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Latin and Fundamentals of Medical Terminology

for Medical Students

Approved by the Ministry of Education of the Republic of Belarus as course of Latin for foreigh students for education institutions providing higher medical education

ЛАТИНСКИЙ ЯЗЫК И ОСНОВЫ МЕДИЦИНСКОЙ ТЕРМИНОЛОГИИ

для студентов-медиков

Учебное пособие

Допущено Министерством образования Республики Беларусь в качестве учебного пособия для иностранных студентов учреждений, обеспечивающих получение высшего медицинского образования УДК 811.124:61(075.8) ББК 81.2 Латин я 73 К72

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Учебное пособие предназначено для иностранных студентов лечебного, педиатрического и медико-психологического факультетов медицинских вузов, изучающих дисциплину «Латинский язык и основы медицинской терминологии» на английском языке.

This manual is meant for foreigh students studying the course "Latin and Fundamentals of Medical Terminology" at Medical Faculties, Faculties of Pediatrics and Faculties of Medical Psychlogy of Medical Institutions of Higher Education (the language of instruction: English).

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Preface

Textbook "Latin and Fundamentals of Medical Terminology" is designed to be a comprehensive textbook covering the entire curriculum for medical students in this subject. The course "Latin and Fundamentals of Medical Terminology" is a two-semester course that introduces students to the Latin and Greek medical terms that are commonly used in Medicine. The aim of the two-semester course is to achieve an active command of basic grammatical phenomena and rules with a special stress on the system of the language and on the specific character of medical terminology, and that to the extent that enables an active use of Latin and Greek medical terms and promote further own work with them.

The textbook consists of three basic parts:

- 1. **Anatomical Terminology**: The primary rank is occupied by anatomical nomenclature whose international version remains Latin in the full extent. All of the anatomical nomenclatures produced so far have used Latin as their base. The first official Latin anatomical nomenclature was introduced at a congress of the Anatomische Gesellschaft in Basle in 1895, the last edition, called *Terminologia Anatomica*, was introduced by the International Anatomical Nomenclature Committee and published in 1998. Latin as a dead language does not develop and does not belong to any country or nation. It has a number of advantages that classical languages offer, its constancy, international character and neutrality.
- 2. Clinical Terminology: Learning clinical terminology you should realize that it is in many ways like learning a foreign language. Like a foreign language, medical terms often sound strange and confusing. As a result of being unable to understand the words, they will have very little meaning to you. But it is wrong to assume that only highly educated people can use and understand them. Medical terms sound like a foreign language because the vast majority of them have Greek and Latin origin. So, for example, the word "gastrectomy" is of a Greek origin and means "the

total removal of a stomach". "Gastrectomy" comes from the Greek word "gaster" which means "stomach" and the Greek word "ectome", which means "cut out". The main reason of using these words is that medical terms provide one word that describes something that would otherwise take many words to say. For example, it is quicker to say "gastrectomy" than to say "the total removal of a stomach". You will be able to learn medical terms by understanding the origins of these words in Latin and Greek.

3. Pharmaceutical Terminology: In pharmaceutical terminology Latin has, for the time being, remained a functioning means of international communication, guaranteed by the European Pharmacopoeia (1996) and by the corpus of International Non-proprietary Names (1992, 1996), even though in the future an ever stronger competition of national languages should be taken into account. But even though national languages have been favored in prescriptions in some countries, in many countries Latin has continued to be preferred and the standard international nomenclature of drugs is based on the Latin version. The Latin version of the pharmacopoeia has been used in Germany, Switzerland, Japan, China, etc.

The Role of the Latin and Greek Languages

Greek and Roman cultures are the foundations of western culture - its literature, ideas, art, politics, and conceptions of the individual. Greek myth is still a shared fund of images and narratives that express human experience. Latin is the major source of English vocabulary, and Greek provides scientific language in many fields. Greek and Roman cultures help us to understand the relationship between western culture and other cultural systems and place ourselves better in the world.

The study of Latin and Greek culture provides students with a better understanding of the roots of their own culture, which has been so strongly Influenced by Roman and Greek art, Medicine, law, and religion. The pursuit of Latin and Greek language skills not only provides the broadening experience which comes from learning how to think and express oneself in another language, but can also be great aid to building vocabulary and language skills in English. Latin and Greek literature and mythology introduce you to classical authors whose excellence is beyond question and whose works and genres have influenced Western literature down to our own day.

- Greek is the language of Homer, Socrates, Plato, Aristotle, Diogenes, Plutarch and the Bible.
- Latin is the language of Plautus, Terence, Cicero, Vergil, Horace, Ovid, St. Augustine and St.Francis of Assisi.
- After the Roman conquest of Britain under Emperor Claudius, the native Picts' Celtic language first became infused with Latin, then merged with the new invaders' Germanic (Anglo-Saxon) dialects, and finally became English. Thus, Greek and Latin can be great aids to building vocabulary and language skills in English

As the Romans conquered the then known world, Latin became the universal language of Italy and the provinces. Many centuries after the fall of Rome, Latin still ruled supreme. To this very day, Latin is the language of the Catholic Church, and during the formative period of the western European languages it was incorporated in every one of them. The Latin language has been around for more than 2500 years, and throughout the years has played a leading role in various fields. Not only was Latin the language of the Romans in antiquity, but at a later stage it also became the language of administrators, the Catholic Church, scholars and artists. Even now the Latin language is present in a prominent way, especially in **Medicine**.

Science is of international nature. The development of technical languages in the individual branches of science is connected with frequent borrowing of foreign language lexical material which is mostly of Latin or Greek origin. Greek and

Latin represent the traditional language material to be used in **medical terminology**.

English **medical terminology** developed from medieval Latin terminology, which had absorbed a developed Greek terminology. Greek medicine migrated to Rome at an early date, and many Latin terms crept into its terminology. Only a few medical terms came from the oldest developmental period of the English language (from Anglo-Saxon). Latin was the language of science up to the beginning of the 18th Century, so all medical texts were written in Latin.

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PART I. ANATOMICAL TERMINOLOGY

LESSON 1

PHONETICS: READING AND PRONUNCIATION

In this lesson you will:

- Become familiar with the Roman alphabet.
- Learn to pronounce Latin vowels and consonants.
- Learn to pronounce Latin diphthongs and digraphs.
- Learn to read Latin words and word combinations.

This lesson is divided into the following sections:

- I. Roman alphabet.
- II. Pronunciation of vowels and diphthongs.
- III. Pronunciation of consonants and digraphs.
- IV. Pronunciation of letter combinations.
- V. Exercises.
- VI. Vocabulary

We cannot be sure exactly how the ancient Romans pronounced the alphabet and words. We should use the so-called Roman Pronunciation of Latin, which aims to represent approximately the pronunciation of classical times. The English pronunciation should be used in Roman names occurring in English (as, *Julĭus Caesar*); and in familiar quotations, as, *e plurĭbus unum; viva voce; vice versa; a fortiōri; veni, vidi, vici*, etc.

I. ROMAN ALPHABET

The Roman alphabet contains 25 letters: six vowels and nineteen consonants. The English language also uses the Roman alphabet with the additional letter W. You should learn the Roman alphabet that follows:

Letter	Name	Pronunci- ation	Examples – Latin (English)	
Aa	a	a	as in "under": cáput (head)	
Bb	be	b	as in "bath": bráchium (shoulder)	
Cc	tse	ts k	as in "plants": cérvix (neck) as in "coner": cósta (rib), crísta (crest)	
Dd	de	d	as in "danger": déxter (right)	
Ee	e	e	as in "met": vértebra	
Ff	ef	f	as in "fast": fácies (surface, face)	
Gg	ge	g	as in "get": gáster (stomach)	
Hh	ha	h (english like)	as in "hand": hómo (man)	
Ii	Ι	i	as in "sit" : vagína (vagina)	
Jj	yot	(j)	as in "yes" : májor (large)	
Kk	ka	k	as in "key" : skéleton	
Ll	el	1	as in 'life' ': lábium (lip)	
Mm	em	m	as in "medical": meátus (passage)	
Nn	en	n	as in "night": násus (nose)	
Oo	0	О	as in "spot": córpus (body)	
Pp	pe	p	as in "palmer": pálpebra (eyelid)	
Qq	ku	k	as in "quite": quádriceps (four-headed)	
Rr	er	r	as in "rend": ren (kidney)	

Ss	es	s z	as in "solve": solútio (solution) as in "nose": incisúra (slit or notch)	
Tt	te	t	as in "ten": tráctus (tract)	
Uu	u	u	as in "put": púlmo (lung)	
Vv	ve	V	as in "van" : válva (valve)	
Xx	iks	ks	as in "next": rádix (root)	
Yy	ypsilon (igrek)	i	as in "crystal": týmpanum (drum)	
Zz	zeta	Z	as in "zero": zygóma (check-bone)	

II. PRONUNCIATION OF VOWELS AND DIPHTHONGS

The Latin vowels are similar to the corresponding English vowels.

- a as in "under": cáput (head)
- e as in "met": vértebra
- i as in "sit": vagína (vagina)
- y as in "crystal": týmpanum (drum)
- o as in "spot": córpus (body)
- **u** as in "put": púlmo (lung)

<u>Diphthong</u> is a combination of two vowel pronounced together in one syllable.

- au is pronounced as in "down": áuris (ear)
- eu is pronounced [eu] : pléura (pleura)

III. PRONUNCIATION OF CONSONANTS AND DIGRAPHS

The Latin consonants are similar to the corresponding English consonants (see under "Roman alphabet"), except c, g, j, l, s, x and z.

- Before <u>e</u>, <u>i</u>, <u>y</u>, <u>ae</u>, <u>oe</u> is pronounced like /ts/. It is similar to the <u>ts</u> of English **plants**: **cérvix** /tserviks/ neck: **cýstis** /tsistis/ bladder; **caécum** /tsekum/ cecum.
- Before <u>a</u>, <u>o</u>, <u>u</u>, before consonants and at the end of a word it is pronounced as /k/: **cáput** head: **cósta** rib; cutis skin; **crísta** crest; **lac** milk.
- **g** Is always pronounced as /g/ in **give**, **get**, **go**.
- **j** Is pronounced as /j/ in **yes**, **you**, **young**.
- I Is always palatalized and soft as in **look**, **live**, **life**.
- Between two vowels or between a vowel and the voiced consonant \underline{m} or \underline{n} is pronounced as /z/ in **nose**, **rose**, but before vowels, consonants and at the end of a word it is pronounced as /s/ in **solve**, **slow**, **maps**.
- Is pronounced as /ks/ in **next**, **larynx**, but sometimes between vowels it is pronounced as /gz/ in **examination**, **example**.
- In Greek words is always pronounced as /z/ in **zero**, **zone**, but in words of other origin such as **Zíncum** (zinc), **influénza** (grippe) it is pronounced as /ts/.

One of the main differences between English and Latin consonants is that in Latin <u>p</u>, <u>t</u>, <u>k</u> are not aspirated (i.e. there is no puff of breath after them) as in English.

Another difference is that "1" is always palatalized, or soft.

<u>Digraph</u> is a group of two letters representing one sound.

There are two vowel digraphs in Latin:

ae/oe Representing the sound similar to the English /e/ in **pen**: vertebrae (vertebrae), oedema (swelling).

<u>Attention !!! -</u> Two dots placed over the letter <u>e</u> indicate that <u>ae</u> or <u>oe</u> are not digraphs and their letters denote different sounds: <u>áër</u>/a-er/ - air; **díploë**/diploe/ - spongy substance.

Besides, there are several consonant digraphs commonly used in Latin. They are pronounced as follows:

ch as /kh/: núcha /nuha/ neck

ph as /f/: **ráphe** /rafe/ - suture

rh as /r/: **rhéxis** /reksis/ - rupture

th as /t/: thórax /toraks/ - chest

IV. PRONUNCIATION OF LETTER COMBINATIONS

These letter combinations are pronounced as follows:

• as /ngv/ before vowels: **língua** /lingva/ - tongue, language;

ngu

• as /ngu/ before consonants: ángulus /angulus/ - angle

qu • as /kw/ **áqua** /akwa/ - water

as /sv/ before vowels a,e: suávis /svavis/ - pleasant;

• as /su/ in different syllables: **súlcus** /sulkus/ - furrow or groove

• as /tsi/ before vowels: **spátium** /spatsium/ - space; **articulátio**

/artikuliatsio/ - joint;

• as /ti/ before consonants, after <u>s,t,x</u>: **tíbia** /tibia/ - shinebone; **óstium** /ostium/ - opening.

V. EXERCISES

1. Read the following words paying special attention to the vowels:

ála (wing), mínor (small), artéria (artery), lámina (plate), abdómen (belly), fóvea (pit), fíbula (fibula; long, thin outer bone from knee to ankle), fémur (thighbone), línea áspera (rough line), pálma (palm), infundíbulum (funnel), régio (region), inférior (lower), antérior (situated in front of), membrána (membrane), manúbrium stérni (first or upper part of breast-bone), véna (vein), húmerus (bone of upper arm), gingíva (gum), úlna (medial bone of forearm), úvula (lingula), hépar (liver), hílus (hilus).

2. Read the following words paying special attention to the vowels i and j:

intestínum (intestine), iáter (physician, doctor), páries inférior (lower wall), ínsula (island), junctúra (junction), júgum (iúgum) (eminence, mound), juguláris (iuguláris) (jugular), canális palatínus májor (máior) (greater palatine canal), fóssa infratemporális (infratemporal fossa), tubérculum május (máius) (greater tubercle), jejúnum (ieiúnum) (jejunum), ilíacus (iliac).

3. Read the following words paying special attention to Latin vowel digraphs and diphthongs:

áuris (ear), autopsía (necropsy), Áurum (gold), pléura (pleura), neurológia (neurology), pneumonía (inflammation of the lungs), cóstae (ribs), oedéma (swelling), anaemía (anemia), gangraéna (gangrene), amoéba (ameba), áër (air), poëta (poet), Áloë (aloe), aërophobía (morbid fear of drafts or of fresh air), vértebrae (vertebrae), caécus (cecal), oesóphagus (oesophagus), auriculáris (auricular), córpus vesícae félleae (body of gallbladder), aponeurósis (aponeurosis), pseudomembrána (false membrane), uropoëticus (urogegenus/urinogenous), díploë (diploe), aurícula (auricle), haematopoëticus (hemopoietic), dýspnoë (dispnea), régio glutaéa (gluteal region), peronaéus (fibular), neurocránium (skull), caudális (caudal).

4. Read the following words paying particular attention to the consonants \underline{c} , \underline{s} , \underline{l} , \underline{x} and \underline{z} :

fácies (surface), cérvix (neck), cérebrum (brain), cýstis (cyst), cytológia (cytology), cósta (rib), cáput (head), córpus (body), colúmna (pillar), cávum (cavity), cóllum (neck), crísta (crest), lac (milk), canális (canal), súlcus (furrow, groove), árcus (arch), córnu (horn), stérnum (breastbone), scápula (shoulderblade), os (bone), spína (spine), násus (nose), básis (base), plásma (plasma), organísmus (organism), squamósus (scaly), tuberósitas (tuberosity), lóbus (lobe), látus (wide), músculus (muscle), lábium (lip), ángulus (angle), ánulus (ring), ápex (top, summit), rádix (root), déxter (right), thórax (chest), xiphoídeus (swordshaped), zóna (zone), zygóma (cheek-bone), horizontális (horizontal),

cávitas (cavity), ócciput (back of the head), trúncus (trunk), caécus (cecal), claviculáris (clavicular), accessórius (additional), músculus (muscle), scéleton (skeleton), cruciátus (cruciform), ceméntum (cement), cávum cránii (cavity of skull), sáccus lacrimális (tear sac), cartilágo (cartilage), cóndylus (condyle), bíceps (two-headed), céllula (cell), córpus (body), súlci palatíni (palatine grooves), vértebrae cervicáles (cervical vertebrae), vértebrae sacráles (sacral vertebrae), os coccýgis (coccygeal bone), forámina sacrália dorsália (dorsal sacral openings), búcca (cheeck), búccae (cheeks).

5. Read the following words paying special attention to the letter combinations ch, ph, qu, rh, th, ngu and ti:

núcha (nape), chóle (bile), chórda (cord), chárta (paper), phálanx (fingerbone), diaphrágma (diaphragm), phárynx (pharynx), áqua (water), squamósus (scaly), quádriceps (four-headed), rhizóma (rhizome), rhéxis (rupture), rheumatísmus (rheumatism), thórax (chest), rhinorrhagía (bleeding from the nose), therapía (treatment), thrómbus (blood clot), língua (tongue, language), únguis (nail), sánguis (blood), unguéntum (ointment), ángulus (angle), linguláris (lingular), trianguláris (triangular), tíbia (shinebone), téstis (testis), tinctúra (tincture), óstium (opening), articulátio (joint), substántia (substance), spátium (space), solútio (solution), curátio (treatment), vítium (defect)

6. Read the following words paying particular attention to the consonant s:

fóssa (cavity), húmerus (bone of upper arm), mesentérium (mesentery), impréssio (impression), sínus (holow curvature or cavity), sigmoídeus (sigmoid), séptum nási (nasal septum), canális hypoglossális (hyppoglossal canal), procéssus styloídeus (styloid process), básis cránii (base of skull), segméntum (segment), pars petrósa (petrosal part), chiásma (chiasm), fissúra (fissure (slit)), dens incisívus (incisor tooth), platýsma (subcutaneous neck muscle), mesogástrium (middle part of abdomen), mucósus (mucosal),

nasolacrimális (nasolacrimal), súlcus sínus transvérsi (transversal hollow groove)

7. Read the following words paying particular attention to the pronunciation of qu and ngu:

squáma occipitális (occipital scale), lámina quadrigémina (quadrigeminal plate), quadrátus (square), vértebra quínta (the fifth vertebra), línea oblíqua (oblique line), língua (tongue, language), língula (small tongue), inguinális (inguinal), únguis (nail), squamósus (scale-like), os tríquetrum (trihedral bone), sublinguális (sublingual), ángulus (angle), sánguis (blood), sanguíneus (circulatory (bloody)).

8. Read the following words paying particular attention to the pronunciation of <u>ti</u>:

addúctio (adduction), abdúctio (abduction), periodóntium (peridontium), supinátio (supination), articulátio (joint), eminéntia (eminence), tíbia (shinbone), óstium (mouth, aperture), spátia intercostália (intercostal space), digéstio (digestion), distántia trochantérica (trochanteric distance), substántia spongiósa (spongy substance), forámina nutrícia (nourishing openings), míxtio (mixture), masticátio (chewing).

9. Read the following words paying particular attention to the pronunciation of digraphs and letter combinations:

núcha (nape of neck), thyreoídeus (thyroid), thórax (chest), línea núchae supérior (upper nachal line), tubérculum pharyngéum (pharyngeal tubercle), os sphenoidále (wedge-shaped bone), fóssa hypophysiális (hypophysial cavity), labyrínthus ethmoidális (cribriform labyrinth), kyphósis (hump back (arterior curvature)), hemisphérium (hemisphere), sectiónes hypothálami (sections of hypothalamus), splanchnológia (splanchnology), sphíncter (sphincter), brónchus (main branch of trachea), dúctus cholédochus (common bile duct), os scaphoídeum (boat-shaped bone), phalánges (bones of fingers or toes),

sýmphysis (symphysis (adhesion)), synchondrósis (synchondrosis), ísthmus (isthmus), trúncus brachicephálicus (brachiocephalic trunk), artéria ophthálmica (ophthalmic artery), véna saphéna (saphenous vein), nódus lympháticus (lymphatic node), dúctus thorácicus (thoracic duct), spinothalámicus (spinothalamic), pars sympáthica (sympathetic part), cávum subarachnoidále (subarachnoidal cavity), os íschii (ischial bone), incisúra ischiádica májor (major ischiadic notch), aquaedúctus mesencéphali (aqueduct of midbrain).

VI. VOCABULARY

17. vertěbra, ae f

Part 1.

1. ala, ae f wing 2. costa, ae f rib 3. crista, ae f crest 4. fibŭla, ae f fibula, splint-bone 5. fossa, ae f shallow depression or cavity 6. glandŭla, ae f gland 7. lamina, ae f plate 8. liněa, ae f line 9. mandibŭla, ae f lower jaw 10.maxilla, ae f upper jaw 11.orbĭta, ae f eyesocket 12.porta, ae f entry 13. scapŭla, ae f shoulder blade 14.spina, ae f spine 15.tibĭa, ae f shinebone, larger of two bones of leg 16.vena, ae f vein

vertebra

Part 2.

18.apertūra, ae f aperture, opening

19.aorta, ae f main artery of body

20.arterĭa, ae f artery

21.capsŭla, ae f capsule, membrane or saclike

structure

22.chorda, ae f cord

23.cochlěa, ae f cochlea

24.columna, ae f column

25.concha, ae f concha

26. fascĭa, ae f fascia

27. fověa, ae f small pit or depression

28.incisūra, ae f notch

29.lingua, ae f tongue, language

30.nucha, ae f nape of neck

31.sella, ae f saddle

32.sutūra, ae f suture; line of junction

33.vagīna, ae f sheath

34. valvŭla, ae f small valva; valve

LESSON 2

ACCENT RULES, WORD STRESSING

In this lesson you will:

• Become familiar with the main rules of word stress in Latin

This lesson is divided into the following sections:

- I. Division of words into syllables.
- II. The main rules for the position of an accent in Latin.
- III. Graphically signed stress.
- IV. Accent in words of Greek origin.
- V. Exercises.
- VI. Vocabulary

I. DIVISION OF WORDS INTO SYLLABLES

One of the syllables in a word is always more accentuated than the others. We say that **the syllable is stressed**.

To determine which syllable is stressed the word should be divided into syllables. Every Latin word has as many syllables as it has vowels or diphthongs. In Latin syllables are usually counted from the end of a word.

Examples:

Ar-	te-	ri-	a	(artery)
4	3	2	1	

Ar-	ti-	cu-	la-	ti-	0	(joint)
6	5	4	3	2	1	

II. THE MAIN RULES FOR THE POSITION OF AN ACCENT IN LATIN.

- 1. The final syllable of a word is not stressed.
- 2. In disyllabic words (consisting of two syllables) the second syllable (from the end) is always stressed.
- 3. In polysyllabic words (consisting of more than two syllables) the second or the third syllable from the end of the word is stressed.

To stress correctly a Latin word you should:

- 1. divide a word into its syllables,
- 2. find the next to last syllable,
- 3. determine whether the next to last syllable is stressed or not. If the next to last syllable is not stressed, the accent is shifted to the third syllable from the end of the word.

The basic rules when the next to last syllable is stressed/not stressed:

	Rules	Examples
Next to last	1. if it contains a diphthong such as	pe – ri – to – naé - um
syllable is	ae, oe:	$pe - ro - na\acute{e} - us$
stressed	2. if a vowel of this syllable is	li- ga- mé <u>n-t</u> um
	followed by two or more	ref- lé- <u>x</u> us
	consonants or letters «x» ; «z» :	$gly - cy - rrh\acute{y} - \mathbf{z}a$
	3. if it contains such suffixes as:	me- di- <u>á- l</u> is
	-al-, -ar-, -at-, -in-, -ur-, -os-,	di-gi- t á- t us
	-iv	fib- r <u>ó- s</u> us
Next to last	1. if its vowel is followed by	ar- té- r <u>i- a</u>
syllable is not	another vowel	su- pé- r <u>i- o</u> r
stressed		
(accent is	2. if its vowel is followed by such	vér- te- <u>br</u> a
shifted to the	letter combinations as:	quá- dru- <u>pl</u> ex
third syllable	br, pl, tr,	trí- que- <u>tr</u> us
from the end)		

3. if its vowel is followed by diagraphs ch , ph , th , rh .	cho – lé – do - ch us stó – ma – ch us
4. if it contains such suffixes as: -ic-, -ol-, -ul	tho- rá- c <u>i- c</u> us fo- vé- <u>o- l</u> a lín- g <u>u- l</u> a

III. GRAPHICALLY SIGNED STRESS

If the word can't be read according to any stress rule you should consult a dictionary.

Both stressed and unstressed syllables are graphically signed with the special marks. Stressed syllables are graphically signed by a **stroke** (*):

For example: pylōrus - pylórus.

Unstressed syllables are indicated in this book by a **circumflex** () on the vowel.

For example: skelĕton - skéleton.

IV. ACCENT IN WORDS OF GREEK ORIGIN

As for the words of Greek origin you should pay attention to the following peculiarities:

In Greek clinical terms with the ending - ia the letter «i» is always stressed:

myopathia - myopathia

dysentería - dysentery

hypotonía - hypotension

Except for the words containing Greek root <u>- logia:</u>

biológia - biology

pharmacológia - pharmacology

V. EXERCISES

1. Stress the following words observing the rules of Latin wordstressing:

columna, processus, cerebrum, bursa, cavum, palpebra, profundus, transversus, atlas I, internus, bulbus, gangraena, refluxus, cauda, linea, rabies, barba, reflexus, ampulla, collum, tibia, sinister, cornu, spurius, Oryza, situs, xiphoidĕus, facies, anatomia, ramus, coccygēus, caries, tabuletta, minorpodagra, pterygoidĕus, externus, maxilla, curatio, solutio, substantia, eminentia, Belladonna, ligamentum, vertebra, costa, apex, arcus, minor, manus, vomer, sternum, sella.

2. Stress the words:

apertura (opening), anulus (ring), angulus (angle), foveola (pit), incisura (notch, split), tuberculum (tubercle), spinosus (spinous), thoracicus (thoracic), articularis (articular), opticus (visual), basilaris (basic), cervicalis (cervical), musculus (muscle), fissura (cleft), lateralis (lateral), vertebralis (vertebral), lumbalis (lumbar), fossula (small depression or cavity), ventriculus (ventricle, stomach), glandula (gland), scapula (shoulder-blade), mandibula (lower jaw), clavicula (clavicle), fibula (fibula), maxillaris (maxillary), chronicus (chronic), gastricus (gastric), pelvinus (pelvic), fibrosus (fibrous), gelatinosus (gelatinous), venosus (venous), squamosus (scaly), spirituosus (spiritual), capitatus (capitate), destillatus (destilled), ceratus (waxy), auditivus (auditory), vegetativus (vegetative), incubativus (incubative), incisivus (incisive, cutting), junctura (junction), sutura (suture), temperatura (temperature).

3. Practise stressing the following Latin anatomical terms:

costa fluctuans (free rib), vertebra thoracica (thoracic vertebra), columna vertebralis (spinal column), processus articularis superior (higher joint appendix), tuberculum anterius (anterior tubercle), facies articularis anterior

(anterior joint surface), sulcus arteriae vertebralis (vertebral furrow of artery), nucleus pulposus (pulpal nucleus), anulus fibrosus (fibrous ring of tissue about an opening), ligamentum longitutinale anterius (anterior longitudunal ligament), juncturae columnae vertebralis et cranii (junctions of spinal column and skull), articulatio atlantooccipitalis (joint between first cervical vertebra and occipital bone), canalis vertebralis (vertebral canal), sulcus costovertebralis minor (major) (small (large) costovertebral furrow), incisurae costales (costal slits), ligamentum capĭtis costae (ligament of the head of rib), articulatio capĭtis costae (joint of the head of rib), spatia intercostalia (intercostal spaces), apertura thorācis superior (inferior) (superior (inferior) thoracic apertura), angulus infrasternalis (angle, situated below or beneath sternum), fissura sterni (narrow slit of breast bone).

4. Practise stressing the following Latin anatomical terms:

medulla ossium (bone marrow), arcus vertebrae (vertebral arch), membrum inferius (leg), epigastrium (part of abdomen immediately over stomach), processus transversus (transverse process), substantia compacta (thick substance), palpebra superior (upper eyelid), corpus maxillae (body of upper jaw), quadruplex (fourfold), facies poplitea (popliteal surface), ductus choledochus (bile duct).

5. Practise stressing the following Latin anatomical terms:

digitatus (pertaining to finger or toe), hiatus sacralis (sacral opening), cribrosus (sieve-shaped), vertebralis (vertebral), incisura supraorbitalis (supraorbital notch), clavicularis (pertaining to collar-bone), fossa pterygopalatina (pterygopalatine cavity), processus zygomaticus (zygomatic process), hamulus pterygoiděus (wing-shaped hook), mentalis (pertaining to chin), sulcus pulmonalis (pulmonary furrow), forāmen spinosum (spinous opening), fossa glandulae lacrimalis (shallow depression of lacrimal gland), pubicus (pertaining

to lower part of abdomen, covered with hair), pars squamosa (scaly (platelike) part), nodi pancreatici (pancreatic nodes), pelvinus (pelvic), foveolae granulares (small granular spit), glomerulus (small ball), incisura vertebralis (vertebral slit).

6. Practise stressing the following Latin anatomical terms:

alae voměris (wings of thin bone separating nostrils), pars superior duoděni (upper part of duodenum), cartilaginěus (pertaining to cartilage), articulatio sacrococcygēa (sacral-coccygeal joint), gingīva (gum), trachēa (windpipe), apertura thorācis inferior (lower opening of chest), orgănon gustus (taste organ), osteologia (science about bones), glossopharyngēus (pertaining to tongue and pharynx), myologia (science about muscles), orbīta oculi (eye-pit), pylōrus (opening of stomach into duodenum), peritonēum (serous membrane lining abdominal cavity), metathalămus (part of brain behind visual tuber), minĭmus (smallest), musculus levator fornĭcis (muscle that raises fornix), os coccýgis (last bone of spinal column), peronēus (pertaining to fibular bone), carpēus (pertaining to wrist), glutēus (pertaining to buttocks), nervus trigemĭnus (trigeminal nerve), labyrinthus ethmoidalis (sieve-shaped labyrinth (ethmoidal bone)).

7. Practise stressing the following Latin anatomical terms:

lamina arcus vertebrae (plate of vertebral arch), forāmen rotundum (round opening), vagīna processus styloiděi (sheath of awl-shaped appendix), tuberositas pterygoiděa (pterygoid tuberosity), palātum osseum (bony palate), ligamentum popliteum oblīquum (oblique popliteal ligament), cavitas oris propria (proper oral cavity), atrium meātus medii (atrium middle meatus), cartilāgo thyroiděa (thyroid cartilage), vesīca urinaria (bladder), extremitas inferior (lower extremity).

8. Practise stressing the following Latin anatomical terms:

processus accessorius (additional appendix), arcus posterior atlāntis (posterior arch of first cervical vertebra), lineae transversae (transverse lines), eminentia cruciformis (cruciform eminence), facies anterior (anterior surface), os triquetrum (three-sided bone), basis patellae (base of kneecap), recessus sacciformis (sacciform recess), spatia interossea metacarpi (interosseous spaces of metacarpus), labium superius (upper lip), pancreas accessorium (additional pancreas), regio respiratoria (respiratory region), bifurcatio trachēae (bifurcation of trachea).

VI. VOCABULARY

Masculine

1. angŭlus, i m angle

2. canalicŭlus, i m small canal

3. muscŭlus, i m muscle

4. nasus, i m nose

5. nuclěus, i m spheroid body within a cell

6. pediculus, i m pedicle, small foot

7. radĭus, i m thicker and shorter bone of forearm

8. sulcus, i m furrow or groove

Neuter

9. brachĭum, i n upper arm

10. cavum, i n cavity

11. collum, i n neck

12. cranĭum, i n skull

13. dorsum, i n back

14. membrum, i n member, extremity

15. palātum, i n palate

16. septum, i n partition, dividing wall

17. tubercŭlum, i n tubercle; small rounded swelling

LESSON 3

STRUCTURE OF ANATOMICAL TERMS. NOUN AND ITS GRAMMATICAL CATEGORIES

In this lesson you will:

- Become familiar with structure of anatomical terms.
- Learn grammatical categories of Latin nouns.
- Learn how to determine the stem, the gender and the declension of nouns.

This lesson is divided into the following sections:

- I. Anatomical terminology.
- II. Structure of anatomical terms.
- III. Grammatical categories of a noun.
- IV. Gender
- V. Number
- VI. Case
- VII. Dictionary form of a noun.
- VIII. Declension
 - IX. Stem of nouns
 - X. Exercises.
 - XI. Vocabulary

I. ANATOMICAL TERMINOLOGY

Anatomical terminology is a system of terms used in Anatomy. The revision of modern anatomical terminology was initiated in 1887. More than a hundred years later the new Terminologia Anatomica - International Anatomical Terminology was finally accepted by the International Federation of Association of Anatomists (IFAA) in 1997. Anatomical terminology is the foundation of medical terminology and Latin is the international anatomical language. Only

Latin is the international basis for creating equivalent terms in other languages. English is not the basis for terminology in other languages.

There is only a very little Latin grammar necessary to dissect anatomical terms. One needs only know about **nouns** and **adjectives**, and even then only two cases in the singular and plural. The two cases are Nominative (subjective) and Genitive (possessive).

Noun is a name of a thing: digitus (finger), costa (rib) etc.

<u>Adjective</u> is a word expressing a quality of a thing: major (large), longus (long), frontālis (frontal).

II. STRUCTURE OF ANATOMICAL TERMS

The **anatomical term** is a word used to name a definite unit or structure of a human body. Anatomical terms may consist of one, two, three, four and more words (up to 8).

1. One-Word Terms

They consist of one noun in singular or plural:

Costa (rib), costae (ribs)

2. Two-Word Terms

They may consist of:

- a. two nouns in singular or plural: corpus vertěbrae (body of vertebra), corpŏra vertebrārum (bodies of vertebrae)
- b. a noun with an adjective: vertěbra thoracĭca (thoracic vertebra)

3. Three-Word Terms

They may consist of:

- a. three nouns: ligamentum tubercŭli costae (ligament of tubercle of rib)
- b. a noun and two adjectives: *processus articulāris superĭor (superior articular process)*
- c. two nouns and an adjective: sulcus nervi spinālis (furrow of the spinal nerve)

4. Multiword Terms

They may consist of several nouns and adjectives in singular and plural:

Facies temporalis alae minoris ossis sphenoidalis (temporal surface of the smaller wing of the sphenoid bone).

III. GRAMMATICAL CATEGORIES OF A NOUN

The grammatical categories of a noun are as follows:

- 1. Gender
- 2. Number
- 3. Case
- 4. Declension

GENDER

There are three genders in Latin: masculine (masculīnum), feminine (feminīnum) and neuter (neutrum). In contrast to Latin English nouns have only a natural gender, i.e. according to their sex: nouns designating males are masculine (man, boy), nouns designating females are feminine (woman, girl), and nouns designating inanimates are in the neuter gender.

Latin nouns have grammatical gender. Their gender is determined by the ending of Nominative singular.

Thus, nouns ending in **-a** are feminine: scapŭla (shoulder blade), nouns ending in **-us** are masculine: muscŭlus (muscle), nouns ending in **-um** are neuter etc.

The genders of a noun are indicated in the dictionaries with the letters:

- m masculine
- f feminine
- n neuter

NUMBER

In common with English there are two numbers in Latin - **singular** (singulāris) and **plural** (plurālis). Number is the grammatical category showing whether we speak of one thing ore more than one. In English the plural is formed by the endings –s or –es. In Latin the ending of the plural varies according to the gender and declension:

Vertěbrae (vertebrae), nervi (nerves), corpŏra (bodies), facĭes (surfaces) etc.

CASE

Case is defined as the change of the noun form according to its relation to other words. In modern English we can speak about "common case" and "possessive case". In contrast to English there are six cases in Latin, but only **two cases** are used in the anatomical terminology:

English	Latin and abbreviation
Nominative	Nominatīvus (Nom.)
Genitive	Genetīvus (Gen.)

Nominative indicates the subject and answers the questions who, what.

Genitive indicates the possession and answers the questions whose, of what.

IV. DICTIONARY FORM OF A NOUN

You should learn Latin nouns in their "Dictionary Form". The dictionary form of a noun consists of **three components**:

- 1. the full form of Nominative singular;
- 2. the Genitive singular ending;
- 3. the designation of gender (with the letters m, f, n).

E.g.: ala, ae f - wing;

sternum, i n - breast bone; ductus, us m - duct.

V. DECLENSION

There are five declensions in Latin; that is, **five categories of nouns**, each with its own endings. The declension is determined by the Genitive singular endings.

First declension

The nouns of **feminine** which end in **-a** are ascribed to the first declension. The Genitive form of the first declension nouns ends in **-ae**.

E.g.: costa, ae f - rib

vertěbra, ae f - vertebra

Second declension

To the second declension are referred **masculines** which end in **–us** and **–er**, and **neuters** which end in **–um**, **-on**. The Genitive form of the second declension nouns ends in **–i**.

E.g.: nasus, i m - nose;

collum, i n - neck;

olecrănon, i n - tip of the elbow;

cancer, cri m - cancer.

Attention!!! – In the anatomical terminology there are no nouns which end in –er. The ending –on have the following anatomical terms:

- acromion, i n acromial process
- colon, i n *large intestine*
- encephălon, i n brain
- ganglion, i n *ganglion*
- olecrănon, i n tip of the elbow

Third declension

The third declension includes nouns of **all the three genders** which have **different endings** in Nominative singular and **–is** in Genitive singular.

E.g.: canālis, is m - canal; regĭo, ōnis f - region; os, ossis n - bone.

Fourth declension

The fourth declension includes masculines which end in **–us**, and the neuters which end with **–u**. The Genitive singular form of these nouns ends in **–us**.

E.g.: arcus, us m - arch; cornu, us n - horn.

Attention!!! - In the anatomical terminology there are only two neuters of the 4th declension which end in –u: cornu, us n (*horn*), genu, us n (*knee*).

Attention!!! - In the anatomical terminology there is only a limited number of masculines of the fourth declension. You should remember some of them as follows:

• aqu(a)eductus, us m aqueduct

• arcus, us m arch

• ductus, us m duct

• meātus, us m tract, passage

• processus, us m process

• sinus, us m sinus; hollow

• textus, us m tissue

Fifth declension

The fifth declension includes nouns of feminine which end in **-es** in Nominative singular and in **-ei** in Genitive singular.

E.g.: facies, \overline{e} i f – surface, face (this is the only noun of the fifth declension you meet in the exercises).

Remember the endings of Nominative and Genitive singular of all declensions:

Declension	I	II		III	IV		V
Gender	f	m	n	m f n	m	n	f
Nominative singular endings	a	US er	um on	different	us	u	es
Genitive singular endings	ae	i		is	u	IS	ēi

VI. STEM OF NOUNS

To make a Genitive form from the Nominative form you should determine the **stem of the noun**. To determine the stem you should detach the ending from the noun:

E.g.:

Dictionary form	Genitive	Stem
crista, ae f	crist - ae	crist -
collum, i n	coll – i	coll -
facĭes, ēi f	faci – ēi	faci -
pars, partis f	part – is	part -
vomer, ĕris m	voměr - is	voměr -
caput, ĭtis n	capĭt - is	capĭt -

VII. EXERCISES

1. Make up the dictionary form of nouns:

arcus (arch), bulbus (bulb; any rounded mass), concha (concha), incisūra (slit or notch), sulcus (furrow or groove), cornu (horn), nasus (nose), amnion (amnion), tubercŭlum (tubercle; small rounded swelling), scapŭla (shoulder blade), adĭtus (enter), septum (dividing wall), ganglion (nerve node), collum (neck), porus (opening, pore), fossa (shallow depression or cavity), encephălon (brain), colon (part of large intestine), olecrănon (elbow appendix), muscŭlus (muscle), ramus (branch), genu (knee), nodus (node), pleura (membrane lining chest and covering lungs), lingua (tongue; language), sinus (cavity, sinus), orgănon (organ).

2. Determine the declension of the nouns:

facies, ēi f (surface); pars, partis f (part); ala, ae f (wing); magister, tri m (teacher); nervus, i m (nerve); ramus, i m (branch); sphincter, ēris m (sphincter); colon, i n (part of large intestine); plexus, us m (network, chiefly of veins or nerves); forāmen, ĭnis n (opening); ligamentum, i n (ligament); dens, dentis m (tooth); tuber, ĕris n (thickend portion of underground stem; rounded swelling); tempus, ŏris n (temple, time); genu, us n (knee); articulatio, ōnis f (joint); cartilāgo, ĭnis f (cartilage); meniscus, i m (meniscus); diaphragma, ătis n (septum between thorax and abdomen, diaphragm); canālis, is m (canal); cervix, īcis f (neck).

3. Pay attention to the word order:

spina scapŭlae (spine of shoulder bone); raphe palāti (suture of palate); skelěton membri (skeleton of a limb); ossa cranii (bones of skull); fossa glandŭlae (cavity of gland); vena portae (portal vein); septum nasi (dividing wall of nose); crista tubercŭli (crest of tubercle); processus radii (appendix of radial bone); caput

fibulae (head of fibular bone); corpus tibiae (body of shin bone); facies acromii (surface of acromion); linea nuchae (line of neck nape); sulcus sinus (furrow of sinus); basis cranii (base of skull); angulus mandibulae (angle of lower jaw).

4. Determine the gender of the nouns:

septum (dividing wall); substantia (substance, material); encephălon (brain); ocŭlus, i (eye); nasus, i (nose); scapŭla (shoulder blade); arcus, us (arch); acromion (acromion); lingua (tongue, language); mandibŭla (lower jaw); processus, us (appendix); cranium (skull); dorsum (back); incisūra (slit or notch); clavicŭla (collar-bone); skelěton (skeleton); cornu (horn); meātus, us (passage); palātum (palate); huměrus, i (humeral bone); lympha (lymph); cerebrum (brain); concha (concha); maxilla (upper jaw); ductus, us (duct); olecrănon (elbow appendix); tubercŭlum (tubercle); lamĭna (plate); ramus, i (branch); ganglion (nerve node); vertebra (vertebra; each segment of vertebral column); sinus, us (sinus).

5. Pay attention to the word order:

collum costae (scapŭlae) (neck of rib (shoulder blade)); corpus fibŭlae (huměri, maxillae, tibiae) (head of fibular bone (humeral bone, upper jaw, shin bone)); incisūra mandibŭlae (scapŭlae) (notch of lower jaw (shoulder blade)); radix dentis (linguae) (root of tooth (tongue)); angŭlus costae (mandibŭlae) (angle of rib (lower jaw)).

6. Translate terms into Latin:

muscle of neck; capsule of nerve node; back of saddle; tuber of upper jaw; body of vertebra, head of rib; arch of aorta; notch of lower jaw; base of skull; cavity of nose; passage of nose; neck of shoulder blade; sheath of process; aperture of cohlear canaliculus; crest of the costal head; canaliculus (small canal) of chorda tympani; ligament of the costal tubercle; plate of arch (of vertebra); wing of

cock's crest; aperture of aqueduct of vestibule; vestibule of nose; dividing wall of nose; base of cochlea; small pit of process; small foot of arch of vertebra; surface of the costal tubercle.

VIII. VOCABULARY

2nd declension

1. acromion, i n shoulder appendix

2. antrum, i n cavity3. gallus, i m cock

4. ganglion, i n nervous node

5. ligamentum, i n ligament

6. lobus, i m lobe 7. nodus, i m node

8. ramus, i m branch

9. skelěton, i n skeleton

10.truncus, i m trunk

11.tympănum, i n tympanum

12. vestibŭlum, i n vestibule

3rd declension

13.basis, is f base

14.canālis, is m canal

15.caput, ĭtis n head

16.corpus, ŏris n body

17. forāmen, ĭnis n opening

18.os, ossis n bone

19.pars, partis f part

20.tuber, ĕris n large rounded swelling

4th declension

21.arcus, us m arch

22.aquaeductus, us m water duct

23.cornu, us n horn; horn-shaped process

24.ductus, us m duct

25.meātus, us m passage, tract

26.plexus, us m network; chiefly of veins and

nerves

27.processus, us m process; appendix

28. sinus, us m hollow or cavity

5th declension

29. facĭes, ēi f face, surface

LESSON 4

ADJECTIVE, TWO GROUPS OF ADJECTIVES

In this lesson you will:

- Become familiar with the characteristics of Latin adjectives.
- Learn morphological categories of Latin adjectives.
- Learn how to find the stem and the declension of adjectives.
- Learn how to make grammatical agreement of adjectives with nouns.

This lesson is divided into the following sections:

- I. Introduction.
- II. The 1st group of adjectives.
- III. The 2nd group of adjectives.
- IV. Adjectives of one form for all genders.
- V. Agreement of adjectives and nouns.
- VI. Exercises.
- VII. Vocabulary

I. INTRODUCTION

<u>Adjective</u> is a word expressing a quality of a thing: major (*large*), longus (*long*), frontālis (*frontal*).

In all Latin terms <u>the position of adjectives is after the noun</u> with which it has grammatical agreement.

According to their endings all Latin adjectives can be divided into two groups: the first and the second group.

II. THE 1ST GROUP OF ADJECTIVES

The adjectives of the 1st group have different forms for every gender:

	Masculine	Feminine	Neuter
Nominative	long <u>us</u>	long <u>a</u>	long <u>um</u>
Genitive	long <u>i</u>	long <u>ae</u>	long <u>i</u>

These adjectives are declined on the pattern of the 1^{st} and 2^{nd} declensions. They have identical Nominative and Genitive forms with nouns: masculine $\underline{}$ us (-i), feminine $\underline{}$ a (-ae), neuter $\underline{}$ um (-i).

Their dictionary form consists of **three components**:

- 1. adjective in the masculine form;
- 2. the feminine ending;
- 3. the neuter ending.

E.g.: transversus, a, um (transverse); internus, a, um (internal); profundus, a, um (profound).

The stem of the 1st group adjectives is obtained from the Nominative form by removing the gender ending:

• longus stem: long-

• transversum stem: transvers-

• externa stem: extern-

The adjectives ending in **–er** fall also into this adjective group. In the anatomical terminology only some of them are used:

Masculine	Feminine	Neuter	Dictionary Form	English
dexter	dextra	dextrum	dexter, tra, trum	right
sinister	sinistra	sinistrum	sinister, tra, trum	left
liber	libĕra	libĕrum	liber, ĕra, ĕrum	free
ruber	rubra	rubrum	ruber, bra, brum	red

As for <u>the stem</u> of adjectives with the **ending - er** in masculine it is obtained from the Nominative form by removing the feminine ending.

Dictionary Form	Feminine	Stem
dexter, tra, trum	dextra	dextr-
sinister, tra, trum	sinistra	sinistr-
ruber, bra, brum	rubra	rubr-
liber, ĕra, ĕrum	libĕra	liber-

III. THE 2ND GROUP OF ADJECTIVES

Into this group fall adjectives of the 3^{rd} declension. The adjectives of the 2^{nd} group are the adjectives of the **frontālis** type:

	Masculine	Feminine	Neuter
Nominative	frontāl <u>is</u>	frontāl <u>is</u>	frontāl <u>e</u>
Genitive	frontāl <u>is</u>		

As indicated in the table the adjectives of this group have identical Nominative masculine and feminine forms ending in —is and the neuter ending —e. The Genitive form is identical for all genders.

Their dictionary form consists of **two components**:

- 1. the common masculine and feminine Nominative form;
- 2. the neuter ending –e.

E.g.: frontālis, e (frontal); cervicālis, e (cervical).

The stem of the 2nd group adjectives is obtained from the Nominative form by removing the gender ending:

vertebrālis stem: vertebrāl-

• temporālis stem: temporāl-

IV. THE 2^{ND} GROUP ADJECTIVES OF ONE FORM FOR ALL GENDERS

In the anatomical terminology some adjectives of one form for all genders are used. In the dictionary form of such adjectives the Nominative form (common for all genders) is first indicated, and then the Genitive ending with the stem part.

Remember these adjectives:

• simplex, ĭcis simple

• multiplex, ĭcis multiple

• teres, ětis round

The stem of such adjectives is obtained from the Genitive form singular by removing the ending.

Dictionary form	Gen. Singular	Stem
simplex, ĭcis	simplĭcis	simplĭc-
multĭplex, ĭcis	multiplĭcis	multiplĭc-
teres, ětis	terětis	terět-

V. AGREEMENT OF ADJECTIVES AND NOUNS

To agree a noun and an adjective means to use them in the same Gender, Number and Case.

To agree a noun and an adjective you should:

- 1. determine gender, number and case of the noun;
- 2. determine group of the adjective by its dictionary form;
- 3. agree the adjective and the noun by gender, number and case.

For example, you translate from English into Latin the following anatomical terms: *mastoid process, vertebral foramen*.

- Process processus: gender masculine, singular, Nominative. Mastoid mastoiděus, a, um: adjective of the 1st group. We agree the adjective mastoiděus in the masculine gender, singular number, Nominative case: processus mastoiděus.
- Foramen forāmen: neuter, singular, Nominative. Vertebral vertebrālis, e: adjective of the 2nd group. We agree the adjective vertebrālis in the neuter gender, singular number, Nominative case: forāmen vertebrāle.

VI. EXERCISES

1. Translate the following terms into Latin according to grammatical agreement:

pharyngeal network; deep cervical lymphatic node; oval opening; thoracic fascia; transverse palatine raphe; stony branch; internal capsule; middle temporal artery; spinous opening; parietal lobe; superficial vein.

2. Translate the following terms into Latin according to grammatical agreement:

articular process of vertebra; bony septum of nose; palatine process of upper jaw; valve of coronary sinus; middle fossa of skull; left lumbar trunk.

3. Translate the following terms into Latin according to grammatical agreement:

ligament of vertebral column; fibrous capsule of thyroid gland; furrow (groove) of occipital artery; aperture of frontal sinus.

4. Translate the following terms into Latin according to grammatical agreement:

pulmonary surface; lateral ligament; right plate; palatine process; vertebral ganglion (nerve node); costal arch; frontal crest; occipital angle; medial head;

sacral canal; superficial vein; simple joint; medial root; costal surface; arched (arch-shaped) crest.

5. Make up grammatical agreement of the following adjectives with the given nouns:

1	sulcus, i m ligamentum, i n linea, ae f	transversus, a, um
2	sulcus, i m os, ossis n processus, us m	palatīnus, a, um
3	sutūra, ae f angŭlus, i m tuber, ĕris n	frontālis, e
4	valvŭla, ae f plexus, us m sinus, us m	venōsus, a, um
5	processus, us m facies, ēi f tubercŭlum, i n	articulāris, e
6	muscŭlus, i m fossa, ae f	pterygoiděus, a um
7	arcus, us m os, ossis n	zygomatĭcus, a, um
8	facies, ēi f ganglion, i n	internus, a, um

6. Make up Genitive forms of the following adjectives:

1. cervicālis, e	7. thoracĭcus, a, um
2. internus, a, um	8. medius, a, um
3. sinister, tra, trum	9. lumbālis, e
4. simplex, ĭcis	10. laterālis, e
5. osseus, a, um	11. temporālis, e
6. lymphatĭcus, a, um	12. vertebrālis, e

VII. VOCABULARY

1st group of adjectives

1. coronarius, a, um coronary

2. fibrōsus, a, um fibrous

3. internus, a, um internal

4. lymphaticus, a, um lymphatic

5. mastoiděus, a, um mammiform

6. medĭus, a, um middle

7. ossěus, a, um bony

8. palatīnus, a, um palatine

9. petrōsus, a, um stony

10. pharyngēus, a, um pharyngeal

11. profundus, a, um deep

12. pterygoiděus, a, um wing-shaped, pterygoid

13. sinister, tra, trum left

14. spinōsus, a, um spinous

15. thoracĭcus, a, um thoracic

16. thyreoideus, a, um thyroid

17. transversus, a, um transverse

18. venōsus, a, um venous

19. zygomaticus, a, um zygomatic

2nd group of adjectives

20. arciformis, e arch-shaped

21. articulāris, e articular

22. cervicālis, e cervical

23. ethmoidālis, e sieve-shaped

24. frontālis, e frontal

25. horizontālis, e horizontal

26. laterālis, e lateral

27. lumbālis, e lumbar

28. occipitālis, e occipital

29. orbitālis, e orbital

30. ovālis, e oval

31. parietālis, e parietal

32. pulmonālis,e pulmonary

33. sagittālis, e sagital

34. sphenoidālis, e wedge-shaped, sphenoid

35. superficiālis, e superficial

36. temporālis, e temporal

37. vertebrālis, e vertebral

LESSON 5

DEGREES OF COMPARISON OF ADJECTIVES

In this lesson you will:

- Become familiar with the degrees of comparison.
- Learn how to form the comparative degree.
- Learn how to form the superlative degree.

This lesson is divided into the following sections:

- I. Introduction: Degrees of comparison.
- II. The comparative degree.
- III. The superlative degree.
- IV. Exercises.
- V. Vocabulary

I. INTRODUCTION: DEGREES OF COMPARISON

The adjectives are gradable. This means that the person or thing referred to can possess more or less of the quality mentioned. The usual way to indicate the amount of a quality in Latin is by adding specific suffixes to the word's stem.

There are three degrees of comparison of adjectives in Latin:

- Positive degree: The positive degree expresses a quality of thing or person for itself, without comparing to a similar quality of other things or persons. It is the basic form of adjective, by which it is presented in the dictionaries: longus, a, um; frontālis, e.
- Comparative degree.
- Superlative degree.

II. THE COMPARATIVE DEGREE

The comparative degree expresses a higher quality of thing or person as compared with the same quality of other things or persons. It is formed by adding the suffixes —**ior** for masculine & feminine and —**ius** for neuter to the stem of adjectives (obtained from the genitive form without its ending).

The dictionary form of the adjectives has two components:

- 1. Nominative singular masculine & feminine form with the suffix -ĭor;
- 2. Suffix –**ĭus** of the Nominative singular neuter form.

E.g.: anterior, ius

You should remember the adjectives in comparitive degree used in the anatomical terminology:

Masculine & feminine	Neuter	Genitive form	English	Dictionary form
anterior	anterius	anteriōris	anterior	anterior, ius
posterior	posterius	posteriōris	posterior	posterior, ius
superior	superius	superiōris	upper, superior	superior, ius
inferior	inferius	inferiōris	lower, inferior	inferior, ius
major	majus	majōris	great, greater, major	major, jus
minor	minus	minōris	small, lesser, minor	minor, us

Examples of different English translations of the comparative degree:

1) **Lat.** Tubercŭlum majus (humĕri) - **Eng.** *Greater* tubercle of humeri

2) Lat. Forāmen occipitāle magnum - Eng. Great occipital foramen

3) **Lat.** Nervus petrōsus major - **Eng.** Greater petrosal nerve

4) **Lat.** Nervus occipitālis major - **Eng.** *Greater* occipital nerve

5) **Lat.** Nervus auriculāris magnus - **Eng.** *Great* auricular nerve

The **stem of the adjectives** in the comparative degree coincides with the Nominative masculine & feminine form terminated by **–ior**. The comparative degree is declined on the pattern of the 3rd declension. The Genitive singular form in the comparative degree is formed by adding the ending **–is** to the stem.

E.g.: stem - superior + Genitive ending of the 3^{rd} declension -is = superioris for masculine & feminine & neuter.

The adjectives in the comparative degree are placed on the last position:

E.g.: nervus cutaneus brachii lateralis inferior – inferior lateral cutaneous nerve of the arm

III. THE SUPERLATIVE DEGREE

The superlative degree expresses a highest quality of thing or person as compared with the same quality of other things or persons.

You should remember the adjectives in superlative degree used in the anatomical terminology:

• Latissĭmus, a, um	broadest
• Longissĭmus, a, um	longest
• Maximus, a, um	greatest
• Minĭmus, a, um	least
• Suprēmus, a, um	supreme

The dictionary form of the adjectives in the superlative degree coincides with the dictionary form of the 1st group adjectives and consists of **three components**:

- 1. adjective in the masculine form;
- 2. the feminine ending;

3. the neuter ending.

The superlative degree is declined on the pattern of the 1^{st} and 2^{nd} declensions, i.e. the adjectives have the masculine & neuter genitive ending -i, and the feminine genitive ending -ae.

VI. EXERCISES

1. Make up the dictionary form of the adjectives:

brevior (shorter); longior (longer); minor (small, minor); major (great, greater, major); anterior (anterior); posterior (posterior); superior (upper, superior); inferior (lower, inferior); simplicior (simpler).

2. Translate into Latin and make up grammatical agreement of the following nouns:

lower (sinus, part, spine); small (tubercle, opening, fossa); anterior (sulcus, tubercle, crest, opening, ligament); posterior (arch, surface, ligament); higher (process, opening, slit); great (sulcus, wing, head); small and great (horn).

3. Make up Genitive singular forms, find the stem:

major, jus (great, major); albior, ius (white); minor, us (small, minor); latior, ius (wider); inferior, ius (lower); simplicior, ius (simpler); superior, ius (upper, superior); longior, ius (longer); brevior, ius (shorter); posterior, ius (posterior); anterior, ius (anterior).

4. Make up Genitive singular forms:

tubercŭlum obturatorium posterius (posterior obturative tubercle); processus superior (superior process); incisūra ischiadĭca major (greater ischiadic slit); forāmen superius (superior opening); ramus superior (superior branch); arcus posterior (posterior arch); incisūra superior (superior slit); labium inferius (lower lip); facies posterior (posterior surface); cornu majus et minus (small and great

horn); caput majus (greater head); ligamentum posterius (posterior ligament); sulcus major (greater sulcus), ala major (greater wing).

5. Make up grammatical agreement of following adjectives with nouns:

tubercŭlum thyr(e)oidě... superi... (superior thyroid tubercle); fissūra orbitāl... inferi... (lower orbital fissure); linea glutē... anteri... (anterior gluteal line); forāmen ethmoidāl... anter... (anterior ethmoidal opening); spīna tympanic... min... (small tympanic spine); processus articulār... inferi... (lower articular process); plexus hypogastrīc.. superi... (superior hypogastric network); ligamentum longitudināl... anteri... (anterior longitudinal ligament).

6. Translate into Latin:

- a) small tubercle; small horn; small pelvis
- b) anterior arch; anterior plate; anterior leg
- c) superior angle; superior surface; superior lip

7. Make up Genitive singular forms:

facies anterior (anterior surface); angŭlus inferior (lower angle); cornu majus (greater horn); ganglion superius (superior ganglion (nerve node)); pelvis minor (small pelvis); tubercŭlum majus (greater tubercle); arcus posterior (posterior arch); radix anterior (anterior root).

8. Determine the case of each word and the part of speech:

facies anterior partis petrōsae; linea temporālis superior; fovea articulāris processus articulāris superiōris; ala minor ossis sphenoidālis; arcus dentālis inferior; processus articulāris superior vertebrae lumbālis; ramus dexter venae portae; musculus palpebrae superiōris; crista tuberculi majōris; sulcus nervi petrōsi majōris; caput superius musculi pterygoidei laterālis; tuberculum mediāle

processus posteriōris tali; pars laterālis ossis occipitālis; hiātus canālis nervi petrōsi minōris; nervus cutaněus brachii laterālis inferior; processus maxillāris conchae nasālis inferiōris; ligamentum longitudināle anterius columnae vertebrālis.

9. Translate into Latin using superlative degree:

gluteus maximus muscle; the longest muscle of neck; superior nuchal line; longissimus chest muscle; supreme nasal concha; the widest back muscle bursa; gluteus minimus muscle; the widest back muscle; scalenus minimus muscle; little (the fifth) finger.

VII. VOCABULARY

brevis, e short
 bulbus, i m bulb

3. bursa, ae f pouch, sac

4. cavus, a, um caval, hollow

5. cervix, īcis f neck6. cingŭlum, i n girdle

7. cutaněus, a, um cutaneous

8. dexter, tra, trum right

9. digitus, i m finger; toe

10. glutaeus, a, um pertaining to buttocks

11. hyoiděus, a, um sublingual, hypoglossal

12. jugulāris, e jugular

13. longitudinālis, e longitudinal, lengthwise

14. mediālis, e medial15. nasālis , e nasal

16. nervus, i m nerve

17. ostĭum, i n mouth, aperture, opening

18. palpěbra, ae f eyelid

19. scalēnus, a, um stairs-shaped

20. talus, i m ankle bone, talus

21. tendo, ĭnis m tendon

22. thorax, ācis m chest

23. tibiālis, e tibial

Positive degree of comparison

24. magnus, a, um large, great

25. parvus, a, um little, small

Comparative degree

26. anterior, ius anterior, front

27. inferior, ius lower

28. major, us large

29. minor, us small

30. posterior, ius back

31. superior, ius higher, upper

Superlative degree

32. latissĭmus, a, um widest

33. longissĭmus, a, um longest

34. maxĭmus, a, um largest

35. minĭmus, a, um smallest

36. suprēmus, a, um highest

LATIN THIRD DECLENSION NOUNS. MASCULINE GENDER

In this lesson you will:

- Become familiar with the Latin third declension nouns.
- Learn how to find the stem of the third declension nouns.
- Learn the endings of the masculine third declension nouns.
- Become familiar with the structure of muscles names.

This lesson is divided into the following sections:

- I. Particularities of the third declension.
- II. Stem of Latin third declension nouns.
- III. Endings of Latin third declension nouns.
- IV. Exceptions to the rule of the masculine third declension nouns endings.
- V. Latin muscle names.
- VI. Exercises.
- VII. Vocabulary

I. PARTICULARITIES OF THE THIRD DECLENSION

The third declension includes nouns of **all the three genders** which have **different endings** in Nominative singular and **–is** in Genitive singular.

Parisyllaba and imparisyllaba third declension nouns

The Latin nouns of the 3rd declension can be divided into **parisyllaba and imparisyllaba**.

The first group includes a few feminine nouns that have equal number of syllables in *Nominative singular* and *Genitive singular*, such as:

auris, is f - earcutis, is f - skin

The nouns that have one more syllable in *Genitive singular* than in *Nominative singular* are called imparisyllaba, *cf.* the following examples:

corpus, ŏris n - bodycaput, ĭtis n - head

II. STEM OF LATIN THIRD DECLENSION NOUNS

The stem determination of Latin third declension nouns is of great practical significance because the stem gives the clue to the formation of most of the other forms, for example of plural forms.

The stem of nouns of the 3rd declension is determined by the Genitive singular form.

The stem of nouns of the 3^{rd} declension is obtained from the Genitive singular form by dropping the ending -is.

E.g.:

forāmen, ĭnis n \rightarrow	foramĭn-is	opening
caput, ĭtis n \rightarrow	capĭt-is	head
parĭes, ētis m →	pariēt-is	wall

III. ENDINGS OF LATIN THIRD DECLENSION NOUNS

Most nouns ending by -os, -or, -o, -er, -ex, -es (imparisyllaba) are masculine, cf.:

	Endings			E		
	Nominative	Genitive (with a part of the stem)		Examples		
1.	- os	- ōris	flos, floris m -	flower		
2.	- or	- ōris	constrictor,	constrictōris	m	_

2		- ōnis	pulmo, pulmōnis m - lung
3.	3. - 0 - ĭnis	- ĭnis	homo, homĭnis m – man
1	0.m	- ris	venter, ventris m – belly of a muscle
4.	- er	- ēris	trochanter, trochantēris m - trochanter
5.	- ex	- ĭcis	cortex, cortĭcis m - cortex
6	og.	- ědis	pes, pedis m - foot
6.	- es	- ētis	parĭes, pariētis m - wall

IV. EXCEPTIONS TO THE RULE OF THE MASCULINE THIRD DECLENSION NOUNS ENDINGS

The following nouns having masculine endings are **feminine**:

- a. arbor, ōris f *tree* (arbor vitae cerebelli *medullary body of vermis*)
- b. gaster, tris f (Greek) stomach;
- c. mater, tris f cerebral coat
 - pia mater pia mater of brain
 - dura mater dura mater of brain

Attention!!! - In these terms the noun «mater» follows an adjective.

The following nouns having masculine endings are **neuter**:

- a. cor, cordis n heart;
- b. os, ossis n bone;
- c. os, oris n mouth;
- d. tuber, ĕris n tuber.

V. LATIN MUSCLE NAMES

The Latin muscle names are composed of two elements:

1) the first element is the noun «muscle» - «muscŭlus»;

2) the second element is a masculine noun ending in **-or** (**-ōris**) or **-er** (**-ēris**).

E.g.: muscŭlus flexor – flexor muscle

In the Latin Anatomical Nomenclature all the muscle names are **masculine third declension nouns** ending in:

- or, ōris m (e.g.: rotātor, ōris m);
- er, ēris m (e.g.: massēter, ēris m).

The Latin muscle names are usually translated into English without a word "muscle", cf.:

- muscŭlus massēter chewer;
- muscŭlus levātor elevator etc.

Most of the muscle names are not translated but transliterated, i.e. reproduced with the Latin letters:

E.g.: muscŭlus pronātor – pronator.

Word order in the Latin muscle names:

- 1) word **muscŭlus** in Nominative;
- name of the muscle a masculine noun in Nominative ending in –or
 (-ōris) or –er (-ēris).
- 3) any other noun is in **Genitive**;
- 4) **adjectives** are placed at the end of the term.

E.g.:

1	2	3	Final position
Muscŭlus	constrictor	pharyngis	medius
Muscŭlus	tensor	fasciae	latae

VI. EXERCISES

1. Make up grammatical agreement of the adjectives with the given nouns:

- 1) tuber (frontālis, e; parietālis, e; major, jus; minor, us)
- 2) pulmo (dexter, tra, trum; sinister, tra, trum)
- 3) mater (pius, a, um; durus, a, um)
- 4) venter (posterior, ius; frontālis, e)
- 5) os (nasālis, e; hyoiděus, a, um; frontālis, e; parietālis, e)
- 6) paries (laterālis, e; jugulāris, e; anterior, ius; tympanĭcus, a, um)

2. Translate into Latin:

- 1) tensor muscle of tympanic membrane
- 2) inferior constrictor muscle of pharynx
- 3) elevator muscle of scapula
- 4) rotator muscle of neck
- 5) elevator muscle of thyroid gland
- 6) depressor muscle of lower lip

3. Translate into Latin:

cortex of cerebellum, cortex of brain, cortex of lymphatic node, small (great) trochanter, heart apex, left (right) lung, sublingual bone, first chamber of the heart (atrium), dura mater of brain, frontal tuber, sulcus of vomer, medial surface of lung, floor of tympanic cavity, wedge-shaped bone, membranous wall of trachea, frontal wall of stomach, small horn of sublingual bone, zygomatic process of temporal bone, ethmoidal sulcus of nasal bone, notch of heart apex.

VII. VOCABULARY

1. apex, ĭcis m apex, top, tip

2. atrĭum, i n first chamber of the heart (atrium)

3. cardiăcus, a, um cardiac

4. cerebellum, i n cerebellum

5. cerěbrum, i n brain

6. cochleāris, e cochlear

7. cor, cordis n heart

8. cortex, ĭcis m cortex

9. durus, a, um hard, solid

10. encephălon, i n brain

11. fissūra, ae f fissure, narrow slit

12. gaster, tris f stomach

13. labĭum, i n lip

14. mater, tris f membrane of brain or spinal cord

15. membrāna, ae f membrane

16. membranacĕus, a, um membranous

17. os, oris n mouth

18. parietālis, e parietal

19. parĭes, ētis m wall

20. pharynx, ýngis m pharynx

soft

21. pius, a, um lung

22. pulmo, ōnis m
pulmonary
23. pulmonālis, e

spinous

24. spinōsus, a, um tympanic

25. tympanĭcus, a, um trochanter

26. trochanter, ēris m

vomer vomer vomer 27. vomer, ĕris m

Names of muscles:

1. Muscŭlus constrictor constrictor (muscle)

2. Muscŭlus depressor depressor (muscle)

3. Muscŭlus levātor elevator (muscle)

4. Muscŭlus rotātor rotator (muscle)

5. Muscŭlus tensor tensor (muscle)

LATIN THIRD DECLENSION NOUNS. FEMININE GENDER

In this lesson you will:

- Learn the endings of the feminine third declension nouns.
- Learn exceptions to the rule of the feminine third declension nouns endings.

This lesson is divided into the following sections:

- I. Endings of feminine third declension nouns.
- II. Exceptions to the rule of the feminine third declension nouns endings.
- III. Exercises.
- IV. Vocabulary

I. ENDINGS OF FEMININE THIRD DECLENSION NOUNS

Most nouns ending by -io, -as, -is, -s, -x (imparisyllaba), -is (parisyllaba) are feminine, cf.:

	E	ndings			
	Nominative	Genitive (with a part of the stem)	Examples		
1.	- as	- ātis	cavĭtas, cavitātis f - cavity		
2.	- is (imparisyllaba)	- ĭdis	pyrămis, pyramidis f - pyramid		
3.	- is (parisyllaba)	- is	auris, auris f – ear		
4.	- S	- tis	pars, partis f - part		
5.	- x	- cis	radix, radīcis f – root		
		- gis	meninx, meningis f - meninx		
6.	- 0	- ĭnis	cartilāgo, cartilagĭnis f — cartilage		
υ.	- io	- ōnis	articulatio, articulationis f – joint		

II. EXCEPTIONS TO THE RULE OF THE FEMININE THIRD DECLENSION NOUNS ENDINGS

The following nouns having feminine endings are **masculine** (according to 6 endings in the foregoing table):

1		.1
1	atlas, ntis m	atlas
2	pulvis, ĕris m	powder
	sanguis, ĭnis m	blood
3	axis, is m	axis
	canālis, is m	canal
	unguis, is m	nail
4	dens, dentis m	tooth
5	fornix, ĭcis m	arch
	larynx, ngis m	larynx
	pharynx, ngis m	pharynx
	coccyx, ýgis m	tailbone
	thorax, ācis m	chest
6	tendo, ĭnis m	sinew
	margo, ĭnis m	edge

The following nouns having feminine endings are **neuter**:

- 1. pancrĕas, ătis n pancreas
- 2. vas, vasis n *vessel*

III. EXERCISES

1. Translate into English:

cavitas medullāris, basis cranii externa, cartilāgo thyroiděa, cartilāgo alāris major, margo inferior pulmōnis sinistri, auris externa, bifurcatio trachēae, basis pyramidis renālis, margo utěri dexter, axis bulbi externus, pancreas accessorium,

pars liběra gingīvae, cartilāgo septi nasi, cavĭtas oris propria, labyrinthus ossěus auris internae, terminatio nervi cutis, vas lymphatĭcum superficiāle, canālis palatīnus major, caput pancreătis, regio thorācis posterior, sanguis venōsus et arteriōsus.

2. Make up grammatical agreement of adjectives with the given nouns:

- 1) cavitas (pleurālis, e; articulāris, e; medullāris, e)
- 2) margo (anterior, ius; frontālis, e; dexter, tra, trum)
- 3) auris (internus, a, um; externus, a, um; medius, a, um)
- 4) cartilago (costalis, e; alaris, e; articularis, e; major, jus)
- 5) pars (ossěus, a, um; laterālis, e; anterior, ius; dexter, tra, trum)
- 6) vas (lymphatĭcus, a, um; sanguinĕus, a, um; capillāris, e)

3. Translate into Latin:

dura mater of brain, pyloric canal, fornix of stomach, canal of great stony nerve, angle of stomach, fornix of pharynx, ring-shaped part of fibrous vagina, sholder joint, capsule of pancreas, tympanic cavity of middle ear, greater palatine canal, cartilage of nasal septum, inferior constrictor of pharynx.

V. VOCABULARY

1	. al	āris,	e	a	lar

2. anulāris, e ring-shaped

3. abor, ōris f abor

4. arteriōsus, a, um arterial

5. articulatio, ōnis f joint

6. auris, is f

7. bifurcatio, ōnis f bifurcation

8. capillāris, e capillary

9. caroticus, a, um carotid

10. cartilāgo, ĭnis f cartilage

11. cavitas, ātis f cavity

12. coccyx, ýgis m coccyx, coccygeal bone

13. compositus, a, um complex

14. costālis, e costal

15. cutis, is f skin

16. dens, dentis m tooth

• dens canīnus canine, cuspid tooth

• dens incisīvus incisor tooth

• dens molāris molar tooth

• dens premolāris premolar tooth

• dens deciduus milk tooth

• dens sapientĭae (dens wisdom tooth

serotĭnus)

17. fornix, ĭcis m fornix, arc

18. iliăcus, a, um iliac

19. incisīvus, a, um incisive, cutting, sharp

20. labyrinthus, i m labyrinth

21. mandibulāris, e mandibular

22. masseterĭcus, a, um masticatory, chewing

23. molāris, e molar

24. opticus, a, um optic, visual

25. pancreas, ătis n pancreas

26. pelvis, is f pelvis

27. pleurālis, e pleural

28. pyloricus, a, um pyloric

29. regio, ōnis f region

30. sanguiněus, a, um blood, sanguiferous

31. sanguis, ĭnis m blood

32. simplex, ĭcis simple

33. sternālis, e sternal

34. tuberosĭtas, ātis f tuberosity

35. vas, vasis n vessel

36. vita, ae f

LESSON 8

LATIN THIRD DECLENSION NOUNS. NEUTER GENDER

In this lesson you will:

- Learn the endings of the neuter third declension nouns.
- Learn exceptions to the rule of the neuter third declension nouns endings.

This lesson is divided into the following sections:

- I. Endings of neuter third declension nouns.
- II. Exceptions to the rule of the neuter third declension nouns endings.
- III. Exercises.
- IV. Vocabulary

I. ENDINGS OF NEUTER THIRD DECLENSION NOUNS

Most nouns ending by -ar, -e, -en, -ma, -ur, -us are neuter, cf.:

	E	ndings	
	Nominative	Genitive (with a part of the stem)	Examples
1.	- ar	- ătis	hepar, hepătis n - liver
2.	- e	- tis	rete, retis n - network
3.	- en	- ĭnis	abdōmen, abdomĭnis n - abdomen
4.	- ma	- ătis	zygōma, zygomătis n – cheek-bone
5.	- ur	- ŏris	femur, femŏris n - thigh
6.	- us	- ĕris	glomus, gloměris n - glome
v.		- ŏris	pectus, pectŏris n – chest
		- uris	crus, cruris n - shank
7.	- ut	- ĭtis	caput, capĭtis n – head

II. EXCEPTIONS TO THE RULE OF THE NEUTER THIRD DECLENSION NOUNS ENDINGS

The following nouns having neuter endings are **masculine**:

- 1. lien, liēnis m spleen
- 2. ren, renis m kidney

The neuter third declension nouns ending in **-ma** should be distinguished from feminine first declension nouns ending in **-a**:

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E.g.: diaphragma, ătis n - diaphragm;
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chiasma, ătis n - chiasm;

stroma, ătis n - stroma;

systēma, ătis n - system;

zygōma, ătis n – cheek-bone.

but

squama, ae f - scales;

struma, ae f – crop.

III. EXERCISES

- 1. Make up grammatical agreement of the adjectives with the given nouns:
- 1) forāmen (occipitālis,e; mentālis, e; incisīvus, a, um; mastoiděus, a, um; major, jus)
- 2) systēma (centrālis, e; nervōsus, a, um; lymphatĭcus, a, um)
- 3) caput (longus, a, um; transversus, a, um; laterālis, e; brevis, e)
- 4) ren (dexter, tra, trum; mobĭlis, e; sinister, tra, trum; lobātus, a, um)
- 5) crus (sinister, tra, trum; laterālis, e; brevis, e; simplex, ĭcis; anterior, ius)
- 6) hepar (mobĭlis, e; lobātus, a, um; major, jus)

2. Translate into Latin:

superficial lymphatic vessel, posterior nucleus of trapezoid body, internal carotid artery, base of heart, apex of heart, root of lung, cavity of uterus, renal pelvis, thyroid cartilage, pylorus part, left lobe of lung, ventricle of larynx, superior constrictor of larynx, capsule of pancreas, external oblique muscle of stomach, mucous membrane of mouth, cardiac impression of lung, body of mammary gland, spinal muscle of neck, the longest muscle of head, canal of neck of uterus, frontal region of face, external base of skull, wing of vomer, membranous wall of trachea.

V. VOCABULARY

1. abdomen, ĭnis n abdomen

2. accessorĭus, a, um additional

3. aortĭcus, a, um aortic, aortal

4. appendix, īcis f process, appendix

5. cavernōsus, a, um cavernous

6. centrālis, e central

7. coccygēus, a, um coccygeal

8. crus, cruris n leg, crus

9. glomus, ěris n glome, glomus

10.hepar, ătis n liver

11.impressio, ōnis f impression

12.lien, ēnis m spleen

13.lobātus, a, um lobulose, lobulous, lobulated

14.longus, a, um long

15.mamma, ae f mammary gland

16.mentālis, e mental 17.mobĭlis, e mobile 18.nervōsus, a, um nervous

19.oblīquus, a, um oblique

20.radix, īcis f root, radix

21.ren, renis m kidney

22.renālis, e renal

23.rotundus, a, um round

24.stroma, ătis n stroma

25.synchondrōsis, is f synchondrosis

26. systēma, ătis n system

27.tegmen, ĭnis n roof

28.thymus, i m thymus

NOMINATIVE PLURAL OF NOUNS AND ADJECTIVES

In this lesson you will:

- Learn how to form the plural forms of nouns in the anatomical terminology.
- Learn how to form the plural forms of adjectives in the anatomical terminology.
- Learn abbreviations used in the anatomical terminology.

This lesson is divided into the following sections:

- I. Nouns and adjectives endings in Nominative plural.
- II. Formation of Nominative plural forms.
- III. Abbreviations used in the anatomical terminology.
- IV. Exercises.
- V. Vocabulary

I. NOUNS AND ADJECTIVES ENDINGS IN NOMINATIVE PLURAL

The Latin **nouns** have Nominative plural endings as follows:

Declension	1	2	2	3	3	4	1	5
Gender	f	m	n	m, f	n	m	n	f
Endings	-ae	-i	-a	-es	- a (-ĭa)	-us	-ŭa	-es

Attention!!! – Remember one neuter noun of the 3rd declension which has the Nominative plural ending -ia: rete – retia (network – networks). Other neuter nouns of the 3rd declension, which have the Nominative plural ending –ia, are not used in the anatomical terminology.

The Latin **adjectives** have Nominative plural endings as follows:

group	ctives of t p + adject perlative	ives in	Adjectives of the 2 nd group		Adjectives in the comparative degree		
m	f	n	m, f	n	m, f	n	
-i	-ae	-a	-es	-ĭa	-es	-a	

Attention!!! - All neuter nouns irrespective of their declension as well as all adjectives in the neuter form in Nominative plural end in -a (adjectives of the 2^{nd} group in -ĭa).

II. FORMATION OF NOMINATIVE PLURAL FORMS

In order to form the Nominative plural forms you should:

1) determine:

- declension and gender of a noun or
- group and gender of an adjective;
- 2) find the stem and form the plural form by adding to the stem the appropriate Nominative plural ending of this declension and gender.

E.g.:

	Declension, gender, group and degree of comparison		Nominative plural
Nouns			
vena, ae f	1 declension, feminine	ven -	ven - ae
nervus, i m	2 declension, masculine	nerv -	nerv - i
spatium, i n	2 declension, neuter	spati -	spati - a
sinus, us m	4 declension, masculine	sin -	sin - us
cornu, us n	4 declension, neuter	corn -	corn - ŭa
facies, ēi f	5 declension, feminine	faci -	faci - es
Adjectives			
cavernōsus	I group, masculine	cavernōs -	cavernōs - i

cavernōsa	1 group, feminine	cavernōs -	cavernōs - ae
cavernōsum	1 group, neuter	cavernōs -	cavernōs - a
frontālis	2 group, masculine or feminine	frontāl -	frontāl - es
frontāle	2 group, neuter	frontāl -	frontāl - ia
minor	Comparative degree, masculine or feminine	minor -	minōr - es
minus	Comparative degree, neuter	minor -	minōr - a

<u>Attention!!!</u> - In order to form the Nominative plural form of the **nouns** of the 3^{rd} declension you should:

- 1. form the Genitive singular form;
- 2. determine the stem (obtained from the Genitive form without its ending –is);
- 3. add the appropriate Nominative plural gender ending.

E.g.:

Dens
$$\rightarrow$$
 dent-is \rightarrow dent- $+$ -es \rightarrow dentes
Forāmen \rightarrow foramĭn-is \rightarrow foramĭn- $+$ -a \rightarrow foramĭna

III. ABBREVIATIONS USED IN THE ANATOMICAL TERMINOLOGY

Singular form	Plural form
A. – arteria	Aa arteriae
B. – bursa	Bb. - bursae
Gl glandŭla	Gll glandŭlae
For forāmen	Forr foramina
Lig ligamentum	Ligg ligamenta
M muscŭlus	Mm muscŭli
N nervus	Nn nervi
R. - ramus	Rr rami
Vag vagīna	Vagg vagīnae
V vena	Vv. – venae

IV. EXERCISES

1. Determine the dictionary form of each word:

alveŏli dentāles (dental alveoli), spatia interglobularia (interglobular spaces), valvūlae venōsae (venous valvulae), nomĭna anatomĭca (anatomical names), juga alveolaria (alveolar eminences), venae intercostāles anteriōres (anterior intercostal venae), labia oris (lips of mouth), canalicūli dentāles (dental small canales), facies articulāres (articular surfaces), ductus sublinguāles minōres (minor sublingual ducts), vasa sinusoiděa liēnis (sinusoid vessels of spleen), crura ossea (bony crura), arteriae ciliāres posteriōres longae (long posterior ciliary arteries).

2. Translate into Latin. Make up Nominative plural forms:

carotic (tuber, sulcus, canal), lymphatic (vessel, node, valve), incisive (canal, opening, fossa), articular (cavity, process, cartilage), nasal (concha, bone, opening), anterior (margin, surface, septum), palatine (tonsil, process), jugular (tubercle, incisure (slit), process), wing-shaped (canal, process, fossa), ethmoidal (crest, bone, foramen), occipital (region, lobe, opening), mammiform (process, incisure, opening), lower (wall, fissure, arch), transverse (process, lobe, ligament, artery), posterior (horn, nucleus, surface).

3. Determine the case, number and part of speech of each word in the terms:

- 1) venae rectāles inferiores
- 2) incisūrae cartilaginis
- 3) meātus acustĭci
- 4) rami cardiăci cervicāles inferiores
- 5) regiones membri inferioris
- 6) sutūrae cranii
- 7) radīces spināles
- 8) canāles palatīni minōres

- 9) ductus sublinguāles minōres
- 10) partes orbitāles ossis frontālis
- 11) vasa sanguinea retīnae
- 12) nomina anatomica
- 13) plexus venōsi vertebāles interni
- 14) arteriae ciliāres posteriōres
- 15) spatium intercostāle

4. Make up Nominative plural of following nouns:

ala, ae f margo, ĭnis m paries, ētis m arteria, ae f forāmen, ĭnis n fundus, i m digĭtus, i m os, ossis n arcus, us m septum, i n ductus, us m

alveŏlus, i m cornu, us n ligamentum, i n sinus, us m

Surrentani, i ii siiras, as i

facies, ēi f

5. Form Nominative plural of the following terms:

1) processus ciliāris

- 2) arteria gastrĭca brevis
- 3) nodus lymphatĭcus lumbālis
- 4) glandŭla linguālis
- 5) ganglion thoracĭcum
- 6) vena nasālis externa

V. VOCABULARY

1.	alveolāris, e	alveolar
2.	alveŏlus, i m	alveole
3.	anatomĭcus, a, um	anatomical
4.	dentālis, e	dental
5.	dorsālis, e	dorsal
6.	foveŏla, ae f	foveola
7.	gastrĭcus, a, um	gastric
8.	intercostālis, e	intercostal
9.	interglobulāris, e	interglobular
10.	interlobulāris, e	interlobular

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11.	interspinōsus, a, um	interspinal
12.	jugum, i n	eminence
13.	nomen, ĭnis n	name
14.	pectorālis, e	pectoral
15.	retīna, ae f	retina
16.	serrātus, a, um	serrate
17.	sinusoiděus, a, um	sinusoid
18.	spatĭum, i n	space
19.	spinālis, e	spinal
20.	sublinguālis, e	sublingual
21.	synoviālis, e	synovial
22.	carotĭcus, a, um	carotic
23.	vas, vasis n	vessel
24.	cartilāgo, ĭnis f	cartilage
25.	rectālis, e	rectal
26.	crus, cruris n	crus
27.	lien, ēnis m	spleen
28.	cardiăcus, a, um	cardiac

GENITIVE PLURAL OF NOUNS AND ADJECTIVES

In this lesson you will:

• Learn how to form the Genitive plural forms of nouns in the anatomical terminology.

This lesson is divided into the following sections:

- I. Nouns and adjectives endings in Genitive plural.
- II. Particularities of the Genitive plural formation in the 3rd declension.
- III. Exercises.
- IV. Vocabulary

I. NOUNS AND ADJECTIVES ENDINGS IN GENITIVE PLURAL

The Latin **nouns** have Genitive plural endings as follows:

Declension	1	2	3	4	5
Endings of Genitive plural	- ārum	- ōrum	- um, - ĭum	- ŭum	- ērum

E.g.: vena, ae f - venārum;

nervus, i m - nervorum;

cornu, us n - cornŭum;

facies, ei f - faciērum.

Attention!!! - Adjectives of the 1^{st} group and adjectives in the superlative degree are declined on the pattern of the 1^{st} and 2^{nd} declensions (feminines – 1^{st} declension, masculines and neuters – 2^{nd} declension).

E.g.: longus, a, um - longōrum, ārum, ōrum

maximus, a, um - maximōrum, ārum, ōrum

II. PARTICULARITIES OF THE GENITIVE PLURAL FORMATION IN THE 3RD DECLENSION.

The following nouns of the 3^{rd} declension end by **–um**:

1) the so-called *imparisyllaba*, i.e. the nouns that have unequal number of syllables in Nominative and Genitive, which **stem is terminated by one consonant:**

E.g.: forāmen, ĭnis n - foramĭ<u>n</u>-um; pulmo, ōnis m - pulmō<u>n</u>-um; pes, pedis m - pe<u>d</u>-um.

2) adjectives in comparative degree:

E.g: anterior, ius - anterior-um.

The following nouns of the 3rd declension end by **-ium**:

1) the so-called *imparisyllaba*, i.e. the nouns that have unequal number of syllables in Nominative and Genitive, which **stem is terminated by two consonants:**

E.g: dens, dentis m - de<u>nt</u>-ium; pars, partis f - pa<u>rt</u>-ium; os, ossis n - o<u>ss</u>-ium.

2) adjectives of the 2nd group:

E.g: brevis, e - brev-ium; frontālis, e - frontal-ium; simplex, ĭcis — simplic-ium.

Remember also the Genitive plural forms of the following nouns:

- rete, is n retium
- canālis, is m canalium

<u>Attention!!!</u> - The noun of the 3^{rd} declension - vas, vasis n (vessel) is declined in plural on the pattern of the 2^{rd} declension: <u>Genitive plural - vasōrum.</u>

III. EXERCISES

1. Determine the declension of each word, give the dictionary form:

capsulārum faciērum

angulōrum digitōrum

arteriārum plexuum

foramınım cavorum

ligamentōrum gingivārum

arcuum processuum

canalium palpebrārum

tendĭnum cingulōrum

2. Translate into Latin. Give the dictionary form of each noun, make up Genitive plural:

incisura trunk

valve node

duct shoulder blade

back tubercle

canal eye

horn layer

neck muscle

palate

3. Make up the Genitive plural forms of the following adjectives:

1) dexter, tra, trum

7) articulāris, e

2) inferior, ius

8) mucōsus, a, um

3) laterālis, e

9) thoracĭcus, a, um

4) internus, a, um

10) temporālis, e

5) commūnis, e

11) superior, ius

6) latus, a, um

12) longissĭmus, a, um

4. Make up the Genitive plural forms:

vas lymphatĭcum superficiāle;

nervus craniālis;

vena pulmonālis;

cornu minus;

processus transversus;

concha nasālis;

valvŭla semilunāris.

IV. VOCABULARY

1. articulatio, ōnis f joint

2. auriculāris, e auricular

3. chiasma, ătis n chiasm

4. craniālis, e cranial

5. extensor, ōris m extensor

6. fibulāris, e fibular

,

7. flavus, a, um yellow

8. flexor, ōris m flexor

9. interalveolāris, e interalveolar

10. interradiculāris, e interradicular

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11.	linguālis, e	lingual
12.	massa, ae f	mass
13.	medulla, ae f	medulla
14.	medulla ossĭum	(bone) marrow
15.	nodŭlus, i m	nodulus
16.	papilla, ae f	papila
17.	peron(a)eus, a, um	fibular
18.	plica, ae f	fold
19.	retinacŭlum, i n	retinaculum
20.	ruber, bra, brum	red
21.	semilunāris, e	semilunar
22.	trigeminālis, e	trigeminal
23.	trochleāris, e	trochlear
24.	regĭo, ōnis f	region
25.	incisīvus, a, um	incisive
26.	radix, īcis f	root
27.	sanguiněus, a, um	blood
28.	ciliāris, e	ciliary
29.	tonsilla, ae f	tonsil
30.	parĭes, ētis m	wall

LESSON 11

PREFIXES IN THE ANATOMICAL TERMINOLOGY

In this lesson you will:

- Become familiar with the role of prefixion in the formation of anatomical and histological terms
- Learn the principal Latin and Greek prefixes used in the anatomical terminology

This lesson is divided into the following sections:

- V. Role of prefixion in the formation of anatomical and histological terms
- VI. Latin and Greek prefixes used in the anatomical terminology
- VII. Exercises.
- VIII. Vocabulary

I. ROLE OF PREFIXION IN THE FORMATION OF ANATOMICAL AND HISTOLOGICAL TERMS

It is known that the body or organs of the body may be sectioned according to planes of reference. These include a midsagittal plane that runs vertically through a structure, dividing it into right and left halves; a sagittal plane that runs vertically through a structure, dividing it into right and left portions; a coronal (frontal) plane that runs vertically through a structure, dividing it into anterior (front) and posterior (back) portions; and a transverse (cross-sectional) plane that runs horizontally through a structure, dividing it into upper and lower portions.

In the anatomical terminology a great variety of terms with the spatial location meaning is used. The fundamental importance in this aspect have Latin and Greek prefixes as follows:

II. LATIN AND GREEK PREFIXES USED IN THE ANATOMICAL TERMINOLOGY

Prefixes	Meaning of the prefixes	Examples			
before/behind					
Ante-	before, preceding	ceding antebrachĭum (forarm)			
Pre-	before, ahead of	presacrālis (presacral)			
Post-	after, behind	postaortālis (postaortal)			
Retro-	back, behind	retrocavālis (retrocaval)			
	above/u	nder			
Supra-	above	supraauriculāris (supra- auricular)			
Infra-	under; below	infraspinālis (infraspinal)			
Epi-	on; upon; over	epigastrĭum epigastrium)			
Sub-	under; below	subarachnoidālis (subarachnoid)			
Нуро-	below; incomplete; deficient	hypochondrium (hypochondrium)			
	inside/ou	tside			
Intra-	within	intramusculāris (intramuscular)			
Endo-	within	endocervicālis (endocervical)			
Extra-	outside of; beyond	extracapsulāris (etracapsular)			
	betwe	en			
Inter-	between	intervertebrālis (intervertebral)			
Meso-	middle	mesogastrium (mesogastrium)			
	to/fro	m			
Ad-	Ad- to; toward adductor (adductor)				

Ab-	from; away from	abductor (abductor)			
	beside, around				
Para-	beside; beyond; around	paraduodenālis (paraduodenal)			
Peri-	surrounding (outer)	pericardium (pericardium)			
	together, joined				
Syn-	together; joined	synarthrōsis (synarthrosis)			
Com-(con-)	together	commissūra (commissure)			

III. EXERCISES

1. Make up new words using prefixes and translate into English:

a) extra-	cellulāris, e	cellular
	capsulāris, e	capsular
b) intra-	craniālis, e	cranial
	glandulāris, e	glandular
c) infra-	orbitālis, e	orbital
	patellāris, e	patellar
d) supra-	claviculāris, e	clavicular
	scapulāris, e	scapular
	renālis, e	renal
e) para-	sternālis, e	sternal
	vertebrālis, e	vertebral
f) inter-	costālis, e	costal
	osseus, a, um	bony
	alveolāris, e	alveolar
g) pre- (prae)	centrālis, e	central
	axillāris, e	axillar
h) retro-	mandibulāris, e	mandibular
i) sub-	cutaneus, a, um	cutaneous
	linguālis, e	lingular

2. Translate into English:

facies interlobāris, musculus infraspinātus, fossa infraclaviculāris, pars intracraniālis, margo interosseus, arteria suprascapulāris, musculi suboccipitāles, septum intermusculāre cruris anterius, musculus infraspinātus, margo interosseus, ductus sublinguāles minōres, arteria suprarenālis media, membrāna intercostālis interna.

3. Translate into Latin:

interlobar artery, preoccipital notch, suprapleural membrane, submandibular gland, interclavicular ligament, intermandibular suture, intraglandular lymphatic node, supraorbital vein, common interosseal artery, external intercostal muscles, interosseal nerves of leg, fascia of forearm.

IV. VOCABULARY

1.	antebrachĭum, i n	forearm
2.	collaterālis, e	collateral
3.	epigastrĭum, i n	epigastrium
4.	hypogastrĭum, i n	hypogastrium
5.	infraclaviculāris, e	infraclavicular
6.	infraorbitālis, e	infraorbital
7.	infraspinātus, a, um	infraspinatus
8.	intercostālis, e	intercostal
9.	interlobāris, e	interlobar
10.	intermusculāris, e	intermuscular
11.	interossěus, a, um	interosseal
12.	interspinālis, e	interspinal
13.	intracraniālis, e	intracranial
14.	retromandibulāris, e	retromandibular
15.	subclavĭus, a, um	subclavicular
16.	subcutaněus, a, um	subcutaneous

17. sublinguālis, e	sublingual
18. submandibulāris, e	submandibular
19. suboccipitālis, e	suboccipital
20. supraclaviculāris, e	supraclavicular
21. suprarenālis, e	suprarenal
22. suprascapulāris, e	suprascapularis

LESSON 12

SAMPLE FINAL TEST IN ANATOMICAL TERMINOLOGY

In this lesson you will:

• become familiar with a Final Test sample

Final Test in Anatomical Terminology

V-2

I. Translate into Latin in the dictionary form:

wing
 articular
 cord
 gum
 upper arm
 nervous node
 middle
 widest

II. Make up grammatical agreement and put the terms into Genitive singular:

paries, ētis m
 inferior, ius

4. processus, us m palatīnus, a, um

2. tubercŭlum, i n jugulāris, e

5. arteria, ae f brevis, e

3. fossa, ae f pterygoiděus, a, um

6. ganglion, i n thoracĭcus, a, um

III. Make up the Genitive singular and the Nominative and the Genitive plural forms:

- 1. ala major
- 2. lobus occipitālis
- 3. membrum inferius
- 4. muscŭlus zygomatĭcus
- 5. concha nasālis
- 6. forāmen ethmoidāle

PART II. CLINICAL TERMINOLOGY

LESSON 1

In this lesson you will:

- Become familiar with the characteristic features of the Greek and Latin medical terms.
- Learn to divide the medical terms into their basic parts.
- Learn basic roots and suffixes used in the Greek and Latin medical terms.
- Use these component elements to form and understand medical terms.

This lesson is divided into the following sections:

- I. Introduction to Greek and Latin medical terminology.
- II. Roots and suffixes used in the Greek and Latin medical terms.
- III. Exercises.

I. INTRODUCTION TO GREEK AND LATIN MEDICAL TERMINOLOGY

Although medical terms have been drawn from many languages, a large majority are from Greek and Latin.

The long and formidable sounding medical terms are a combination of words which describe parts of the body, a function, or a condition. The basic terms occur over and over again in various combinations. A knowledge of the meaning of the roots, prefixes, and suffixes enables the student to analyze the medical terms into component parts. This is of the greatest aid in learning to understand the vocabulary of medicine. Some names of diseases given by the ancients and

still used to-day are, in many instances, simply descriptions of the outstanding symptoms; for example, hydro-phobia-fear of water-for rabies.

- 1. It is estimated that about three-fourths of the English medical terminology is of **Greek origin**. The main reason for this is that the Greeks were the founders of rational medicine in the golden age of Greek civilization in the 5th Century B.C. The Hippocratic School and, later on, Galen (the Greek from Asia Minor who lived in Rome in the 2nd century A.D.) formulated the theories which dominated medicine up to the beginning of the 18th Century. The Hippocratics were the first to describe diseases based on observation, and the names given by them to many conditions are still used today, *for example, arthritis, nephritis, pleuritis (pleurisy)*.
- 2. The second reason for the large number of Greek medical terms is that the Greek language lends itself easily to the building of compounds. When new terms were needed, with the rapid expansion of medical science during the last century, Greek words or Latin words with Greek endings were used to express the new ideas, conditions, or instruments. The new words follow the older models so closely that it is impossible to distinguish the two by their forms. Such recent words as *appendicitis*, *creatinine*, *cystoscope*, *epinephrine*, *streptococcus*, and many others do not appear different from the classical terms. The fact is that about one-half of our medical terminology is less than a century old.
- 3. The third reason for using the classical roots is that they form an international language, easily understood by anyone familiar with the subject matter.

1.

The terminology of the modern medicine is the most complicated terminological system of the modern science. The total amount of medical terms remains unknown, but its estimated amount exceeds one million terms. You realize that

it is impossible to learn one million words, even for an intelligent person, because we use in our native language only several thousands words. Our course will help you to understand and use about fifty thousand main medical terms. This course teaches you how medical terms are 'built' or 'put together' instead of just memorizing lots of medical words and their meanings. You will learn to recognize the meaning of a medical term by dividing the word into its three basic component parts: the *prefix*, *root and suffix*. By knowing the meanings of the prefixes, suffixes, and root words, you can easily figure out the meaning of a medical term.

For example, if you see a medical term containing the root word 'cardi' and the suffix 'itis', you know that the term has to do with an 'inflamed' (itis) 'heart' (cardi).

This technique of *word building* is a simple and straightforward way to learn medical terminology without long hours of memorizing the medical vocabulary.

- You will learn Latin and Greek terminological elements.
- You will be able to figure out unfamiliar words by recognizing their building blocks from which they are constructed.
- You will be able to construct many words correctly by learning to put these building blocks together in the proper way.
- You will be able to determine the meanings of thousands of words that you have never seen before and which are used in medicine.

2.

Greek and Latin medical terms can be broken down into one or more word parts. For simplicity in explanation, let's say that there are four possible word parts, and any given medical term may contain one, some, or all of these parts:

- 1. **root terminological elements** (a shorthand notation "**root**")
- 2. final terminological elements (a shorthand notation "suffixes")

3. prefixes

4. combining vowels

An example of a word with three of the above parts is the medical term **pericarditis**, which means *inflammation of the outer layer of the heart*. Pericarditis can be divided into three parts:

peri - card - itis

Once divided into its essential parts, pericarditis can be translated:

- the prefix **peri** translates to *surrounding*,
- the root –card- translates to *heart*, and
- the suffix –**itis** translates to *inflammation*.

Hence, **pericarditis** is *an inflammation of the area surrounding the heart*, or an inflammation of the outer layer of the heart, anatomically known as the pericardium.

Medical terms always consist of at least one root, although they may contain more. The root of a word is that part which contains the essential meaning of the word. An example of this was seen above in the term **pericarditis**. The root of the word - **card** - refers to the heart, so any prefix or suffix added to the root (card) will only function to add to the specificity of that word. An example of this would be the prefix **brady**, which means *slow*. If "brady" is added to the root "card", the term **bradycard** - which roughly means *slow heart* - is created. Then, if the suffix **ia** - which means *abnormal state* - is added to "bradycard", the medical term **bradycardia** is formed. The translation of bradycardia (**bradycard-ia**) is **slow** - **heart** - **abnormal state**, or the abnormal state of a slow heart rate.

3.

Linking or Combining Vowels: As was discussed above, a medical term must have at least one root, but may not have a prefix and/or a suffix. An example of this is the term **sternocleidomastoid**, which is a muscle that has attachments at

the sternum, the clavicle, and the mastoid. The term **sternocleidomastoid** can be divided into three parts (three roots, in this case): **stern - o - cleid - o - mastoid**. Notice that there are vowels between the three roots. These are **linking or combining vowels**, which serve to make a term easier to pronounce. The vowel used most of the time is **o**, but other vowels such as i and a are also used. Combining vowels are often used between roots and suffixes or roots and other roots, but they are NOT used between prefixes and roots.

4. LEARNING TO READ A MEDICAL TERM

When you look at a medical term and attempt to decipher its meaning you begin with the suffix, move to the prefix (if present) and then the root word.

For example: When trying to understand the word *pericarditis* you would identify *itis* (meaning inflammation), then *peri* (meaning around) and then *card* (meaning heart). Therefore, this word means inflammation around the heart.

Let's try another one: <u>for example</u>: *leukocytopenia* - *penia* (meaning *decrease*), then *leuk/o* (meaning white) and finally *cyt/o* (meaning cell). Therefore, this word means a *decrease in white cells*.

II. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

ROOTS

Greek and Latin roots	English word elements	Meaning	Examples of medical terms
angi-; vas-	angi-	blood vessel	angiogramma
bio-; vit-	bio-	life	biologia
cardi-; (-cardia)	cardi-	heart	cardiologia
cyt-; (-cytus)	cyt-; -cyte	cell	adenocytus
cyst-	cyst-	urinary bladder; sac of fluid	cystectomia

cholecyst-	cholecyst-	gallbladder	cholecystotomia
kerat-	kerat-	cornea; horny	keratotomia
mast-; (-mastia); mamm-	mast-; -masty	breast	mastographia
encephal-	encephal-	brain	encephalogramma
gastr-; (-gastria)	gastr-	stomach	gastrotomia
colp-	colp-	vagina	colpectomia
enter-	enter-	small intestine	gastroenterologia
physi-	physi-	nature	physiotherapia

SUFFIXES

Greek and Latin	English word	Meaning	Examples of medical
suffixes	elements		terms
-graphia	-graphy	recording; X-ray examination	angiographia
-gramma	-gram	record; X-ray film	angiogramma
-ectomia	-ectomy	removal; resection; to cut out	cystectomia
-logia	-logy	science; study	biologia
-pathia	-pathy	any disease; disease process	enteropathia
-tomia	-tomy	cutting; incision; section	gastrotomia
-therapia	-therapy	treatment	physiotherapia

III. EXERCISES

1. Build up clinical terms with the given roots and suffixes, explain their meaning:

E.g.: When you join the root gastr(o)- with the suffix -pathia you get the term gastropathia which means "disease process of the stomach".

• cardi(o)- (-graphia; -gramma; -pathia; -logia);

- angi(o)- (-pathia; -graphia; -logia; -gramma);
- cholecyst(o)- (-pathia; -tomia; -ectomia; -graphia; -gramma);
- mast(o)-; mamm(o)- (-graphia; -ectomia; -gramma);
- cyst(o)- (-graphia; -tomia; -ectomia; -gramma);
- encephal(o)- (-pathia; -gramma; -graphia).

2. Explain the meaning of the following terms:

1) gastrectomia gastrotomia

2) angiogramma angiologia angiopathia angiographia angiocardiographia

3) keratectomia keratotomia

4) cystectomia cystogramma cystographia cystotomia

5) cytologia cytogramma

6) colpotomia enteropathia

3. Give the Greek & Latin variants and explain the meaning of the following terms:

angiogram; cholecystotomy; gastrectomy; colpotomy; encephalogram; enteropathy; cytology; cardiogram; mastopathy; angiology; keratectomy; biology; gastrotomy; cholecystectomy; cytogram; mastectomy

4. Give the Latin spelling of the terms; explain their meaning:

biology; cystography; angiopathy; keratectomy; gastrotomy; colpotomy; enteropathy; mammogram; encephalography; cytogram; cystectomy; cardiology; cholecystogram; keratectomy

5. Form the Greek & Latin clinical terms according to the meaning:

• disease of vessels:

- science of cells;
- removal of stomach;
- science of natural vital processes in the human body;
- disease of small intestine;
- X-ray examination of heart;
- X-ray film of brain;
- X-ray examination of urinary bladder;
- removal of cornea;
- cutting of vagina;
- X-ray film of gallbladder;
- X-ray film of heart;
- science of life;
- disease of breast;
- science of blood vessels.

LESSON 2

In this lesson you will:

- Learn new basic roots and suffixes used in the Greek and Latin medical terms.
- Use these component elements to form and understand medical terms.

This lesson is divided into the following sections:

- I. Roots and suffixes used in the Greek and Latin medical terms.
- II. Exercises.

I. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

ROOTS

Greek and Latin roots	English word elements	Meaning	Examples of medical terms
cheil-; (-cheilia)	cheil- (-cheilia)	lip	cheilōsis
derm-; dermat-; (-dermia)	derm-; dermat-; -dermia	skin	dermatologia
hyster-; metr-	hyster-	uterus	hysterotomia metrotomia
nephr-	nephr-	kidney	nephropexia
oste-	oste-	bone	osteologia
proct-	proct-	anus and rectum	proctectomia
pyel-	pyel-	renal pelvis	pyelographia
rhin-	rhin-	nose	rhinopathia
spondyl-	spondyl-	vertebrae; backbone	spondylōsis
stomat-	stomat-	mouth	stomatītis

SUFFIXES

Greek and Latin suffixes	English word elements	Meaning	Examples of medical terms
-genēsis	-genesis	origin; cause	pathogenēsis
-gēnus, a, um	-genic; -genous	developing from inner state; to be the result of	gastrogēnus
-ītis	-itis	inflammation	dermatītis
-ōma	-oma	tumour; swelling	angiōma
-ōsis	-osis	abnormal condition; disease	keratōsis
-pexia	-pexy	fixation	enteropexia
-scopia	-scopy	internal examination	gastroscopia

PREFIXES

Greek and Latin prefixes	English word elements	Meaning	Examples of medical terms
endo-	endo-	within; in	endometrītis
para-	para-	beside; near	parametrītis
peri-	peri-	surrounding (outer)	perinephrītis

II. EXERCISES

1. Build up clinical terms with the given roots and suffixes, explain their meaning:

- -(o)scopia (gastr-; cholecyst-; colp-; cyst-; stomat-; rhin-; cyt-; proct-);
- -(o)pexia (hyster-; nephr-; proct-; enter-);
- -(o)pathia (rhin-; spondyl-; nephr-; oste-; cholecyst-; encephal-; angi-; mast-; cardi-);
- -itis (colp-; nephr-; proct-; cholecyst-; kerat-; pyel-; dermat-; cheil-; stomat-; rhin-; encephal-; mast-; spondyl-);
- para- (-metritis; -nephritis; -proctitis);
- endo- (-genus; -scopia; -metritis; -cardium; -carditis).

2. Explain the meaning of the following terms:

 angiocholecystitis angioma angiomatosis angiopathia angiitis angiologia 2) nephritis
nephrectomia
nephropathia
nephroma
nephropexia
nephropyelitis
nephrosis
nephrotomia

3) pyelographia pyelocystitis pyelitis pyelonephritis pyelotomia

4) dermatitis dermatologia dermatoma dermatosis

5) pathologia biologia osteologia proctologia nephrologia stomatologia cardiologia cytologia angiologia

6) osteogenesis osteologia osteoectomia osteoma osteopathia osteotomia ostitis endosteum

3. Give the Greek & Latin variants and explain the meaning of the following terms:

endoscopy; osteotomy; endometritis; endocardium; endocarditis; metritis; metropathy; dermatology; spondylotomy; nephrogenic; nephropathy; osteocytoma; nephropexy; pyelography; proctoscopy; gastroscopy; enteropexy; spondylopathy; encephalopathy; proctectomy; keratosis; osteology; keratoma; nephroma; osteopathology; spondilitis.

4. Give the Latin spelling of the terms; explain their meaning:

nephrology; endogenous; nephropyelography; colposcopy; metrography; angiitis; angiocardiogram; spondylosis; osteopathy; stomatology; stomatoscopy;

cholecystopexy; osteoma; osteogenesis; gastrogenic; dermatology; rhinopathy; perinephritis; endometritis; gastrectomy; nephrogram; mastectomy; osteocytes; spondylogram; dermatoscopy.

5. Form the Greek & Latin clinical terms according to the meaning:

- inflammation of the tissue surrounding the heart
- internal examination of nose
- fixation of kidney
- removal of bone
- inflammation of uterus mucous
- science of skin
- cutting of uterus
- removal of anus and rectum
- inflammation of renal pelvis and urinary bladder
- disease of bones
- abnormal condition of skin
- inflammation of lips
- fixation of anus and rectum
- removal of kidney
- disease of uterus
- inflammation of vertebrae
- internal examination of oral cavity
- inflammation of nose
- tumour of kidney

LESSON 3

In this lesson you will:

- Learn new basic roots and suffixes used in the Greek and Latin medical terms.
- Use these component elements to form and understand medical terms.

This lesson is divided into the following sections:

- I. Roots and suffixes used in the Greek and Latin medical terms.
- II. Exercises.

I. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

ROOTS

Greek and Latin	English word	Meaning	Examples of medical
roots	elements		terms
odont-;	odont-;	tooth	odontalgia
(-odontia);	-odontia;		
(-dentia)	-dentia		
ophthalm-; -ophthalmia	ophthalm-; -ophthalmy	eye	ophthalmopathia
ot-	ot-	ear	otoscopia
paed-;	ped-	child; children	paediatria
(-paedia)			
phleb-	phleb-	vein	phlebotomia
phthisi-	phthisi-	tuberculosis	phthisiatria
psych-	psych-	mind	psychologia
trich-; (-trichia)	trich-	hair	trichopathia

SUFFIXES

Greek and Latin suffixes	English word elements	Meaning	Examples of medical terms
-alg; -algia	-algia	pain	trichalgia
-iāter; -iatria	-iatrist; -iatrician -iatry; -iatria	physician; science about treatment	paediater; paediatria
-plasia	-plasia	formation; development	hyperplasia
-rrhagia	-rrhagia	bleeding	rhinorrhagia
-rrhaphia	-rrhaphy	suturing	metrorrhaphia
-rrhoea	-rrhea	discharge; elimination	rhinorrhoea
-trophia	-trophy	nourishment; development	dystrophia

PREFIXES

Greek and Latin prefixes	English word elements	Meaning	Examples of medical terms
a-; an-	a-; an-	no; not; without	aplasia
dys-	dys-	malfunction; difficulty	dysplasia
hyper-	hyper-	above; excessive	hyperplasia
hypo-	hypo-	below; deficient	hypoplasia

II. EXERCISES

1. Build up clinical terms with the given roots and suffixes, explain their meaning:

- hyper- (-keratosis; -mastia; -nephroma; -plasia; -trichosis; -trophia);
- hypo- (-plasia; -trophia; -gastrium; -thyreosis);
- dys- (-enteria; -trophia; -plasia; -keratosis;);
- a-; an- (-trophia; -plasia; -ophthalmia; -trichia; -dentia; -cheilia);

- -(o)rrhagia (ot-; metr-; proct-; gastr-; enter-; stomat-; ophthalm-; odont-; hyster-; cheil-; rhin-);
- trich(o)- (-pathia; -rrhoea; -osis; -algia);
- ot(o)- (-genus; -rrhagia; -scopia; -itis);
- phleb(o)- (-gramma; -graphia; -itis; -tomia; -ectomia; -rrhaphia);
- rhin(o)- (-scopia; -rrhagia; -rrhoea; -pathia; -itis; -algia).

2. Explain the meaning of the following terms:

1) psychologia psychiatria psychiater psychogenus psychopathia psychotherapia 2) phlebotomia phlebographia phlebogramma phlebitis

3) trichopathia trichalgia trichorrhoea trichosis atrichia

4) ophthalmologia ophthalmorrhagia endophthalmitis ophthalmoscopia anophthalmia

5) proctalgia odontalgia trichalgia gastralgia

6) otorrhoea otorrhagia otoscopia otogenus otitis otalgia

3. Give the Greek & Latin variants and explain the meaning of the following terms:

trichopathy; phlebotomy; pediatrician; otogenic; ophthalmology; hypoplasia; otoscopy; dystrophy; hyperkeratosis; phlebography; adentia; enteropexia; proctalgia; aplasia; psychogenic; atrophy; cheilorrhagia; rhinoscopy; phlebitis; trichalgia; psychiatry; otitis; enterorrhaphy; otorrhea; endophthalmitis; odontalgia; dysplasia; hysterorrhaphy; otorrhagia; rhinorrhea; phlebogram; stomatitis; psychopathy; metrography; proctorrhagia; hypotrophy; gastrorrhagia; acheilia; atrichia; gastritis; enterorrhagia.

4. Give the Latin spelling of the terms; explain their meaning:

phlebogram; psychotherapy; phlebotomy; odontoma; dystrophy; psychiatry; otogenic; hypertrophy; enterorrhaphy; phlebography; metrography; rhinorrhea; psychogenic; psychopathy; trichorrhea; otoscopy; angiocardiography; enteropathy; hypotrophy; ophthalmoscopy; encephalogram; cholecystotomy; mastopathy; trichopathy; nephropathy; phthisiatrist; stomatoscopy; dysentery.

5. Form the Greek & Latin clinical terms according to the meaning:

- study of tuberculosis
- incomplete development of an organ or tissue
- bleeding from ear
- toothache (pain)
- lack of hair
- inflammation of vein
- physician who treats children
- abnormal development
- science about treatment of mental disorders
- study of eye disorders
- bleeding from tooth
- decrease in size or wasting away of a cell, tissue, organ or part
- internal examination of ear
- disease of hair
- abnormal increase of breast in size
- cutting of vein
- developing from tooth

LESSON 4

In this lesson you will:

- Learn new basic roots and suffixes used in the Greek and Latin medical terms.
- Use these component elements to form and understand medical terms.

This lesson is divided into the following sections:

- I. Roots and suffixes used in the Greek and Latin medical terms.
- II. Exercises.

I. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

ROOTS

Greek and Latin roots	English word elements	Meaning	Examples of medical terms
dactyl-; -dactylia	dactyl-; -dactyly	fingers or toes	dactylalgia
gloss-; -glossia	gloss-; -glossia	tongue	glossalgia
gluc-; (glucos-); glyk-;	gluc-; (glucos-); glyc-	sugar	glykaemia
haem-; haemat-; -aemia	hem-; hemat-; -(a)emia	blood	haematologia
heter-	heter-	other; (opposite of homo) different kind, type	heterogenus
homo-	homo-	same	homogenus
macr-	macr-	large	macrocephalia
micr-	micr-	small	microgastria
neur-	neur-	nerve	neurologia

olig-	olig-	of small quantity	oliguria
phag- ; -phagia	phag-; -phagia	swallowing	aphagia
phon-; -phonia	phon-; -phonia	voice; sound	dysphonia
pneum-; pneumon-	pulmon-; pneumon-	lung; air	pneumotomia
poly-	poly-	many (according to quantity)	polyuria
splen-; -splenia	splen-; -splenia	spleen	splenectomia
ur-; -uria	ur-; -uria	urine; urinary tract	anuria

SUFFIXES

Greek and Latin suffixes	English word elements	Meaning	Examples of medical terms
-megalia	-megaly	enlargement	splenomegalia
-opia; -opsia	-opia; -opsia	vision; view	dysopia
-thermia	-thermia	heat	hyperthermia

II. EXERCISES

1. Build up clinical terms with the given roots and suffixes, explain their meaning:

- -(o)megalia (cardi-; dactyl-; splen-; mast-);
- micr(o)- (-scopia; -glossia; -mastia; -gastria; -splenia; -cephalia; -ophthalmia);
- poly- (-uria; -vitaminosis; -neuritis);
- -thermia (hyper-; hypo-);
- neur(o)- (-logia; -rrhaphia; -pathia; -osis; -tomia; -oma; -genus; -pathologia; -itis; -algia; -ectomia);
- haem(o)-; haemat(o)- (-uria; -logia; -angioma; -oma; -rrhagia; -gramma; -thorax; -genus).

2. Explain the meaning of the following terms:

- 1) haematogenus
 haematoma
 haematologia
 haemothorax
 haemogramma
 haemopericardium
 haemotherapia
 haemophthalmus
 haemangioma
- 3) splenectomia splenitis splenotomia splenorrhagia splenopexia microsplenia
- 5) polytrichia polyuria polydactylia polycytaemia polyneuritis polycystosis

2) neuralgia neurectomia neurologia neuropathia neurorrhaphia neuropathologia neurosis

neuroma

- 4) pneumothorax pneumohaemothorax pneumonectomia pneumohydrothorax pneumonia pneumotomia pneumotomia pneumatosis
- 6) glossalgia glossitis glossopathia glossorrhaphia glossorrhagia glossoplastica

3. Give the Greek & Latin variants and explain the meaning of the following terms:

oliguria; megalosplenia; glycemia; glossalgia; dystrophy; nephropathy; oligodentia; microsplenia; neurotomy; dysphonia; pneumatosis; dactylomegaly; hypothermia; pneumonia; dysopia; polyuria; hematoma; uremia; pneumonectomy; neuropathy; microglossia; hematogenous; gastrogenous; endogenous; gastrectomy; aphonia; dermatology; spondylopathy.

4. Give the Latin spelling of the terms; explain their meaning:

hypothermia; hypovitaminosis; uremia; microsplenia; oligocytaemia; glucosuria; hyperthermia; hemangioma; dysopia; hematogenic; glycemia; dactylalgia; hypoglossus; biopsia; osteodystrophy; polytrichia; phagocytosis; dysphagia;

dactylomegaly; aphagia; urogenous; pneumopericardium; pneumothorax; polydactylia.

5. Form the Greek & Latin clinical terms according to the meaning:

- disturbance of period discharge (menses)
- small spleen
- excessive discharge of urine
- mass of coagulated blood
- removal of nerve
- incomplete development of an organ or tissue
- disease of mind
- abnormal presence of glucose (sugar) in the urine
- disturbance of voice formation
- bleeding from ear
- cutting of lung
- retention of urine substances in the blood
- elevation of temperature
- tumour of spleen
- deficiency of blood in quality or quantity
- medical speciality related to the brain and nervous system
- small stomach
- lack of fingers or toes
- bleeding from eye
- abnormal thickening of cornea
- inflammation of the lung with consolidation and drainage

- examination by microscope
- excessive enlargement of lips
- difficult or painful urination
- fixation of small intestine
- nasal bleeding
- hairy tongue
- difficulty in swallowing
- congenitally small skull and small amount of brain tissue
- uterine bleeding

LESSON 5

In this lesson you will:

- Learn new basic roots and suffixes used in the Greek and Latin medical terms.
- Use these component elements to form and understand medical terms.

This lesson is divided into the following sections:

- I. Roots and suffixes used in the Greek and Latin medical terms.
- II. Exercises.

I. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

ROOTS

Greek and Latin roots	English word elements	Meaning	Examples of medical terms
aden-	aden-	gland	adenōma
arthr-	arthr-	joint	arthropathia
cephal-; -cephalia	cephal-; -cephaly	head	cephalalgia; hydrocephalia
chondr-	chondr-	cartilage	chondrogenēsis
cyan-	cyan-	blue	cyanuria
dacryocyst-	dacryocyst-	tear sac; lacrimal sac	dacryocystītis
erythr-	erythr-	red	erythrocytus
leuc-	leuc-; leuk-	white	leucocytus
my-; myos-	my-; myos-	muscle	myalgia
myel-	myel-	spinal cord; bone marrow	myelītis
orth-	orth-	straight	orthopaedia

py-	py-	pus	pyuria
tox-;	toxic-	poison	toxicōsis
toxic-			

SUFFIXES

Greek and Latin	English word	Meaning	Examples of medical
suffixes	elements		terms
-kinesia	-kinesia	movement	oligokinesia
-stōma; -stomia	-stoma; -stomia	fistula; creation of an artificial opening	gastrostōma; enterostomia

PREFIXES

Greek and Latin prefixes	English word elements	Meaning	Examples of medical terms
pan-	pan-	all; total	panalgia

II. EXERCISES

1. Build up clinical terms with the given roots and suffixes, explain their meaning:

- py(o)- (-dermia; -genus; -metra; -nephrosis; -ophthalmia; -rrhoea; -thorax; -pneumothorax; -pericardium);
- myel(o)- (-cytus; -itis; -genus; -gramma; -graphia; -oma; -osis);
- oste(o)- (-arthropathia; -arthrotomia; -oma; -itis; -arthritis; -chondritis; -genus;
 -dystrophia; -logia; -myelitis; -pathia; -tomia; -ectomia);
- tox-; toxic(o)- (-aemia; -genus; -logia; -osis; -dermia; -mania);
- leuc(o)- (-cytus; -cytosis; -derma; -oma; -gramma);
- my(o)-; myos- (-itis; -logia; -oma; -algia; -cardium; -cardiodystrophia;
 -cardiopathia; -genus; -opia; -tomia);
- ot(o)- (-genus; -rrhagia; -scopia; -itis);
- phleb(o)- (-gramma; -graphia; -itis; -tomia; -ectomia; -rrhaphia);
- rhin(o)- (-scopia; -rrhagia; -rrhoea; -pathia; -itis; -algia).

2. Explain the meaning of the following terms:

- 1) cyanosis cyanuria cyanodermia acrocyanosis cyanopsia
- 3) panalgia panarthritis pancarditis panophthalmitis panotitis panhysterectomia
- 5) oligokinesia dyskinesia kinesitherapia kinetosis

- 2) adenitis lymphadenitis adenoma adenomyoma adenopathia
- 4) arthritis arthralgia arthrosis arthropathia arthrotomia polyarthritis arthroplastica haemarthrosis
- 6) cephalalgia cephalhaematoma cephalotomia hydrocephalia

3. Give the Greek & Latin variants and explain the meaning of the following terms:

microglossia; cheilorrhagia; arthropathy; cyanuria; dacryocystectomy; leucocyte; pyodermia; panarthritis; otopyorrhea; polyarthritis; toxicology; panhysterectomy; myopia; orthopedics; oligokinesia; erythrodermia; dysphagia; myalgia; psychiatrist; encephalogram; myelemia; leucogram; pyonephrosis; pulmonectomy; chondrotomy; dacryocystogram; orthodontist; erythrocyturia; chondrogenic; adenotomy; osteomyelitis; otoneurology; arthralgia; oligodactylia; parodontopathy; periostitis; rhinoscopy; proctalgia; microphonia.

4. Give the Latin spelling of the terms; explain their meaning:

myelopathy; myometritis; periosteoma; periphlebitis; polyadenitis; pyogenic; pyonephrosis; oligotrophy; chondropathy; chondrotomy; cheilorrhaphy; cephalomegaly; cephalothoracic; polydactyly; pyuria; microgastria;

encephalography; gastroenterostomy; gastrocolostomy; arthrochondritis; arthroophthalmopathy; pyodermia; toxicogenic; erythrokeratodermia; nephropyelostomy; stomatoscopy; dacryopyorrhea; myelography; dysphagia; proctostoma; esophagostomy; rhinorrhea.

5. Form the Greek & Latin clinical terms according to the meaning:

- creation of an artificial opening of the stomach
- disease of cartilages
- inflammation of brain and spinal cord
- purulent inflammation of the kidney
- accumulation of harmful substances in the blood
- pain in the muscles
- developing from bone marrow
- any disease of joints
- increased count of white blood cells in the blood
- red blood cell
- blue coloration of the skin caused by the deficiency of oxygen and the excess of carbon dioxide in the blood
- benign tumour from cartilaginous tissue
- accumulation of fluid in the skull (water in the brain)
- head pain (headache)
- inflammation of lymph nodes
- removal of tear sac
- widespread, general inflammation of the heart
- disturbance of movement

- accumulation of pus in the pleural cavity
- study of the correction of the musculoskeletal system deformities
- producing toxin
- the middle and thickest layer of the heart wall
- accumulation of blood in the joint cavity
- appearance of white spots on the skin
- skin inflammation with reddening, itching and desquamation
- blue coloration of the distal parts
- disturbance of cartilage nutrition
- glandular cell

LESSON 6

In this lesson you will:

- Learn new basic roots and suffixes used in the Greek and Latin medical terms.
- Use these component elements to form and understand medical terms.

This lesson is divided into the following sections:

- I. Roots and suffixes used in the Greek and Latin medical terms.
- II. Exercises.

I. ROOTS AND SUFFIXES USED IN THE GREEK AND LATIN MEDICAL TERMS

ROOTS

Greek and Latin roots	English word elements	Meaning	Examples of medical terms
aesthesi-; -aesthesia	esthesi-; -esthesia	feeling; nervous sensation	anaesthesiologia
brady-	brady-	slow	bradycardia
gynaec-	gynec-	woman; female	gynaecologia
hist-	hist-	tissue	histologia
hydr-	hydr-	water	hydrophobia
lip-	lip-	fat; lipid	lipōma
lith-; -lithus	-lith	stone; calculus	phlebolithus
melan-	melan-	black	melanuria
onc-	onc-	tumour	oncologia
pyr-	pyr-	fever; heat	pyrotherapia
tachy-	tachy-	fast	tachycardia

SUFFIXES

Greek and Latin suffixes	English word elements	Meaning	Examples of medical terms
-penia	-penia	decreased number (in blood)	leucocytopenia
-pexia	-pexy	fixation	nephropexia
-phobia	-phobia	fear	hydrophobia
-plegia	-plegia	paralysis; palsy	diplegia

PREFIXES

Greek and Latin prefixes	English word elements	Meaning	Examples of medical terms
bi-; di-;	bi-; di-;	two	didactylia
mono-	mono-	one; single	monophobia

II. EXERCISES

1. Build up clinical terms with the given roots and suffixes, explain their meaning:

- tachy- (-cardia; -kinesia; -arrhythmia);
- hydr(o)- (-therapia; -phobia; -thorax; -rrhoea; -nephrosis; -cephalia; -metra;
 -myelia);
- pyr(o)- (-mania; -therapia; -phobia; -genus);
- -(o)phobia (hydr-; gynaec-; toxic-; mono-);
- di- (-dactylia; -plegia; -cheilia);
- -(o)pexia (nephr-; metr-; proct-; cyst-; col-);
- -(o)plegia (cyst-; ophthalm-; di-; mono-; cardiomyo-; gloss-);
- -(o)lithus (enter-; phleb-; ur-; rhin-; hepat-; nephr-).

2. Explain the meaning of the following terms:

1) melanuria melanodermia melanoma 2) histotherapia histologia histopathologia

3) bradyglossia bradyarrhythmia bradycardia bradyaesthesia bradykinesia bradyphagia 4) pyrotherapia pyrophobia pyrogenus

5) hydrarthrosis
hydrothorax
hydrophobia
hydrotherapia
hydraemia
hydrocephalia
hydrometra
hydroperitoneum
hydropneumothorax

6) lipaemia
lipoma
lipuria
lipodystrophia
lipofibroma
lipogenus

3. Give the Greek & Latin variants and explain the meaning of the following terms:

histology; anesthesia; gynecophobia; erythropenia; melanosis; bradycardia; hypogastrium; hypertrophy; hydrology; pyrogenic; pyuria; erythema; monodactyly; bilateral; esthesiology; oncotomy; gynecopathy; lipemia; diplegia; erythrocyturia; enterolith; nephrolithiasis; histoma; oncosis; chondrodystrophy; lipatrophy; gastroduodenostomy; otorrhagia; enteropexy; bradykinesia; monophobia; pyelotomy; lipopenia; toxicophobia; myorrhaphy; myogenic; myelogram; lipofibroma; periodontium; periostitis; oncocytoma; cystopyelogram.

4. Give the Latin spelling of the terms; explain their meaning:

hydrophthalmos; mammography; cancerophobia; glossoplegia; rhinolith; glycemia; hydrometra; cytopenia; anesthesiology; hydrocholecystis;

angiography; glossorrhagia; colpopexy; phlebolith; melanodermia; monocytopenia; monomyoplegia; nephromegaly; mononeuritis; gastropexy; dicheilia; dysenteria; lipodystrophy; colostomy; cholelithiasis; cardiotomy; chondrotomy; tachyphagia; cardiomegaly; bradyphagia; hydrotherapy; urolith; cardiophobia; ophthalmoplegia; metropexy; parodontosis; rhinopathy; gynecology.

5. Form the Greek & Latin clinical terms according to the meaning:

- excess of lipids in the blood
- paralysis (palsy) of the tongue
- fixation of the vagina
- particular type of white blood cell that has one nucleus
- producing (caused) by fever
- renal stone
- abnormally fast heart rate
- slowing of swallowing
- collection of fluid in the pericardial cavity
- fear of water
- branch of medicine that treats diseases of the genital tract in women
- benign tumour composed of fatty tissues
- dark pigment excreted in the urine
- study of tumours
- decreased number of erythrocytes
- palsy (paralysis) of the bladder
- fixation of the rectum
- one finger on the hand

- urinary stone
- abnormally slow heart action (slow pulse)
- use of water in the treatment of disease or injury
- producing fat
- microscopic study of tissues
- dark pigment in the skin
- palsy (paralysis) of one extremity

LESSON 7

SAMPLE OF A FINAL TEST IN CLINICAL TERMINOLOGY

In this lesson you will:

• become familiar with a Final Test sample

Final Test in Clinical Terminology

V - 2

I. Explain the meanings of the following terms:

14. adenocytus
15. microgastria
16. aphagia
17. neurorrhaphia
18. gastroduodenostomia
19. cholecystotomia
20. haemarthrosis
21. erythropenia
22. chondrodystrophia
23. homogenus
24. hyperglykaemia
25. hysterectomia

II. Form the Greek & Latin clinical terms according to the following meanings:

1. disease of the vessel; 7. presence of glucose (sugar) in the

urine;

2. fixation of the uterus; 8. loss of the voice;

3. tumour of the kidney; 9. of different kind or type;

4. inflammation of the surrounding 10. large tongue;

heart tissue;

5. removal of the cornea; 11. study of tuberculosis;

6. X-ray examination of veins; 12. developing from ear.

PART III. PHARMACEUTICAL TERMINOLOGY

LESSON 1

INTRODUCTION TO THE PHARMACEUTICAL TERMINOLOGY

In this lesson you will:

- Become familiar with the main groups of drugs
- Learn the names of the main pharmaceutical forms
- Learn some Latin and Greek component elements of drug names
- Become familiar with the word-formative and grammar structure of pharmaceutical terms

This lesson is divided into the following sections:

- I. Introduction to the pharmaceutical terminology
- II. Pharmaceutical forms
- III. Latin and Greek component elements of drug names
- IV. Word-formative and grammar structure of pharmaceutical terms
- V. Exercises.

I. INTRODUCTION TO THE PHARMACEUTICAL TERMINOLOGY

The pharmaceutical terminology is the terminology used in Pharmacology (derived from the Greek "pharmacon" – "drug"). **Pharmacology** is the study of medicinal substances called **pharmaceuticals**. The International Drug Nomenclature amounts at the present time to 400,000 drugs.

<u>Learning objectives of this course of studies</u>: at the end of the course of studies you should:

- 1. know how a prescription is written in Latin;
- 2. write correctly in Latin one-word and multiword pharmaceutical terms;
- 3. know Latin and Greek component elements of drug names;
- 4. learn a certain amount of Latin drug names.

Main pharmaceutical terms

- **Pharmaceutical form (drug form)** form of the drug suitable for a definite method of administration. These forms are divided into:
 - * liquids (solutions, infusions, decoctions, tinctures, extracts, mucilages, emulsions, suspensions, mixtures and liniments),
 - * semisolids (ointments, pastes, suppositories, plasters) and
 - * solids (tablets, dragee, powders).
- **Drug** is any material or substance, whether natural or synthetic, that can be used to treat an illness, relieve a symptom or modify a chemical process in the body for a specific purpose. The names of drugs can be **officinal or magistral:**
 - * Officinal (from Latin. officina drugstore) drugs are drugs which are manufactured by the pharmaceutical industry and which have a standard contents indicated in pharmacopeias. For example: *tabulettae Cefalexini*, *unguentum "Lorindenum"*. Such drugs can have international nonpatent names and trade names:
 - o *International nonpatent names* are given by the WHO (World Health Organisation). These are mostly the chemical names of drugs. Under these names the drugs can be used in any country.
 - o *Trade name (proprietary or brand name)* is the copyrighted name assigned by the drug company making the drug and is followed by the symbol ®.

- * Magistral drugs (from Latin *magister teacher*) are called the drugs which are made at the direction of a physician.
- **Medicinal substance** is a chemical compound used as a drug. Medicinal substances are produced by chemical means.
- **Drug preparation** is a drug prepared in a definite pharmaceutical form.

II. MAIN PHARMACEUTICAL FORMS

You should learn the main pharmaceutical forms as follows (in a dictionary form!):

Liquids				
Solutio, ōnis f	solution			
Mucilāgo, ĭnis f	mucilage			
Emulsum, i n	emulsion			
Suspensio, onis f	suspension			
Infūsum, i n	infusion			
Decoctum, i n	decoction			
Tinctūra, ae f	tincture			
Extractum, i n (fluĭdum)	extract			
Mixtūra, ae f	mixture			
Linimentum, i n	liniment			
Gutta, ae f	drop			
Sirŭpus, i m	syrup			
Olěum, i n	oil			
Semisolids				
Unguentum, i n	ointment			
Pasta, ae f	paste			
Suppositorĭum, i n	• suppository			
• Suppositorĭum rectāle (va-	• rectal (vaginal) suppository			
gināle)				
Emplastrum, i n	plaster			
Solids				
Tabuletta, ae f	tablet			
	Solutio, ōnis f Mucilāgo, ĭnis f Emulsum, i n Suspensio, ōnis f Infūsum, i n Decoctum, i n Tinctūra, ae f Extractum, i n (fluĭdum) Mixtūra, ae f Linimentum, i n Gutta, ae f Sirŭpus, i m Olĕum, i n olids Unguentum, i n Pasta, ae f • Suppositorĭum, i n • Suppositorĭum rectāle (vagināle) Emplastrum, i n			

19.	Dragée	dragée	
20.	Pulvis, ĕris m	powder	
21.	Granŭlum, i n	granule	
22.	Pilŭla, ae f	pill	
23.	Species, ērum (plural) f	species	
Other	Other drug forms		
24.	Capsŭla, ae f	capsule	
1 *	Capsule is a drug in powdered or pellet form that has been enclosed in a soluble gelatin-like capsule.		
25.	Aërosōlum, i n	aerosol	
26.	Membranŭla (ae f)	ophthalmic film	
	ophthalmĭca (us, a, um)		
	(Lamella ophthalmĭca)		
Ophth	Ophthalmic films are absorbable gelatin films containing drug substances		

III. LATIN AND GREEK COMPONENT ELEMENTS OF DRUG NAMES

Many pharmaceutical terms include in their names Greek and Latin component elements of frequent occurrence similar to the clinical terminology. With a knowledge of these elements you will be able to write complicated drug names with a correct spelling and to understand their meaning.

GREEK AND LATIN ELEMENTS CARRYING INFORMATION ABOUT PHARMACEUTICAL CHARACTERISTICS OF A DRUG

##	Latin	Meaning	Examples
1.	-aesthes-,	local anesthetic	Anaesthesinum
	-cain-		Novo cain um
2.	-alg-, -dol-	analgetic	Pent alg inum
			Pana dol um
3.	-andr-, -ster-,	male sex hormone	Testosteronum
	-test-		Androfortum
4.	-as-	enzymes	Lydasum
5.	-asthm-	against asthma	Anti asthm ocrinum

6.	-barb-	soforific, hypnotic	Barbitalum
7.	-cid-	antimicrobic	Streptocidum
8.	-cillin-	antibiotics-penicillins	Bi cillin um
9.	-cort-	adrenal cortex hormone	Corticotrophinum
10.	-cycl-	antibiotics-tetracylcines	Vita cycl inum
11.	-menth-	containing mint	Boromentholum
12.	-morph-	narcotics	Apo morph inum
13.	-myc-	against fungi, antimycotic	A myc azolum
14.	-oestr-	Female sex hormone	Oestronum
15.	-phyll-	(from Greek phyllon - leaf)	Theophyllinum
16.	-pres(s)-, -tens-	hypotensives	Apressinum Angio tens inamidum
17.	-pyr-	antipyretic drugs	Pyramidonum
18.	-sed-	sedatives	Valo sed anum
19.	-sept-	antiseptics	Pharyngo sept
20.	-sulfa-	sulfamides	Sulfadiazinum
21.	-the-	from tea-leaf	The albinum
22.	-vit-	vitamins	Hexa vit um

IV. WORD-FORMATIVE AND GRAMMAR STRUCTURE OF PHARMACEUTICAL TERMS

The drug names can be prescribed by **international nonpatent names** and **trade names**.

International nonpatent names in prescriptions after "Recipe:" are in Genitive singular without inverted commas:

- * Tetracyclīni
- * Vaselīni

Trade drug names are prescribed as follows: the drug name is placed after the pharmaceutical form in Nominative and is in inverted commas:

* Suppositoria «Anaesthesōlum» - suppositories of anaesthesol

One-word terms

1. All Latin drug names are neuter nouns of the 2nd declension ending by - <u>um</u>. They are written with the first capital letter as the names of chemical elements, medicinal plants:

Tetracyclīnum, i n

• A few exceptions to this rule are drug names by -a: No-spa, Do-pa (1st declension).

Multiword terms

- 1) If the drug preparation name includes a pharmaceutical form it is on the first place: solutio, unguentum, tinctūra etc.
- 2) The drug name is placed after the pharmaceutical form and begins with the capital letter:

solutio Streptocīdi - solution of streptocid

unguentum Tetracyclīni - ointment of tetracycline

tinctūra Menthae - tincture of mint

- 3) Adjectives
 - are written at the end of the prescription line:

Solutio Synoestroli oleosa - oil solution of synoestrol

• or are placed after a noun:

Mentha piperīta - peppermint

Tabulettae Acĭdi glutaminĭci obductae - coated glutaminic acid tablets

V. VOCABULARY

Learn components of medicinal plants

1. cortex, ĭcis m cortex

2. flos, floris m flower

3. folĭum, i n leaf

4. herba, ae f

5. radix, īcis f root

6. rhizōma, ătis n rhizome

Learn names of medicinal plants

7. Calendŭla, ae f calendula

8. Chamomilla, ae f matricary

9. Crataegus, i f hawthorn

10. Digitālis, is f foxglove

11. Farfăra, ae f coltsfoot

12. Frangŭla, ae f buckthorn

13. Leonūrus, i m motherwort

14. Mentha, ae f mint

15. Quercus, us f oak

16. Valeriāna, ae f valerian

VI. EXCERCISES

Exercise 1. Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

Bicilli	inum, Apressinu	ım, Nicovitum,	Pyramidonum,
Polyoestradiolum,	Hydrolysinum,	Boromentholum,	Diprophyllinum,
Laevomycetinum,	Decamevitum,	Cerebrolysinum,	Brulamycinum,
Olivomycinum,	Bruneomycinum,	Theophyllinum,	Cocarboxylasum,

Antiasthmocrinum, Synoestrolum, Pentavitum, Urosulfanum, Gentamycinum, Novocainamidum, Octoestronum.

Exercise 2. Translate from Latin into English:

Folium Farfărae, tabulettae olei Menthae, solutio Strophanthini, tabulettae Prednisoloni, granŭla Orasi, tabulettae Octoestroli, tabulettae Pantocrini, suspensio «Cindolum», unguentum «Psoriasinum», species antiasthmaticae, Epilini, «Baralginum», emplastrum tabulettae suppositoria vaginalia «Osarbonum», tabulettae Mycoheptini, unguentum Tetracyclini ophthalmĭcum, linimentum «Sanĭtas», tabulettae «Praegoestrolum», flores Calendŭlae, solutio Glucosi, tabulettae «Panhexavitum», dragée «Aëvitum», cortex Frangulae, tabulettae Barbamyli, Leonūri fluĭdum, suppositoria extractum «Anaesthesolum», tabulettae «Bellaesthesinum», infūsum Digitālis.

Exercise 3. Translate from English into Latin:

Ointment of tetracycline, solution of novocain, tablets of octoestrol, solution of glucose, ointment of heparin, tablets of myelosan, tincture of valerian, tincture of motherwort, herb of valerian, extract of motherwort, tablets of theophyllin, flowers of matricary, tablets of baralgin, liniment of streptocid, ophthalmic ointment of dibiomycin, antiasthmatic species, tincture of valerian root, extract of buckthorn, tincture of oak root.

LESSON 2

STANDARD PRESCRIPTION PHRASES INDICATING ORDERS AND INSTRUCTIONS

In this lesson you will:

- Learn basic standard phrases used in prescriptions
- Learn clinic Latin and Greek component elements used in drug names
- Learn Latin and Greek component elements carrying information on chemical composition of a drug

This lesson is divided into the following sections:

- I. Standard prescription phrases indicating orders and instructions
- II. Clinic Latin and Greek component elements used in drug names
- III. Latin and Greek component elements carrying information on chemical composition of a drug
- IV. Exercises.

I. STANDARD PRESCRIPTION PHRASES INDICATING ORDERS AND INSTRUCTIONS

In the Latin part of a prescription some verb forms are used which indicate orders and instructions. They are required in order to give to a pharmacist instructions how to make up and dispense drugs. You should learn these verb forms as **standard prescription phrases**. The meaning "order, instruction, direction" is expressed in the Latin part of a prescription by "imperative moode" and "conjunctive moode" of a Latin verb.

a) Imperative mode

From all imperative mode forms only the 2nd person singular form is used in prescriptions. You will have to memorize standard prescription phrases in the imperative mode as follows:

• Recĭpe	Take, receive
• Da	Give
• Signa	Write on a label
• Misce	Mix
• Sterilĭsa! (with the exclamation mark)	Sterilize!
• Adde	Add
Da tales doses	Give of such doses

b) Conjunctive mode

The Latin conjunctive mode has many meanings. Only one meaning "order, instruction, direction" is used in prescriptions. These forms are translated from Latin into English with the word-combination "let it be". You will have to memorize standard prescription phrases in the conjunctive mode as follows:

• Detur	Let it be given
• Signētur	Let it be labeled
• Misceātur	Let it be mixed
• Sterilisētur! (with the exclamation mark)	Let it be sterilized!
Repetātur	Let it be repeated
Dentur tales doses	Let it be given of such doses

• <u>Attention!!!</u> - Prescription phrases in imperative and conjunctive modes have the same meaning: <u>order</u>, <u>instruction</u>, <u>direction</u>, therefore they are completely equal and interchangeable. You may use each of them.

в) Verb <u>fiěri</u> in prescriptions

The prescription phrase with the verb **fieri** is often used in prescriptions. Model:

Misce, (ut) fiat + pharmaceutical form in Nominative singular

Note: Conjunction ut is usually omitted

Examples:

• Misce, fiat pulvis. Mix to make a powder

• Misce, fiat unguentum. Mix to make an ointment

• Misce, fiat linimentum. Mix to make a liniment

BUT!

• Misce, <u>fiant</u> species. Mix to make species

(species - plural)

II. CLINIC LATIN AND GREEK COMPONENT ELEMENTS USED IN DRUG NAMES

In drug names some clinical Latin and Greek component elements are used which are already known to you. You will have to pay attention to their spelling and meaning in the pharmaceutical terminology:

##	Latin	Meaing	Examples
1.	-angi-, -vas-,	spasmolytics, referring to	Angi otensinamidum
		vessels	Vasographinum
2.	-cardi-, -cor-,	cardiovascular drugs	Cardiovalenum
	-cord-		Corazolum
3.	-chol-	cholagogic, bile-expelling	Chologonum
4.	-cyt-	(from Greek «cell»)	Cytamenum
		antianemic drugs	
5.	-derm-	for treatment of skin	Derm osolonum
		diseases	
6.	-erythr-	(from Greek «red»)	Erythromycinum
7.	glyc-	(from Greek «sweet»)	Glycerophosphatum
8.	-haem-, -aem-	drugs influencing	Haem atogenum
		hemopoesis	Liqu aem inum
9.	-hepat-,	extracts from liver	Vito hepat um
	-hepar-		•
10.	-lys(in)-	drugs for destruction and	Sarcolysinum
		excretion	
11.	-my(o)-	(from Greek «muscle»)	Myo statinum

12.	-myel(o)-	referring to brain	Myelosanum
13.	-neo-, -nov-	(from Greek «new»)	Neocidum
			Novandrolum
14.	-pan-	(from Greek «total»)	Pantocidum
15.	-physi(o)-	referring to physical properties	Physiolactinum
16.	-poly-	(from «many»)	Polyvaccinum
17.	-руо-	antipurulent drugs	Pyocidum
18.	-thyr-	drugs influencing functions of the thyroid gland	Metho thyr inum

III. GREEK AND LATIN ELEMENTS CARRYING INFORMATION ON CHEMICAL COMPOSITION OF A DRUG

##	Latin	Meaing	Examples
1.	-aeth-	containing ethyl	Aethinalum
2.	-(a)zin-, -zol-, -(a)zid-	containing nitrogen	Amina zin um, Cora zol um Salu zid um
3.	-benz-	containing benzol	Benzonalum
4.	-chlor-	containing chlorine	Chloraminum
5.	-cyan-	(from Greek «cyanus» - blue)	Cyanidum
6.	-hydr-	water, hydrogen	Hydrocortisonum
7.	-meth-	containing methyl	Methacinum
8.	-оху-	containing oxygen	Oxylidinum
9.	-phen-	containing phenyl	Phen olum
10.	-phosph-	containing phosphorus	Phosph acolum
11.	-phthor-	containing fluorine	Phthor acizinum
12.	-thi-	containing sulfur	Thiophosphamidum
13.	-yl-	containing hydrocarbon radical	Meth yl uracilum

IV. VOCABULARY

Learn drug names:

1. Amylum, i n Tritĭci (um, i n) wheat starch

2. Chloxylum, i n chloxyl

3. Dibazōlum, i n dibazol

4. Eucatōlum, i n eucatol

5. Hydrochlorothiazīdum, i n hydrochlorothiazid

6. Ichthyōlum, i n ichthyol

7. Mycosolōnum, i n mycosolon

8. Olěum (i, n) Ricĭni (us, i m) castor oil

9. Phthoruracīlum, i n phthoruracil

10. Polyphepānum, i n polyphepan

11. Solutio Ammonii (um, i n) liquid ammonia (solution of

caustĭci (us, a, um) ammonia)

12. Sulfadimezīnum, i n sulfadimezin

13. Synthomycīnum, i n synthomycin

14. Vaselīnum, i n vaseline

15. Xeroformĭum, i n xeroform

Medical plants:

16. Convallarĭa, ae f lily of the valley

17. Eucalyptus, i f eucalyptus

18. Linum, i n flax

19. Plantāgo, ĭnis f common (greated) plantain

20. Salvĭa, ae f sage

Other words:

21 antiasthmaticus, a, um. antiasthmatic

22. diureticus, a, um diuretic, urinative

23. piperītus, a, um pepper

- 24. semen, ĭnis n seed
- 25. siccus, a, um dry

V. EXCERCISES

Exercise 1. Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

Dipheninum, Pyrimethaninum, Benzonalum. Normotensum, Sulfalenum, Acetylcysteinum, Penicillaminum, Erythromycinum, Sulfathiazolum, Sulfamethoxazolum, Vancomycinum, Diphenhydraminum, Cyclosporinum, Methyluracilum, Hydrolysinum, Nitroglycerinum, Benzobarbitalum. Methindionum. Mycoseptinum, Chlorochininum. Cyclophosphamidum, Cyanocobalaminum, Cerebrolysinum.

Exercise 2. Translate from English into Latin:

Solution of papaverin, tincture of mint, granules of amidopyrin, ointment of xeroform, tablets of sulfadimezin, oil of eucalyptus, motherwort herb tincture, foxglove leaves powder, tablets of dibazol, fluid extract of hawthorn, oitment of ichthyol, solution of procainamid, tablets of phenobarbital, sage leaves tincture, decoction of oak cortex, mint leaves tincture, emulsion of castor oil, tablet of novocainamid, liquid ammonia, oil of peppermint, eucalyptus leaves tincture, tincture of calendula, leaf of common plantain, solution of salvin, matricary leaves, granule of plantaglucid, drops of eucatol, solution of aminophyllin, coltsfoot leaf granules.

Exercise 3. Translate from English into Latin, using the given vocabulary:

- 1. Give 10 ml of epinephrin solution.
- 2. Take 200 ml of valerian root tincture.
- 3. Add 5 ml of castor oil.
- 4. Give 10 ml of menthol oil.

- 5. Take 30,0 of xeroform ointment.
- 6. Mix 5 ml of mint tincture and 10 ml of motherwort tincture.
- 7. Add 3 ml of peppermint oil.
- 8. Sterilize 20 ml of castor oil.
- 9. Take 5.0 of boromenthol ointment.
- 10. Give 25,0 of synthomycin liniment.
- 11. Mix 10 ml of lily of the valley tincture and 15 ml of valerian tincture.
- 12. Give 25 ml of motherwort extract.
- 13. Take 20,0 of castor oil emulsion.
- 14. Sterilize 200 ml of novocain solution.

LESSON 3

MEDICAL PRESCRIPTION LIQUIDS AND SEMISOLIDS IN PRESCRIPTIONS

In this lesson you will:

- Become familiar with "medical prescription" and its components
- Learn the requirements to the Latin part of the prescription
- Learn to prescribe liquid and semisolid pharmaceutical forms

This lesson is divided into the following sections:

- I. General information on a medical prescription
- II. Requirements to the Latin part of a prescription
- III. Liquid pharmaceutical forms in prescriptions
- IV. Semisolid pharmaceutical forms in prescriptions
- V. The most-used prescription phrases I
- VI. Exercises.

I. GENERAL INFORMATION ON A MEDICAL PRESCRIPTION

The word "prescription" can be decomposed into "pre" and "script" and literally means "to write before" a drug can be prepared. The concept of prescriptions date back to the beginning of history. So long as there were medications and a writing system to capture directions for preparation and usage, there were prescriptions. **Latin** served a good purpose on prescriptions when they were first written in the 1400s. Spread widely by Roman soldiers and traders, Latin was the main language of western Europe for hundreds of years. It was unlikely to change, because it was a "dead" language, and it was unlikely to be misinterpreted, because it was exact in its meaning. Of course, the patients who didn't know Latin probably didn't have the vaguest idea what they were taking.

Who can issue prescriptions are governed by local legislation. In the United States, all states, physicians, veterinarians, dentists, and pediatrists have full prescription power. Many countries allow mid-level practitioners different prescription privileges. Nurse practitioners, physician assistants, optometrists, homeopathic physicians, registered pharmacists, naturopathic physicians, and doctors of oriental medicine currently represent the spectrum of mid-level practitioners. Each country regulates what (if any) prescription powers members of the above group are allowed.

Prescriptions are typically written on preprinted prescription forms that are assembled into pads. Preprinted on the form is text that identifies the document as a prescription, the name and address of the hospital or the prescribing doctor.

Predating modern legal definitions of a prescription, a prescription traditionally is composed of **four parts**: a "superscription", "inscription", "subscription" and "signature".

- 1. The "**superscription**" section contains the date of the prescription and patient information (name, address, age, etc).
- 2. The word "Recipe:" (in English prescriptions "Rx") addressed to the pharmacist separates the superscription from the "**inscriptions**" section. This is literally an abbreviation for an exhortation to the patient to "take to" what is described in the inscription section. The inscription section defines what is the medication.
- 3. The "**subscription**" section contains dispensing directions to the pharmacist. This may be compounding instructions or quantities.
- 4. The "**signature**" section contains directions to the patient.

Latin in Prescriptions in Some English-speaking Countries: The only part of a prescription where Latin appears today, however, is in the directions for taking the drug. This use has become a kind of medical shorthand. Some of these

abbreviated terms have the potential to cause medication errors because they look so similar in handwriting, so their use is on the decline.

E.g.:

• ante cibum	ac	before meals
• pro re nata	prn	as needed
• quaque 3 hora	q 3 h	every 3 hours
• ter in die	tid	3 times a day

II. REQUIREMENTS TO THE LATIN PART OF A PRESCRIPTION

The Latin part of a prescription begins with the word "Recipe" and ends with "Signa". You will have to learn the general requirements to the Latin part of a prescriptions as follows (abbreviations in prescriptions are impermissible):

1. The Latin part of a prescription begins with "Recipe", this is a form of address of a physician to a pharmacist:

Recipe: Take:

- Every prescription line, as well as all drug names begin with the capital letter
- Every drug name is written in a separate prescription line. In doing so a blank space is left after "Recipe" (the pharmacist indicates a price of a drug here). If there is not enough space for a drug name in one line it is carried over to the next line with the left indent:

Recipe: Phenylĭi salicylātis 3,0

Spiritus aethylici quantum satis

ad **solutionem**

Vaselīni ad 30,0

Misce, fiat unguentum

Da. Signa: Apply to the skin of

the face

- 2. The drug names after "Recipe" are in Genitive
- 3. After the drug name its **quantity** is indicated. The doses of drugs are indicated in the decimal numeration system:
 - **Gram amounts** the abbreviation «gr» is not indicated, the quantity is indicated with decimal points -10.0 (10 gr.); 0.25 (0.25 gr) etc.
 - Milliliter amounts 10 ml, 0.2 ml;
 - Units of activity ED: 100000 ED (100000 units of activity).

E.g: Recipe: Kalĭi chlorīdi 3,0

Insulīni 25 ED

Solutionis Glucosi 10% - 1000 ml

Misceātur. Sterilisētur!

Detur. Signētur: For intravenous infusions.

- Drops amounts (are used seldom) the number of drops is indicated with Roman figures – singular guttam (one drop - guttam I), plural guttas (five drops - guttas V);
- Sometimes a physician does not indicate the dosage but affords to a pharmacist an opportunity to determine the quantity of a drug on his own; in that case **quantum satis** is written in the prescription.

If several drugs are prescribed in the same amount, so the dose is indicated only after the latter one and the abbreviation **ana** (of each) is written:

E.g: Recipe: Cupri citrātis

Lanolīni

Vaselīni ana 5.0

Take: Coper citrate

Lanoline

Vaseline of each 5,0

Writing good prescriptions

- careful use of decimal points to avoid ambiguity:
 - avoid unneccessary decimal points: 5 mL instead of 5.0 mL to
 avoid possible misinterpretation of 5.0=50
 - alway zero prefix decimals: e.g. 0.5 instead of .5 to avoid
 misinterpretation with .5=5
 - never have trailing zeros on decimals: e.g. use 0.5 instead of .50 to
 avoid misinterpretation with .50=50
 - $_{\circ}$ avoid decimals altogether by changing the units: 0.5 g =500 mg

III. LIQUID PHARMACEUTICAL FORMS IN PRESCRIPTIONS

Solutions - Solutiones

- The Genitive form after "Recipe" **Solutionis**.
- Solutions can be *alcoholic*, *oil and glyceric*, respectively the Latin Genitive forms after "Recipe" are **Solutionis spirituosae**, **Solutionis oleosae**, **Solutionis glycerinosae** (solutio feminine!), the adjective to be placed at the end of the prescription line before the dosage.
- The solution concentration is indicated in the following way: *Recipe:* Solutionis Camphorae oleosae 10% 100 ml.

Mucilages – Mucilagines

- The Genitive form after "Recipe" Mucilaginis.
- The most frequently used mucilage is the starch mucilage: *Recipe:*Mucilaginis Amyli

Suspensions – Suspensiones

- The Genitive form after "Recipe" Suspensionis.
- E.g.: Recipe: Suspensiōnis Hydrocortisōni

Emulsions – Emulsa

- The Genitive form after "Recipe" Emulsi.
- E.g.: Recipe: Emulsi olĕi Ricĭni.

Infusions and decoctions – Infūsa et Decocta

- The Genitive form after "Recipe" Infūsi, Decocti.
- After the pharmaceutical form parts of medicinal plants are indicated:
 - * Cortex cortex (Genitive corticis)
 - * Root radix (Genitive radīcis)
 - * Rhizome rhizōma (Genitive rhizomătis)
 - * Leaf folĭum (Genitive singular folĭi, Genitive plural foliōrum)
 - * Herb herba (Genitive herbae)
 - * Flower– flos (Genitive singular flores, Genitive plural florum)
- E.g.: Recipe: Decocti corticis Quercus

Tinctures – Tinctūrae

- The Genitive form after "Recipe" Tinctūrae.
- E.g.: Recipe: Tinctūrae Valeriānae.

Extracts - Extracta

• The Genitive form after "Recipe" – Extracti.

- Three general types of extracts are distinguished: fluid extracts (Extractum fluidum extracti fluidi), thick extracts (Extractum spissum extracti spissi) and dry extracts (Extractum siccum extracti sicci).
- E.g.: Recipe: Extracti Frangŭlae fluĭdi

Liniments – Linimenta

- The Genitive form after "Recipe" Linimenti.
- E.g.: Recipe: Linimenti Synthomycīni.

IV. SEMISOLID PHARMACEUTICAL FORMS IN PRESCRIPTIONS

Ointments - Unguenta

- The Genitive form after "Recipe" Unguenti.
- Eye ointment Unguentum ophthalmĭcum (Unguenti opthalmĭci).
- E.g.: Recipe: Unguenti Zinci.

Pastes - Pastae

- The Genitive form after "Recipe" Pastae.
- E.g.: Recipe: Pastae Zinci.

Plasters – Emplastra

- The Genitive form after "Recipe" **Emplastri.**
- Simple plaster Emplastrum simplex (Emplastri simplicis).
- E.g.: Recipe: Emplastri Plumbi simplĭcis.

V. THE MOST-USED PRESCRIPTION PHRASES I

• ad 10,0	up to 10 gr.
ad usum externum	for external use
ad usum internum	for internal use
• ana	of each
• bis (tres) repetātur	Let it be repeated twice (three times)
• cito!	urgent!
• contra tussim	against cough
• in ampullis	in ampoules
• in capsŭlis	in capsules
• in vitro nigro	in a dark phial
non repetātur	do not repeat
• numěro	number
pro auctōre	for himself – if a doctor prescribes a
	drug for himself
• pro infantībus	for children
• pro injectionĭbus	for injections
• pro me	for me
• pro narcōsi	for narcosis
pro suspensionĭbus	for suspensions
• quantum satis	in sufficient amount
• statim!	immediately!

VOCABULARY

Learn names of drugs:

1. Aether, ĕris m ether

2. Aethinyloestradiolum, i n aethinyloestradiol

3. Amidopyrīnum, i n amidopyrin

4. Aminophyllīnum, i n aminophyllin

5. Ampicillīnum, i n ampicillin

6. Anaesthesīnum, i n anaesthesin

7. Cerebrolysīnum, i n cerebrolysin

8. Corvalolum, i n corvalol

9. Cortisōnum, i n cortison

10. Dimedrolum, i n dimedrol

11. Furazolidōnum, i n furazolidon

12. Furacilīnum, i n furacilin

13. Glucōsum, i n glucose

14. Hepavītum, i n hepavit

15. Nitroglycerīnum, i n nitroglycerin

16. Novocaīnum, i n novocain

17. Oxaphenamīdum, i n oxaphenamid

18. Phenacetīnum, i n phenacetin

19. Pyrazidōlum, i n pyrazidol

20. Sacchärum, i n saccharum/sugar

21. Strophanthīnum, i n strophanthin

22. Sulfazīnum, i n sulfazin

23. Validolum, i n validol

Learn names of medicinal plants:

24. Belladonna, ae f belladonna

25. Rheum, i n rhubarb

26. Urtīca, ae f nettle

Other words:

27. aethylĭcus, a, um ethyl

28. aqua, ae f water

29. destillātus, a, um distilled

30. glycerinōsus, a, um glyceric

31. oleōsus, a, um oily, oil

32. pectorālis, e pectoral

33. rectificātus, a, um rectificat

34. spirituōsus, a, um spirituous, alcoholic

35. spirĭtus, us m alcohol

VI. EXCERCISES

Exercise 1. Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

Phenolum, Ampicillinum, Hepavitum, Phenacetinum, Cortisonum, Mycosolonum, Pyrazolidonum, Dibazolum, Sulfazinum, Furazolidonum, Chloxylum, Oxaphenamidum, Corvalolum, Aethinyloestradiolum, Benzonalum, Pantocidum, Polyphepanum, Euphyllinum, Phenobarbitalum, Methacinum, Pyocidum, Barbamylum, Chlorophthalmum, Sulfadimezinum, Oxacillinum, Aminophyllinum, Aether, Nitroglycerinum, Sarcolysinum, Novocainum, Corazolum, Anaesthesinum, Chloraminum.

Exercise 2. Translate from English into Latin:

Decoction of buckthorn cortex for injections, apomorphin in ampoules, leaf of common plantain, solution of furacilin for external use, castor oil in capsules, emulsion of castor oil, aevit in capsules, tablets of amidopyrin and phenacetin of each 0,25, powder of ampicillin for suspensions, liniment of synthomycin,

solution of strophantin in ampoules, tincture of matricary flowers, oily solution of nitroglycerin, spirituous solution of furacilin, decoction of hawthorn cortex, species pectoral, rhubarb syrup, fluid extract of backthorn, powder of foxglove leaves, decoction of oak cortex, dry extract of belladonna, species diuretic, aether for narcosis, mint pepper leaves.

Exercise 3. Translate the following prescriptions from English into Latin:

1) Take: Tincture of lily of the valley

Tincture of valerian of each 10 ml

Solution of nitroglycerin 1% - 1 ml

Validol 2 ml

Let it be mixed.

Let it be given.

Let it be labeled:

2) Take: Liquid hawthorn extract 25 ml

Let it be given.

Let it be labeled:

3) Take: Solution of glucose 5% - 500 ml

Let it be sterilized!

Give.

Write on a label:

4)Take: Powder of rhubarb root 0,06

Give of such doses number 50

Write on a label:

5) Take: Emulsion of castor oil 30,0 - 200 ml

Give.

Write on a label:

6) Take: Phenobarbital 0,05

Sacchar 0,2

Mix to make a powder

Give of such doses number 10

Write on a label:

7) Take: Cerebrolysin 1 ml

Give of such doses number 10 in ampoules

Write on a label:

8) Take: Anaesthesin 2,5

Talc 15,0

Vaseline up to 50,0

Mix to make a liniment

Give.

Write on a label:

9) Take: Solution of aminophyllin 24% - 1 ml

Give of such doses number 6 in ampoules

Write on a label:

10) Take: Fluid extract of buckthorn 4,0

Powder of rhubarb root 3,0

Dry extract of belladonna 0,7

Mix. Give.

Write on a label:

LESSON 4

PRESCRIPTION REGULATIONS FOR TABLETS SUPPOSITORIES AND OPHTHALMIC FILMS SOLIDS AND OTHER PHARMACEUTICAL FORMS IN PRESCRIPTIONS

In this lesson you will:

- Become familiar with prescription regulations for tablets, suppositories and ophthalmic films.
- Learn to prescribe solid and other pharmaceutical forms.
- Learn the most used prescription phrases.

This lesson is divided into the following sections:

- I. Prescription regulations for tablets, suppositories and ophthalmic films.
- II. Preposition "cum" in prescriptions.
- III. Solid pharmaceutical forms in prescriptions
- IV. Other pharmaceutical forms in prescriptions
- V. The most-used prescription phrases II
- VI. Exercises.

I. PRESCRIPTION REGULATIONS FOR TABLETS, SUPPOSITORIES AND OPHTHALMIC FILMS

The prescription regulations for **tablets**, **suppositories and ophthalmic films** are different from other pharmaceutical forms. The names of these pharmaceutical forms in prescriptions after "Recipe" are **not in Genitive but in Accusative**. You will have to remember the endings of these pharmaceutical forms as follows:

• Tabulettam (obductam)	tablet (coated)
Tabulettas (obductas)	tablets (coated)
Suppositorĭum (vagināle, rectāle)	suppository (rectal, vaginal)
Suppositorĭa (vaginalĭa, rectalĭa)	suppositories (rectal, vaginal)
• Lamellas (membranŭlas) ophthalmĭcas	ophthalmic films

E.g.:

Recipe: Tabulettam Digoxīni 0,0001

Da tales doses numero 12

Signa:

Recipe: Tabulettas extracti Valeriānae 0,02 obductas

numěro 50

Da. Signa:

Recipe: Suppositoria rectalia Apilāci 0,005 numēro 12

Da. Signa:

Recipe: Membranŭlas ophthalmĭcas cum Kanamycīni

sulfāte 0,00003 numěro 100

Da.Signa:

II. PREPOSITION "CUM" IN PRESCRIPTIONS

The names of <u>suppositories and ophthalmic films</u> drugs are often used with the preposition "**cum**" – **with**. You will have to remember the nouns endings after the preposition "**cum**" as follows:

Singular	• Nouns of the 2 nd declension – ending -o (cum Ichthyōlo, cum Oxytetracyclīno)
• Plural	• Nouns of the 3 rd declension – ending -ĭbus (with valerian roots - cum radic ĭbus Valeriānae)

The drug names with the nouns of other declensions with the preposition "cum" are not in use.

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III. SOLID PHARMACEUTICAL FORMS IN PRESCRIPTIONS

Tablets - Tabulettae

The prescription regulations for tablets see above.

There are two prescription forms of tablets:

1. Initially a drug name with the dose is indicated followed by the phrase

"Da tales doses numěro ... in tabulettis" (Give of such doses number

... in a tablet form).

2. The second prescription form begins with the word "Tabulettam",

followed by the drug name and the dose, and ends with the phrase "Da

tales doses numero ..." (Give of such doses number ...).

Compare:

1st prescription form:

Recipe: Paracetamōli 0,3

Da tales doses numéro 6 in tabulettis

Signa: 1 tablet in case of headache

2nd prescription form:

Recipe: **Tabulettam** Paracetamōli 0,3

Da tales doses numéro 6

Signa: 1 tablet in case of headache

Tablets known as **trade drug names** are prescribed as follows: initially the

word "Tabulettas" is indicated, the drug name is placed after the

pharmaceutical form in Nominative and is in inverted commas, followed by

the word "numěro":

Recipe: Tabulettas "Nicoverīnum" numero 20

Da. Signa: 1 tablet twice a day

Dragée - Dragée

- The word "dragée" has no declension endings.
- There is only one prescription form for dragée: the word "Dragée", then a drug name and the phrase "Da tales doses numëro..." (Give of such doses number ...).

Recipe: Dragée Diazolīni 0,05

Da tales doses numero 20

Signa: 1 dragee twice a day

Powders – Pulvěres

- The Genitive form after "Recipe" **Pulvěris.**
- E.g.: Recipe: Pulvěris radīcis Rhei
- Volatile and hygroscopic powders are given out packed in *waxed and* paraffined paper as indicated in prescriptions: *E.g.* Da tales doses numěro... in charta cerāta (Give of such doses number ... in waxed paper).

Granules - Granula

- "Granŭlum" is neutrum.
- The Genitive form after "Recipe" Granŭli (in plural often Granulōrum).
- E.g.: Recipe: Granulōrum Natrĭi aminocylātis

a. OTHER PHARMACEUTICAL FORMS IN PRESCRIPTIONS

Capsules - Capsŭlae

- Capsule is a drug in powdered, fluid or pellet form that has been enclosed in a soluble gelatin-like capsule.
- Soft gelatine capsules and Elastic gelatine capsules are distinguished Capsŭlae gelatinōsae molles et durae.

• In prescriptions the phrase "in capsŭlis gelatinōsis" (in gelatine capsules) is indicated.

Ophthalmic films – Membranŭlae (Lamellae) ophthalmicae

- Ophthalmic films are absorbable gelatin films containing drug substances.
- Membranŭla and Lamella are synonyms.
- The prescription regulations for ophthalmic films see above.
- The ophthalmic films are often prescribed with the preposition "cum".
- E.g.: Recipe: Membranŭlas ophthalmĭcas cum Florenālo.

Aerosols – Aërosola

- The aerosols are prescribed in the following way: "Recipe" is followed by the word "Aërosōlum" (Accusative singular) and by the trade drug name in Nominative and in inverted commas, then the quantity after "numěro" is indicated.
- E.g.: Recipe: Aërosōlum "Ephatīnum" numĕro 1.

V. THE MOST-USED PRESCRIPTION PHRASES II

• in charta cerāta	in waxed paper
• in charta paraffināta	in paraffined paper
• in capsŭlis gelatinōsis	in gelatine capsules
 in capsŭlis gelatinōsis elastĭcis 	in elastic gelatine capsules
• in tabulettis (obductis)	in tablets (coated)
• cum radicĭbus	with roots
Misce, fiat suppositorium rectāle (vagināle)	Mix to make a rectal (vaginal) suppository
Misce, fiant suppositoria rectalia (vaginalia)	Mix to make rectal (vaginal) suppositories
Misce, fiat pulvis subtilissĭmus	Mix to make the finest powder

VI. VOCABULARY

Learn names of drugs:

1. Analgīnum, i n analgin

2. Corglycōnum, i n corglycon

3. Diprophyllīnum, i n diprophyllin

4. Euphyllīnum, i n euphyllin

5. Florenālum, i n florenal

6. Methyloestradiōlum, i n methyloestradiol

7. Nystatīnum, i n nystatin

8. Phenobarbitālum, i n phenobarbital

9. Phenobolīnum, i n phenobolin

10.Phenoxymethylpenicillīnum, i n phenoxymethylpenicillin

11.Phthivazīdum, i n phthivazid

12. Pyracetāmum, i n pyracetam

13. Saluzīdum, i n saluzid

14.Streptocīdum, i n streptocid

15. Tetracyclīnum, i n tetracycline

16.Iodum, i n iodine

Learn names of medicinal plants:

17. Alŏë, es f aloe

18. Althaea, ae f althea

19.Cacao cocoa

20.Millefolĭum, i n milfoil

Other words:

21. compositus, a, um complex

22. fluĭdus, a, um liquid

23. in tabulettis (obductis) in (coated) tablets

24. obductus, a, um coated

25. ophthalmicus, a, um ophthalmic

26. simplex, ĭcis simple 27. solubĭlis, e soluble

VII. EXERCISES

Exercise 1. Read drug names, find component elements carrying information about pharmaceutical characteristics, give their meaning:

Phenoxymethylpenicillinum, Vitoxycyclinum, Hexathidum, Glycerinum, Isapheninum, Intercainum, Glycerophosphenum, Kanacidinum, Methacyclinum, Oxacillinum, Erythromycinum, Metronidazolum, Mechloralum, Neocidum. Novosedum, Oxamycinum, Pentamethonum, Theophedrinum, Sedalginum, Synthacortum, Sulfurenum, Sulfathiazolum, Thiobutalum, Urosulfanum, Urozinum, Phenaconum, Phosphothiaminum, Chlormethinum, Cholosasum, Oestrogynonum, Aethylium, Aethimizolum, Haemoferum, Benzocainum, Abapressinum, Ancortonum, Anaesthocainum, Antistenocardinum, Aseptilexum, Aethylbarbitalum.

Exercise 2. Translate from English into Latin:

Solution of glucose, tablets of analgin, liquid extract of aloe, coated tablets of tetracyclin, tincture of matricary flowers, decoction of oak cortex, liniment of synthomycin, ointment of oxolin, syrup of althea, spirituous solution of iodine, granules of furazolidon, dragee of phenoxymethylpenicillin, solution of furacilin for external use, oily solution of phenobolin, tablets of pyrocetam, powder of ampicillin for suspensions, coated tablets of valerian extract, rhizomes with valerian roots, mucilages of flax seeds, tincture of eucalyptus, infusion of pepper mint leaves, leaf of aloe, leaves of sage, simple syrup, complex plaster, solution of corglycon, oily solution of nitroglycerin, soluble saluzid, powder and tablets of phthivazid, tablets for cough.

Exercise 3. Translate the following prescriptions from English into Latin:

1) Take: Powder of foxglove leaves 0,05

Sacchar 0,3

Mix to make a powder

Let it be given of such doses number 12

Let it be labeled:

2) Take: Cortex of hawthorn 30,0

Leaves of nettle

Herb of milfoil 10,0

Mix to make species

Let it be given

Let it be labeled:

3) Take: Powder of ampicillin for suspensions 60,0

Give in a dark phial

Write on a label:

4) Take: Suppositories with diprophyllin 0,5 number 10

Give

Write on a label:

5) Take: Tablets of microiodine with phenobarbital number 40

Give in a dark phial

Write on a label:

6) Take Ointment of tetracycline ophthalmic 10,0

Give

Write on a label:

7) Take: Sulfadimezin

Streptocid

Synthomycin of each 1,0

Mix to make a powder

Give

Write on a label:

8) Take: Tetracycline 100 000 ED

Give of such doses number 24 in a tablet form

Write on a label:

9) Take: Tablets of tetracycline with nystatin coated 100 000 ED

number 25

Give

Write on a label:

10) Take: Euphyllin 0,2

Cocoa oil 2,0

Mix to make a suppository

Give of such doses number 6

Write on a label:

11) Take: Ichthyol 3,0

Vaseline up to 30,0

Mix to make an ointment

Give

Write on a label:

12) Take: Ointment of furacilin 0,2% - 30,0

Give

Write on a label:

13) Take: Ointment of xeroform 10% - 30,0

Give

Write on a label:

14) Take: Methyloestradiol 0,00002

Give of such doses number 20 in a tablet form

Write on a label:

15) Take: Liquid extract of aloe 1 ml

Give of such doses number 10 in ampoules

Write on a label:

16) Take: Synthomycin 0,2

Castor oil 20 ml

Mix to make a liniment

Give

Write on a label:

17) Take: Tablets of valerian extract coated 0,02 number 50

Give

Write on a label:

18) Take: Tablet of furacilin 0,02

Give of such doses number 10

Write on a label:

19) Take: Ophthalmic films with florenal number 30

Give

Write on a label:

20) Take: Tablets of sulfadimezin 0,5 number 12

Give

Write on a label:

LESSON 5

LATIN NAMES OF CHEMICAL ELEMENTS ACIDS NAMES OXIDES, PEROXIDES, HYDROXIDES

In this lesson you will:

- Become familiar with the Latin names of main chemical elements.
- Become familiar with the Latin names of acids.
- Become familiar with the Latin names of oxides, peroxides, hydroxides.

This lesson is divided into the following sections:

- I. Latin names of chemical elements.
- II. Latin names of acids.
- III. Latin names of oxides, peroxides, hydroxides.
- IV. Exercises.

I. LATIN NAMES OF CHEMICAL ELEMENTS

All Latin names of chemical elements are **neuter nouns of the 2^{nd}** declension:

E.g.: Bromum, i n; Iodum, i n; Bismuthum, i n

There are two exceptions to this rule:

- *sulfur Sulfur*, *ŭris n (3rd declension)*
- phosphorus Phosphŏrus, i m (masculine)

Special attention must be given to the spelling of the following chemical elements:

Chemical element	Latin	English
Bi	Bismŭthum, i n	bismuth
Ca	Calcĭum, i n	calcium
F	Fluōrum, i n or Phthorum, i n	fluorine
Fe	Ferrum, i n	iron
Н	Hydrogenĭum, i n	hydrogen
Hg	Hydrargÿrum, i n	mercury
K	Kalĭum, i n	potassium
Mg	Magnesĭum, i n or Magnĭum, i n	magnesium
Na	Natrĭum, i n	sodium
0	Oxygenĭum, i n	oxygen
Pb	Plumbum, i n	lead
S	Sulfur, ŭris n	sulfur
Zn	Zincum, i n	zinc

II. LATIN NAMES OF ACIDS

The Latin names of acids consist of the noun "acĭdum" (acĭdum, i n - acid) and the concordant adjective of the 1^{st} group:

acĭdum + stem of the chemical element name + -ĭc/ōs- + -um

a) Latin adjectives with the suffix -ic- and the ending -um correspond to English adjectives ending by -ic.

E.g.:

- arsenic acid Acĭdum arsenicĭcum (Arsenĭcum, i n \rightarrow <u>arsenic + ĭc + um</u>);
- sulphuric acid Acĭdum sulfurĭcum (Sulfur, ŭris $n \rightarrow \underline{sulfur + \check{t}c + um}$);
- silicic acid Acĭdum silicĭcum (Silicĭum, i n \rightarrow silic + ĭc + um);
- b) Latin adjectives with the suffix **-ōs and the ending -um** correspond to English adjectives ending by **-ous.**

E.g.:

- **nitrous acid** Acĭdum nitrōsum (Nitrogenĭum, i n $\rightarrow \underline{nitr} + \overline{os} + \underline{um}$);
- sulphurous acid Acĭdum sulfurōsum (Sulfur, ŭris n \rightarrow <u>sulfur + $\bar{o}s$ + um</u>);
- arsenicous acid Acĭdum arsenicōsum (Arsenĭcum, i n \rightarrow <u>arsenic + $\bar{o}s$ + um</u>).
- c) Latin acid names with the prefix **hydro-** ending by **-ĭcum** correspond to English acid names with the prefix **hydro-** ending by **-ic** (*Acĭdum hydrochlo-rĭcum hydrochloric acid*).

<u>Attention!!!</u> - Acid names used as drugs after pharmaceutical forms are written with the first capital letter:

E.g.:

- Tabulettae Acĭdi folĭci tablets of folic acid
- Dragée Acĭdi ascorbinĭci dragée of ascorbic acid

III. LATIN NAMES OF OXIDES, PEROXIDES, HYDROXIDES

Latin names of oxides, peroxides and hydroxides consist of two words:

- First one: name of a chemical element in Genitive
- <u>Second one</u>: word "oxydum" (oxide), "peroxydum" (peroxide) or "hydroxydum" (hydroxide) in Nominative.

E.g.:

- Zinci oxydum zinc oxide
- Ferri oxydum ferric oxide
- Hydrogenĭi peroxÿdum hydrogen peroxide
- Calcii hydroxydum calcium hydroxide

<u>Attention!!!</u> - Names of oxides, peroxides and hydroxides are written after pharmaceutical forms with the first capital letter:

E.g.:

• Solutio **H**ydrogenii peroxydi dilūta – diluted solution of hydrogen peroxide

IV. VOCABULARY

Learn names of acids:

1. acĭdum acetĭcum acetic acid 2. acĭdum acetylsalicylĭcum acetylsalicylic acid 3. acĭdum ascorbinĭcum ascorbic acid 4. acĭdum benzoĭcum benzoic acid 5. acidum boricum boric acid 6. acĭdum folĭcum folic acid 7. acĭdum glutaminĭcum glutaminic acid 8. acĭdum hydrochlorĭcum hydrochloric acid 9. acĭdum hydrosulfurĭcum hydrosulfuric acid 10.acĭdum lactĭcum lactic acid 11.acĭdum lipoĭcum lipoic acid nicotinic acid 12.acĭdum nicotinĭcum 13.acĭdum nitrĭcum nitric acid 14.acĭdum nitrōsum nitrous acid 15.acĭdum phosphorĭcum phosphoric acid 16.acĭdum salicylĭcum salicylic acid 17.acĭdum sulfurĭcum sulfuric acid sulfurous acid 18.acĭdum sulfurōsum

Learn names of drugs:

19.Camphŏra, ae f camphora
20.Chinosōlum, i n chinosol
21.Chloroformĭum, i n chloroform
22.Coffeīnum, i n caffeine
23.Hydrocortisōnum, i n hydrocortison

24.Menthōlum, i n menthol

25. Naphthalānum, i n naphtalan

26.Phthalazōlum, i n phthalazol

27. Prednisolonum, i n prednisolon

28.Synoestrōlum, i n synoestrol

29. Talcum, i n talc

30.Tannīnum, i n tannin

Other words:

31. albus, a, um white

32.depurātus, a, um clear

33.dilūtus, a, um diluted

34.flavus, a, um yellow

V. EXERCISES

Exercise 1. Translate from English into Latin:

Oily solution of camphora for external use; chloroform for narcosis; liniment of synthomycin with novocain; solution of prednisolon for injections; glyceric solution of ichthyol; spirituous solution of iodine for internal use; solution of novocain in ampoules, solution of nicotinic acid; mucilages of althea root, diluted hydrochloric acid; boric acid; tablets of lipoic acid; dragée of ascorbinic acid, zinc ointment; clear sulfur, vellow mercury oxide, acetylsalicylic acid in of amidopyrin phenacetin tablets. tablets and of each 0,25; phenoxymethylpenicillin for suspension; oily solution of synoestrol in ampoules, powder for suspensions; suppositories with dimedrol for children; diluted solution of hydrogen peroxide; hydrosulfuric acid; nicotinic acid in tablets; acetic acid; phosphoric acid; magnesium peroxide; zinc oxide; calcium hydroxide, hydrogen peroxide; benzoic acid.

Exercise 2. Translate the following prescriptions from English into Latin:

1) Take: Folic acid 0,0008

Ascorbic acid 0,1

Give of such doses number 30 in tablet form

Write on a label:

2) Take: White mercurial ointment 5% - 25,0

Let it be given

Let it be labeled:

3) Take: Spirituous solution of salicylic acid 1% - 40 ml

Give

Write on a label:

4) Take: Acetylsalicylic acid

Phenacetin of each 0,25

Caffeine 0,05

Give of such doses number 12 in a tablet form

Write on a label:

5) Take: Ointment of hydrocortison 1% - 10,0

Give

Write on a label:

6) Take Dragée of ascorbic acid 0,05 number 50

Give

Write on a label:

7) Take: Tablets of phthalazol 0,05 number 20

Give

Write on a label:

8) Take: Tincture of plantain leaves 10,0 - 20 ml

Give

Write on a label:

9) Take: Salicylic acid 5,0

Zinc oxide 0,5

Talc 50,0

Mix to make a powder

Let it be given

Let it be labeled:

10) Take: Yellow mercury oxide 0,6

Ichthyol 0,80

Ointment of zinc 20,0

Mix to make an ointment

Let it be given

Let it be labeled:

11) Take: Chloroform

Ethyl alcohol 95% - 20 ml

Ethyl ether 10 ml

Liquid ammonia 5 drops

Mix

Give

Write on a label:

12) Take: Clear sulfur

164 Magnesium oxide Sacchar of each 10,0 Mix to make a powder Give Write on a label: 13) Take: Anaesthesin Xeroform Talc of each 10,0 Mix to make a powder Give Write on a label: 14) Take: Coated tablets of glutaminic acid 0,25 number 100 Give Write on a label: 15) Take: Ichthyol 1,25 Zinc oxide Wheat starch of each 12,5 Vaseline up to 50,0 Mix to make a paste Give Write on a label: 16) Take: Phenobarbital 0,03

16) Take: Phenobarbital 0,03
Dimedrol 0,05

Analgin

Amidopyrin

Acetylsalicylic acid of each 0,15

Mix to make a powder

Give of such doses number 20.

Write on a label:

17) Take: Salicylic acid

Menthol

Synthomycin of each 2,5

Ethyl alcohol 70%-50 ml

Mix. Give.

Write on a label:

18) Take: Diluted solution of hydrogen peroxide 10% - 30 ml

Give.

Write on a label.

19) Take: Menthol 0,1

Zinc oxide

Boric acid of each 0,5

Vaseline 10,0

Mix to make an ointment

Give

Write on a label:

20) Take: Benzoic acid 0,6

Salicylic acid 0,3

Vaseline 10,0

Mix to make an ointment

Give

Write on a label:

21) Take: Boric acid 0,1

Chinosol 0,03

Tannin 0,06

Cocoa oil 2,0

Mix to make a vaginal suppository

Give of such doses number 10

Write on a label:

22) Take: Boric acid 5,0

Zinc oxide

Wheat starch of each 25,0

Ointment of naphthalan 45,0

Mix to make a paste

Give

Write on a label:

LESSON 6

LATIN NAMES OF SALTS IN PRESCRIPTIONS

In this lesson you will:

• Become familiar with the Latin names of salts used in prescriptions

This lesson is divided into the following sections:

- I. Latin names of salts
- II. Latin names of anions
- III. Two-component names of potassium and sodium salts
- IV. Exercises.

I. LATIN NAMES OF SALTS

The salts names in Latin consist of two nouns:

- the name of **cation** comes first in *Genitive*,
- the name of **anion** occupies the second place and is in *Nominative*

E.g:

- Aluminii nitras aluminium nitrate
- Adrenalīni hydrochlorīdum adrenalin hydrochloride
- Natrĭi nitris sodium nitrite

It is important to keep in mind that cation names in Latin are always written with the first capital letter and anion names are always written with the first small letter (*e.g.*: Solutio Natrii tetraborātis glycerinōsa).

II. LATIN NAMES OF ANIONS

All Latin suffixes and endings of anion names in Nominative and Genitive are listed in the table:

Latin - Nominative		Latin - Genitive		English
-as	Aluminĭi nitras	-ātis	Aluminii nitr ātis	aluminium nitra te
-is	Aluminĭi nitr i s	-ītis	Aluminii nitr ītis	aluminium nitri te
-īdum	Natrĭi chlor īdum	-īdi	Natrii chlor īdi	sodium chlori de

Explanatory notes to the table:

• Anion names with the suffixes **-as**, **-is** are Latin nouns of the 3rd declension. The letter **-s**- in Latin names accords with the letter **-t**- in English names:

<u>E.g:</u>

- citras citrate
- phosphas phosphate
- nitris nitrite
- Genitive forms of anion names with suffixes **-as-**, **-is-** are formed by analogy with the nouns of the 3rd declension:

Compare:

- citras, ātis m tuberos tas, ātis f
- Anion names with the suffixe **-id-** are Latin nouns of the 2nd declension:

E.g.:

- chlor**īd**um, i n chloride
- bromīdum, i n bromide

III. TWO-COMPONENT NAMES OF POTASSIUM AND SODIUM SALTS

Two-component names of potassium and sodium are written with a hyphen and the both parts have the same grammatical case:

E.g. sulphacyl sodium

• Nominative: Sulfacylum-natrĭum

• Genitive: Sulfacyli-natrii

IV. VOCABULARY

Learn names of drugs:

1. Adrenalīnum, i n adrenalin

2. Aethylmorphīnum, i n aethylmorphine

3. Apomorphīnum, i n apomorphine

4. Barbitālum-natrĭum, i n barbital-sodium

5. Benzylpenicillīnum-natrĭum, i n benzylpenicillin-sodium

6. Codeīnum, i n codeine

7. Coffeīnum-natrii benzŏas, coffeine-sodium benzoate

Coffeīni-natrĭi benzoātis

8. Dicaīnum, i n dicain

9. Ephedrīnum, i n ephedrin

10.Methylēnum (i, n) coerulěum blue methylen

(us, a, um)

11. Methylĭi salicylas, ātis m methyl salicylate

12. Morphīnum, i n morphine

13. Norsulfazolum, i n norsulfazol

14.Oleandomycīnum, i n oleandomycin

15.Olĕum Helianthi (us, i m) sunflower-seeds oil

16.Olĕum Persicōrum (um, i n) peach oil

17.Oxytetracyclīnum, i n oxytetracycline

18. Phenylĭi salicylas, ātis m phenyl salicylate

19.Riboflavīnum, i n riboflavin

20. Salicylas, ātis m salicylate

21.Sulfacylum-natrĭum, i n sulfacyl-sodium

22. Testosterōnum, i n testosteron

23.Thiamīnum, i n thiamin

Learn names of medicinal plants:

24.Adōnis (ĭdis m, f) vernālis spring adonis (is, e)

Other words:

25. isotonĭcus, a, um

isotonic

V. EXERCISES

Exercise 1. Translate from English into Latin:

Complex liniment of salicylate, isotonic solution of sodium chloride, tablets of calcium gluconate, coated tablets of tetracyclin hydrochloride, diluted solution of hydrogen peroxide, basic acetate of lead, powder of oxytetracyclin, matricary flowers for internal use, sodium hydrocitrate for injections, basic bismuth nitrate with belladonna extract, phenoxymethylpenicillin for injections, oily solution of synoestrol in ampoules, tincture of plantain leaves, milfoil herb, solution of mercury cyanide, tincture of matricary flowers, solution of sulfacyl-sodium in ampoules, solution of thiamin bromide, aloe syrup with iron, chloroform for narcosis; powder of foxglove leaves, granules of furazolidon, powder and tablets of phthivazid, oily solution of anaesthesin.

Exercise 2. Translate the following prescriptions from English into Latin:

1) Take: Blue methylen 0,5

Solution of glucose 25% - 50 ml

Give of such doses number 3 in ampoules

Write on a label:

2) Take: Tincture of spring adonis herb 180 ml

Amidopyrin 2,0

Sodium bromide 4,0

Codeine phosphate 0,2

Mix. Give.

Write on a label:

3) Take: Tincture of althea root 180 ml

Sodium hydrocarbonate

Sodium benzoate of each 5,0

Simple syrup 20,0

Mix. Give.

Write on a label:

4) Take: Tablets of tetracycline hydrochloride 0,1 number 30

Give

Write on a label:

5) Take: Suspension of hydrocortisone acetate 2,5% - 2 ml

Give of such doses number 5

Write on a label:

6) Take Dimedrol 0,01

Ephedrin hydrochloride 0,1

Peach oil 10 ml

Mint oil I drop

Mix

Give

Write on a label:

7) Take: Tablets of phthalazol 0,05 number 20

Give

Write on a label:

8) Take: Coated tablets of oleandomycin phosphate 0,125 number 25

Give

Write on a label:

9) Take: Iodine 0,03

Iodide potassium 1,3

Glycerin 30,0

Peppermint oil III drops

Mix. Give.

Write on a label:

10) Take: Ascorbic acid

Nicotinic acid of each 0,05

Riboflavin

Thiamine bromide of each 0,01

Sacchar 0,3

Mix to make a powder

Give of such doses number 30

Write on a label:

11) Take: Analgin

Amidopyrin

Phenacetin of each 0,2

Coffeine sodium benzoate 0,02

Codeine phosphate 0,015

Give of such doses number 10 in a tablet form

Write on a label:

12) Take: Methol 0,1

Phenyl salicylate 0,3

Vaseline oil up to 10 ml

Mix. Give.

Write on a label:

13) Take: Extract of belladonna 0,01

Basic bismuth nitrate

Phenyl salicylate of each 0,25

Mix to make a powder

Give of such doses number 10:

Write on a label:

14) Take: Chloroform

Sunflower-seed oil

Methyl salicylate of each 15 ml

Mix to make a liniment

Give

Write on a label:

15) Take: Magnesium carbonate 4,0

Potassium carbonate 5,0

Sodium hydrocarbonate 1,0

Glycerin in sufficient amount

Mix to make a paste

Give

Write on a label:

16) Take: Streptocid

Norsulfazol of each 3,0

Benzylpenicillin sodium 50 000 ED

Ephedrin hydrochloride

Acetylsalicylic acid of each 0,15

Mix to make a powder

Give

Write on a label:

17) Take: Solution of dicain 0,5% - 5 ml

Solution of adrenalin hydrochloride 0,1% - III drops

Mix

Give

Write on a label:

18) Take: Oily solution of testosteron propionate 1% - 1 ml

Give of such doses number 6 in ampoules

Write on a label.

19) Take: Menthol

Ethylmorphin hydrochloride of each 0,01

Sacchar 0,03

Mix to make a powder

Give of such doses number 10

Write on a label:

20) Take: Tincture of valerian root 200 ml

Sodium bromide 5,0

Sodium barbital 2,0

Ethylmorphin hydrochloride 0,15

Mix. Give.

Write on a label:

LESSON 7

SAMPLE FINAL TEST IN PHARMACEUTICAL TERMINOLOGY

In this lesson you will:

• become familiar with a Final Test sample

Final Test in Pharmaceutical Terminology

V-1

I. Translate the following prescriptions from English into Latin:

1) Take: Liquid hawthorn extract 25 ml

Let it be given. Let it be labeled:

2) Take: Anaesthesin 2,5

Talc 15,0

Vaseline up to 50,0 Mix to make a liniment

Give.

Write on a label:

3) Take: Tablets of Tetracycline with nystatin coated 100 000 ED

number 25

Give.

Write on a label:

4) Take: Sulfadimezin

Streptocid

Synthomycin of each 1,0 Mix to make a powder

Give.

Write on a label:

5) Take: Powder of ampicillin for suspensions 60,0

Give in a dark phial Write on a label:

6) Take: Acetylsalicylic acid

Phenacetin of each 0,25

Caffeine 0,05

Give of such doses number 12 in a tablet form

Write on a label:

7) Take: Ichthyol 1,25

Zinc oxide

Wheat starch of each 12,5

Vaseline up to 50,0 Mix to make a paste

Give.

Write on a label:

8) Take: Iodine 0,03

Iodide potassium 1,3

Glycerin 30,0

Peppermint oil III drops

Mix. Give.

Write on a label:

9) Take: Magnesium carbonate 4,0

Potassium carbonate 5,0 Sodium hydrocarbonate 1,0 Glycerin in sufficient amount

Mix to make a paste

Give.

Write on a label:

10) Take: Tincture of althea root 180 ml

Sodium hydrocarbonate

Sodium benzoate of each 5,0

Simple syrup 20,0

Mix. Give.

Write on a label:

II. Find component elements carrying information about pharmaceutical characteristics of the drug names, give their meaning:

Benzonalum, Dipheninum, Pyrimethaninum, Erythromycinum, Sulfathiazolum, Sulfamethoxazolum, Vancomycinum, Diphenhydraminum, Cyclosporinum, Cyanocobalaminum, Methyluracilum, Hydrolysin, Nitroglycerinum, Benzobarbitalum, Methindionum, Mycoseptinum, Chlorochininum, Cyclophosphamidum, Cerebrolysinum, Novosedum.

PART IV. APPENDIX

I. Syllabus "Latin and Fundamentals of Medical Terminology"

Two-semester course

Weeks	Topic	Amount of hours
1.	Introduction to the course "Latin and Fundamentals of Medical Terminology".	2
	Introduction to the course "Anatomical Terminology". Phonetics: reading and pronunciation, part 1	
2.	Phonetics: reading and pronunciation, part 2	2
3.	Accent rules, word stressing	2
4.	Structure of anatomical terms. Noun and its grammatical categories	2
5.	Adjective. Two groups of adjectives	2
6.	Degrees of comparison of adjectives	2
7.	Revision	2
8.	Nominative plural of nouns and adjectives	2
9.	Genitive plural of nouns and adjectives	2
10.	Revision	2
11.	Final test in "Anatomical Terminology"	1/1
	Introduction to the course "Clinical Terminology"	
12.	Clinical Terminology # 1	2
13.	Clinical Terminology # 2	2
14.	Clinical Terminology # 3	2
15.	Revision	2
16.	Clinical Terminology # 4	2
17.	Clinical Terminology # 5	2
18.	Clinical Terminology # 6	2
19.	Revision	2
20.	Final test in "Clinical Terminology"	1/1
	• Introduction to the course "Pharmaceutical Terminology"	

21.	Introduction to the pharmaceutical terminology	2
22.	Standard prescription phrases	2
	Indicating orders and instructions	
23.	Medical prescription	2
	Liquids and semisolids in prescriptions	
24.	Revision	2
25.	Prescription regulations for tablets	2
	Suppositories and ophthalmic films	
	Solids and other pharmaceutical forms in prescriptions	
26.	Latin names of chemical elements	2
	Acids names	
	Oxides, peroxides, hydroxides	
27.	Latin names of salts in prescriptions	2
28.	Revision	2
29.	Final test in "Pharmaceutical Terminology"	2
30.	Revision, preparation for the final examination	2
31.	Revision, preparation for the final examination	2
32.	Revision, preparation for the final examination	2

Students are asked to attend the lessons regularly and to be prepared for the lesson. They do hometask and study the vocabulary contained in single units.

The forms of control:

Regular attendance, the admissible absence is twice in a semester.

Conditions for granting the credit:

Active participation in lessons, preparedness for the lessons (vocabulary, hometask).

The final examination (after the 2nd semester) consists of:

- Written part
- Oral part

II. Latin-English Anatomy Dictionary

- A -

abdomen, ĭnis n abdomen accessorĭus, a, um additional

acromĭon, i n shoulder appendix

ala, ae f wing alāris, e alar

alveolāris, e alveolar alveŏlus, i m alveole

anatomicus, a, um anatomical

angŭlus, i m angle

anterior, ius anterior, front

antrum, i n cavity

anulāris, e ring-shaped

aorta, ae f main artery of body

aorticus, a, um aortic, aortal

aperture, opening aperture, opening

apex, ĭcis m apex, top, tip

appendix, īcis f process, appendix

aquaeductus, us m water duct

arbor, ōris f arbor
arcus, us m arch
arterĭa, ae f artery
arteriōsus, a, um arterial

articulāris, e articular

articulatio, ōnis f joint

atrĭum, i n first chamber of the heart (atrium)

180

auriculāris, e auricular

auris, is f ear

- B -

basis, is f base

bifurcatio, ōnis f bifurcation

brachĭum, i n upper arm

brevis, e short

bulbus, i m bulb

bursa, ae f pouch, sac

- C -

canaliculus, i m small canal

canālis, is m canal

capillāris, e capillary

capsula, ae f capsule, membrane or saclike structure

caput, ĭtis n head

cardiăcus, a, um cardiac

caroticus, a, um carotid

cartilāgo, ĭnis f cartilage

cavernōsus, a, um cavernous

cavitas, ātis f cavity

cavum, i n cavity

cavus, a, um caval, hollow

centrālis, e central

cerebellum, i n cerebellum

cerěbrum, i n brain

cervicālis, e cervical

cervix, īcis f neck

chiasma, ătis n chiasm

chorda, ae f cord

ciliāris, e ciliary cingŭlum, i n girdle

coccygēus, a, um coccygeal

coccyx, ýgis m coccyx, coccygeal bone

cochlěa, ae f cochlea cochlear cochlearis, e cochlear collum, i n

columna, ae f column
composĭtus, a, um complex
concha, ae f concha

cor, cordis n heart

cornu, us n horn; horn-shaped process

coronarius, a, um coronary

corpus, ŏris n body
cortex, ĭcis m cortex
costa, ae f rib

costālis, e costal
craniālis, e cranial
cranĭum, i n skull
crista, ae f crest

crus, cruris n leg, crus cutaněus, a, um cutaneous

cutis, is f skin

- D -

dens, dentis m tooth

• dens canīnus canine, cuspid tooth

• dens deciduus milk tooth

• dens incisīvus incisor tooth

• dens molāris molar tooth

• dens premolāris premolar tooth

• dens sapientiae wisdom tooth

(dens serotinus)

dentālis, e dental dexter, tra, trum right

digitus, i m finger; toe

dorsālis, edorsaldorsum, i nbackductus, us mduct

durus, a, um hard, solid

- E -

encephălon, i n brain

ethmoidālis, e sieve-shaped

extensor, ōris m extensor

- F -

facĭes, ēi f face, surface

fascĭa, ae f fascia fibrōsus, a, um fibrous

fibula, ae f fibula, splint-bone

fibulāris, e fibular

fissūra, ae f fissure, narrow slit

flavus, a, um yellow flexor, ōris m flexor forāmen, ĭnis n opening

fornix, ĭcis m fornix, arc shallow depression or cavity

forção ao f

fověa, ae f small pit or depression

foveŏla, ae f foveola frontālis, e frontal

- G -

gallus, i m cock

ganglĭon, i n nervous node

gaster, tris f stomach

gastrĭcus, a, um gastric

glandŭla, ae f gland

glomus, ěris n glome, glomus

- H -

hepar, ătis n liver

horizontālis, e horizontal

hyoiděus, a, um sublingual, hypoglossal

- I -

iliăcus, a, um iliac

impressio, ōnis f impression

incisīvus, a, um incisive, cutting, sharp

incisūra, ae f incisure, slit or notch

inferior, ius lower

interalveolāris, e interalveolar

intercostālis, e intercostal

interglobulāris, e interglobular

interlobulāris, e interlobular

internus, a, um internal

interradiculāris, e interradicular

interspinōsus, a, um interspinal

- J -

jugulāris, e jugular

jugum, i n eminence

- L -

labĭum, i n lip

labyrinthus, i m labyrinth

lamĭna, ae f plate laterālis, e lateral

latissĭmus, a, um widest

lien, ēnis m spleen

ligamentum, i n ligament

liněa, ae f

lingua, ae f tongue, language

linguālis, e lingual

lobātus, a, um lobulose, lobulous, lobulated

lobus, i m lobe

longissĭmus, a, um longest

longitudinālis, e longitudinal, lengthwise

longus, a, um long

lumbālis, e lumbar

lymphaticus, a, um lymphatic

- M -

magnus, a, um large, great

major, jus large

mamma, ae f mammary gland

mandibŭla, ae f lower jaw mandibulāris, e mandibular

massa, ae f mass

massetericus, a, um masticatory, chewing

mastoiděus, a, um mammiform

mater, tris f membrane of brain or spinal cord

maxilla, ae f upper jaw

maxĭmus, a, um largest

meātus, us m passage

mediālis, e medial

medĭus, a, um middle

medulla ossĭum (bone) marrow

medulla, ae f medulla

membrāna, ae f membrane

membranacĕus, a, um membranous

membrum, i n member, extremity

mentālis, e mental

minĭmus, a, um smallest

minor, us small

mobilis, e mobile

molāris, e molar

muscŭlus, i m muscle

- N -

nasālis, e nasal

nasus, i m nose

nervosus, a, um nervous

nervus, i m nerve

nodŭlus, i m nodulus

nodus, i m node

nomen, ĭnis n name

nucha, ae f nape of neck

nuclěus, i m spheroid body within a cell

- O -

oblīquus, a, um oblique

occipitālis, e occipital

opticus, a, um optic, visual

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orbĭta, ae f eye-socket

orbitālis, e orbital os, oris n mouth

os, ossis n bone

ossěus, a, um bony

ostĭum, i n mouth, aperture, opening

ovālis, e oval

- P -

palatīnus, a, um palatine

palātum, i n palate

palpěbra, ae f eyelid

pancreas, ătis n pancreas

papilla, ae f papilla

paries, ētis m wall

parietālis, e parietal

pars, partis f part

parvus, a, um little, small

pectorālis, e pectoral

pediculus, i m pedicle, small foot

pelvis, is f pelvis

peron(a)eus, a, um fibular

petrōsus, a, um stony

pharyngēus, a, um pharyngeal

pharynx, ýngis m pharynx

pius, a, um soft

pleurālis, e pleural

plexus, us m network; chiefly of veins and nerves

plica, ae f fold

porta, ae f entry

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posterior, ius back

processus, us m process; appendix

profundus, a, um deep

pterygoiděus, a, um wing-shaped, pterygoid

pulmo, ōnis m lung

pulmonālis, e pulmonary

pyloricus, e pyloric

- R -

raphe, es f

radĭus, i m thicker and shorter bone of forearm

radix, īcis f root, radix

ramus, i m branch

rectālis, e rectal

regĭo, ōnis f region

ren, renis m kidney

renālis, e renal

retīna, ae f retina

retinacŭlum, i n retinaculum

rotundus, a, um round ruber, bra, brum red

- S -

sagittālis, e sagital

sanguinĕus, a, um bloody, sanguiferous

sanguis, ĭnis m blood

scalēnus, a, um stairs-shaped

scapŭla, ae f shoulder blade

sella, ae f saddle

semilunāris, e semilunar

septum, i n partition, dividing wall

serrātus, a, um serrate

simplex, ĭcis simple

sinister, tra, trum left

sinus, us m hollow curvature or cavity

sinusoiděus, a, um sinusoid

skelěton, i n skeleton

spatĭum, i n space

sphenoidālis, e wedge-shaped, sphenoid

spina, ae f spine

spinālis, e spinal

spinōsus, a, um spinous

sternālis, e sternal

stroma, ătis n stroma

sublinguālis, e sublingual

sulcus, i m furrow or groove

superficiālis, e superficial

superior, ius higher, upper

suprēmus, a, um highest

sutūra, ae f suture; line of junction

synchondrosis, is f synchondrosis

synoviālis, e synovial

systēma, ătis n system

- T -

talus, i m ankle bone, talus

tegmen, ĭnis n roof

temporālis, e temporal

tendo, ĭnis m tendon

thoracĭcus, a, um thoracic

thorax, ācis m chest

thymus, i m thymus thyreoiděus, a, um thyroid

tibĭa, ae f shinebone, larger of two bones of leg

tibiālis, e tibial tonsilla, ae f tonsil

transversus, a, um transverse trigeminālis, e trigeminal trochanter, ēris m trochanter trochleāris, e trochlear

truncus, i m trunk

tuber, ĕris n large rounded swelling

tubercŭlum, i n tubercle; small rounded swelling

tuberosĭtas, ātis f tuberosity tympanĭcus, a, um tympanic

tympănum, i n tympanum

- V -

vagīna, ae f sheath, vagina

valvŭla, ae f small valva; valve

vas, vasis n vessel vena, ae f vein

venōsus, a, um venous vertěbra, ae f vertebra

vertebrālis, e vertebral vestibŭlum, i n vestibule

vita, ae f life

vomer, ěris m vomer

- Z -

zygomaticus, a, um zygomatic

III. English- Latin Anatomy Dictionary

-A-

abdomen abdomen, ĭnis n

additional accessorius, a, um

alar alāris, e

alveolar alveolāris, e

anterior anterior, ĭus

aortic, aortal aorticus, a, um

apex, top, tip apex, ĭcis m

arbor arbor, ōris f

arterial arteriōsus, a, um

-B-

back posterior, ius

bifurcation bifurcatio, ōnis f

blood sanguis, ĭnis m

blood, sanguinerous sanguineus, a, um

brain cerěbrum, i n; encephălon, i n

-C-

canine, cuspid tooth dens (dentis m)canīnus (us, a, um)

capillary capillāris, e

cardiac cardiăcus, a, um

carotid caroticus, a, um

cartilage cartilago, ĭnis f

caval, hollow cavus, a, um

cavernous cavernōsus, a, um

cavity antrum, i n; cavum, i n;

cavĭtas, ātis f

central centrālis, e

cerebellum cerebellum, i n

cervicālis, e

chest thorax, ācis m

chiasma, ătis n

ciliary ciliaris, e

coccygeal coccygeus, a, um

coccyx, coccygeal bone coccyx, ygis m

cochlea cochlěa, ae f

cochlear cochleāris, e

columna, ae f

complex compositus, a, um

concha concha, ae f

constrictor muscle muscălus (i m) constrictor (ōris m)

cord chorda, ae f

coronary coronarius, a, um

cortex, ĭcis m

costal costālis, e

cranial craniālis, e

crest crista, ae f

crus crus, cruris n

cutaneous cutaneus, a, um

-D-

deep profundus, a, um

dentālis, e

depressor muscle muscălus (i m) depressor (ōris m)

dorsal dorsālis, e

duct ductus, us m

-E-

ear auris, is f

eminence jugum, i n

entry porta, ae f

extensor extensor, ōris m

extensor muscle muscălus (i m) extensor (ōris m)

extremity membrum, i n

eyelid palpěbra, ae f

eye-socket orbĭta, ae f

-F-

face facĭes, ēi f

fascia fascĭa, ae f

fibrous fibrosus, a, um

fibula, splint-bone fibula, ae f

fibular fibulāris, e; peron(a)eus, a, um

finger; toe digitus, i m first chamber of the heart atrĭum, i n

(atrium)

fissure, narrow slit fissūra, ae f

flexor flexor, ōris m

fold plica, ae f

fornix, arc fornix, ĭcis m

foveola foveŏla, ae f

front anterior, ius

frontālis, e

furrow or groove sulcus, i m

-G-

gastric gastricus, a, um

girdle cingŭlum, i n

gland glandŭla, ae f

glome, glomus glomus, ěris n

-H-

hard, solid durus, a, um

head caput, ĭtis n

heart cor, cordis n

higher superior, ius

highest suprēmus, a, um

hollow or cavity sinus, us m

horizontal horizontālis, e

horn; horn-shaped process cornu, us n

-**T**-

iliac iliăcus, a, um

impression impressio, onis f

incisive, cutting, sharp incisīvus, a, um

incisor tooth dens (dentis m) incisīvus (us, a, um)

incisure, slit or notch incisūra, ae f

interalveolar interalveolāris, e

intercostālis, e

interglobular interglobulāris, e

interlobular interlobulāris, e

internal internus, a, um

interradicular interradiculāris, e

interspinal interspinōsus, a, um

-J-

joint articulatio, ōnis f

jugular jugulāris, e

-K-

kidney ren, renis m

-L-

labyrinth labyrinthus, i m

large major, jus

large rounded swelling tuber, ĕris n

large, great magnus, a, um

largest maxĭmus, a, um

laterālis, e

left sinister, tra, trum

leg, crus crus, cruris n

levator muscle muscălus (i m) levator (ōris m)

life vita, ae f

ligament ligamentum, i n

line liněa, ae f

lingual linguālis, e

lip labĭum, i n

little, small parvus, a, um

liver hepar, ătis n

lobe lobus, i m

lobulose, lobulous, lobulated lobātus, a, um

long longus, a, um

longest longissĭmus, a, um

longitudinal, lengthwise longitudinālis, e

lower inferior, ius

lower jaw mandibŭla, ae f

lumbar lumbālis, e

lung pulmo, ōnis m

lymphatic lymphaticus, a, um

-M-

main artery of body aorta, ae f

mammary gland mamma, ae f

mammiform mastoiděus, a, um

mandibular mandibulāris, e

mass massa, ae f

masticatory, chewing massetericus, a, um

medialis, e

medulla, ae f

member, extremity membrum, i n

membrane membrāna, ae f

membrane of brain or spinal mater, tris f

cord

membranous membranacĕus, a, um

mental mentalis, e

middle medĭus, a, um

milk tooth dens (dentis m) deciduus (us, a, um)

mobile mobilis, e molar molāris, e

molar tooth dens (dentis m) molāris(is, e)

mouth os, oris n

mouth, aperture, opening ostĭum, i n

muscle muscŭlus, i m

-N-

name nomen, ĭnis n

nape of neck nucha, ae f

nasal nasālis, e

neck cervix, īcis f

nerve nervus, i m

nervous nervosus, a, um

nervous node ganglĭon, i n

network; chiefly of veins and plexus, us m

nerves

part

node nodus, i m

nodulus nodŭlus, i m

nose nasus, i m

-O-

oblique oblīquus, a, um

occipital occipitālis, e

opening forāmen, ĭnis n

optic, visual opticus, a, um

orbitālis, e

oval ovālis, e

-P-

pars, partis f

palate palātum, i n

palatīnus, a, um

pancreas pancreas, ătis n

papilla, ae f

parietālis, e

partition, dividing wall septum, i n

passage meātus, us m

pectoral pectorālis, e

pedicle, small foot pediculus, i m

pelvis pelvis, is f

pertaining to buttocks glutaeus, a, um

pharyngeal pharyngeus, a, um

pharynx, yngis m

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plate lamı̃na, ae f pleural pleurālis, e

pouch, sac bursa, ae f

premolar tooth dens (dentis m) premolāris (is, e)

process, appendix processus, us m; appendix, īcis f

pulmonary pulmonālis, e

pyloric pyloricus, e

-R-

rectal rectālis, e

red ruber, bra, brum

region regio, ōnis f

renal renālis, e

retina retīna, ae f

retinaculum retinaculum, i n

rib costa, ae f

right dexter, tra, trum

ring-shaped anulāris, e

roof tegmen, ĭnis n

root, radix radix, īcis f

rotator muscle muscălus (i m) rotator (ōris m)

round rotundus, a, um

-S-

saddle sella, ae f

sagittālis, e

semilunar semilunāris, e

serrate serrātus, a, um

shallow depression or cavity fossa, ae f

sheath vagīna, ae f

shinebone, larger of two tibĭa, ae f

bones of leg

short brevis, e

shoulder appendix acromĭon, i n

shoulder-blade scapŭla, ae f

sieve-shaped ethmoidālis, e

simple simplex, ĭcis

sinusoid sinusoiděus, a, um

skeleton skeleton, i n

skin cutis, is f

skull cranĭum, i n

small minor, us

small pit or depression fověa, ae f

small valva; valve valvŭla, ae f

smallest minimus, a, um

soft pius, a, um

space spatĭum, i n

spheroid body within a cell nuclěus, i m

spinālis, e

spine spina, ae f

spinous spinōsus, a, um

spleen lien, ēnis m

stairs-shaped scalēnus, a, um

sternālis, e

stomach gaster, tris f

stony petrōsus, a, um

stroma stroma, ătis n

sublingual sublinguālis, e; hyoiděus, a, um

superficiālis, e

surface facĭes, ēi f

suture; line of junction sutūra, ae f

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synchondrosis synchondrosis, is f

synovial synoviālis, e

system systēma, ătis n

-T-

temporal temporalis, e

tendon tendo, ĭnis m

tensor muscle musculus (i m) tensor (ōris m)

thicker and shorter bone of radĭus, i m

forearm

thoracic thoracicus, a, um

thymus, i m

thyroid thyreoiděus, a, um

tibiālis, e

tongue, language lingua, ae f

tonsil tonsilla, ae f

tooth dens, dentis m

transverse transversus, a, um

trigeminālis, e

trochanter trochanter, ēris m

trochlear trochleāris, e

trunk truncus, i m

tubercle; small rounded tubercŭlum, i n

swelling

tuberosity tuberositas, ātis f

tympanic tympanicus, a, um

tympanum tympănum, i n

-U-

upper superior, ius

upper arm brachĭum, i n

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upper jaw maxilla, ae f

-V-

vein vena, ae f

venous venōsus, a, um

vertebra vertěbra, ae f

vertebrālis, e

vessel vas, vasis n

vestibule vestibulum, i n

vomer, ĕris m

-W-

wall paries, ētis m

water duct aquaeductus, us m

wedge-shaped, sphenoid sphenoidālis, e

widest latissĭmus, a, um

wing ala, ae f

wing-shaped, pterygoid pterygoiděus, a, um

wisdom tooth dens (dentis m) sapientĭae (a, ae f)

(dens serotinus (us, a, um))

-Y-

yellow flavus, a, um

-Z-

zygomatic zygomaticus, a, um

VI. Greek & Latin-English Clinical Dictionary

Greek & Latin	English	Meaning
	-A-	
acheilia	acheilia	lack of lips
acrocyanōsis	acrocyanosis	blue coloration of the distal parts
adenītis	adenitis	inflammation of a gland
adenocytus	adenocyte	glandular cell
adenōma	adenoma	benign epithelial tumour
adenomyōma	adenomyoma	benign tumour from smooth muscles with glandular elements
adenopathia	adenopathy	tumour or enlargement of lymph glands
adenotomia	adenotomy	removal of adenoids
adentia	adentia	lack of teeth
anaemia	anemia	deficiency of the blood in quality or quantity
anaesthesia	anesthesia	absence of feelings
angiītis	angiitis	inflammation of blood vessels
angiocardiogramma	angiocardiogram	results of X-ray examination of heart blood vessels
angiocardiographia	angiocardiography	X-ray recording of the heart and vessels
angiocholecystītis	angiocholecystitis	inflammation of gallbladder vessels
angiogramma	angiogram	results of blood vessel X-ray examination
angiographia	angiography	X-ray recording of vessels
angiologia	angiology	study of blood vessels
angiōma	angioma	benign tumour composed of blood vessels
angiomatōsis	angiomatosis	multiple vessel tumours
angiopathia	angiopathy	disease of blood vessels

anophthalmia anophthalmia

lack of eye balls

	202	
anuria	anuria	complete suppression of urine secretion in the kidney
aphagia	aphagia	inability to swallow
aphonia	aphonia	loss of voice
aplasia	aplasia	abnormal formation or development
arthralgia	arthralgia	feeling of pain in the joint
arthrītis	arthritis	inflammation of the joint
arthrochondrītis	arthrochondritis	inflammation of the joint and cartilage
arthropathia	arthropathy	disease of joints
arthrophthalmopathia	arthrophthalmopathy	disease of joints and eyes
arthroplastica	arthroplasty	plastic surgery of the joint
arthrōsis	arthrosis	any disease of joints
arthrotomia	arthrotomy	cutting (incision) of the joint
atrichia	atrichia	lack of hair
atrophia	atrophy	decrease in size or wasting away of a cell, tissue, organ or part
	D	

-B-

bilaterālis	bilateral	on both sides
biologia	biology	study of life
biopsia	biopsy	removal of a segment of living tissue for pathological examination
bradyaesthesia	bradyesthesia	slowing of transmittence of sensoric feelings
bradyarrhythmia	bradyarrhythmia	disturbance of the heart activity (slowing)
bradycardia	bradycardia	abnormally slow heart action (slow pulse)
bradyglossia	bradyglossia	slowing of tongue movements
bradykinesia	bradykinesia	slowing of movements
bradyphagia	bradyphagia	slowing of swallowing

-C-

cancerophobia	cancerophobia	fear of cancer
cardiologia	cardiology	study of the heart and heart function
cardiomegalia	cardiomegaly	enlargement of the heart
cardiomyoplegia	cardiomyoplegia	palsy (paralysis) of the heart
cardiopathia	cardiopathy	disease of the heart
cardiophobia	cardiophobia	fear of heart diseases
cardiotomia	cardiotomy	cutting (incision) of the heart
cephalgia (cephalalgia)	cephalgia	head pain (headache)
	(cephalalgia)	
cephalhaematōma	cephalhematoma	blood clot in the brain of newborn
cephalomegalia	cephalomegaly	increased size of the head
cephalopathia	cephalopathy	disease of the brain
cephalotomia	cephalotomy	cutting (incision) of the brain
cheilitis	cheilitis	inflammation of lips
cheilorrhagia	cheilorrhagia	bleeding from the lip
cheilōsis	cheilosis	any disease of lips
cholecystectomia	cholecystectomy	removal of the gallbladder
cholecystītis	cholecystitis	inflammation of the gallbladder
cholecystogramma	cholecystogram	results of gallbladder X-ray examination
cholecystographia	cholecystography	X-ray recording of the gallbladder
cholecystopathia	cholecystopathy	disease of the gallbladder
cholecystopexia	cholecystopexy	fixation of the gallbladder
cholecystoscopia	cholecystoscopy	internal examination of the gallbladder
cholecystostōma	cholecystostoma	artificial opening of the gallbladder
cholecystostomia	cholecystostomy	creation of an artificial opening of the gallbladder

cholecystotomia	cholecystotomy	cutting of the gallbladder
cholelithiāsis	cholelithiasis	disease with the presence of stones in the gallbladder and its ducts
chondrītis	chondritis	inflammation of cartilages
chondrodystrophia	chondrodystrophy	disturbance of cartilage nutrition
chondrogēnus	chondrogenous,	developing from the
	chondrogenic	cartilaginous tissue
chondrōma	chondroma	benign tumour from cartilaginous tissue
chondropathia	chondropathy	disease of cartilages
chondrosteodystrophia	chondrosteodystrophy	disturbance of cartilaginous and bone tissues nourishment
chondrotomia	chondrotomy	cutting (incision) of the cartilage
colostomia	colostomy	creation of an artificial opening of the colon
colpītis	colpitis	inflammation of the vagina
colpopexia	colpopexy	fixation of the vagina
colposcopia	colposcopy	internal examination of the vagina
colpotomia	colpotomy	cutting of the vagina
cyanodermia	cyanodermia	blue coloration of the skin
cyanopsia	cyanopsia	disturbance of vision: vision only in blue colour
cyanōsis	cyanosis	blueness of the skin caused by the deficiency of oxygen and the excess of carbon dioxide in the blood
cyanuria	cyanuria	violet coloration of the urine
cystectomia	cystectomy	removal of the urinary bladder
cystītis	cystitis	inflammation of the urinary bladder
cystogramma	cystogram	results of urinary bladder X-ray examination
cystographia	cystography	X-ray recording of the

		urinary bladder
cystopexia	cystopexy	fixation of the bladder
cystoplegia	cystoplegia	palsy (paralysis) of the bladder
cystopyelogramma	cystopyelogram	results of urinary bladder and renal pelvis X-ray examination
cystopyelographia	cystopyelography	X-ray recording of urinary
		bladder and renal pelvis
cystoscopia	cystoscopy	internal examination of the
		urinary bladder
cystostomia	cystostomy	creation of an artificial
		opening of the urinary
avatatamia	ovietotomy	bladder
cystotomia	cystotomy	cutting (incision) of the urinary bladder
cytogramma	cytogram	results of cell microscopic
Cytogramma	Cytogram	examination
cytologia	cytology	study of a cell
•		•
cytopenia	cytopenia	decrease in the number of cells in the blood
cytoscopia	cytoscopy	microscopic examination
cytoscopia	cytoscopy	of the cell
	n	

-D-

dacryoadenalgia	dacryoadenalgia	feeling of pain in the tear gland
dacryoadenītis	dacryoadenitis	inflammation of the tear gland
dacryocystectomia	dacryocystectomy	removal of the tear sac
dacryocystītis	dacryocystitis	inflammation of the tear sac
dacryocystogramma	dacryocystogram	results of tear sac X-ray examination
dacryopyorrhoea	dacryopyorrhea	purulent discharge from the tear
dactylalgia	dactylalgia	gland feeling of pain in the fingers or toes
dactylomegalia	dactylomegaly	enlargement of fingers or toes
(megalodactylia)	(megalodactyly)	
dermatītis	dermatitis	inflammation of the skin
dermatologia	dermatology	study of skin diseases

dermatōma	dermatoma	tumour of the skin
dermatoscopia	dermatoscopy	internal examination of the skin
dermatōsis	dermatosis	any disease of the skin
dicheilia	dicheilia	double lip
didactylia	didactyly	double finger (toe)
diplegia	diplegia	bilateral palsy (paralysis)
diplopia	diplopia	double vision
dysenteria	dysentery	painful intestines
dyskeratōsis	dyskeratosis	malfunction of the cornea
dyskinesia	dyskinesia	disturbance of movements
dysopia	dysopia	disturbance of vision
dysphagia	dysphagia	difficulty in swallowing
dysphonia	dysphonia	disturbance of voice formation
dysplasia	dysplasia	abnormal development
dystrophia	dystrophy	abnormal nourishment;
dysuria	dysuria	disturbance of nourishment difficult or painful urination

-E-

electrocardiogramma	electrocardiogram	recording of electrical activity of heartbeats
electrocardiographia	electrocardiography	recording of activity and location of the heart
encephalītis	encephalitis	inflammation of the brain and meninges
encephalogramma	encephalogram	recording of electrical activity of the brain
encephalographia	encephalography	recording of the brain
encephalomyelītis	encephalomyelitis	inflammation of the brain and spinal cord
encephalopathia	encephalopathy	disease of the brain
endocardītis	endocarditis	inflammation of heart inner coat
endocardium	endocardium	endothelial (inner) lining of the
endogēnus	endogenous	heart normally occurring or existing within the body

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endometrītis	endometritis	inflammation of uterine mucous coat
endophthalmītis	endophthalmitis	inflammation of internal eye coat
endoscopia	endoscopy	internal examination of mucous
endosteum	endosteum	medullary membrane of the bone
enterītis	enteritis	inflammation of the intestines
enterolithus	enterolith	intestinal stone
enteropathia	enteropathy	disease of the small intestine
enteropexia	enteropexy	fixation of the small intestine
enterorrhagia	enterorrhagia	small intestine bleeding
enterorrhaphia	enterorrhaphy	suturing of the small intestine
enterostomia	enterostomy	creation of an artificial opening of the small intestine
erythēma	erythema	redness of the skin produced by congestion of the capillaries
erythroaemia	erythroemia	disease with increasing of red blood cell count
erythrocytōsis	erythrocytosis	increased count of red blood cells in the blood
erythrocyturia	erythrocyturia	discharge of erythrocytes by urine
erythrocytus	erythrocyte	red blood cell
erythrodermia	erythrodermia	skin inflammation with reddening, itching and
erythrokeratodermia	erythrokeratoderma	desquamation disease accompanied by redness of horny skin layer
erythropenia	erythropenia	decreased number of erythrocytes
	-G-	- y y

gastralgia	gastralgia	feeling of pain in the
		stomach (stomachache)
gastrectomia	gastrectomy	removal of the stomach
gastrītis	gastritis	inflammation of stomach
		lining
gastrocolostomia	gastrocolostomy	creation of an artificial
		opening between stomach

gastroduodenostomia	gastroduodenostomy	and colon creation of an artificial opening between stomach and duodenum
gastroenterītis	gastroenteritis	inflammation of stomach and small intestine
gastroenterologia	gastroenterology	study of stomach and small intestine
gastroenterostomia	gastroenterostomy	creation of an artificial opening between stomach
gastroesophagostomia	gastroesophagostomy	and small intestine creation of an artificial opening between stomach and esophagus
gastrogēnus	gastrogenous,	developing from the stomach
	gastrogenic	
gastropexia	gastropexy	fixation of the stomach
gastrorrhagia	gastrorrhagia	stomach bleeding
gastroscopia	gastroscopy	internal examination of the stomach
gastrostōma	gastrostoma	artificial stomach opening
gastrostomia	gastrostomy	creation of an artificial stomach opening
gastrotomia	gastrotomy	cutting of the stomach
glossalgia	glossalgia	feeling of pain in the tongue
glossītis	glossitis	inflammation of the tongue
glossopathia	glossopathy	disease of the tongue
glossoplastica	glossoplasty	plastic surgery of the tongue
glossoplegia	glossoplegia	palsy (paralysis) of the tongue
glossorrhagia	glossorrhagia	bleeding from the tongue
glossorrhaphia	glossorrhaphy	suturing of the tongue
glossotomia	glossotomy	cutting of the tongue
glossotrichia	glossotrichia	hairy tongue
glucosuria	glucosuria	abnormal presence of
glykaemia	glycemia	glucose (sugar) in the urine presence of glucose (sugar) in the blood

gynaecologia gynecology the branch of medicine that treats diseases of the genital tract in women

gynaecopathia gynecopathy disease of the genital tract in

women

gynaecophobia gynecophobia aversion to women

-H-

haemangiōma hemangioma benign tumour from blood

vessels

haemarthrosis hemarthrosis accumulation of blood in the

joint cavity

haematogēnus hematogenic developing from blood

haematologia hematology study of blood and blood-

forming tissue

haematōma hematoma mass of coagulated blood

(internal or under the skin)

haematometra hematometra accumulation of blood in the

uterine cavity

haematuria hematuria blood in the urine

haemogramma hemogram results of blood examination

haemopericardium hemopericardium accumulation of blood in the

pericardium

haemophthalmus hemophthalmus accumulation of blood in the

eye

haemorrhagia hemorrhagia bleeding

haemotherapia hemotherapy treatment by using the blood

haemothorax hemothorax accumulation of blood in the

thoracic cavity

hepatolithus hepatolith hepatic stone

heterogenic of different kind or type

histologia histology microscopic study of tissues

histōma histoma benign tumour from the tissue

histopathologia histopathology microscopic study of tissues

injured by the disease

histotherapia histotherapy treatment by the introduction of

tissue

homogēnus homogenic of the same kind or type

hydraemia	hydremia	increased blood volume due to increased plasma volume
hydrarthrōsis	hydrarthrosis	accumulation of fluid in the joint
hydrocephalia	hydrocephaly	accumulation of fluid in the skull (water in the brain)
hydrocholecystus	hydrocholecystis	accumulation of fluid in the gallbladder
hydrologia	hydrology	study of water
hydrometra	hydrometra	accumulation of fluid in the uterine cavity
hydromyelia	hydromyelia	accumulation of fluid in the spinal cord
hydronephrōsis	hydronephrosis	enlargement and distention of the kidney due to block of urine outflow
hydropericardium	hydropericardium	accumulation of fluid in the pericardial cavity
hydroperitoneum	hydroperitoneum	accumulation of fluid in the abdominal cavity
hydrophobia	hydrophobia	fear of water
hydrophthalmus	hydrophthalmos	accumulation of fluid in the eye
hydropneumothorax	hydropneumothorax	accumulation of gas and fluid in the pleural cavity
hydrorrhoea	hydrorrhea	discharge of water from the
nydronnoca	ily di ollined	•
hydrotherapia	hydrotherapy	tissues use of water in the treatment of
•	•	tissues use of water in the treatment of disease or injury accumulation of noninfectious
hydrotherapia	hydrotherapy	tissues use of water in the treatment of disease or injury accumulation of noninfectious watery fluid in the pleural cavity excessive presence of blood in
hydrotherapia hydrothorax	hydrotherapy hydrothorax	tissues use of water in the treatment of disease or injury accumulation of noninfectious watery fluid in the pleural cavity excessive presence of blood in the part or organ abnormal thickening of cornea
hydrotherapia hydrothorax hyperaemia	hydrotherapy hydrothorax hyperemia	tissues use of water in the treatment of disease or injury accumulation of noninfectious watery fluid in the pleural cavity excessive presence of blood in the part or organ abnormal thickening of cornea or horny skin layer an excess of lipids (fats) in the
hydrotherapia hydrothorax hyperaemia hyperkeratōsis	hydrotherapy hydrothorax hyperemia hyperkeratosis	tissues use of water in the treatment of disease or injury accumulation of noninfectious watery fluid in the pleural cavity excessive presence of blood in the part or organ abnormal thickening of cornea or horny skin layer an excess of lipids (fats) in the blood abnormal increase of the breast
hydrotherapia hydrothorax hyperaemia hyperkeratōsis hyperlipaemia	hydrotherapy hydrothorax hyperemia hyperkeratosis hyperlipemia	tissues use of water in the treatment of disease or injury accumulation of noninfectious watery fluid in the pleural cavity excessive presence of blood in the part or organ abnormal thickening of cornea or horny skin layer an excess of lipids (fats) in the blood abnormal increase of the breast in size abnormal enlargement of kidney
hydrotherapia hydrothorax hyperaemia hyperkeratōsis hyperlipaemia hypermastia	hydrotherapy hydrothorax hyperemia hyperkeratosis hyperlipemia hypermastia	tissues use of water in the treatment of disease or injury accumulation of noninfectious watery fluid in the pleural cavity excessive presence of blood in the part or organ abnormal thickening of cornea or horny skin layer an excess of lipids (fats) in the blood abnormal increase of the breast in size

hyperthyreōsis	hyperthyreosis	decreased function of the
hypertrichōsis	hypertrichosis	thyroid gland abnormal growth of hair
hypertrophia	hypertrophy	abnormal enlargement of a part
hypogastrium	hypogastric	or organ under the stomach, pertaining to the lower middle abdomen
hypoglossus	hypoglossal;	situated under the tongue
	sublingual	
hypoglykaemia	hypoglykemia	deficiency of glucose in the blood
hypokinesia	hypokinesia	small quantity of movements
hypoplasia	hypoplasia	incomplete development of an organ or a tissue
hypothermia	hypothermia	decreasing of temperature
hypothyreōsis	hypothyreosis	increased function of the thyroid gland
hypotrophia	hypotrophy	abnormal decrease in size of a part or an organ
hypovitaminōsis	hypovitaminosis	deficiency of vitamins in the organism
hysterectomia	hysterectomy	removal of the uterus
hysteropathia	hysteropathy	disease of the uterus
hysteropexia	hysteropexy	fixation of the uterus
hysterorrhagia	hysterorrhagia	uterine bleeding
hysterorrhaphia	hysterorrhaphy	suturing of the uterus
hysterotomia	hysterotomy	cutting of the uterus
-K-		

-K-

keratectomia	keratectomy	removal of the eye cornea
keratītis	keratitis	inflammation of the eye cornea
keratōma	keratoma	tumour of the eye cornea
keratōsis	keratosis	any disease of the eye cornea
keratotomia	keratotomy	cutting of the eye cornea
kinesiologia	kinesiology	study of body movements
kinesitherapia	kinesitherapy	treatment by motor regimen

kinetōsis kinetosis disease caused by passive movements
-L-

leukaemia leukemia malignant disease of bloodforming organs

(leucaemia)

leucocytosis leucocytosis increased count of white blood

cells in the blood

leucocytus leucocyte white blood cell

leucoderma appearing of white spots on the

skin

leucogramma leucogram results of leucocytes studying

leucōma leucoma tumour of white tissue

leucopenia leucopenia decrease in the number of

leukocytes in the blood

leucorrhoea leucorrhea whitish or yellowish viscid

discharge from vagina or uterus

lipaemia lipemia decreased number of lipids in

the blood

lipatrophia lipatrophy absence of fat tissue

nourishment

lipodystrophia lipodystrophy disturbance of the fat tissue

nourishment

lipofibroma lipofibroma benign tumour composed of

fibrous tissue with lipocytes

lipogēnus lipogenic producing fat

lipōma lipoma benign tumour composed of

fatty tissues

lipopenia lipopenia decrease in the number of lipids

lipuria lipuria lipid excretion by urine

lymphadenītis lymphadenitis inflammation of lymph nodes

-M-

macrocephalia macrocephaly large skull and large amount of

brain tissue

macrocheilia macrocheilia excessive enlargement of lips

macroglossia macroglossia large tongue

macromastia macromastia large breast

mammogramma	mammogram	results of breast X-ray
mammogramma	mammogram	examination
mammographia	mammography	X-ray recording of the breast
mastectomia	mastectomy	removal of the breast
mastītis	mastitis	inflammation of the breast
mastomegalia	mastomegaly	enlargement of the breast
mastopathia	mastopathy	disease of the breast
melanodermia	melanoderma	dark pigment in the skin
melanōma	melanoma	dark pigment in a tumour
melanōsis	melanosis	excessive tissues (or organs) pigmentation caused by melanin deposits
melanuria	melanuria	dark pigment excreted in the urine
metrectomia	metrectomy	removal of the uterus
metrītis	metritis	inflammation of the uterus
metrographia	metrography	X-ray recording of the uterus
metropathia	metropathy	disease of the uterus
metropexia	metropexy	fixation of the uterus
metrorrhagia	metrorrhagia	uterine bleeding
metrotomia	metrotomy	cutting of the uterus
microcephalia	microcephaly	small skull and small amount of brain tissue
microencephalia	microencephaly	congenitally small skull and small amount of brain tissue
microgastria	microgastria	small stomach
microglossia	microglossia	small tongue
micromastia	micromastia	small breast
microphthalmia	microphthalmia	small size of the eye
microphonia	microphonia	subsided sound on external examination (on palpation, on auscultation)
microscopia	microscopy	microscopic examination
microsplenia	microsplenia	small spleen

monocytopenia	monocytopenia	decreased number of monocytes
monocytus	monocyte	particular type of white blood cell that has one nucleus
monodactylia	monodactyly	one finger on the hand
monomyoplegia	monomyoplegia	paralysis of one muscle (palsy)
mononeuritis	mononeuritis	inflammation of one nerve
monopathia	monopathy	uncomplicated disease
monophobia	monophobia	fear of loneliness (solitude)
monoplegia	monoplegia	palsy (paralysis) of one extremity
myalgia	myalgia	pain in the muscles
myelaemia	myelemia	abnormally increased amount of myelocytes in the blood or tissues
myelītis	myelitis	inflammation of the spinal cord
myelocytus	myelocyte	nerve cell of the grey substance of the brain or spinal cord
myelogēnus	myelogenous	developing from the bone marrow
myelogramma	myelogram	X-ray recording of the spinal cord
myelographia	myelography	results of spinal cord X-ray examination
myelōma	myeloma	malignant tumour of cells resembling those found in bone marrow
myelopathia	myelopathy	disease of the spinal cord
myelōsis	myelosis	any disease of the spinal cord
myocardiodystrophia	myocardiodystrophy	distrophic lesion of myocardium
myocardiopathia	myocardiopathy	disease of myocardium
myocardium	myocardium	middle and thickest layer of the heart wall
myogēnus	myogenous	developing from muscles
myogramma	myogram	X-ray recordig of the electrical activity of muscles
myologia	myology	study of muscles
myōma	myoma	benign tumour of muscular tissue

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myometrītis	myometritis	inflammation of uterine muscular membrane
myopathia	myopathy	any disease of the muscle tissue
myopia	myopia	light rays focus in front of the retina
myorrhaphia	myorrhaphy	suturing of the muscle
myosītis	myositis	inflammation of a voluntary muscle
myotomia	myotomy	cutting of a muscle
-N-		
nephrectomia	nephrectomy	removal of the kidney

nephrītis nephritis inflammation of the kidney developing from the renal tissue nephrogēnus nephrogenous, nephrogenic results of kidney X-ray nephrogramma nephrogram examination disease with the stones formation nephrolithiāsis nephrolithiasis (calculi) in the kidney renal stone nephrolithus nephrolith study of kidneys nephrologia nephrology nephroma nephrōma tumour of the kidney nephromegalia nephromegaly enlargement of the kidney disease of kidneys nephropathia nephropathy fixation of the kidney nephropexia nephropexy nephropyelītis nephropyelitis inflammation of the kidney and renal pelvis X-ray recording of the kidney and nephropyelographia nephropyelography renal pelvis nephropyelostomia nephropyelostomy creation of an artificial opening between kidney and renal pelvis any kidney disease nephrōsis nephrosis cutting of the kidney nephrotomia nephrotomy neuralgia neuralgia pain that extends along one or more nerves removal of the nerve neurectomia neurectomy

neurītis neuritis inflammation of the nerve neurogenus developing from nervous system neurogenic or tissue medical speciality related to the neurologia neurology brain and nervous system tumour from nervous cells neurōma neuroma neuropathia nervous disease neuropathy neuropathologia neuropathology the branch of medicine that treats disease of the nervous system neurorrhaphy suturing of the nerve neurorrhaphia mental or psychiatric disorder neurōsis neurosis characterized by fears, anxieties and compulsions cutting of the nerve neurotomia neurotomy

-()-

odontalgia odontalgia feeling of pain in the tooth (toothache) odontogenic developing from the tooth odontogēnus odontōma odontoma tumour of tooth tissue odontorrhagia odontorrhagia bleeding from the tooth oesophagostomia oesophagostomy creation of an artificial opening of the esophagus deficiency of the blood oligaemia oligemia oligocytaemia oligocytemia insufficiency of blood cells oligodactylia oligodactylia lack of fingers or toes lack of teeth oligodentia oligodentia small quantity of movements oligokinesia oligokinesia disturbance of menses oligomenorrhoea oligomenorrhea oligotrophia oligotrophy insufficient nutrition of the tissue or organ deficient urinary secretion or oliguria oliguria infrequent urination formation of tumour cells oncocytōma oncocytoma oncologia oncology study of tumours formation of one or more oncōsis oncosis

		tumours
oncotomia	oncotomy	cutting (incision) of the tumour
ophthalmologia	ophthalmology	study of eye disorders
ophthalmoplegia	ophthalmoplegia	palsy (paralysis) of the eye
ophthalmorrhagia	ophthalmorrhagia	bleeding from the eye
ophthalmoscopia	ophthalmoscopy	internal examination of the eye
orthodontus	orthodontist	physician who treats
orthopaedia	orthopedics	abnormalities of teeth study of the correction of the musculoskeletal system deformities
osteoarthrītis	osteoarthritis	inflammation of bones and joints
osteoarthropathia	osteoarthropathy	disease of bones and joints
osteoarthrotomia	osteoarthrotomy	cutting (incision) of the bone and joint
osteochondrītis	osteochondritis	inflammation of bones and cartilages
osteocytōma	osteocytoma	solitary bone cyst
osteocytus	osteocyte	bone cell
osteodystrophia	osteodystrophy	disturbance of bone tissue nourishment
osteoectomia	osteoectomy	removal of the bone
osteogenēsis	osteogenesis	formation of bone tissue
osteogēnus	osteogenous,	developing from the bone
	osteogenic	
osteologia	osteology	study of bones
osteōma	osteoma	tumour made up of bone tissue
osteomyelītis	osteomyelitis	inflammation of the bone and bone marrow
osteopathia	osteopathy	disease of bones
osteopathologia	osteopathology	disease of bones pathologic changes
osteotomia	osteotomy	cutting (section) of the bone
ostītis	ostitis	inflammation of bones
otalgia	otalgia	feeling of pain in the ear (earache)

otītis otitis inflammation of the ear developing from the ear otogēnus otogenic otoneurologia otoneurology the branch of medicine studying ear nerves otopyorrhea purulent discharge from the ear otopyorrhoea otorrhagia otorrhagia bleeding from the ear otorrhoea otorrhea discharge from the ear internal examination of the ear otoscopia otoscopy

-P-

paediater pediatrician physician who treats children disorders study of children treatment paediatria pediatrics panalgia panalgia widespread pain of the organism panaortītis panaortitis widespread, general inflammation of the aorta panarterītis panarteritis widespread, general inflammation of the artery widespread, general pancarditis pancardītis inflammation of the heart panhysterectomia panhysterectomy removal of the uterus and uterine appendages widespread, general panophthalmitis panophthalmītis inflammation of the eye ball panotītis panotitis widespread, general inflammation of the ear paracystītis paracystitis tissue inflammation near urinary bladder parametrītis parametritis tissue inflammation near uterus paranephrītis paranephritis tissue inflammation near kidney tissue inflammation near anus paraproctītis paraproctitis and rectum disease of parodontium parodontopathia parodontopathy parodontōsis parodontosis any disease of parodontium pathologia pathology study of changes in body tissues or organs as a result of disease pericardītis pericarditis tissue inflammation surrounding heart

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perimetrītis	perimetritis	tissue inflammation surrounding uterus
perinephrītis	perinephritis	tissue inflammation surrounding kidney
periodontium	periodontium	tissue surrounding and supporting the tooth
periosteōma	periosteoma	tumour of periosteum
periostītis	periostitis	inflammation of periosteum
periphlebītis	periphlebitis	inflammation of venous internal membrane
phagocytōsis	phagocytosis	the process when a cell ingests or engulfs other cells, microorganisms or foreign particles
phlebectomia	phlebectomy	removal of the vein
phlebītis	phlebitis	inflammation of the vein
phlebogramma	phlebogram	results of vein X-ray examination
phlebographia	phlebography	X-ray recording of the vein
phlebolithus	phlebolith	venous stone
phleborrhaphia	phleborrhaphy	suturing of the vein
phlebotomia	phlebotomy	cutting of the vein
phthisiater	phthisiotherapist	physician who treats tuberculosis
phthisiologia	phthisiology	study of tuberculosis
physiologia	physiology	science of natural vital processes in the human body
physiotherapia	physiotherapy	natural treatment
pneumatōsis	pneumatosis	pathological accumulation of air or gases in any part of the organism
pneumohaemothora	pneumohemothorax	accumulation of gas and fluid in
X		the pleural cavity
pneumonectomia	pneumonectomy	removal of the lung
	(pulmonectomy)	
pneumonia	pneumonia	inflammation of the lung with consolidation and drainage

pneumopericardium	pneumopericardium	accumulation of air in the pericardiac cavity
pneumothorax	pneumothorax	accumulation of gas or air in the pleural cavity
pneumotomia	pneumotomy	cutting (section) of the lung
polyadenītis	polyadenitis	inflammation of many glands
polyarthrītis	polyarthritis	inflammation of many joints
polycystōsis	polycystosis	abnormal condition accompanied with the formation of multiple cysts
polycytaemia	polycytemia	increase in the total cell mass of the blood
polydactylia	polydactylia	having more than normal number of fingers or toes
polyneurītis	polyneuritis	inflammation of many nerves
polytrichia	polytrichia	excessive hair growth on different parts of the body
polyuria	polyuria	excessive discharge of the urine
polyvitaminōsis	polyvitaminosis	increased amount of vitamins in the organism
proctalgia	proctalgia	rectum pain
proctectomia	proctectomy	removal of the anus and the rectum
proctītis	proctitis	inflammation of the anus and the rectum
proctologia	proctology	study of the anus and the rectum
proctopexia	proctopexy	fixation of the anus and the rectum
proctorrhagia	proctorrhagia	bleeding from the anus and the rectum
proctoscopia	proctoscopy	internal examination of the rectum
proctostōma	proctostoma	artificial opening of the rectum
proctostomia	proctostomy	creation of an artificial opening of the rectum
psychiater	psychiatrist	physician who specializes in the treatment of mental disorders
psychiatria	psychiatry	science about treatment of mental disorders
psychogēnus	psychogenic	psychological in origin, not having a physical basis

psychologia	psychology	study of the mind
psychopathia	psychopathy	disease of mind
psychōsis	psychosis	mental disturbance in which there is a personality disintergration and an escape into unreality
psychotherapia	psychotherapy	treatment by means of mental interference
pyaemia	pyemia	the presence of pus-forming organisms in the blood
pyelītis	pyelitis	inflammation of the renal pelvis
pyelocystītis	pyelocystitis	inflammation of the renal pelvis and urinary bladder
pyelographia	pyelography	X-ray recording of the renal pelvis
pyelonephrītis	pyelonephritis	inflammation of the renal pelvis and kidney
pyelotomia	pyelotomy	cutting of the renal pelvis
pyodermia	pyodermia	purulent infection of the skin
pyogēnus	pyogenic	producing pus
pyometra	pyometra	pus in the uterus
pyonephrōsis	pyonephrosis	purulent inflammation of the kidney
pyopericardium	pyopericardium	accumulation of pus in the pericardiac space
pyophthalmia	pyophthalmia	purulent inflammation of the eye ball
pyophthalmītis	pyophthalmitis	purulent inflammation of the eye
pyopneumothorax	pyopneumothorax	accumulation of gas and pus in the pleural cavity
pyorrhoea	pyorrhea	discharge of pus
pyothorax	pyothorax	accumulation of pus in the pleural cavity
pyrogēnus	pyrogenic	producing (caused by) fever
pyromania	pyromania	striving for setting fire
pyrophobia	pyrophobia	fear of heat
pyrotherapia	pyrotherapy	treatment by heat

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pyuria	pyuria	pus in the urine	
-R-			
rhinalgia	rhinalgia	feeling of pain in the nose	
rhinītis	rhinitis	inflammation of the nose	
rhinolithus	rhinolith	nasal stone	
rhinopathia	rhinopathy	disease of the nose	
rhinorrhagia	rhinorrhagia	nasal bleeding	
rhinorrhoea	rhinorrhea	discharge from the nose	
rhinoscopia	rhinoscopy	internal examinations of the	
		nose	
-S-			
splenectomia	splenectomy	removal of the spleen	
splenītis	splenitis	inflammation of the spleen	
splenōma	splenoma	tumour of the spleen	
splenomegalia	splenomegaly	enlargement of the spleen	
(megalosplenia)			
splenopathia	splenopathy	disease of the spleen	
splenopexia	splenopexy	fixation of the spleen	
splenorrhagia	splenorrhagia	splenic bleeding	
splenotomia	splenotomy	cutting (incision) of the spleen	
spondylītis	spondylitis	inflammation of vertebrae	
spondyloarthrītis	spondyloarthritis	inflammation of intervertebral	
spondylogramma	spondylogram	joints results of vertebrae X-ray examination	
spondylopathia	spondylopathy	disease of the backbone	
spondylōsis	spondylosis	any disease of vertebrae	
spondylotomia	spondylotomy	cutting (incision) of the vertebra	
stomatītis	stomatitis	inflammation of the oral cavity	

stomatology

study of the oral cavity

stomatologia

stomatorrhagia stomatorrhagia mouth bleeding
stomatoscopia stomatoscopy internal examination of the oral cavity

-T-

tachyarrhythmia tachyarrhythmia fast heart rate tachycardia tachycardia abnormally fast heart rate tachykinesia tachykinesia abnormally fast movements tachyphagia tachyphagia fast swallowing toxicoaemia toxicoemia accumulation of harmful substances in the blood toxicodermia toxicoderma accumulation of harmful substances in the skin toxicologia toxicology study of harmful substances and their effect on living organisms drug abuse toxicomania toxicomania fear of poisoning toxicophobia toxicophobia poisoning of the organism toxicōsis toxicosis toxigēnus toxigenic producing toxin trichalgia trichalgia feeling of pain in the hair trichatrophia trichatrophy atrophy of hair trichopathia trichopathy disease of hair falling out of hair trichorrhoea trichorrhea trichōsis trichosis any disease of hair

-U-

uraemia uremia retention of urine substances in the blood urogēnus urogenous, urogenic producing the urine urolithus urolith urinary stone

V. Latin-English Pharmaceutical Dictionary

-A-

acĭdum acetĭcum acetic acid

acĭdum acetylsalicylĭcum acetylsalicylic acid

acĭdum ascorbinĭcum ascorbic acid

acĭdum benzoicum benzoic acid

acĭdum borĭcum boric acid

acĭdum folicum folic acid

acĭdum glutaminĭcum glutaminic acid

acĭdum hydrochloricum hydrochloric acid

acĭdum hydrosulfurĭcum hydrosulfuric acid

acĭdum lactĭcum lactic acid

acĭdum lipoicum lipoic acid

acĭdum nicotinĭcum nicotinic acid

acĭdum nitrĭcum nitric acid

acĭdum nitrōsum nitrous acid

acĭdum phosphoricum phosphoric acid

acĭdum salicylicum salicylic acid

acĭdum sulfuricum sulfuric acid

acĭdum sulfurōsum sulfurous acid

adonis (ĭdis m, f) vernālis (is, e) spring adonis

adrenalīnum, i n adrenalin

aërosōlum, i n aerosol

aether, ěris m ether

aethinyloestradiolum, i n aethinyloestradiol

aethylĭcus, a, um ethyl

aethylmorphīnum, i n aethylmorphine

albus, a, um white alŏë, es f aloe althaea, ae f althea

amidopyrīnum, i n amidopyrin

aminophyllīnum, i n aminophyllin

ampicillīnum, i n ampicillin

amỹlum (i n) Tritici (um, i n) wheat starch

anaesthesīnum, i n anaesthesin

analgīnum, i n analgin

antiasthmaticus, a, um antiasthmatic apomorphīnum, i n apomorphine

aqua, ae f water

-B-

barbitālum-natrĭum, i n barbital-sodium

belladonna, ae f belladonna

benzylpenicillīnum-natrĭum, i n benzylpenicillin-sodium

bismuthum, i n bismuth

-C-

cacao cocoa

calcĭum, i n calcium

calendŭla, ae f calendula

camphora, ae f camphora

capsŭla, ae f capsule

cerebrolysīnum, i n cerebrolysin

chamomilla, ae f matricary chinosōlum, i n chinosol

chloroformium, i n chloroform

chloxylum, i n chloxyl

codeīnum, i n codeine

coffeīnum, i n caffeine

coffeīnum-natrii benzŏas, coffeine-sodium benzoate

coffeīni-natrĭi benzoātis

compositus, a, um complex

convallaria, ae f lily of the valley

corglycōnum, i n corglycon

cortex, ĭcis m cortex

cortisōnum, i n cortison

corvalol corvalol

crataegus, i f hawthorn

-D-

decoctum, i n decoction

depurātus,a, um clear

destillātus, a, um distilled

dibazōlum, i n dibazol

dicaīnum, i n dicain

digitālis, is f foxglove

dilūtus, a, um diluted

dimedrolum, i n dimedrol

diprophyllīnum, i n diprophyllin

diureticus, a, um diuretic, urinative

dragée dragée

-E-

emplastrum, i n plaster

emulsum, i n emulsion

ephedrīnum, i n ephedrin

eucalyptus, i f eucalyptus

eucatōlum, i n eucatol
euphyllīnum, i n euphyllin
extractum, i n extract

-F-

farfăra, ae f coltsfoot

ferrum, i n iron

flavus, a, um yellow

florenālum, i n florenal

flos, floris m flower

fluĭdus, a, um liquid

fluōrum, i n fluorine

folĭum, i n leaf

frangŭla, ae f buckthorn

furacilīnum, i n furacilin

furazolidōnum, i n furazolidon

-G-

glucōsum, i n glucose

glycerinōsus, a, um glyceric

granŭlum, i n granule

gutta, ae f drop

-H-

hepavītum, i n hepavit

herba, ae f

hydrargÿrum, i n mercury

hydrochlorothiazīdum, i n hydrochlorothiazid

hydrocortisōnum, i n hydrocortison

hydrogenĭum, i n hydrogen

-I-

ichthyōlum, i n ichthyol infūsum, i n infusion iodum, i n iodine isotonĭcus, a, um isotonic

-K-

kalĭum, i n potassium

-L-

lamella (ae f) ophthalmic film

ophthalmĭca (us, a, um)

leonūrus, i m motherwort

linimentum, i n liniment

linum, i n flax

-M-

magnesĭum, i n magnesium

magnĭum, i n magnesium

membranŭla (ae f) ophthalmic film

ophthalmĭca (us, a, um)

mentha, ae f mint

menthōlum, i n menthol

methylēnum (i n) coerulěum blue methylen

(us, a, um)

methylĭi salicylas, ātis m methyl salicylate

methyloestradiolum, i n methyloestradiol

millefolĭum, i n milfoil

mixtūra, ae f mixture

morphīnum, i n morphine

mucilāgo, ĭnis f mucilage mycosolōnum, i n mycosolon

-N-

naphthalānum, i n
natrium, i n
sodium
nitroglycerīnum, i n
norsulfazōlum, i n
norsulfazol
novocaīnum, i n
novocain

nystatīnum, i n nystatin

-O-

obductus, a, um coated

oleandomycīnum, i n oleandomycin

oleōsus, a, um oily, oil

olěum (i n) Ricĭni (us, i m) castor oil

olĕum (i n) Helianthi (us, i m) sunflower-seeds oil

olĕum (i n) Persicōrum (um, i n) peach oil

olěum, i n oil

ophthalmicus, a, um ophthalmic

oxaphenamīdum, i n oxaphenamid

oxygenĭum, i n oxygen

oxytetracyclīnum, i n oxytetracycline

-P-

pasta, ae f paste

pectorālis, e pectoral

phenacetīnum, i n phenacetin

phenobarbitālum, i n phenobarbital

phenobolīnum, i n phenobolin

phenoxymethylpenicillīnum, i n phenoxymethylpenicillin

phenylĭi salicylas, ātis m phenyl salicylate phthalazōlum, i n phthalazol phthivazīdum, i n phthivazid phthorum, i n fluorine phthoruracīlum, i n phthoruracil pilŭla, ae f pill piperītus, a, um pepper plantāgo, ĭnis f common (greated) plantain plumbum, i n lead polyphepānum, i n polyphepan prednisolōnum, i n prednisolon pulvis, ěris m powder pyracetāmum, i n pyracetam pyrazidōlum, i n pyrazidol -Qquercus, us f oak -Rradix, īcis f root rectālis, e rectal rectificātus, a, um rectificat rheum, i n rhubarb rhizōma, ătis n rhizome riboflavīnum, i n riboflavin -S-

sacchărum, i n sacchar salicylas, ātis m salicylate saluzīdum, i n saluzid

salvĭa, ae f sage

semen, ĭnis n seed

siccus, a, um dry

simplex, ĭcis simple

sirŭpus, i m syrup

solubĭlis, e soluble

solutio Ammonii (um, i n) caustici liquid ammonia (solution of

(us, a, um) ammonia)

solutio, ōnis f solution

species, ērum (plural) f species

spirituōsus, a um spirituous, alcoholic

spiritus, us m alcohol

streptocīdum, i n streptocid

strophanthīnum, i n strophanthin

sulfacylum-natrĭum, i n sulfacyl-sodium

sulfadimezīnum, i n sulfadimezin

sulfazīnum, i n sulfazin

sulfur, ŭris n sulfur

suppositorium, i n suppository

suspensio, ōnis f suspension

synoestrōlum, i n synoestrol

synthomycīnum, i n synthomycin

-T-

tabuletta, ae f tablet

talcum, i n talc

tannīnum, i n tannin

testosterōnum, i n testosteron

tetracyclīnum, i n tetracycline

thiamīnum, i n thiamin tinctūra, ae f tincture

-U-

unguentum, i n ointment urtīca, ae f nettle

-V-

vaginālis, e vaginal valeriāna, ae f valerian validōlum, i n validol vaselīnum, i n vaseline

-X-

xeroformĭum, i n xeroform

-Z-

zincum, i n zinc

VI. English-Latin Pharmaceutical Dictionary

-A-

acetic acid acĭdum acetĭcum

acetylsalicylic acid acĭdum acetylsalicylĭcum

adrenalin adrenalīnum, i n aerosol aërosōlum, i n

aethinyloestradiol aethinyloestradiolum, i n

aethylmorphine aethylmorphīnum, i n

alcohol spiritus, us m

alcoholic spirituōsus, a, um

aloe alŏë, es f

althea althaea, ae f

amidopyrīnum, i n

aminophyllin aminophyllīnum, i n

ampicillin ampicillīnum, i n

anaesthesin anaesthesīnum, i n

analgīnum, i n

antiasthmatic antiasthmaticus, a, um

apomorphīnum, i n

ascorbic acid acĭdum ascorbinĭcum

-B-

barbital-sodium barbitālum-natrĭum, i n

belladonna, ae f

benzoic acid acĭdum benzoicum

benzylpenicillin-sodium benzylpenicillīnum-natrium, i n

bismuth bismuthum, i n

blue methylen methylenum (i n) coeruleum

(us, a, um)

boric acid acĭdum borĭcum

buckthorn frangŭla, ae f

-C-

caffeine coffeīnum, i n

calcium calcĭum, i n

calendula calendŭla, ae f

camphora camphŏra, ae f

capsule capsŭla, ae f

castor oil olěum (i n) Ricĭni (us, i m)

cerebrolysin cerebrolysīnum, i n

chinosol chinosolum, i n

chloroform chloroformium, i n

chloxyl chloxylum, i n

clear depurātus, a, um

coated obductus, a, um

cocoa cacao

codeine codeīnum, i n

coffeine-sodium benzoate coffeīnum-natrĭi benzŏas,

coffeīni-natrĭi benzoātis

coltsfoot farfăra, ae f

common (greated) plantain plantago, ĭnis f

complex compositus, a, um

corglycon corglycōnum, i n

cortex, ĭcis m

cortison cortisōnum, i n

corvalol corvalolum, i n

-D-

decoction decoctum, i n

dibazōlum, i n dibazol dicain dicaīnum, i n diluted dilūtus, a, um dimedrōlum, i n dimedrol diprophyllīnum, i n diprophyllin distilled destillātus, a, um diuretic, urinative diuretĭcus, a, um dragée dragée drop gutta, ae f dry siccus, a, um -Eemulsion emulsum, i n ephedrin ephedrīnum, i n aether, ěris m ether ethyl aethylĭcus, a, um eucalyptus eucalyptus, i f eucatōlum, i n eucatol euphyllin euphyllīnum, i n extract extractum, i n -Fflax linum, i n florenal florenālum, i n flower flos, floris m fluōrum, i n or phthorum, i n fluorine folic acid acĭdum folĭcum foxglove digitālis, is f furacilin furacilīnum, i n

furazolidonum, i n

furazolidon

-G-

glucose glucōsum, i n glutaminic acid acidum glutaminicum glyceric glycerinōsus, a, um granule granŭlum, i n -Hcrataegus, i f hawthorn hepavītum, i n hepavit herb herba, ae f hydrochloric acid acĭdum hydrochlorĭcum hydrochlorothiazid hydrochlorothiazīdum, i n hydrocortison hydrocortisōnum, i n hydrogenĭum, i n hydrogen hydrosulfuric acid acĭdum hydrosulfurĭcum -Iichthyōlum, i n ichthyol infusion infūsum, i n iodine iodum, i n iron ferrum, i n isotonĭcus, a, um isotonic -Llactic acid acĭdum lactĭcum plumbum, i n lead leaf folĭum, i n lily of the valley convallaria, ae f liniment linimentum, i n lipoic acid acĭdum lipoĭcum

liquid fluĭdus, a, um

liquid ammonia (solution of solutio Ammonii (um, i n) caustici

ammonia) (us, a, um)

-M-

magnesium magnesium, i n or magnium, i n

matricary chamomilla, ae f

mercury hydrargÿrum, i n

menthol menthōlum, i n

methyl salicylate methylĭi salicylas, ātis m

methyloestradiol methyloestradiolum, i n

milfoil millefolĭum, i n

mint mentha, ae f

mixture mixtūra, ae f

morphine morphīnum, i n

motherwort leonūrus, i m

mucilage mucilāgo, ĭnis f

mycosolon mycosolonum, i n

-N-

naphtalan naphthalānum, i n

nettle urtīca, ae f

nicotinic acid acĭdum nicotinĭcum

nitric acid acidum nitricum

nitroglycerin nitroglycerīnum, i n

nitrous acid acĭdum nitrōsum

norsulfazol norsulfazolum, i n

novocain novocaīnum, i n

nystatīn nystatīnum, i n

-O-

oak quercus, us f oil olěum, i n oily, oil oleōsus, a, um ointment unguentum, i n oleandomycīnum, i n oleandomycin ophthalmic ophthalmĭcus, a, um ophthalmic film lamella (ae f) (membranŭla (ae f)) ophthalmica (us, a, um) oxaphenamīdum, i n oxaphenamid oxygenĭum, i n oxygen oxytetracycline oxytetracyclīnum, i n -Ppaste pasta, ae f peach oil olĕum (i n) Persicōrum (um, i n) pectoral pectorālis, e piperītus, a, um pepper phenacetin phenacetīnum, i n phenobarbital phenobarbitālum, i n phenobolin phenobolīnum, i n phenoxymethylpenicillin phenoxymethylpenicillīnum, i n phenyl salicylate phenylĭi salicylas, ātis m phosphoric acid acidum phosphoricum phthalazol phthalazōlum, i n phthivazid phthivazīdum, i n phthoruracil phthoruracīlum, i n

pilŭla, ae f

pill

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plaster	emplastrum, i n
polyphepan	polyphepānum, i n
potassium	kalĭum, i n
powder	pulvis, ĕris m
prednisolon	prednisolōnum, i n
pyracetam	pyracetāmum, i n
pyrazidol	pyrazidōlum, i n
	-R-
rectal	rectālis, e
rectificat	rectificātus, a, um
rhizome	rhizōma, ătis n
rhubarb	rheum, i n
riboflavin	riboflavīnum, i n
root	radix, īcis f
	-S-
sacchar	sacchărum, i n
sage	salvĭa, ae f
salicylate	salicylas, ātis m
salicylic acid	acĭdum salicylĭcum
saluzid	saluzīdum, i n
seed	semen, ĭnis n
simple	simplex, ĭcis
sodium	natrium, i n
soluble	solubĭlis, e
solution	solutĭo, ōnis f
species	species, ērum (plural) f
spirituous, alcoholic	spirituōsus, a um

adōnis (ĭdis m, f) vernālis (is, e)

spring adonis

	240
streptocid	streptocīdum, i n
strophanthin	strophanthīnum, i n
sulfacyl-sodium	sulfacylum-natrĭum, i n
sulfadimezin	sulfadimezīnum, i n
sulfazin	sulfazīnum, i n
sulfur	sulfur, ŭris n
sulfuric acid	acĭdum sulfurĭcum
sulfurous acid	acĭdum sulfurōsum
sunflower-seeds oil	olĕum (i n) Helianthi (us, i m)
suppository	suppositorĭum, i n
suspension	suspensĭo, ōnis f
synoestrol	synoestrōlum, i n
synthomycin	synthomycīnum, i n
syrup	sirŭpus, i m
	-T-
tablet	tabuletta, ae f
talc	talcum, i n
tannin	tannīnum, i n
testosteron	testosterōnum, i n
tetracycline	tetracyclīnum, i n
thiamin	thiamīnum, i n
tincture	tinctūra, ae f
	-V-
vaginal	vaginālis, e
valerian	valeriāna, ae f
validol	validōlum, i n

vaselīnum, i n

vaseline

-W-

water aqua, ae f

wheat starch amỹlum (i n) Tritĭci (um, i n)

white albus, a, um

-X-

xeroform xeroformĭum, i n

-Y-

yellow flavus, a, um

-Z-

zinc zincum, i n

VII. Common Abbreviations Used in Prescriptions

This appendix is meant to be a complete list of all abbreviations used in prescriptions in English-speaking countries (its listing here does not mean such abbreviations should be used).

- **aa** (*ana*) of each
- **ad** to, up to
- **a.c.** (ante cibium) before meals
- **a.d.** (aurio dextra) right ear
- ad lib. (ad libitum) use as much as one desires; freely
- admov. (admove) apply
- **agit** (*agita*) stir/shake
- **alt. h.** (alternis horis) every other hour
- a.m. (ante meridian) morning, before noon
- amp ampule
- **amt** amount
- **aq** (*aqua*) water
- a.l., a.s. (aurio laeva, aurio sinister) left ear
- **A.T.C.** around the clock
- **a.u.** (auris utrae) both ears
- **bis** (*bis*) twice
- **b.i.d.** (bis in die) twice daily
- **B.M.** bowel movement
- **bol.** (bolus) a large pill
- **B.S.** blood sugar
- **B.S.A** body surface areas
- cap., caps. (capsula) capsule
- **c** (*cum*) with (usually written with a bar on top of the "c")
- **c** (*cibos*) food

- cc cubic centimetre; also means "with food" (cum cibos)
- **cf** with food
- **C.H.F.** congestive heart failure
- **comp.** compound
- cr., crm cream
- **D5W** dextrose 5% solution (sometimes written as D_5W)
- **D5NS** dextrose 5% in normal saline (0.9%)
- **D.A.W.** dispense as written
- **dc, D/C, disc** discontinue
- **dieb. alt.** (*diebus alternis*) every other day
- **dil.** dilute
- **disp.** dispense
- div. divide
- **d.t.d.** (*dentur tales doses*) give of such doses
- **D.W.** distilled water
- **elix.** elixir
- **e.m.p.** (ex modo prescripto) as directed
- **emuls.** (*emulsum*) emulsion
- et and
- **ex aq** in water
- **fl., fld.** fluid
- **ft.** (*fiat*) make; let it be made
- g gram
- **G.I.** gastrointestinal
- **gr** grain
- gtt(s) (gutta(e)) drop(s)
- **G.U.** genitourinary
- **H** hypodermic
- **h, hr** hour
- H.A. headache

- **H.B.P.** high blood pressure
- **h.s.** (*hora somni*) at bedtime
- **HTN** hypertension
- **ID** intradermal
- **IM** intramuscular (with respect to injections)
- **inj.** (*injectio*) injection
- **IP** intraperitoneal
- **IV** intravenous
 - o **IVP** intravenous push
 - o **IVPB** intravenous piggyback
- L.A.S.''' label as such
- **LCD** coal tar solution
- **lin** (*linimentum*) liniment
- **liq** (*liquor*) solution
- **lot.** lotion
- **M.** (*misce*) mix
- **m, min** (*mininum*) a minimum
- mcg microgram
- **mEq** milliequivalent
- **mg** milligram
- **mist.** (*mistura*) mix
- **mitte** (*mitte*) send
- **mL** millilitre
- N&V, N/V nausea and vomitting
- **nebul** (*nebula*) a spray
- **N.K.A.** no known allergies
- **N.K.D.A.** no known drug allergies
- **N.M.T.** not more than
- **noct.** (nocte) at night
- **non rep.** (non repetatur) no repeats

- **NPO, n.p.o.** (non per os) nothing by mouth
- **NS** normal saline (0.9%)
- **1/2NS** half normal saline (0.45%)
- N.T.E. not to exceed
- o_2 both eyes, sometimes written as o_2
- **o.d.** (oculus dexter) right eye
- **o.s.** (*oculus sinister*) left eye
- **o.u.** (*oculo utro*) both eyes
- oz ounce
- **per** by or through
- **p.c.** (*post cibium*) after meals
- **p.m.** (post meridian) evening or afternoon
- **prn** (*pro re nata*) as needed
- **p.o.** (*per os*) by mouth or orally
- **p.r.** by rectum
- **pulv.** (*pulvis*) powder
- **q** (*quaque*) every
- **q.a.d.** (quoque alternis die) every other day
- **q.h.** (quaque hora) every hour
- **q.1h** (*quaque 1 hora*) every 1 hour; (can replace "1" with other numbers)
- **q.d.** (quaque die) every day
- **q.i.d.** (quater in die) four times a day
- **q.o.d.** every other day
- **q.s.** (quantum sufficiat) a sufficient quantity
- **R** rectal
- **rep., rept.** (*repetatur*) repeats
- **RL, R/L** Ringer's lactate
- **s** (*sine*) without (usually written with a bar on top of the "s")
- **s.a.** (*secundum artum*) use your judgement

- SC, subc, subq, subcut subcutaneous
- **sig** write on label
- **SL** sublingually, under the tongue
- **S.O.B.** shortness of breath
- **sol** (*solutio*) solution
- **s.o.s., si op. sit** (*si opus sit*) if there is a need
- ss (*semis*) one half
- **stat** (*statim*) immediately
- **supp** (*suppositorium*) suppository
- **susp** supsension
- **syr** (*syrupus*) syrup
- **tab** (*tabella*) tablet
- **tal., t** (*talus*) such
- **tbsp** tablespoon
- **troche** (*trochiscus*) lozenge
- **tsp** teaspoon
- **t.i.d.** (ter in die) three times a day
- **t.i.w.** three times a week
- **top.** topical
- **T.P.N.** total parenteral nutrition
- **tr, tinc., tinct.** tincture
- **u.d., ut. dict.** (ut dictum) as directed
- **ung.** (*unguentum*) ointment
- **U.R.I.** upper respitory infection
- U.T.I. urinary tract infection
- **vag** vaginally
- **V.S.** vital signs
- \mathbf{w} with
- **W.B.C.** white blood count
- w/o without

- **X** times
- Y.O. years old

VIII. Sample of the Examination Card

I. Translate from English into Latin the following anatomical terms:

1. joints of rib's head; 5. anterior intercostal veins;

2. major and minor horns; 6. nerve nodes of sympathic

networks;

3. superficial lymphatic vessels; 7. minor palatine canals;

4. widest muscle of back; 8. external occipital protuberance.

II. Form the Greek / Latin clinical terms according to the meanings:

1. lack of hair 6. removal of gallbladder

2. study of life 7. inflammation of tear sac

3. disease of blood vessels 8. disturbance of vision

4. fear of cancer 9. fixation of the uterus

5. bleeding from the lip 10. one finger on the hand

III. Explain the meaning of the following clinical terms:

1. myopathia 6. lipoma

2. hypokinesia 7. melanuria

3. pyelocystitis 8. myelogramma

4. gastroscopia 9. microencephalia

5. interosseus 10. nephroma

IV. Translate the prescriptions from English into Latin:

1. Take: Solution of glucose 5% - 500 ml

Let it be sterilized!

Give.

Write on a label:

2. Take: Euphyllin 0,2

Cocao oil 2,0

Mix to make suppository Give of such doses number 6

Write on a label:

- V. Find in the drug names component elements carrying information about pharmaceutical characteristics:
 - 1. Erythromycinum

4. Benzonalum

2. Pyocidum

- 5. Chloraminum
- 3. Thiophosphamidum
- 6. Sarcolysinum

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