibula, ae, F

lung

pulmo, onis, M

luxation, dislocation

luxatio, onis, F

lymphatic

lymphaticus, a, um

## M

macrocyte

macrocytus, i, M

mass

massa, ae, F

measles

varicella, ae, F

meatus, passage

meatus, us, M

mediary, middle

medius, a, um

melissa (herb)

melissa, ae, F

meningitis

meningitis, itidis, F

metacarpal bone

os metacarpale

metastasis

metastasis, is, F

milk

lac, tis. N

milky tooth

dens deciduus

mirth

myrtilium, i. N

mix

misceo, ere (mixtus)

mixture

mixtura, ae, F

mixture of dried plants

molar tooth

mouth

mucosal

multiple

muscle

muscle cell

## N

narcose

necrosis, decay

nephrectomy

nose

## O

oak

obesity

oblique

of gall

oil

ointment

oral

orange

organ

osteoma

## P

packing

pain in the cardiac region

pain in the ear

pain in the ear

pain in the stomach region

pain in the stomach region

palate

paper

paranephric, near the kidney

part

paste

species, erum, F

dens molaris

os, oris, N

mucosus, a, um

multiplex, multiplicis

musculus, i, M

myocytus, i, M

narcosis, is, F

necrosis, is, F

nephrectomia, ae, F

nasus, i, M

quercus, us, F

obesitas, atis, F

obliquus, a, um

felleus, a, um

lipos, i, M

linimentum, i, N

peroralis, e

aurantium, i, N

organum, i, N

osteoma, atis, N

expeditio, onis, F

cardialgia, ae, F

otalgia, ae, F

otodynia, ae, F

gastralgia, ae, F

gastrodynia, ae, F

palatum, i, N

charta, ae, F

paranephriticus, a, um

pars, tis, F

pasta, ae, F

pathology	pathologia, ae, F
peeling, outer part of the body, bark	cortex, ticus, M
pelvic bone	os coxae
penetrating	perforans, antis
pepper	piper, eris, N
perimetrium, the serous coat of the uterus	perimetrium, i, N
pharmaceutical therapy	pharmacotherapia, ae, F
phenicul, type of plant	foeniculum, i, N
place, location	locus, i, M
plant	herba, ae, F
pneumothorax	pneumothorax, cis, M
poision	venenum, i, N
polyneuritis	polyneuritis, idis, F
poppy	papaver, ris, N
powder	pulvis, eris, M
prediction	prognosis, is, F
premedication	praemedicatio, onis, F
premolar	praemolaris, e
prepare	paro, are (paratus)
prescription	praescriptio, onis, F
primrose	primula, ae, F
proceeding	progrediens, entis
process, projection, outgrowth	processus, us M
profound, deep	profundus, a, um
pulmonary	pulmonarius, a, um
purified	depuratus, a, um., purificatus, a, um
pus in urine	pyuria, ae, F
<b>Q</b>	
quinine	cinchona, ae, F
<b>R</b>	
radius, ray	radius, i, M
recent, fresh	recens, entis
rectum	rectum, i, N
remedy	remedium, i, N
repeat	repeto, ere (repetitus)

rib	costa, ae, F
right	dexter, a, um
root	radix, icis, M
round	teres, teretis
rubeolla, German measles	rubeola, ae, F
rupture	ruptura, ae, F
<b>S</b>	
salt	sal, is, M or N
sense	sensus, us, M
septum	septum, i, N
serum	serum, i, N
keep, conserve	servo, are (servatus)
sharp	acer, cris, cre
short	brevis, e
shoulder blade	scapula, ae, F
sign	signum, i, N
simple	simplex, cis
sing	signo, are (signatus)
skin	derma, atis, N
skull	cranium, i, N
small	parvus, a, um
soft	mollis, e
soluble	solubilis, e
soluble in the intestine	enterosolvens, entis
solute	solvo, ere (solvens)
solution	solutio, onis, F
spasm inside the stomach	gastrospasmus, i, M
spasm of the muscle	myospasmus, i, M
species, mixture	species, ei, F
spirit	spiritus, us, M
spondylitis	spondylitis, itidis, F
spoon	cochlear, ris, N
starch	amylum, i, N
sterilise	steriliso, are (sterilisatus)
stomach	gaster, tris, F
stomach tincture	tinctura stomachica

stomachic, gastric	stomachicus, a, um
strong	fortis, e
subclavian, under the clavicle	subclavius, a, um
subcutaneous, under the skin	subcutaneus, a, um
such	talis, e
sugar	saccharum, i, N
sulphur	sulf(ph)us, uris, N
suppository	suppositorium, i, N
suspension	suspensio, onis, F
suture	raphe, es, F
sweet	dulcis, e
<b>sycosis?</b> dermatitis	dermatitis, itidis, F
symptom	symptom, atis, N
syrup	sirupus, i, M
systole	systole, es, F

## T

tablet, pill	tabuletta, ae, F
take	sumo, ere (sumptum)
tea	species, erum, F /PL!/ crassus, a, um.
thick	per (prep. with accus.)
through	per (preposition with accus.)
through	
thumb	pollex, icis, M
thyroid	thyroideus, a, um
tibia	tibia, ae, F
tincture	tinctura, ae, F
to, for, towards	ad (prep. with accus.)
to, into	ad
tooth	dens, entis, M
tracheostomy	tracheostomia, ae, F
treat, heal	curo, are (curatus)
tubercle	tuber, eris, N
tunic, layer, coat	tunica, ae, F

## U

ulcer	ulcus, eris, N
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under	sub (prep.+abl.)
unknown	ignotus, a, um
upper jaw	maxilla, ae, F
urinary	urinarius, a, um
urological	urologicus, a, um
use	usus, us, M
uterus, womb	uterus, i, M

## V

valerian (herb)	valeriana, ae, F
valve	valvula, ae, F
valve	valva, ae, F
vaseline	vaselinum, i, N
vehicle, agent used as a solvent in the solution	remedium constituens
vein	vena, ae, F
venom, poison	venenum, i, N
ventricle, stomach	ventriculus, i, M
vertebra	vertebra, ae, F
virginal	virginalis, e
vomiting	emesis, is, F
vomiting	vomitus, us, M

## W

watching	aspectio, onis, F
water	aqua, ae, F
waxy	ceratus, a, um
wide	latus, a, um
with	cum (prep. with. abl.)
without	sine (prep. with abl.)
wool	lana, ae, F
wool fat, lanolin	adeps lanae cum aqua
wound, injury	trauma, atis, N

## Y

yellow	flavus, a, um
yellow	luteus, a, um



**Picture attachment**

DE HVMANI CORPORIS FABRICA LIBER I. 163  
HVMANI CORP-  
SIMVL COMPACTO.  
EX FACIE EXPRES-  
PORIS OSSIVM  
RVM ANTERIORI

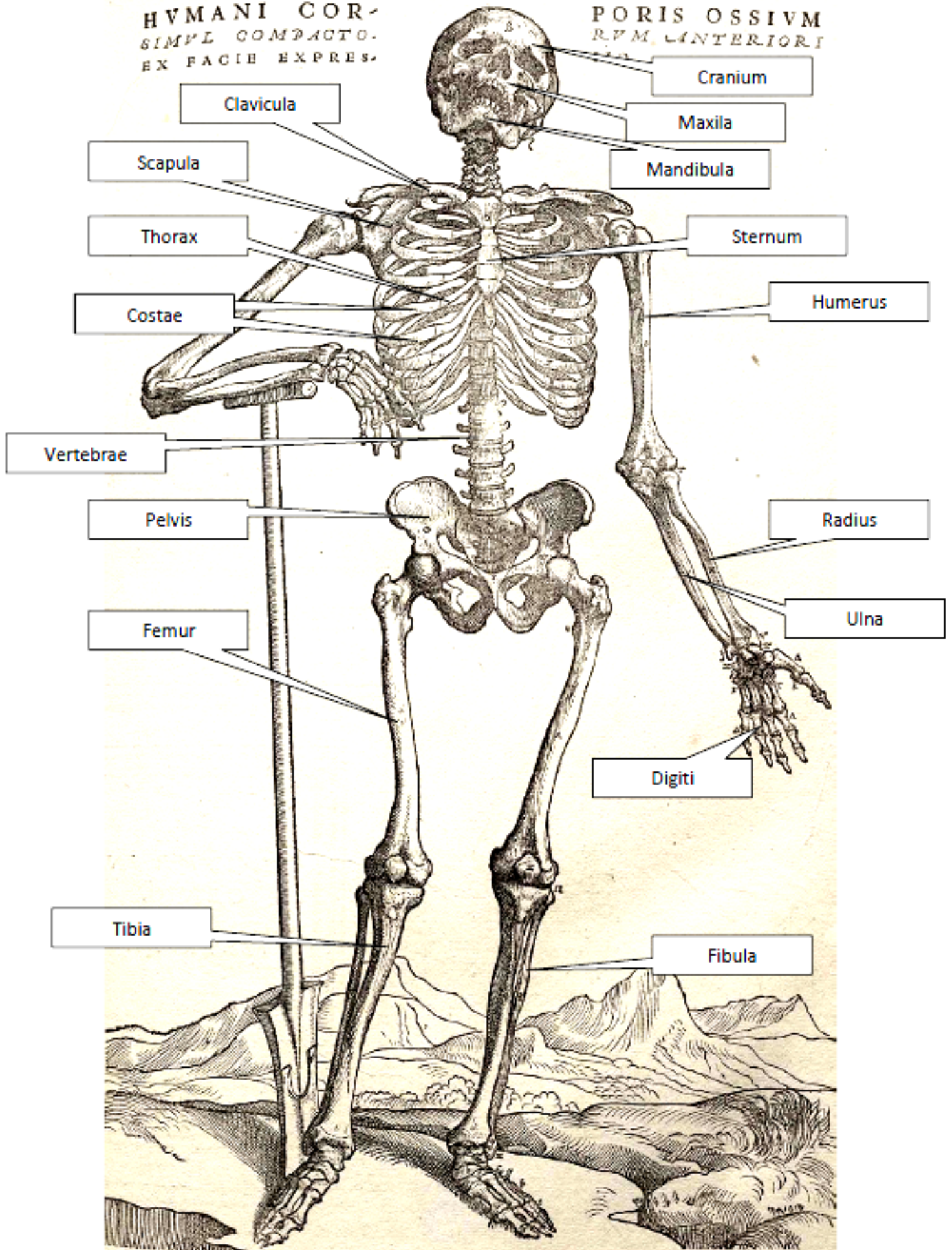


Fig. No. 1 – De humani corporis fabrica Liber I – Description of Skeleton

## Description of the basic directions of the human body

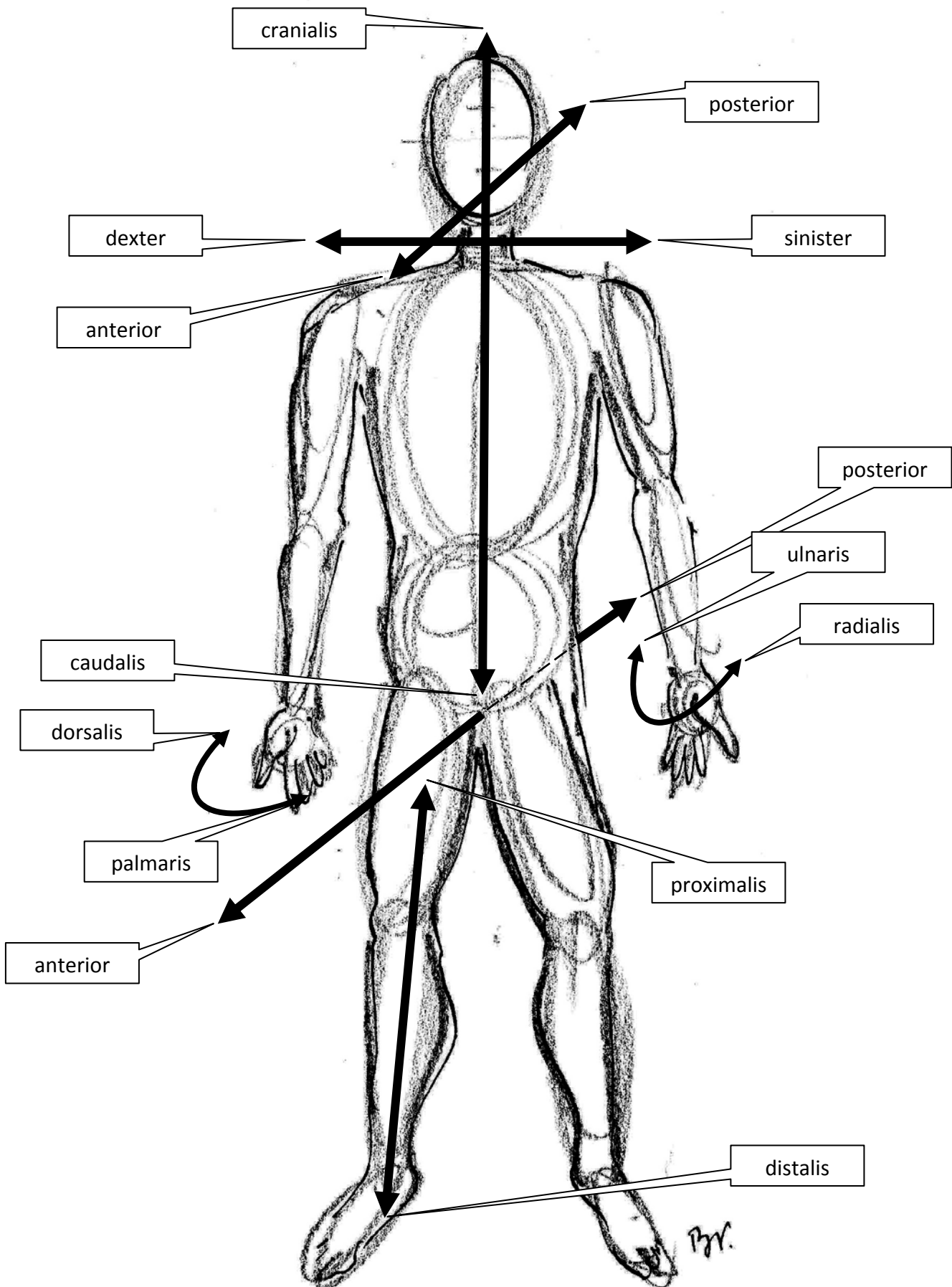
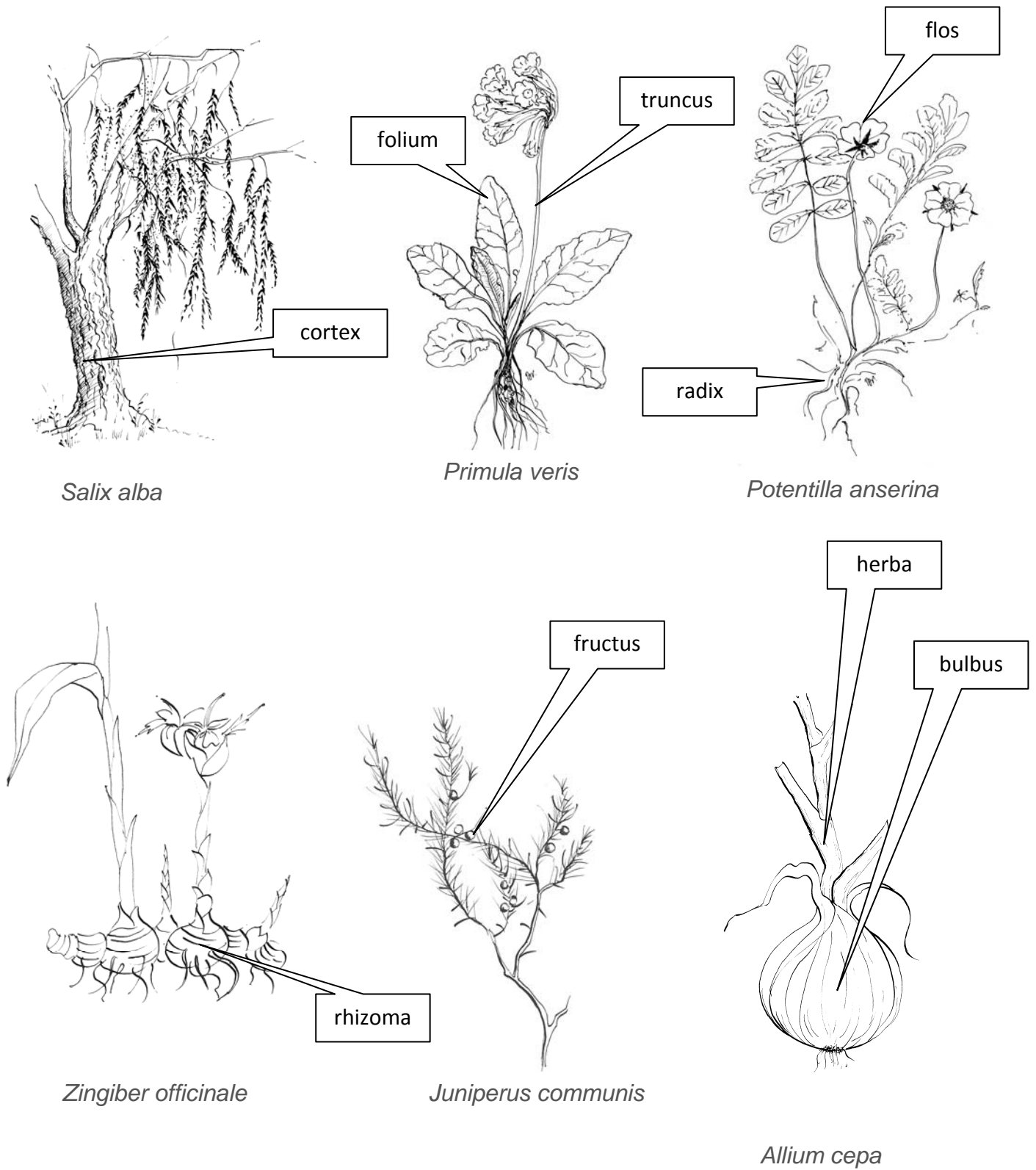


Fig. No. 2 - Basic directions of the human body

## Plant description



**Fig. No. 3 – Plant description**

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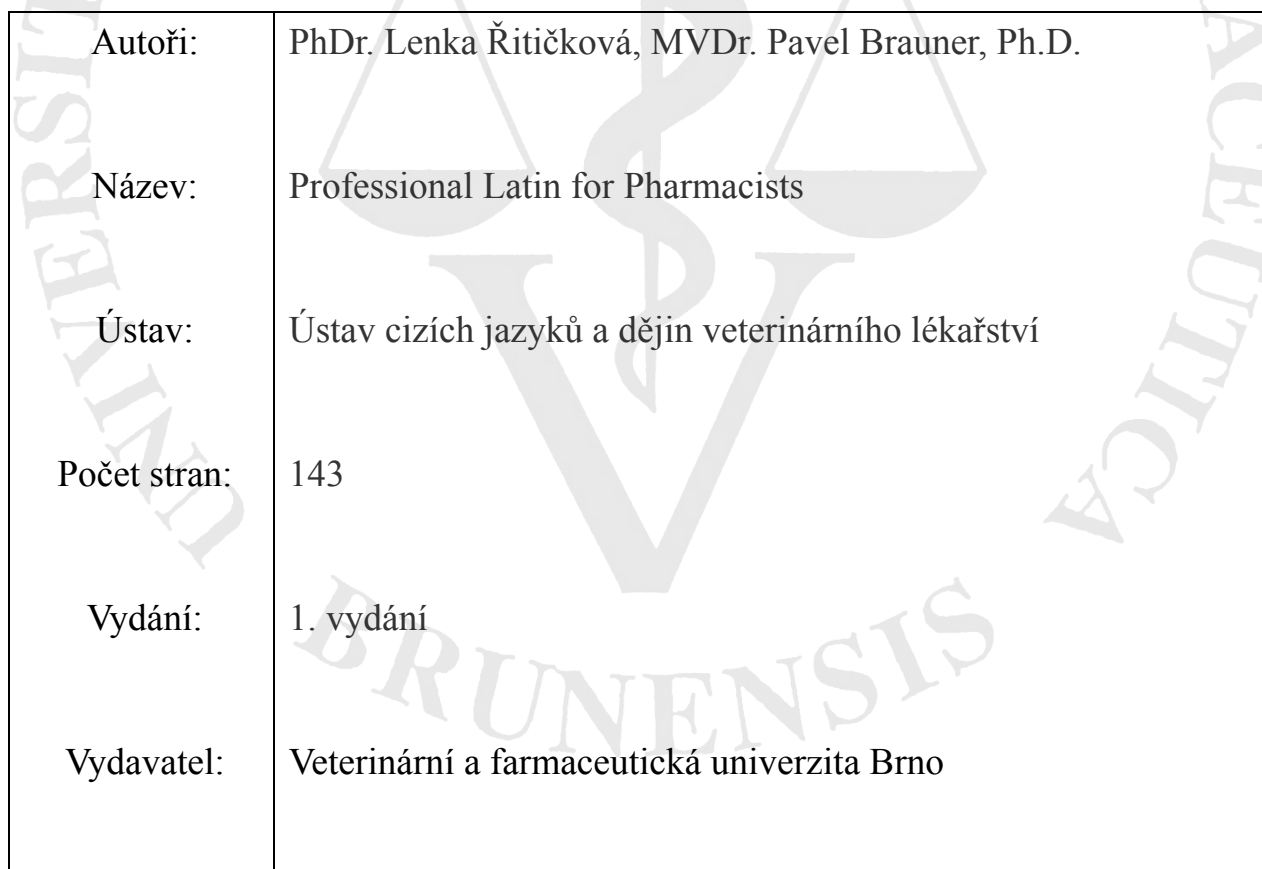
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