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ОСНОВЫ КЛИНИЧЕСКОЙ ТЕРМИНОЛОГИИ

Практикум по курсу «Латинский язык»

Рекомендовано методической комиссией Института филологии и журналистики для иностранных студентов ННГУ, обучающихся по специальностям 31.05.01 «Лечебное дело» и 31.05.03 «Стоматология»

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A.V. ANGEL

THE BASICS OF CLINICAL TERMINOLOGY

The Practice book for the course «The Latin Language»

Recommended by the Methodological Commission
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Пособие предназначено для иностранных студентов, обучающихся по специальностям 31.05.01 «Лечебное дело» и 31.05.03 «Стоматология» на английском языке. В пособии представлены различные структурные типы клинических терминов; приводятся основные терминологические элементы, усвоение которых позволит студентам свободно разбираться во многих медицинских терминах. Предлагаются различные виды упражнений по анализу и самостоятельному конструированию клинических терминов. Каждое занятие завершается тестовыми заданиями для контроля полученных знаний.

The manual is aimed at English-speaking students who study General medicine and Stomatology. There are introduced different structural types of clinical terms and the basic combining forms that are necessary for the students to understand a large number of medical terms. A variety of exercises motivate students to analyze and build different clinical terms. Each lesson is finished with multiple choice test to control the students' knowledge.

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INTRODUCTION

Medical terminology is traditionally based on two languages – Latin and Greek: one and the same medical notion can be in parallel named by a Greek or Latin word (stem). Latin words are usually used in Anatomical nomenclature, while words of Greek origin prevail in Clinical terminology.

Clinical terminology deals with the names of diseases, pathological conditions, their signs and symptoms, surgical operations; it also includes the names of diagnostic and research methods, medical instruments and equipment, medical professions, etc.

Clinical terms are different in their structure. There can be one-word terms and multi-word terms. One-word terms are divided into simple or root-words, simple-derived words and compound words:

1. simple or root-words are the terms of Greek or Latin origin which cannot be split into morphological elements: *tremor, oris m; trauma, atis n*;

2. simple-derived words are the terms where the meaning of the root can be specified by a prefix or a suffix or both together: *a+trophia* (prefix+root); *peri+card+itis* (prefix+root+suffix); *arthr+osis* (root+suffix);

3. compound words consist of two or more root combining forms, joined together into semantic and structural whole: *nephro+pathia; hydro+therapia*.

Combining form is a regularly reproduced word element (root, suffix or prefix) with a fixed meaning. One combining form can participate in production of many different terms: *cardiorrhexis, cardiostomia, cardiopathia, cardialgia, cardiographia*, etc. (*cardio-* means *heart*); *gastralgia, nephralgia, podalgia, arthralgia, enteralgia*, etc. (*-algia* means *pain*). Thus it is important to memorize a limited number of combining forms which can help to construct thousands of clinical terms.

The combining forms can be initial or final. Initial and final root combining forms are usually joined by a linking vowel *-o-* (sometimes *-i-*): *hepat+o+megalia, blephar+o+plegia*. If the initial combining form ends with the vowel or the final combining form starts with the vowel, then the linking vowel *-o-* is usually dropped:

hemi+plegia, tachy+cardia, gastr+ectomy, enter+algia.

The initial root combining form is often given with linking *-o-* in the dictionaries: *gastr/o-; nephr/o-; cardi/o*.

The initial root combining form can become the final one with the same meaning: *cephalo-/-cephalia; podo-/-podia; spleno-/-splenia*. The examples are: *splenalgia – pain in the region of the spleen*

megalosplenía – pathological enlargement of the spleen

Some of the root combining forms can be used as separate medical terms: *sclerosis (a condition in which tissues become hard), ptosis (prolapse of an organ), spasmus (a sudden, usually painful, involuntary contraction of a muscle).*

The analysis of the medical terms should always start from the final root combining form (or suffix):

cardiologia (cardio- means heart and –logia means science) – the study of heart, its diseases and functions

arthrosis (arthro- means joint and –osis means pathological condition, degeneration, non-inflammatory disease) – the degeneration of a joint

nephrostomia (nephro- means kidney and –stomia means a surgical opening) – a surgical operation to make a permanent opening into the pelvis of the kidney from the surface

The multi-word terms are the combination of a noun in Nominative case described by an adjective (agreed attribute) or another noun in Genitive case (non-agreed attribute): *asthma bronchiale (bronchial asthma), pneumonia apicalis (apical pneumonia), amputatio digiti (amputation of finger).*

LESSON I

Exercise I. Read and memorize the simple or simple-derived clinical terms

Nouns

abscessus, us m	<i>abscess</i> , a painful swollen area where pus forms
agonia, ae f	<i>agony</i> , 1) the terminal state of the body preceding the onset of death; 2) a very severe physical or emotional pain
aneurisma, atis n	<i>aneurism</i> , a swelling caused by the weakening of the wall of a blood vessel (usually occurs in the wall of the aorta)
asthma, atis n	<i>asthma</i> , a lung condition characterized by narrowing of the bronchial tubes, in which the muscles go into spasm and the person has difficulty breathing
auscultatio, onis f	<i>auscultation</i> , the act of listening to the sounds of the body using a stethoscope
cancer, cri m	<i>cancer</i> , a malignant growth or tumor which develops in tissue and destroys it
caries, ei f	<i>caries</i> , decay in a tooth or bone
colica, ae f	<i>colic</i> , an attack of acute abdominal pain, localized in a hollow organ and often caused by spasm, obstruction or twisting
coma, atis n	<i>coma</i> , state of unconsciousness, from which a person can not be awakened by external stimuli
crisis, is f	<i>crisis</i> , 1) a turning point in a disease, after which a person can become better or worse; 2) a situation or period of difficulty demanding action
cysta, ae f	<i>cyst</i> , an unusual growth in the body, shaped like a pouch, containing liquid or semi-liquid substances
diabetes, ae m	<i>diabetes</i> , one of a group of diseases which cause the body to produce large amounts of urine; <i>diabetes mellitus</i> , a disease where the body cannot control sugar absorption because the pancreas does not secrete enough insulin
eczema, atis n	<i>eczema</i> , a non-contagious inflammation of skin with an itchy rash and blisters
febris, is f	<i>fever</i> , 1) a rise in body temperature; 2) a condition when the temperature of the body is higher than usual

gangraena, ae f	<i>gangrene</i> , a condition in which tissues die and decay, as a result of bacterial action, because the blood supply has been lost through injury or disease of artery
glaucoma, atis n	<i>glaucoma</i> , a condition of the eyes, caused by unusually high pressure of fluid inside the eyeball, resulting in disturbances of vision and blindness
hernia, ae f	<i>hernia</i> , a protrusion of an organ or part (such as the intestine) through connective tissue or through a wall of the cavity (as of the abdomen) in which it is normally enclosed
herpes, etis m	<i>herpes</i> , inflammation of the skin or mucous membrane, caused by a virus, where small blisters are formed
icterus, i m	<i>icterus, jaundice</i> , a condition in which there is an excess of bile pigment in the blood, and in which the pigment is deposited in the skin and the whites of the eyes, which have a yellow colour
ileus, i m	<i>ileus</i> , obstruction of the intestine, usually distension caused by loss of muscular action in the bowel
infarctus, us m	<i>infarction</i> , a condition in which the tissue is killed by cutting off of the blood supply
infectio, onis m	<i>infection</i> , 1) the entry or introduction into the body of microorganisms, which then multiply; 2) an illness which is caused by the entry of microbes into the body
inflammatio, onis f	<i>inflammation</i> , the fact of having become sore, red and swollen as a reaction to an infection, an irritation or a blow
insultus, i m	<i>stroke, cerebrovascular accident</i> , a sudden blocking of or bleeding from a blood vessel in a brain, resulting in temporary or permanent paralysis or death
morbus, i m	<i>disease</i>
oedema, atis n	<i>edema, dropsy</i> , a swelling of part of the body caused by accumulation of fluid in the intercellular tissue spaces
palpatio, onis f	<i>palpation</i> , an examination of part of the body by feeling it with the hand
paralysis, is f	<i>paralysis</i> , a condition in which part of the body cannot be moved because the motor nerves have been damaged or the muscles have been weakened

percussio, onis f	<i>percussion</i> , a test, usually of the heart and lungs, in which the doctor taps the part of a person's body and listens to the sound produced
prophylaxis, is f	<i>prophylaxis</i> , 1) the prevention of a disease; 2) a preventive treatment
propaedeutica, ae f	<i>propaedeutics</i> , 1) preparatory study or instruction; 2) introduction into a clinical discipline
sepsis, is f	<i>sepsis</i> , systemic infection by pathogenic microorganisms, especially bacteria, that have invaded the bloodstream, usually from a local source. Sepsis is characterized by fever, increased number of white blood cells, increased heart rate, and other signs of widespread infection
spasmus, us m	<i>spasm</i> , a sudden, usually painful, involuntary contraction of a muscle, as in cramp
struma, ae f	<i>goiter</i> , an excessive enlargement of the thyroid gland, seen as the swelling round the neck, caused by a lack of iodine
symptoma, atis n	<i>symptom</i> , an indication of a disorder or a disease, especially a subjective one such as pain, nausea, weakness, etc.; (compare: <i>sign</i> , an objective indication of a disease)
syndroma, atis n	<i>syndrome</i> , a group of symptoms and other changes in the body's functions which, when taken together, show that a particular disease is present
therapia, ae f	1) <i>therapeutics</i> , the practical branch of medicine, concerned with the treatment of a disease or disorder; 2) <i>therapy</i> , treatment
thrombus, i m	<i>thrombus, blood clot</i> , a soft mass of coagulated blood in a vein or an artery
trauma, atis n	<i>trauma</i> , 1) wound or injury; 2) a very frightening or distressing experience, which gives a person a severe emotional shock
tremor, oris m	<i>tremor</i> , slight involuntary movements of a limb or muscle
ulcus, eris n	<i>ulcer</i> , an open sore in the skin or in a mucous membrane, which is inflamed and difficult to heal
varix, icis m, f	<i>varix</i> , a swollen blood vessel, especially a swollen vein in the leg
volvulus, i m	<i>volvulus</i> , a condition in which a loop of intestine is twisted and blocked, so cutting off its blood supply

Adjectives

acquisitus, a, um	<i>acquired</i> , referring to a condition which is neither congenital nor hereditary and which a person develops after his or her birth
acutus, a, um	<i>acute</i> , 1) referring to a disease or condition which develops rapidly and can be dangerous (opposite to <i>chronic</i>); 2) referring to pain which is sharp and intense
alimentarius, a, um	<i>alimentary</i> , providing food, or relating to food or nutrition
benignus, a, um	<i>benign</i> , generally harmless
chronicus, a, um	<i>chronic</i> , referring to a disease or condition which lasts for a long time
congenitus, a, um	<i>congenital</i> , existing at or before birth
contagiosus, a, um	<i>contagious</i> , transmissible by direct or indirect contact with an infected person
diffusus, a, um	<i>diffuse</i> , referring to a disease which is widespread in the body, or which affects many organs or cells
hereditarius, a, um	<i>hereditary</i> , passed as from parents to children through genes
juvenilis, e	<i>juvenile</i> , relating to or affecting children or adolescents
latens, ntis	<i>latent</i> , referring to a disease which is present in the body, but doesn't show any signs
letalis, e	<i>lethal</i> , relating to or causing death, capable of causing death
localis, e	<i>local</i> , 1) referring to a separate place; 2) confined to one part
malignus, a, um	<i>malignant</i> , likely to cause death or serious disablement if not properly treated
praesenilis, e	<i>presenile</i> , occurring before the onset of old age
purulentus, a, um	<i>purulent</i> , containing or producing pus
recurrens, ntis	<i>recurrent</i> , 1) occurring in the same way many times, returning; 2) referring to a vein, artery or nerve which forms a loop
senilis, e	<i>senile</i> , relating to or a characteristic of an old age
vascularis, e	<i>vascular</i> , referring to blood vessels
viralis, e	<i>viral</i> , caused by a virus or referring to a virus

Exercise II. Read the definition and write the term

1) – the prevention of a disease;

- an examination of part of the body by feeling it with the hand;
 - slight involuntary movements of a limb or muscle;
 - a soft mass of coagulated blood in a vein or an artery;
 - a lung condition characterized by narrowing of the bronchial tubes, in which the muscles go into spasm and the person has difficulty breathing;
 - a sudden, usually painful, involuntary contraction of a muscle, as in cramp;
 - the act of listening to the sounds of the body using a stethoscope;
 - an unusual growth in the body, shaped like a pouch, containing liquid or semi-liquid substances;
 - a test, usually of the heart and lungs, in which the doctor taps the part of a person's body and listens to the sound produced;
 - a condition in which there is an excess of bile pigment in the blood, and in which the pigment is deposited in the skin and the whites of the eyes, which have a yellow colour;
 - an open sore in the skin or in a mucous membrane, which is inflamed and difficult to heal;
 - wound or injury
- 2) – containing or producing pus;
- relating to or causing death, capable of causing death;
 - existing at or before birth;
 - transmissible by direct or indirect contact with an infected person;
 - providing food, or relating to food or nutrition;
 - passed as from parents to children through genes;
 - referring to a disease or condition which lasts for a long time.

Exercise III. Write the terms in Latin, explain their meaning

- 1) varix, syndrome, sepsis, herpes, volvulus, aneurysm, propaedeutics, therapeutics, glaucoma, colic, asthma, paralysis, stroke, jaundice, infarction, diabetes, agony.
- 2) juvenile, local, senile, presenile, latent, acquired, congenital, acute, malignant, lethal.

Exercise IV. Read the multi-word Latin terms. Translate them into English. Explain the meaning.

abscessus chronicus, cancer cervicis uteri, morbus infectiosus, hernia cerebialis occipitalis, oedema pharyngis, colica renalis, eczema squamosum, glaucoma juvenile, ulcus gangraenosum, hepar cystosum, coma diabeticum, ileus paralyticus, gangraena senilis, spasmus facialis, glaucoma malignum, abscessus diffusus, cancer pulmonis, cysta ossea benigna, asthma bronchiale, colica hepatica, hernia

lineae albae, diabetes mellitus, tremor senilis, caries dentalis, tumor benignus, hernia abdominalis externa, ileus congenitus, hernia vaginalis, ileus duodeni.

Test

<p>I. the fact of having become sore, red and swollen as a reaction to an infection, an irritation or a blow</p> <p>a) infectio b) inflammatio c) paralysis d) herpes e) gangraena</p> <p>II. an unusual growth in the body, shaped like a pouch, containing liquid or semi-liquid substances</p> <p>a) ulcus b) eczema c) hernia d) oedema e) cysta</p> <p>III. a soft mass of coagulated blood in a vein or an artery</p> <p>a) thrombus b) tremor c) sepsis d) struma e) trauma</p> <p>IV. a swollen blood vessel, especially a swollen vein in the leg</p> <p>a) volvulus b) ileus c) varix d) thrombus e) caries</p> <p>V. the practical branch of medicine, concerned with the treatment of a disease or disorder</p>	<p>XI. an excessive enlargement of the thyroid gland, seen as the swelling round the neck, caused by a lack of iodine</p> <p>a) ulcus b) varix c) spasmus d) tremor e) struma</p> <p>XII. a painful swollen area where pus forms</p> <p>a) herpes b) abscessus c) eczema d) glaucoma e) oedema</p> <p>XIII. a malignant growth or tumor which develops in tissue and destroys it</p> <p>a) infarctus b) insultus c) oedema d) caries e) cancer</p> <p>XIV. introduction into a clinical discipline</p> <p>a) prophylaxis b) propaedeutica c) percussio d) palpatio e) auscultatio</p> <p>XV. a condition in which a loop of intestine is twisted and blocked, so</p>
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- a) propaedeutica
- b) prophylaxis
- c) palpato
- d) therapia
- e) percussio

VI. an examination of part of the body by feeling it with the hand

- a) percussio
- b) palpato
- c) auscultatio
- d) prophylaxis
- e) propaedeutica

VII. a swelling caused by the weakening of the wall of a blood vessel (usually occurs in the wall of the aorta)

- a) aneurisma
- b) asthma
- c) varix
- d) ileus
- e) volvulus

VIII. state of unconsciousness, from which a person can not be awakened by external stimuli

- a) agonia
- b) crisis
- c) diabetes
- d) coma
- e) paralysis

IX. a sudden blocking of or bleeding from a blood vessel in a brain, resulting in temporary or permanent paralysis or death

- a) infectio
- b) insultus
- c) inflammatio
- d) sepsis
- e) morbus

cutting off its blood supply

- a) varix
- b) ileus
- c) caries
- d) volvulus
- e) agonia

XVI. referring to a disease or condition which lasts for a long time

- a) chronicus
- b) acutus
- c) latens
- d) localis
- e) malignus

XVII. relating to or causing death, capable of causing death

- a) localis
- b) acutus
- c) letalis
- d) diffusus
- e) congenitus

XVIII. referring to a disease which is widespread in the body, or which affects many organs or cells

- a) contagiosus
- b) diffusus
- c) benignus
- d) recurrens
- e) senilis

XIX. referring to a disease which is present in the body, but doesn't show any signs

- a) juvenilis
- b) localis
- c) latens
- d) vascularis
- e) viralis

XX. referring to a condition which is neither congenital nor hereditary

X. slight involuntary movements of a limb or muscle a) paralysis b) caries c) tremor d) trauma e) ileus	and which a person develops after his or her birth a) acutus b) congenitus c) acquisitus d) purulentus e) praesenilis
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LESSON II

Table I. Greek-Latin Duplicates

Greek	Latin	Meaning
somato-	corpus, oris n	body
cephalo-, -cephalia	caput, itis n	head
encephalo-	encephalon, i n	brain
arthro-	articulatio, onis f	joint
cardio-, -cardia	cor, cordis n	heart
gastro-	ventriculus, i m	stomach
entero-	intestinum, i n	intestine
nephro-	ren, renis m	kidney
myo- (myos-)	musculus, i m	muscle
histo-	textus, us m	tissue
osteo-	os, ossis n	bone
neuro-	nervus, i m	nerve
stomato-	os, oris n	mouth cavity, mouth
odonto-, -odontia	dens, dentis m	tooth
cheiro- (chiro-); -cheiria	manus, us f	hand
pedo-, -podia	pes, pedis m	foot
ophthalmo- , -ophthalmia	oculus, i m	eye
rhino-	nasus, i m	nose
oto-	auris, is f	ear
masto-, mammo-	mamma, ae f	mammary gland, woman's breast
stetho-; thoraco-	thorax, acis m	chest, thorax
cranio-	cranium, i n	cranium, skull
spondylo-	vertebra, ae f	vertebra
rrhachio-	columna vertebralis	vertebral column
onco-	tumor, oris m	tumour, new growth
hydro-	aqua, ae f	water
physio-	natura, ae f	nature
bio-	vita, ae f	life
psycho-	anima, ae f	soul, mind
aetio-	causa, ae f	cause, origin
geri-, gero-, geronto-	senex, senis m; senilis, e	old man; old
paedo-	infans, ntis m, f	child
phthis-	tuberculosis, is f	tuberculosis

phono-, -phonia	vox, vocis f	voice, sound
thermo-, -thermia	calor, oris m	heat, warmth, temperature

Table II. Combining forms, denoting science, methods of diagnostic examination, treatment, pain, disease

Greek combining form	English	Meaning	Example
-logia	-logy	science, study of	cardiologia (cardiology) – study of the heart, its diseases and functions
-logus	-logist	specialist, scientist, doctor	cardiologus (cardiologist) – a doctor who specializes in the study of heart
-iatria	-iiatrics; -iatry	branch of medicine	paediatria (pediatrics) – branch of medicine which deals with the study of children, their development and diseases
-iater	-iatrician, -iatrist	doctor, physician	paediater (pediatrician) – a doctor who specializes in the treatment of diseases of children
-therapia	-therapy	treatment	hydrotherapia (hydrotherapy) – treatment using water
-scopia	-scopy	examination with a special instrument	gastroscopia (gastroscopy) – instrumental examination of the inside of the stomach
-scopus	-scope	a special instrument for visual examination of an organ	gastrosopus (gastroscope) – an instrument which a doctor can pass down into the stomach through the mouth to examine the inside of the stomach
-metria	-metry	measuring	craniometria (craniometry) – the process of measuring the size and shape of skull
-meter	-meter	instrument of measuring	craniometer (craniometer) – instrument for measuring the

			dimensions of skull
-graphia	-graphy	1) X-ray examination; 2) the process of graphical recording	mammographia (mammography) – examination of the breast, using a special X-ray technique
-gramma	-gram	1) X-ray picture; 2) a result (chart) of graphical recording	mammogramma (mammogram) – a picture of breast made using a special X-ray technique
-algia; -algesia	-algia -algesia	pain feeling of pain	arthralgia (arthralgia) – pain in a joint analgesia (analgesia) – reduction of the feeling of pain without loss of consciousness
-aesthesia	-aesthesia	sensitivity, feeling	anaesthesia (anaesthesia) – 1) a state, deliberately produced in a patient by a medical procedure, in which he or she can feel no pain, either in a part or in the whole of the body; 2) a loss of feeling caused by damage to nerves
patho-, -pathia	patho-, -pathy	disease	myopathia (myopathy) – a disease of a muscle
noso-	noso-	disease	nosologia (nosology) – classification of diseases

Table III. Prefixes

Prefix	Meaning	Example
a- (an-)	absence, loss, without, lack, inability	acheiria – absence of one or both hands

Nota bene!

1. The terms «**pathologia**» and «**nosologia**» («patho-» and «noso-» mean «disease») have different meanings:

pathologia (pathology) – 1) any kind of abnormality; 2) the study of diseases and the changes in the structure and function which diseases cause in the body

nosologia (nosology) – the classification of diseases

The combining form «patho-, -pathia» has one more meaning – «mood, feeling». It is necessary to keep in mind the following terms:

apathia (apathy) – the condition of not being interested in anything;

antipathia (antipathy) – a strong feeling of dislike («anti» – «against»);

sympathia (sympathy) – the feeling or expression of pity or sorrow for the pain or distress of somebody else («sym» – «together»)

2. The difference in the meaning of the following terms should be memorized:

a) psychologia vs psychiatria

psychologia (psychology) – the study of the mind and mental processes;

psychiatria (psychiatry) – a branch of medicine concerned with the diagnosis and treatment of mental and behavioral disorders

b) gerontologia vs geriatria

gerontologia (gerontology) – the study of the process of ageing and diseases of old people;

geriatria (geriatrics) – the study of the diseases and disorders of the old people

3. The prefix «a-, an-» has the meaning «loss, without, absence, lack». We use «a-» if the combining form starts with a consonant – «*apodia*», and «an-» if it starts with a vowel – «*analgesia*».

Exercises

Exercise I. Explain the meaning of the terms. Give the name of a specialist for each field of knowledge, if possible:

a) pathologia, nosologia, aetiologia, physiologia, biologia, neurologia, cardiologia, ophthalmologia, gerontologia, psychologia, osteologia, oncologia, stomatologia, otorhinolaringologia, histologia; pathophysiologia; histopathologia;

b) geriatria, psychiatria, paediatria, phoniatria, phthisiatria.

Exercise II. Analyze the terms and give their meaning:

a) gastralgia, gastropathia, gastroscopia;

b) cardialgia, electrocardiographia, electrocardiogramma, cardiologia;

c) myopathia, myalgia, myographia, myogramma; myologia

d) arthropathia, arthralgia, arthroscopia, arthrographia, arthrologia;

e) stomatologus, stomatologia, stomatoscopia.

Exercise III. Analyze the terms and give their meaning:

a) cephalgia, myalgia, gastralgia, arthralgia, odontalgia, nephralgia, enteralgia,

neuralgia, podalgia;

b) myopathia, gastropathia, arthropathia, osteoarthropathia, spondylopathia, enteropathia, nephropathia, mastopathia;

c) somatoscopia, stomatoscopia, pelviscopia, ophthalmoscopia, rhinoscopia, otoscopia, bronchoscopia, nephroscopia

d) spondylographia, electrocardiographia, mammographia, cardioaortographia, phonocardiographia, arthrographia;

e) craniometria, somatometria, encephalometria, pelvimetria, stethometria, osteometria, thermometria;

f) hydrotherapia, thermotherapia, physiotherapia, psychotherapia, electrotherapia.

Exercise IV. Read and explain the meaning of terms with the prefix «a-(an-)»

adentia, apodia, acheiria, anophthalmia, acrania;

analgesia, anaesthesia;

aphonia

Exercise V. Make terms according to the definitions:

1) any disease of a bone;

2) a doctor who specializes in the study and treatment of diseases of old people;

3) an excessive quantity of cerebrospinal fluid in the brain;

4) the scientific study of new growths;

5) study of the cause and origin of the disease;

6) pain in the muscle;

7) measurement of the skull;

8) treatment of a disorder or condition by exercise, massage, heat treatment, infrared lamps or other external means;

9) an instrument used to listen to the sounds made inside the body, e.g. the sounds of the heart and lungs;

10) X-ray examination of a joint;

11) pain in the stomach;

12) a disease in a joint;

13) classification of diseases;

14) a chart which records the electrical impulses in the heart muscle;

15) a condition in which a person is unable to make sounds;

16) any kind of abnormality;

17) branch of medicine which deals with the study of children, their development and diseases;

18) instrumental examination of the inside of the stomach;

19) measuring the pelvis;

20) a branch of medicine concerned with the diagnosis and treatment of mental and behavioral disorders.

Exercise VI. Write the terms in Latin, give their meaning.

osteology, geriatrics, hydrotherapy, phoniatics, algometer, phthisiatry, encephalogram, biology, cardialgia, psychology, somatoscopy, mammography.

Exercise VII. Translate into English. Explain the meaning of the terms.

analgesia centralis, myopathia progressiva, anaesthesia intercostalis, mastopathia fibrosa, hydrocephalus acquisitus, encephalopathia congenita, myopathia localis, osteopathia alimentaria, mastopathia diffusa.

Test

<p>I. any disease of the vertebra a) arthralgia b) osteopathia c) spondylopathia d) odontalgia e) myopathia</p> <p>II. pain in the intestine a) enteralgia b) enterologia c) nephralgia d) nephrologia e) enteropathia</p> <p>III. an instrument which measures how far the chest expands when a person breathes in a) spondylographia b) stethometria c) somatometria d) stethoscopus e) stethometer</p> <p>IV. study of the human body and its normal functions a) physiologia b) psychologia</p>	<p>XI. treatment of a disorder or condition by exercise, massage, heat treatment, infrared lamps or other external means a) hydrotherapia b) kinesitherapia c) physiotherapia d) heliotherapia e) psychotherapia</p> <p>XII. prevention of diseases a) apathia b) antipathia c) sympathia d) prophylaxis e) propaedeutica</p> <p>XIII. a type of endoscope used to examine the kidneys a) nephroscopus b) nephroscopia c) nephralgia d) nephropathia e) nephrosis</p> <p>XIV. the study of the diseases and disorders of old people</p>
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<p>c) psychiatria d) physiotherapia e) therapia V. study of the cause and origin of the disease a) nosologia b) pathologia c) histologia d) aetiologia e) physiologia VI. examination of the breast, using a special X-ray technique a) mastopathia b) mammographia c) mammogramma d) myalgia e) mammographus VII. branch of medicine which deals with the study of children, their development and diseases a) psychiatria b) psychiater c) phthisiater d) paediatra e) paediatra VIII. instrumental visual examination of the ear a) otoscopia b) rhinoscopia c) stomatoscopia d) somatoscopia e) ophthalmoscopia IX. any kind of abnormality a) nosologia b) physiotherapia c) pathologia d) prophylaxis e) propaedeutica</p>	<p>a) phoniatria b) geriatria c) psychiatria d) phthisiatria e) paediatra XV. reduction of the feeling of pain without loss of consciousness a) apodia b) podalgia c) splenalgia d) anophthalmia e) analgesia XVI. an instrument used to listen to the sounds made inside the body, e.g. the sounds of the heart and lungs a) somatometria b) stethoscopus c) cardiographia d) stethometria e) cardioaortographia XVII. congenital absence of feet a) acrania b) acheiria c) anaesthesia d) aphonia e) apodia XVIII. an excessive quantity of cerebrospinal fluid in the brain a) hydrocephalus b) hydrotherapia c) encephalopathia d) cephalgia e) encephalometria XIX. pain in a joint a) arthrologia b) myalgia c) odontalgia d) myopathia</p>
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X. the process of recording the degree and strength of a muscle contraction

- a) myopathia
- b) arthropathia
- c) myographia
- d) myographus
- e) arthrographia

e) arthralgia

XX. instrumental visual examination of the inside of the stomach

- a) gastropathia
- b) gastralgia
- c) gastroscopia
- d) gastroscopus
- e) gastrologia

LESSON III

Table I. Greek-Latin duplicates

Greek	Latin	Meaning
splanchno-	viscera	internal organs, viscera
laparo-	abdomen, inis n	abdomen
pneumono-, pneumo-	pulmo, onis m	lung
pneumo-, pneumato-	-	air or gas in an organ
broncho-	bronchus, i m	bronchial tube
procto-	rectum, i n	rectum
colo-	colon, i n	colon
typhlo-	caecum, i n	blind gut, caecum
spleno-	lien, enis m	spleen
hepato-	hepar, atis n	liver
cysto-	vesica, ae f; vesica urinaria	bladder urinary bladder
cholecysto-	vesica fellea	gall bladder
dacryocysto-	saccus lacrimalis	lacrimal sac
pyelo-	pelvis renalis	renal pelvis
metro-; hystero-	uterus, i m	uterus, womb
colpo-	vagina, ae f	vagina
angio-	vas, vasis n	vessel
phlebo-	vena, ae f	vein
adeno-	glandula, ae f	gland
tonsillo-	glandula palatina	tonsil
blepharo-	palpebra, ae f	eyelid
glosso-	lingua, ae f	tongue
gnatho-, -gnathia	maxilla, ae f	jaw, upper jaw
-genia	mandibula, ae f; mentum, i n	lower jaw; chin
urano-	palatum, i n	palate
cheilo-, -cheilia	labium, i n	lip
sialo-	saliva, ae f	saliva
acro-	membrum, i n	extremity
dactylo-, -dactylia	digitus, i m	finger, toe
chondro-	cartilago, inis f	cartilage
necro-	cadaver, eris n	death, deadened

**Table II. Combining forms denoting pathological conditions
in tissues and organs**

Greek combining form	English	Meaning	Example
-ectasia, -ectasis	-ectasia, -ectasis	the dilatation of a passage	phlebectasia (phlebectasia) – (abnormal dilatation of veins)
-stenosis	-stenosis	narrowing, constriction of an organ or tissue	proctostenosis (proctostenosis) – the narrowing of the rectum
-megalia	-megaly	enlargement of an organ or tissue	cardiomegalia (cardiomegaly) – enlarged heart
-sclerosis	-sclerosis	hardening of an organ or tissue	angiosclerosis (angiosclerosis) – hardening of the walls of blood vessels
-malacia	-malacia	pathological softening of an organ or tissue	pneumomalacia (pneumomalacia) – pathological softening of the lung tissue
-ptosis	-ptosis	prolapse or fallen position of an organ	hepatoptosis (hepatoptosis) – a downward displacement of liver
-lysis	-lysis	1) dissolution, breaking up, decaying; 2) separation, loosening by surgery	autolysis (autolysis) – the situation in which cells destroy themselves with their own enzymes
-rrhexis	-rrhexis	splitting or rupture	cardiorrhexis (cardiorrhexis) – rupture of the heart wall
-plegia	-plegia	paralysis	ophthalmoplegia – paralysis of the muscles of the eye
litho-; -lithus -lithiasis	litho-, -lith, -lithiasis	stones, concretions, calculus; formation of stones in	nephrolithiasis (nephrolithiasis) – the presence of stones in the

		an organ	kidney
-lithotomia	-lithotomy	removal of stones from an organ	nephrolithotomia (nephrolithotomy) – surgical operation to remove stones from the kidney
-cele	-cele	hernia	hepatocele (hepatocele) – hernia of the liver through the diaphragm of the abdominal wall
-ium	-ium	layer, membrane or lining of an organ	perimetrium (perimetrium) – a membrane around the uterus
-itis	-itis	inflammation	phlebitis (phlebitis) – inflammation of a vein
-osis	-osis	pathological process, chronic disease of non-inflammatory nature	arthrosis (arthrosis) – the degeneration of a joint
-iasis	-iasis	pathological condition, disease	psoriasis (psoriasis) – a common inflammatory skin disease where red patches of skin are covered with white scales
-oma	-oma	tumour, new growth	angioma (angioma) – a benign tumor formed of blood vessels

Table III. Prefixes

Prefix	Meaning	Example
endo- (ento-)	inside, within	endoscopus (endoscope) – instrument used to examine the inside of the body
para-	1) near, beside; 2) cellular (connective) tissue beside or around an	paranasalis (paranasal) – by the side of the nose parametritis

	organ; 3) abnormal	(parametritis) – inflammation of the connective tissue around uterus
peri-	1) around, enclosing, covering; 2) near, beside	pericardium (pericardium) – a membrane which surrounds and supports the heart
meso-	in the middle	mesaortitis (mesaortitis) – inflammation of the media of aorta

Nota bene!

1. Some of the final combining forms have the same meaning as independent nouns:

a) –plegia and paralysis

ophthalmoplegia (ophthalmoplegia) – paralysis of the eye muscle

paralysis progressiva (progressive paralysis)

b) –ectasia (ectasis) and dilatatio

phlebectasia (phlebectasia) – dilatation of a vein

dilatatio vasorum (dilatation of vessels) = vasodilatatio

c) –lithus and concrementum (calculus)

enterolithus (enterolith) = **concrementum intestinale** (intestinal concrement)

odontolithus (odontolith) = **calculus dentalis** (dental calculus)

2. The meaning of the terms which finish with the suffixes «-itis» or «-ium» can be specified with the following prefixes:

a) endo – inside membrane or layer of the organ

endocarditis (endocarditis) – inflammation of the inner lining of the heart (endocardium) = inflammation of endocardium

b) para – cellular or connective tissue around an organ

parametritis (parametritis) – inflammation of the connective tissue around the uterus (parametrium) = inflammation of the parametrium

c) peri – covering membrane, capsule around the organ

pericarditis (pericarditis) – inflammation of the membrane which surrounds and supports the heart (pericardium) = inflammation of pericardium

d) meso – middle layer of an organ

mesarteriitis (mesarteriitis) – inflammation of the media of an artery

3. The term «pneumonia» is used for «inflammation of lungs» (without the suffix «itis»).

4. The suffixes «-osis» and «-iasis» can have the following meanings:

a) process and its result

stenosis (stenosis) – narrowing, constriction of an organ or tissue

lithiasis (lithiasis) – formation of stones

b) pathological process, long-term non-inflammatory degenerative disease, chronic disease

– the initial combining form is the name of an organ, tissue, part of the body, the system of the organism, which are diseased

nephrosis (nephrosis) – degeneration of the tissue of the kidney

psychosis (psychosis) – any serious mental disorder in which a person has a distorted perception of reality

– the initial combining form names the substance that causes the disease

toxicosis (toxicosis) – a diseased condition resulting from poisoning by toxic substances

– the initial combining form means «the agent that causes a disease, infection»

helminthosis or **helminthiasis** – infestation with parasitic worms (helminths)

c) the outspread and multiplicity (about blood cells and tumors)

leucocytosis (leucocytosis) – an increase in the number of leucocytes (white blood cells) in blood

angiomatosis (angiomatosis) – a condition characterized by multiple angiomas

Sometimes the suffix «-osis» is used in the clinical terms with just the word-forming function:

diagnosis (diagnosis) – the act of identifying a disease from its signs and symptoms

5. The suffix «-oma», used with the names of tissues, means «tumor which arises from this tissue»:

fibroma (fibroma) – benign tumor formed of connective tissue

osteoma (osteoma) – benign tumor of bone tissue

6. The combining forms «pneumono-» and «pneumo-» mean «lung»:

pneumonectomy (pneumonectomy) – surgical removal of all or part of a lung

If the combining forms «pneumo-», «pneumato-» are joined with any organ, than the meaning of the term is «presence of the air in the organ»:

pneumothorax (pneumothorax) – air or gas in the thorax

7. The initial combining forms «metro-» and «hystero-» have the meaning «uterus», but «hystero-» is mostly used in the names of surgical operations:

metroptosis (metroptosis) – prolapse of the uterus

hysterorrhaphia (hysterorrhaphy) – surgical suturing of the uterus

8. The prefix «meso-» means «middle». But when this prefix is combined with the name of intra-abdominal organ, it gets the meaning «mesentery, a fold of peritoneum» of this organ:

mesocolon (mesocolon) – a fold of peritoneum which supports the colon

Exercises

Exercise I. Analyze the terms and give their meaning:

- a) typhlostenosis, cardiostenosis, bronchostenosis, dacryostenosis;
- b) angiectasia, pyelectasia, phlebectasia;
- c) osteosclerosis, arteriosclerosis, pneumosclerosis, cardiosclerosis;
- d) pneumomalacia, angiomalacia, splenomalacia, arthromalacia;
- e) acromegalia, cardiomegalia, hepatomegalia, splenomegalia, dactylomegalia;

Exercise II. Make up the terms with the following meaning:

- a) prolapse, fallen position, downward displacement of (liver, abdominal viscera, stomach, upper **eyelid**);
- b) formation of stones in (kidney, gall bladder, **salivary** gland);
- c) hernia of (stomach, liver, meninx, rectum);

Exercise III. Analyze the terms and give their meaning:

- a) endocardium, pericardium, myocardium, endometrium, parametrium, myometrium, periosteum, periodontium;
- b) gastritis, rhinitis, proctitis, endocarditis, glossitis, nephritis, hepatitis, parametritis, cholecystitis, dacryocystitis, ophthalmitis, typhlitis, cheilitis, myositis;
- c) nephrosis, arthrosis, neurosis, psychosis, spondylosis, pneumoarthrosis, leucocytosis, thrombosis;
- d) myoma, adenoma, fibroma, neuroma, lymphadenoma, carcinoma.

Exercise IV. Complete the terms with the initial or final combining form:

- 1) paralysis of some or all the muscles of the eye – ophthalmo_____;
- 2) rupture of the heart wall – cardio_____;
- 3) removal of stones from the kidney – _____lithotomia;
- 4) destruction of bone tissue – osteo_____;
- 5) the death of part of the body such as a bone, an organ or tissue as a result of disease or injury – _____osis;
- 6) downward displacement of uterus – metro_____;

- 7) inflammation of the inner lining of an artery – _____arteriitis;
- 8) presence of calculi in the urinary system – uro_____;
- 9) a tumour derived from cells, concerned with the development of a tooth – odont_____;
- 10) an unusual constriction of the bronchial tubes – broncho_____.
- 11) pain in the spleen – splen_____;
- 12) inflammation of the renal pelvis and kidney – _____itis;
- 13) presence of air or gas in thorax – _____thorax;
- 14) spasm of the rectum – _____spasmus;
- 15) hardening of the kidney – nephro_____;
- 16) middle brain – _____encephalon;
- 17) pain in the jaw – _____algia;
- 18) prolapse of the walls of vagina – _____ptosis;
- 19) a sudden contraction of an eyelid – _____spasmus;
- 20) X-ray examination of the lacrimal duct – dacryocysto_____.

Exercise V. Make terms according to the definitions.

- 1) inflammation of lungs;
- 2) a condition in which the brain protrudes through a congenital or traumatic gap in the skull bones;
- 3) enlargement of both the liver and the spleen;
- 4) paralysis of the urinary bladder;
- 5) the degeneration of a joint;
- 6) a malignant tumor arising from lymph tissue;
- 7) pathological softening of the brain;
- 8) a disease of a gland;
- 9) inflammation of the interior of the eyeball;
- 10) the extensive death of a bone;
- 11) downward displacement of the spleen;
- 12) a benign tumor made up of glands and muscle;
- 13) the breaking down of a vertebra;
- 14) tumor formed of cartilaginous tissue;
- 15) inner lining membrane of the heart;
- 16) dilatation of a vein;
- 17) examination of the bladder, using a cystoscope;
- 18) paralysis of the tongue;
- 19) degeneration of kidney tissue;
- 20) inflammation of the liver.

Exercise VI. Analyze the terms and give their meaning:

myocele, tonsillitis, laparometria, glossospasmus, cystitis, cardiorrhesis, hydronephrosis, enteroptosis, gastrectasia, splanchnologia, dacryocystostenosis, oesophagostenosis, chondromalacia, arteriosclerosis, otitis, dactylomegalia, uranographia, endoscopus, osteochondropathia, mesocolon.

Exercise VII. Translate into Latin. Explain the meaning of the terms:

congenital cardiosclerosis, diffuse fibroma, acute bronchitis, superficial colitis, chronic nephrosclerosis, infectious tonsillitis, suprarenal arteriosis, senile psychosis, chronic enterocolitis, acute lymphadenitis, acquired hydrocephaly, juvenile arthris.

Table IV. Combining forms denoting surgical treatment

Greek combining form	English	Meaning	Example
-plastica	-plasty	plastic surgery	rhinoplastica (rhinoplasty) – plastic surgery to correct the appearance of the nose
-tomia	-tomy	surgical incision, cutting	enterotomia (enterotomy) – surgical incision in the intestine
-ectomia	-ectomy	removal of an organ or a part of an organ by surgery	glossectomia (glossectomy) – surgical removal of the tongue
-stomia	-stomy	1) an operation to make an opening; 2) an operation to make a connection between segments of an organ or two organs	angiostomia (angiostomy) – an operation for forming an artificial fistulous opening into a blood vessel
-pexia	-pexy	fixation of an organ by surgery	splenopexia (splenopexy) – surgical fixation of spleen
-rrhaphia	-rrhaphy	surgical sewing and suturing	cholecystorrhaphia (cholecystorrhaphy) – suturing of the gallbladder

Nota bene!

1. The combining form «-stomia» has the meaning «an operation to make an artificial opening (stoma, fistula) in an organ»

stoma is any opening into the cavity of the body

fistula is 1) a duct or a passage resulting from injury, disease or a congenital disorder that connects an abscess, cavity or hollow organ to the body surface or to another hollow organ; 2) a passage that has been created intentionally (surgically)

nephrostomia (nephrostomy) – a surgical operation to make a permanent opening into the pelvis of the kidney from the surface

If there are two initial combining forms before «-stomia», then the meaning of «stomia» is «to create a connection between two hollow organs, blood vessels or body cavities (anastomosis)»:

gastroenterostomia (gastroenterostomy) – a surgical operation to join the small intestine directly to the stomach

2. Alongside with the final combining form «-ectomia» the following independent nouns can be used:

amputatio, onis f (amputation) – the surgical removal of a limb or a part of a limb

amputatio digiti (amputation of finger)

exstirpatio, onis f (extirpation) – the total removal of a structure, an organ or growth by surgery

exstirpatio uteri (removal of uterus)

resectio, onis f (resection) – the surgical removal of part of an organ or structure

resectio ventriculi (resection of stomach)

3. It is necessary to see the difference between the terms «plastica» and «transplantatio»:

plastica, ae f (plastic surgery) – restoration, reconstruction, correction or improvement in the shape and appearance of body structures that are defective, damaged or misshapen by injury, disease or anomalous growth and development

transplantatio, onis f (transplantation) – the transfer of living organs or tissue from one part of the body to another or from one individual to another

– **allotransplantatio** (allotransplantation) is the transplantation of an organ or tissue from one individual to another of the same species with a different genotype («allo-» means «other, unusual»)

– **autotransplantatio** (autotransplantation) is the transplantation of an organ or tissue from one part of the body to another in the same person («auto-» means «own, self»)

- **xenotransplantatio** (xenotransplantation) is the transplantation of an organ or tissue or cells from one species to another («xeno-» means «foreign, strange, different»)
- **isotransplantatio** (isotransplantation) is the transplantation of an organ or tissue from one individual to another who is identical genetically («iso-» means «equal»)

There are also the following terms:

implantatio, onis f (implantation) – the act of grafting or inserting tissue, inert material or a device into a person or the introduction of one tissue into another surgically (there can be dental implants, breast implants, cochlear implants, etc.)

replantatio, onis f (replantation) – a surgical technique which reattaches the parts of the body which have been accidentally cut or torn off

Exercises

Exercise I. Group the terms below according to the following meaning of the final combining form:

- a) removal of an organ or a part of an organ by surgery;
- b) surgical incision, cutting;
- c) an operation to make an opening or an operation to make a connection between segments of an organ or two organs;
- d) fixation of an organ by surgery;
- e) surgical sewing and suturing;

nephrorrhaphia, splenopexia, laparotomia, myotomia, colostomia, tenorrhaphia, gastroduodenostomia, phlebectomia, cholecystopexia, enterotomia, nephrostomia, hysterectomy, hepatopexia, mastectomy, colporrhaphia.

Exercise II. Write the terms in Latin, give their meaning:

proctorrhaphy, glossectomy, osteoplasty, uranorrhaphy, pneumolysis, bronchotomy, tonsillectomy, angiorrhaphy, gastropexy, rhinoplasty, thoracotomy, enteroproctostomy, hepatopexy, cholecystoduodenostomy, myoplasty, genioplasty, appendectomy, typhlotomy, cheiloplasty, proctopexy, neurorrhaphy.

Exercise III. Translate into English. Explain the meaning of the terms:

exstirpatio uteri, laparotomia subcostalis, nephrectomia partialis, replantatio manus dextrae, allotransplantatio hepatis, thoracoplastica superior, resectio mandibulae, amputatio digiti, hysterectomy totalis, autotransplantatio vasis, replantatio digiti, thoracotomia intercostalis.

Exercise IV. Make terms according to the definitions:

- 1) the surgical removal of all or part of a lung;
- 2) a surgical operation to cut a nerve;
- 3) a surgical operation to attach a mobile kidney;
- 4) plastic surgery of the external ear to repair damage or deformity;
- 5) a surgical operation to stitch up a perforated intestine;
- 6) a surgical operation to join a small intestine directly to the stomach;
- 7) the surgical removal of a gland;
- 8) transplantation of an organ or tissue from one individual to another of the same species with a different genotype;
- 9) the creation of an opening into the gallbladder;
- 10) the act of stitching an artery.

Exercise V. Read the terms and give their meaning:

podarthrititis, gerontologia, prophylaxis, mastectomy, mammography, cardiosclerosis, otoscopy, osteochondrolysis, pancreatolithotomy, hepatalgia, pericardectomy, paraphlebitis, craniometria, herniorrhaphy, angialgia, enteropathia, bronchotomy, rhinoscopy, asthma, adactylia, osteomalacia, necrosis, pneumocephalia, electrocardiogram, hydrotherapy, splenalgia, phthisiatria, abscessus, gastrectasia, ablepharia, colporrhexis, nephrostomy, palpation, typhlomegalia, urolithiasis, psychotherapy, adenoma, spondylotomy, splanchnoptosis, glossitis, arthrosis, leucocytosis, glaucoma, trauma, gastropathia, aphonia, thrombophlebitis, ophthalmoscopy, otitis, otorhinolaryngology, rectocele, pathologia, hepatoptosis, gastroesophagostomy, blepharospasmus, hydrocephalia, thrombectomy.

Test

I. hernia of liver a) proctocele b) adenoma c) hepatoptosis d) hepatocele e) typhlitis	XI. prolapse of the viscera a) lymphadenoma b) somatoscopia c) splanchnoptosis d) metroptosis e) cholecystolithotomy
II. inflammation of kidney a) nephritis b) gastritis c) nephroma	XII. rupture of the heart wall a) cardialgia b) cardiosclerosis c) endocardium

d) dacryocystitis

e) nephrosis

III. a condition in which a person has longer fingers than usual

a) spondylosis

b) myositis

c) dactylomegalia

d) osteosclerosis

e) phlebectasia

IV. abnormal dilation of vessels

a) splenomegalia

b) phlebologia

c) arteriosclerosis

d) arthromalacia

e) angiectasia

V. a condition in which air or gas is in the thorax

a) thoracometria

b) pneumomalacia

c) hydrothorax

d) pneumothorax

e) thoracotomia

VI. pathological softening of a joint

a) arthralgia

b) arthromalacia

c) arthritis

d) arthropathia

e) arthrosis

VII. the fatty tissue that is around the kidney

a) perinephrium

b) nephrosis

c) endometrium

d) parametritis

e) periosteum

VIII. stiffness in the spine and degenerative changes in the intervertebral discs

d) cardiomegalia

e) cardiorrhexis

XIII. inflammation of a vein

a) rhinitis

b) ophthalmitis

c) cheilitis

d) myositis

e) phlebitis

XIV. a surgical operation to cut a muscle

a) myoplastica

b) myocele

c) myotomia

d) myographia

e) myoma

XV. surgical suturing of rectum

a) nephrorrhaphia

b) splenopexia

c) proctocele

d) cholecystopexia

e) proctorrhaphia

XVI. the transfer of living organs or tissue from one part of the body to another or from one individual to another

a) plastica

b) transplantatio

c) amputatio

d) exstirpatio

e) resectio

XVII. surgical removal of the gall bladder

a) colostomia

b) tenorrhaphia

c) cholecystectomy

d) hysterectomy

e) laparotomia

XVIII. surgical fixation of liver

<p>a) rhinitis b) spondylosis c) arthritis d) pneumoarthrosis e) myoma</p> <p>IX. a malignant tumor arising from lymphoid tissue</p> <p>a) oncologia b) lymphoma c) lymphadenitis d) nosologia e) fibroma</p> <p>X. an unusual constriction of bronchial tubes</p> <p>a) bronchostenosis b) bronchoscopia c) bronchiectasis d) bronchospasmus e) bronchotomy</p>	<p>a) hepatopexia b) nephrostomia c) uranorrhaphia d) glossectomia e) rhinoplastica</p> <p>XIX. a surgical operation to join the small intestine to the stomach</p> <p>a) pancreatolithotomia b) cholecystoduodenostomia c) gastroenterostomia d) enteroproctostomia e) gastroesophagostomia</p> <p>XX. the surgical removal of a limb or a part of a limb</p> <p>a) exstirpatio b) implantatio c) replantatio d) amputatio e) transplantatio</p>
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LESSON IV

Table I. Greek-Latin duplicates

Greek	Latin	Meaning
cyto-, -cytus	cellula, ae f	cell
myelo-	medulla spinalis; medulla ossium	spinal cord; bone marrow
osteomyelo-	medulla ossium	bone marrow
haemo-, haemato-, -aemia	sanguis, inis m	blood
dermo-, dermato-, -dermia	cutis, is f	skin
uro-, -uria	urina, ae f	urine
chole-, -cholia	bilis, is f	gall, bile
oxy-, oxygeno-, -oxia	oxygenium, i n	oxygen
glyco-		sugar, glycose
blenno-	mucus, i m	mucus
galacto-	lac, lactis n	milk
pyo-	pus, puris n	pus
lipo-	adeps, ipis m	fat
hidro-	sudor, oris m	sweat
tox-, toxico-	venenum, i n	poison
azot-	nitrogenium, i n	nitrogen
xero-	siccus, a, um	dry
hetero-	differens, ntis	different, unlike
homo-	similis, e	same, identical
macro-	magnus, a, um	large
micro-	parvus, a, um	small
leuco-	albus, a, um	white
erythro-	ruber, bra, brum	red
melano-	niger, gra, grum	black
cyano-	coeruleus, a, um	blue, bluish
xantho-	flavus, a, um	yellow
polio-	cinereus, a, um	grey; grey matter of the brain and spinal cord

Table II. Combining forms denoting functional and pathological conditions, processes

Greek combining form	English	Meaning	Example
-genesis	-genesis	origin or production	pathogenesis (pathogenesis) – origin, production and development of a diseased or morbid condition
-genus	-genic, -genous -genetic	1) producing; 2) produced by	pathogenus (pathogenic) – causing or producing a disease
-rrhoea	-rrhoea	an unusual flow or discharge of fluid from an organ	rhinorrhoea (rhinorrhoea) – a watery discharge from the nose
-rrhagia	-rrhagia, -rrhage	an unusual flow or discharge of blood	rhinorrhagia (rhinorrhagia) – heavy bleeding from the nose
-stasis	-stasis	stoppage or slowing in the flow of liquid	haemostasis (haemostasis) – the process of stopping bleeding or slowing the movement of blood
-penia	-penia	deficiency, not enough, low number (mostly of blood cells)	leucopenia (leucopenia) – a reduction in the number of leucocytes in blood
-pnoë	-pnoea	breathing	apnoë (apnoea) – the stopping of breathing
-plasia	-plasia	referring to something which develops or grows	aplasia (aplasia) – defective development or congenital absence of an organ or tissue
-poësis	-poiesis	production, formation, creation	uropoësis (uropoiesis) – production of urine
-sthenia	-sthenia	strength, power, force	asthenia (asthenia) – a condition in which someone is weak and does not have any strength
-ergia	-ergy	work, energy, reaction	hyperergia (hyperergy) – greater than normal sensitivity to an allergen

Table III. Prefixes

Prefix	Meaning	Example
hyper-	1) too much, increased; 2) over, above	hyperthermia (hyperthermia) – high body temperature
hypo-	1) too little, decreased; 2) below, under	hypothermia (hypothermia) – reduction in body temperature below normal
dys-	painful, abnormal, difficult, impaired	dysuria (dysuria) – difficulty in passing urine
eu-	true, good, normal	eupnoë (eupnoea) – normal breathing, normal respiration

Nota bene!

1. The combining forms «haemo-», «haemato-», «-aemia» have the same meaning – «blood»:

haematologia (haematology) – the scientific study of blood, its formation and its diseases

haemangioma (haemangioma) – a benign tumor which forms in blood vessels and usually appears on the skin as a birthmark

If there is the name of any substance before the final combining form «-aemia», then the term denotes the presence and concentration of this substance in blood:

azotaemia (azotaemia) – the presence of urea or other nitrogen compounds in the blood

It is necessary to remember the meaning of the term «anaemia»:

anaemia (anaemia) – a condition in which the level of red blood cells is less than usual or where the hemoglobin is less, making it more difficult for the blood to carry oxygen

2. The initial combining forms «hydro- (water)» and «hidro- (sweat)» sound the same, but have different meaning and spelling:

hydraemia (hydraemia) – an excess of water in the blood

hidroadenitis (hidroadenitis) – inflammation of the sweat glands

3. The final combining form «-genus» has the following meanings: 1) producing; 2) produced by. The words which finish with this combining form are

adjectives:

pathogenus (pathogenic) – causing or producing a disease

endogenus (endogenous) – developing or being caused by something inside the organism

exogenus (exogenous) – developing or being caused by something outside the organism

homogenus (homogenous) – of the same kind, alike, having the same characteristics,

heterogenus (heterogenous) – coming from a different source

nephrogenus (nephrogenic) – developing from a kidney

4. The final combining form «-sthenia» is often used with the prefix «a-»:

asthenia (asthenia) – a condition in which someone is weak and does not have any strength

myasthenia (myasthenia) – abnormal muscular weakness or fatigue

neurasthenia (neurasthenia) – a type of neurosis in which a person is mentally and physically irritable and extremely fatigued

psychasthenia (psychasthenia) – a neurotic state characterized especially by phobias, obsessions and compulsions that one knows are irrational

Exercises

Exercise I. Group the terms below according to the following meaning of the initial or final combining form. Analyze the terms, give their meaning:

- a) blood;
- b) urine;
- c) skin.

pyuria, urologia, xerodermia, dermatologia, uropoësis, haemothorax, leucaemia, azoturia, anaemia, haematologia, toxoemia, hypoxoemia, haemopoësis, haemostasis, dermatoscopia, erythrodermia, anuria, haemangioma, pyodermia, bacteriuria, haematuria, haematoma, dermatosis, cyanodermia, hyperoemia, haemolysis, urographia, leucodermia, choloemia, dermatoma, hyperglycoemia.

Exercise II. Make up the terms. Analyze the terms, give their meaning:

- a) -genesis (patho-, osteo-, histo-, onco-);
- b) -poësis (uro-, haemo-, erythro-, leuco-);
- c) -plasia (a-, hyper-, hypo-, dys-).

Exercise III. Analyze the terms and give their meaning.

- a) galactorrhoea, blennorrhoea, pyorrhoea, sialorrhoea;

- b) rhinorrhagia, colporrhagia, laryngorrhagia, odontorrhagia, otorrhagia;
- c) haemostasis, galactostasis, cholestasis;
- d) erythropenia, leucopenia.

Exercise IV. Make up the terms. Analyze the terms, give their meaning:

- a) a- (an-) (-pnoë, -aemia, -pathia, -phonia, -cholia, -plasia);
- b) hyper- (-plasia; -aemia, -thermia, -glycaemia, -vitaminosis);
- c) hypo- (-oxia, -plasia, -thermia, -vitaminosis);
- d) dys- (-pnoë, -plasia, -uria, -phonia);

Exercise V. Complete the terms with the initial or final combining form:

- 1) an excessive amount of fat in blood – _____aemia;
- 2) a condition in which a jaw is larger than usual – macro_____;
- 3) bleeding from the stomach – gastro_____;
- 4) a yellow fatty mass, usually on the eyelids and hands, found in people with a high level of cholesterol in blood – _____oma;
- 5) abnormal muscular weakness or fatigue – my_____;
- 6) the production or making of deposits of fat – lipo_____;
- 7) any treatment involving the administering of oxygen – _____therapia;
- 8) inflammation of the spinal cord – _____itis;
- 9) white blood cell – leuco_____;
- 10) a condition in which a person has an unusually small head – micro_____;
- 11) a benign tumor formed of fatty tissue – _____oma;
- 12) low number of red blood cells – erythro(cyto)_____;
- 13) good, normal breathing – _____pnoë;
- 14) the development of cartilage – chondro_____;
- 15) escape of lymph from ruptured or severed lymphatic vessels – lympho_____;
- 16) general weakness – a_____;
- 17) origin, production and development of a morbid condition or a disease – patho_____;
- 18) increased strength or tonicity – _____sthenia;
- 19) dryness of skin – _____dermia;
- 20) presence of unusual amount of bile in blood – chol_____.

Exercise VI. Make terms according to the definitions:

- 1) the process of breaking down the fat;
- 2) difficulty in breathing;

- 3) softening of tissue in the spinal cord;
- 4) the production of lymphocytes or lymphoid tissue;
- 5) stoppage or slowing in the movement of blood;
- 6) bleeding from the rectum;
- 7) a type of neurosis in which a person is mentally and physically irritable and extremely fatigued;
- 8) inflammation of the sweat glands;
- 9) a condition in which the level of red blood cells is less than usual or where the hemoglobin is less, making it more difficult for the blood to carry oxygen
- 10) bleeding from the external ear;
- 11) an unusual, abnormal development of an organ or tissue;
- 12) developing or being caused by something inside the organism;
- 13) a condition of the eye in which the cornea and conjunctiva become dry because of the lack of Vitamin A;
- 14) the stopping of breathing;
- 15) the study of structure and function of cells;
- 16) red blood cell;
- 17) pus in the urine;
- 18) the continual production of blood cells and blood platelets in the bone marrow;
- 19) difficulty in passing urine;
- 20) developing from a kidney.

Exercise VII. Analyze the terms and give their meaning:

xerostomia, macrocheilia, microphthalmia, microscopus, myelographia, melanoderma, eupnoë, gastrorrhagia, toxicologia, anergia, lympho(cyto)penia, melanomatosis, cholestasis, otopyorrhoea, poliomyelitis, cheilorrhagia, glycolysis, hyperaesthesia, osteogenesis, cholecystectasia, neurocytus, chondrodysplasia, hypocalcaemia, toxicosis, odontogenus, glycosuria, cyanosis, hyperergia.

Exercise VIII. Write the terms in Latin, give their meaning:

eupnoea, uropoiesis, dermatosclerosis, psychogenic, cytolysis, haematology, erythroderma, myelopathy, homogenous, leucocyte, hidrosis, cholestasis, cytopenia, dermatoplasty, hyperplasia, macroglossia, haemorrhage, blennorrhoea.

Exercise IX. Translate into Latin. Explain the meaning of the terms:

pathological osteogenesis, acute anaemia, benign dermatoma, odontogenic abscess, acute poliomyelitis, local hyperaemia, malignant melanoma, total haemothorax, chronic pancreatitis, contact dermatitis, alimentary glycosuria, congenital asthenia.

Test

<p>I. general weakness, lack of energy</p> <ul style="list-style-type: none">a) hyperergiab) astheniac) hyperthermiad) aplasiae) apathia <p>II. white blood cell</p> <ul style="list-style-type: none">a) lymphocytusb) leucocytusc) erythrocytusd) phagocytuse) neurocytus <p>III. the process of stopping bleeding or slowing the movement of blood</p> <ul style="list-style-type: none">a) haemorrhagiab) anaemiac) hyperaemiad) haemostasise) haematologia <p>IV. heavy bleeding from the nose</p> <ul style="list-style-type: none">a) otorrhagiab) rhinorrhoeac) rhinorrhagiad) blennorrhoeae) odontorrhagia <p>V. developing or being caused by something inside the organism</p> <ul style="list-style-type: none">a) endogenusb) pathogenusc) exogenusd) heterogenuse) homogenus <p>VI. an eruption of pus in the skin</p> <ul style="list-style-type: none">a) erythrodermiab) leucodermiac) pyodermia	<p>XI. unusual presence of blood in urine</p> <ul style="list-style-type: none">a) uraemiab) haematuriac) uropoësisd) erythrodermiae) hyperaemia <p>XII. an inadequate supply of oxygen to tissue</p> <ul style="list-style-type: none">a) oncogenesisb) toxaemiac) oxygenotherapiad) dyspnoëe) hypoxia <p>XIII. a tumor formed of dark pigmented cells</p> <ul style="list-style-type: none">a) melanomab) adenomac) oncologiad) oedemae) fibroma <p>XIV. a condition in which a person has an abnormally small head</p> <ul style="list-style-type: none">a) cephalgiab) encephalopathiac) microcephaliad) encephalographiae) micrognathia <p>XV. the discharge of watery mucous</p> <ul style="list-style-type: none">a) otorrhagiab) hidroadenitisc) hydraemiad) rhinorrhagiae) blennorrhoea <p>XVI. the study and treatment of skin and its diseases</p> <ul style="list-style-type: none">a) haematologia
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d) xerodermia

e) cyanodermia

VII. an excessive amount of fat in blood

a) hyperaemia

b) hypoxaemia

c) haematoma

d) toxaemia

e) lipaemia

VIII. normal breathing

a) eupnoë

b) aplasia

c) hypersthenia

d) hypergia

e) apnoë

IX. reduction of red blood cells in blood

a) erythrodermia

b) leucopenia

c) haemopoësis

d) erythropenia

e) erythrocytus

X. unusual development of tissue or organ

a) histogenesis

b) dysplasia

c) pathogenesis

d) heterogenus

e) asthenia

b) urologia

c) histologia

d) pathologia

e) dermatologia

XVII. the absence of the secretion of bile

a) aphonia

b) acholia

c) aplasia

d) apathia

e) anuria

XVIII. inflammation of the bone marrow

a) periostitis

b) osteomyelitis

c) cholecystitis

d) hidroadenitis

e) typhlitis

XIX. origin, production and development of a diseased or morbid condition

a) pathogenesis

b) apathia

c) nosologia

d) pathologia

e) antipathia

XX. developing from kidney

a) nephropathia

b) nephrostomia

c) nephrologia

d) nephrogenus

e) nephralgia

LESSON V

Table I. Greek-Latin duplicates

Greek	Latin	Meaning
kineto-; kinesi-, -kinesia, -kinesis	motus, us m	movement, motion
phago-; -phagia	-	swallowing or eating
pharmaco-	medicamentum, i n	medicine, drug
phyto-	planta medicata	herbs, plants
schizo-	-	referring to something that is split
cryo-	frigidus, a, um	cold
ortho-	rectus, a, um	straight, correct
morpho-	forma, ae f	form, shape, structure
topo-, -topia	locus, i m	place, location
pan-, panto-	-	all, entire, everything
poly-	multus, a, um	many, much
ischo-	-	too little
oligo-	-	few, little
brady-	lentus, a, um	slow
tachy-	celer, eris, ere	quick, fast
iso-	aequalis, e	equal, the same
allo-	-	different, other, unusual
auto-	proprius, a, um	own, automatic
neo-	novus, a, um (novo-)	new

Table II. Combining forms denoting functional and pathological conditions, processes

Greek combining form	English	Meaning	Example
tono-; -tonia	tono-, -tonia	tonicity, tonus, tension	hypotonia (hypotonia) – reduced tone of the skeletal muscles
-tensio	-tension	arterial blood pressure;	hypertensio (hypertension) – high blood pressure
philo-; -philia	philo-, -philia	1) attraction to or liking for	haemophilia (haemophilia) –

		something; 2) tendency toward something	a disorder in which the blood clots much more slowly than usual, resulting in extensive bleeding from even minor injuries
-phobia	-phobia	neurotic fear of something	claustrophobia (claustrophobia) – a fear of enclosed spaces or crowded rooms
-phrenia	-phrenia	disorder of mind	schizophrenia (schizophrenia) – a mental disorder in which someone withdraws from contact with other people, has delusions and seems to lose contact with the real world
-mnesia; -mnesis	-mnesia, -mnesis	memory	amnesia (amnesia) – loss of memory
-gnosis	-gnosis	knowledge	diagnosis (diagnosis) – the act of identifying a disease from its signs and symptoms
-trophia	-trophy	1) nourishment of tissues or organs; 2) development of an organ	dystrophia (dystrophy) – wasting of an organ or muscle or tissue due to lack of nutrients in that part of the body
-opt-, optico-, -opia, - opsia	-opt-, optico-, -opia, -opsia (-opsy)	vision	myopia (myopia) – a condition in which someone can see clearly objects which are close, but not ones which are further away (shortsightedness)

Table III. Prefixes

Prefix	Meaning	Example
mono-	one, single	monoplegia (monoplegia) – paralysis affecting a single

		limb, body part or group of muscles
bi-, di-	two, double	diplegia (diplegia) – paralysis of corresponding parts on both sides of the body
hemi-, semi-	half	hemiplegia (hemiplegia) – total or partial paralysis of one side of the body that results from disease of or injury to the motor centers of the brain

Nota bene!

1. The combining form «-tonia» has the meaning «tone, tonicity, tension of muscles or the muscular layer of the walls of a hollow organ»:

dystonia (dystonia) – disorders muscle tone, causing involuntary contractions which make the limbs deformed

Sometimes «-tonia» is used to denote «blood pressure», but in this case the combining form «-tensio» is preferable:

hypertensio (hypertension) – high arterial blood pressure

2. The combining form «-philia» has two meanings 1) attraction for something, love; 2) tendency toward something, predisposition to something. The difference of the meanings is shown in the examples:

neophilia (neophilia) – love of everything new

spasmophilia (spasmophilia) – abnormal tendency to convulsions; abnormal sensitivity of motor nerves to stimulation with a resultant tendency to spasm

3. It is recommended to memorize the following terms with the final combining form «-opia (-opsia)»:

biopsia (biopsy) – the process of taking a small piece of living tissue for examination and diagnosis

myopia (myopia) – a condition in which someone can see clearly objects which are close, but not ones which are further away (shortsightedness)

hypermetropia/hyperopia (hypermetropia/hyperopia) – a condition in which someone can see clearly objects which are a long way away, but cannot see objects which are close (longsightedness)

Exercises

Exercise I. Analyze the terms and give their meaning:

autohaemotherapy, amnesia, diagnosis, cryotherapy, kinesitherapia, hypotensio, schizophrenia, allergia, morphologia, biopsia, monoplegia, dystrophia, cryoretinopexia, cryaesthesia, pathophobia, dysphagia, cardioplegia, erythrophobia, lipodystrophia, asthenopia, topographia, oligodontia, dystopia, monophobia, oligophrenia, dysbacteriosis, claustrophobia, myopia, dystonia, diplegia.

Exercise II. Make up the terms. Analyze the terms, give their meaning:

- 1) hyper- / hypo- (-tonia, -tensio, -trophia, -kinesia);
- 2) brady- / tachy- (-cardia, -pnoë);
- 3) poly- (-phagia, -neuritis, -opia, -uria, -arthritis);
- 4) isch(o)- (-aemia, -uria);
- 5) pan- (-otitis, -arthritis, -proctocolectomia, -phobia).

Exercise III. Complete the terms with the initial or final combining form:

- 1) a condition in which someone walks slowly or makes slow movements because of disease – _____kinesia;
- 2) a lack of muscle tone – amy_____;
- 3) a neuritis which affects one nerve – _____neuritis;
- 4) disorder of the memory where a patient remembers events which have not happened – para_____;
- 5) atrophy of the mammary gland – _____atrophia;
- 6) a disorder in which the blood clots much more slowly than usual, resulting in extensive bleeding from even minor injuries – haemo_____;
- 7) a mental disorder in which someone withdraws from contact with other people, has delusions and seems to lose contact with the real world – schizo_____;
- 8) abnormally slow breathing – _____pnoë;
- 9) a bone disease, especially one caused by disorder of the metabolism – _____dystrophia;
- 10) low blood pressure – hypo_____;
- 11) neurotic fear of water – hydro_____;
- 12) loss of the ability to swallow – a_____;
- 13) a condition in which someone can see clearly objects which are close, but not ones which are further away – my_____;
- 14) a deficient blood supply to a part of the body – isch_____;
- 15) lack of tone or tension in the muscles – a_____;

- 16) paralysis of an eyelid – _____plegia;
- 17) action of cells, destroying themselves with their own enzymes – _____lysis;
- 18) a condition in which a lot of arteries swell up at the same time – _____arteriitis;
- 19) a condition in which there is unusually great strength or movement – hyper_____;
- 20) a condition of abnormal visual perception in which objects appear to be smaller than they are in reality – micr_____.

Exercise IV. Make terms according to the definitions:

- 1) a rapid beating of the heart;
- 2) the treatment with medical plants and herbs;
- 3) decrease in size or wasting away of a tissue or part of the body;
- 4) high blood pressure;
- 5) a condition in which someone can see clearly objects which are a long way away, but cannot see objects which are close;
- 6) a condition in which a lot of muscles swell up at the same time;
- 7) difficulty in passing urine;
- 8) condition in which a muscle wastes away;
- 9) inflammation of all the tissues in the heart;
- 10) unusually slow breathing;
- 11) difficulty in breathing while a person is lying down;
- 12) excessive appetite or eating;
- 13) reduced excretion of urine;
- 14) the study of the drugs and medicines, their action, properties and characteristics;
- 15) paralysis of the muscle of the eye;
- 16) too little blood in the circulatory system;
- 17) having an abnormally large head;
- 18) the process of taking a small piece of living tissue for examination and diagnosis;
- 19) loss of memory;
- 20) a cell, especially a white blood cell, which can surround and destroy other cells.

Exercise V. Write the terms in Latin, give their meaning:

bradyphagia, xanthopsia, enterospasm, orthopedics, dystrophy, hypotension, atony, gastrobiopsy, orthopnoea, ischuria, haemophilia, cryotherapy, bradycardia, topography, hemiplegia, pharmacology, polyneuritis, acrophobia, diagnosis.

Exercise VI. Translate into English. Explain the meaning of the terms:

dyskinesia postoperativa, dystonia vegetativa, dystrophia subcutanea, amnesia partialis, ophthalmoplegia interna, dystopia dentis canini, atonia ventriculi, hypokinesia cordis, hemiatrophia faciei progressiva, tachycardia paroxysmalis, hemianopsia partialis, hemiplegia cerebialis, ophthalmoplegia congenita.

Exercise VII. Read the terms and give their meaning:

splenomegalia, cheiloplastica, leucopenia, cholecystopexia, dysplasia, phlebotomia, nephralgia, myologia, colposcopia, coloptosis, aphonia, polyarthralgia, haemothorax, pathogenesis, nephropathia, cholestasis, hydrocephalia, oligodactylia, blepharitis, gastrogenus, tachyphagia, bradycardia, hypotensio, lipoma, thrombopenia, angiolysis, otorrhagia, melanodermia, oliguria, osteomyelitis, acromegalia, monocytus, gnathonecrosis, oncostomatologia, sialolithiasis, rectoscopus, cyanuria, anoxia, tenorrhaphia, aetiologia, abscessus, lithotomia, myasthenia, cytopenia, haemarthrosis, gerontologia, pneumonomalacia, gastrocele, antipathia, transplantatio, lymphorrhoea, glossoptosis, haematoma, pyuria, phytoterapia, dysostosis.

Test

<p>I. the treatment of a disease using drugs</p> <p>a) pharmacologia b) psychotherapia c) nosologia d) pharmacotherapia e) phytoterapia</p> <p>II. a mental disorder in which someone withdraws from contact with other people, has delusions and seems to lose contact with the real world</p> <p>a) haemophilia b) schizophrenia c) degradatio d) oligophrenia e) claustrophobia</p>	<p>XI. the doctor's judgment of the likely or expected development of a disease or of the chances of getting better</p> <p>a) diagnosis b) prognosis c) pathogenesis d) amnesia e) aetiologia</p> <p>XII. the act of identifying the disease from its signs and symptoms</p> <p>a) diagnosis b) diarrhoea c) prognosis d) prophylaxis e) therapia</p> <p>XIII. a condition in which someone</p>
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III. unusually slow breathing

- a) bradypnoë
- b) tachycardia
- c) polyphagia
- d) bradykinesia
- e) tachypnoë

IV. loss of memory

- a) paramnesia
- b) anamnesis
- c) amnesia
- d) dementia
- e) diagnosis

V. a bone disease, especially one caused by the disorder of the metabolism

- a) osteogenesis
- b) osteologia
- c) osteodystrophia
- d) osteometria
- e) osteopathia

VI. a fear of enclosed spaces or crowded rooms

- a) monophobia
- b) acrophobia
- c) hypsophobia
- d) claustrophobia
- e) hydrophobia

VII. paralysis of corresponding parts on both sides of the body

- a) diplegia
- b) oligophrenia
- c) hemiplegia
- d) hypertonia
- e) polyphagia

VIII. disordered muscle tone

- a) dystrophia
- b) dysuria
- c) dysphagia

can see clearly objects which are a long way away, but cannot see objects which are close (longsightedness)

- a) biopsia
- b) hypermetropia
- c) ophthalmoplegia
- d) myopia
- e) ophthalmologia

XIV. a situation in which cells destroy themselves with their own enzymes

- a) autolysis
- b) anamnesis
- c) analysis
- d) cytologia
- e) leucocytus

XV. inflammation of several joints

- a) polyarthritis
- b) polyarteriitis
- c) macrognathia
- d) polyphagia
- e) macrocephalia

XVI. a state in which most of the teeth are lacking

- a) stomatologia
- b) odontalgia
- c) oligodontia
- d) odontorrhagia
- e) stomatologus

XVII. high blood pressure

- a) hypertrophia
- b) hypertensio
- c) hyperplasia
- d) hyperaemia
- e) hypermetropia

XVIII. a disorder in which the blood clots much more slowly than usual,

d) dystonia

e) dyspepsia

IX. an unusual sensitivity to some substances such as pollen or dust, which cause a physical reaction such as sneezing or a rash in someone who comes into contact with them

a) anergia

b) hyperaesthesia

c) analgesia

d) anaesthesia

e) allergia

X. a rapid beating of the heart

a) tachycardia

b) cardiorrhesis

c) bradycardia

d) cardiologia

e) cardialgia

resulting in extensive bleeding from even minor injuries

a) haemopoësis

b) haematologia

c) haemostasis

d) haemorrhagia

e) haemophilia

XIX. a deficient blood supply to a part of the body

a) ischaemia

b) anaemia

c) toxaemia

d) haematuria

e) haemopoësis

XX. inflammation of the whole of the eye

a) ophthalmoplegia

b) panophthalmitis

c) ophthalmologia

d) endophthalmitis

e) ophthalmologus

LESSON VI

Table I. Greek prefixes

Prefix	Meaning	Example
a-, an-	absence, loss, without, lack, inability	acholia (acholia) – the absence or failure of the secretion of bile
ana-	upward, again	anabiosis (anabiosis) – a restoring to life from a deathlike condition; resuscitation
anti-	against	antidotum (antidote) – a substance which counteracts the effect of a poison
dia-	through, throughout; across, apart	diarrhoea (diarrhea) – a condition in which someone frequently passes liquid feces
dys-	painful, abnormal, difficult, impaired	dysphagia (dysphagia) – difficulty in swallowing
endo-, ento-	inside, within	endocarditis (endocarditis) – inflammation of the membrane lining of the heart
epi-	on, upon, over	epidermis (epidermis) – the outer layer of the skin
eu-	true, good, normal	eupepsia (eupepsia) – good digestion
exo-, ecto-	out of, outside	exogenous (exogenous) – developing or being caused by something outside the organism
hemi-	half	hemicolectomia (hemicolectomy) – surgical removal of the left or right side of the colon
hyper-	1) too much, increased; 2) over, above	hyperhidrosis (hyperhidrosis) – a condition in which too much sweat is produced
hypo-	1) too little, decreased; 2) below, under	hypohidrosis (hypohidrosis) – a condition in which someone produces too little sweat
mes-, meso-	in the middle	mesaortitis (mesaortitis) –

		inflammation of the media of aorta
met-, meta-	1) behind; 2) with changes	metencephalon (metencephalon) – back brain metabolismus (metabolism) – the sum of all the physical and chemical processes which are continually taking place in the human body and which are essential to life
para-	1) near, beside; 2) cellular (connective) tissue beside or around an organ; 3) abnormal	paravertebralis, e (paravertebral) – near the vertebrae
peri-	1) around, enclosing, covering; 2) near, beside	perimetrium (perimetrium) – a membrane around the uterus
pro-	before, in front of	prognosis (prognosis) – a prediction of the probable course and outcome of the disease
syn-, sym-	joint or fused	symbiosis (symbiosis) – a condition in which two organisms exist together and help each other to survive

Table II. Latin prefixes

Prefix	Meaning	Example
ante-, prae-	before, in front of	praesenilis, e (presenile) – pertaining to a condition resembling senility, but occurring in early or middle life
contra-	against, opposite, contrasting	contralateralis, e (contralateral) – located on or affecting the opposite side of the body
de-, des-	removal, loss, down, without	depressio, onis f (depression) – 1) a mental state or chronic

		mental disorder, characterized by feeling of sadness, loneliness, despair, low self-esteem and self-approach; 2) a hollow on the surface of the part of the body
dis-	removal, separation, lacking, deprived of	disseminatio, onis f (dissemination) – the fact of being widespread throughout the body
ex-	out of, outside	expiratio, onis f (expiration) – 1) the act of breathing out; 2) death, dying
extra-	outside	extrapleuris, e (extrapleural) – outside the pleural cavity
in-, im-	1) in, into 2) not	inspiratio, onis f (inspiration) – the act of taking air into the lungs immobilis, e (immobile) – not moving, which can not move
infra-	below	infracostalis, e (infracostal) – lying below the ribs
inter-	between	intercostalis, e (intercostal) – between the ribs
intra-	inside	intracellularis, e (intracellular) – inside a cell
re-	again, backward	reanimatio, onis f (reanimation) – the act of bringing a person or thing back to life
retro-	at the back, behind	retrosternalis, e (retrosternal) – behind the sternum
semi-	half	semicircularis, e (semicircular) – one half of a circle
sub-	underneath, below	subabdominalis, e (subabdominal) – beneath the abdomen
supra-, super-	above, over	suprarenalis, e (suprarenal) – above the kidneys
trans-	through or across	transvaginalis, e (transvaginal) – across or through the vagina

Nota bene!

The Greek and Latin prefixes are added to the root. They don't change the meaning of the root, but specify it, denoting localization, direction, time duration, absence of something, etc.

Latin prefixes are mostly used in anatomical terminology, Greek prefixes – in clinical terminology.

Sometimes the meaning of Greek and Latin prefixes coincides or is very close: **contra-** (Latin) – **anti-** (Greek) have the meaning «against», **trans-** (Latin) – **dia** (Greek) mean «through».

Exercises

Exercise I. Analyze the terms and give their meaning. Use the dictionary, if necessary:

- a) antitoxinum, inspiratio, praeglaucoma, degeneratio, antidotum, metamorphosis, metencephalon, mesencephalitis, symbiosis, dyskinesia, innervatio, anamnesis, epicrisis, anastomosis, synergia, prognosis, desinfectio, arrhythmia, immobilisatio, hyposialia, epigastrium, metabolismus, eutonia, synchondrosis;
- b) infraorbitalis, interosseus, extrauterinus, subcutaneus, endocervicalis, interclavicularis, intravenosus, paranasalis, perivascularis, retroduodenalis, subscapularis, suprasternalis, intracranialis, epigastricus, immobilis.

Exercise II. Make up the terms. Analyze the terms, give their meaning:

- a) ana- (-tomia, -biosis, -mnesis, -lysis, -bolismus)
- b) syn- (-ostosis, -desmosis, -chondrosis, -ergia, -kinesia, -dactylia)
- c) in- (-halatio, -nervatio, -toxicatio, -spiratio)
- d) de- (-pressio, -gradatio, -generatio, -mentia, -scendens)
- e) anti- (-pyretica, -toxinum, -dotum, -depressiva, -biotica, -septicus)

Exercise III. Make terms according to the definitions:

- 1) joint, where the bones are linked by cartilage;
- 2) difficulty in speaking;
- 3) inflammation of tissues, adjacent to a gland;
- 4) the process of transferring the blood or its components from one person to another;
- 5) between the muscles;
- 6) growth or cell which is not malignant, but may become cancerous;
- 7) backbrain;

- 8) inside the uterus;
- 9) not moving or which can not move;
- 10) inflammation of the outer coat of a vein;
- 11) the sum of all the physical and chemical processes which are continually taking place in the human body and which are essential to life;
- 12) low concentration of water in the body;
- 13) breathing, taking air into the lungs and blowing it out again;
- 14) excess of blood in any part of the body;
- 15) the inability to control voluntary movements;
- 16) under the skin;
- 17) the act of bringing a person or thing back to life;
- 18) a prediction of the probable course and outcome of the disease;
- 19) the transfer of living organs or tissue from one part of the body to another or from one individual to another;
- 20) above the kidneys;
- 21) a condition in which a person feels pains or discomfort in the stomach, caused by indigestion;
- 22) outer layer of skin;
- 23) being widespread throughout the body;
- 24) located on or affecting the opposite side of the body;
- 25) below the ribs.

Exercise IV. Translate into English. Explain the meaning of the terms:

dysenteria maligna, diarrhoea gastrogena, hypoxia anaemica, anuria renalis, dysuria spastica, prognosis optima, anaesthesia spinalis, dyspepsia gastrica, aphonia hysterica, depressio apathica, hyperglycaemia diabetica, dyskinesia postoperativa, amnesia partialis, dystrophia subcutanea, atrophia muscularis progressiva, analgesia centralis, hypokinesia cardiaca.

Test

<p>I. a situation where two or more things are acting together in such a way that both are more effective</p> <p>a) hyperergia b) diplegia c) synergia</p>	<p>XI. decrease in size or wasting away of a body part or tissue</p> <p>a) histologia b) atrophia c) osteopathia d) microcephalia</p>
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<p>d) hypertrophia e) anastomosis</p> <p>II. the scientific study of the body and how its parts are arranged</p> <p>a) anatomia b) histologia c) psychologia d) pathologia e) nosologia</p> <p>III. above the kidneys</p> <p>a) suprasternalis b) subcutaneus c) sublingualis d) supraorbitalis e) suprarenalis</p> <p>IV. referring to a condition which can not be operated on</p> <p>a) immobilis b) inoperabilis c) antipathia d) dystrophia e) intoxicatio</p> <p>V. an increased sensitivity to pain</p> <p>a) hypertrophia b) hyperaemia c) hyperergia d) hyperalgesia e) hypertensio</p> <p>VI. the removal of microorganisms on the surface of something</p> <p>a) degradatio b) dessimatio c) depressio d) degeneratio e) desinfectio</p> <p>VII. breathing, the act of taking the air into the lungs and blowing it out through the mouth or nose</p>	<p>e) oligophrenia</p> <p>XII. difficulty in passing urine</p> <p>a) dysuria b) anuria c) polyuria d) uropoësis e) oliguria</p> <p>XIII. the fact of being widespread throughout the body</p> <p>a) respiratio b) desinfectio c) disseminatio d) immobilisatio e) depressio</p> <p>XIV. good digestion</p> <p>a) polyphagia b) dysenteria c) gastroenterologia d) eupepsia e) phagocytus</p> <p>XV. difficulty in swallowing</p> <p>a) dysphonia b) dystrophia c) dysphagia d) dystonia e) dyspepsia</p> <p>XVI. analytical summing up of a medical case history</p> <p>a) diagnosis b) anamnesis c) pathogenesis d) epicrisis e) dementia</p> <p>XVII. a drug which helps to reduce a fever</p> <p>a) antibiotica b) antipyretica c) antidepressiva</p>
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<p>a) inspiratio b) respiratio c) exspiratio d) inhalatio e) reanimatio</p> <p>VIII. a joint where the bones are tightly linked by ligaments</p> <p>a) syhchondrosis b) synostosis c) symbiosis d) syndesmosis e) synergia</p> <p>IX. a detailed examination of anything complex in order to understand its nature or to determine its essential feature</p> <p>a) epicrisis b) anamnesis c) analysis d) reanimatio e) diagnosis</p> <p>X. bent or curved</p> <p>a) semicircularis b) subcutaneus c) circumflexus d) interverebralis e) descendens</p>	<p>d) antitoxinum e) antidotum</p> <p>XVIII. a change in the structure of a cell or organ so that it no longer works properly</p> <p>a) degeneratio b) dystrophia c) metamorhosis d) morhologia e) dystopia</p> <p>XIX. a condition in which someone produces too little sweat</p> <p>a) hypohidrosis b) hypoxia c) oliguria d) oligophrenia e) ischaemia</p> <p>XX. near the vertebrae</p> <p>a) intervertebralis b) subcostalis c) paravertebralis d) infraorbitalis e) intermuscularis</p>
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LESSON VII

Revision exercises

Exercise I. Analyze the terms and give their meaning:

a) otorrhagia, pathogenesis, gastropathia, pyelonephritis, tachycardia, myasthenia, cephalgia, atonia, geriatria, colpopexia, xerocheilia, splenorrhaphia, hypotrophia, anuria, somatoscopia, duodenitis, anastomosis, leucopenia, lumbalgia, colostomia, oligodactylia, spondylotomia, dysostosis, thoracoscopia, lymphoma, leucopoësis, homogenus, lymphocytus, myelocèle, xanthoma, allomyelotransplantatio, leucodermia, apnoë, hepatoptosis, xanthuria, amputatio, bronchostenosis, rhinitis, urostasis, gynaecologia, aortographia, coma, hydrotherapia, pericardium, odontolithus, cardiorrhæxis, gastrocèle, cholecystopexia, exstirpatio, nephrorrhaphia, dysuria, hypertensio, prognosis, symbiosis, claustrophobia, cholecystectasia, hydraemia, asthenia, colica, erythrodermia, hyperergia, epidermis, reanimatio;

b) proctologia, anaesthesia, otoscopia, phthisiatria, paediatæ, hepatalgia, oligopnoë, ischaemia, insultus, pneumonia, polyneuritis, splenectomy, dermatologia, gastrogenus, microglossia, nephropexia, neurochirurgia, enteroproctostomia, splanchnoptosis, glucosuria, enterobiopsia, polyphagia, schizophrenia, pyorrhoea, phlebectasia, arthromalacia, synchondrosis, gangraena, tenorrhaphia, aplasia, eupnoë, toxæmia, erythropenia, exogenus, percussio, palpato, auscultatio, pneumothorax, aetiologia, encephalometria, physiotherapia, myopathia, stethoscopus, myocardium, osteosclerosis, lipaemia, hydrocephalia, nocturia, blepharoplastica, hemihepatectomia, typhlomegalia, nephrolithiasis, pericystitis, bradykinesia, epicrisis, chondronecrosis, myopia, laparotomia, pyuria, perinephritis, colica.

Exercise II. Make up the terms. Analyze the terms, give their meaning:

a) gastr(o)- (-algia, -ectomy, -itis, -cele, -lithus, -pathia, -pexia, -plastica, -ptosis, -rrhagia, -rrhaphia, -rrhoea, -scopia, -stomia, -tomy);

b) haem(o)-/haemat(o)- (-genus, -logia, -oma, -uria, -gramma, -lysis, -philia, -ophthalmia, -poësis, -rrhagia, -stasis, -thorax);

c) dys- (-aesthesia, -bacteriosis, -enteria, -genesis, -kinesia, -ostosis, -pepsia, -phagia, -phonia, -plasia, -pnoë, -tonia, -trophia, -uria).

Exercise III. Make terms according to the definitions:

1) presence of blood in urine;

- 2) pain in the stomach;
- 3) bleeding from the rectum;
- 4) abnormal enlargement of liver;
- 5) inflammation of liver;
- 6) classification of diseases;
- 7) any disease of the brain;
- 8) study of the process of ageing and diseases of old people;
- 9) dilation of lungs;
- 10) pathological hardening of the walls of the veins;
- 11) benign tumor of a muscle;
- 12) surgical removal of all or a part of a nerve;
- 13) the part of the upper abdomen, between the ribcage and the navel;
- 14) formation of red blood cells;
- 15) examination of a patient's bronchi, using a bronchoscope;
- 16) abnormally enlarged heart;
- 17) benign tumor, containing both bone and cartilage;
- 18) inflammation of pancreas;
- 19) condition when a patient passes a large quantity of urine;
- 20) prolapse of the rectum;
- 21) working together so that to produce an effect greater than the sum of individual effects;
- 22) X-ray examination of the vertebral column;
- 23) reduction in the number of lymphocytes in blood;
- 24) surgical operation to make a cut in the bladder;
- 25) presence of abnormal amount of bile in blood;
- 26) having bacteria in urine;
- 27) slow rate of heart contractions;
- 28) paralysis of an eyelid;
- 29) pain in a joint;
- 30) stopping breathing;
- 31) low blood pressure;
- 32) inflammation of lungs;
- 33) antibody, produced by the body, to counteract poison in the body;
- 34) hardening of a gland;
- 35) dryness of lips;
- 36) study of the urinary system and its diseases;
- 37) measuring the size of thorax;
- 38) surgical operation to stitch pieces of a torn tendon together;
- 39) surgical removal of stones from renal pelvis;

- 40) study of drugs or medicines, their actions, properties and characteristics;
- 41) inflammation of the tissue around the kidney;
- 42) bleeding from the external ear;
- 43) surgical removal of an eye;
- 44) nerve cell;
- 45) death of a part of the body, such as bone, tissue or organ;
- 46) tumor in bone marrow;
- 47) abnormally large amount of melanin in skin;
- 48) treatment that involves moving of parts of the body;
- 49) surgical removal of the womb;
- 50) formation and development of tissues.

Test

<p>I. very fast breathing</p> <ul style="list-style-type: none"> a) apnoë b) tachypnoë c) bradypnoë d) dyspnoë e) orthopnoë <p>II. condition where a patient doesn't produce enough urine</p> <ul style="list-style-type: none"> a) haematuria b) azoturia c) oliguria d) glycosuria e) uropoësis <p>III. toothache</p> <ul style="list-style-type: none"> a) odontalgia b) hepatalgia c) cephalgia d) proctalgia e) gastralgia <p>IV. a connection made between two blood vessels or tubular structures, either naturally or by surgery</p> <ul style="list-style-type: none"> a) chirurgia b) fistula 	<p>XI. a condition in which the intestine is lower than usual in the abdominal cavity</p> <ul style="list-style-type: none"> a) typhlostenosis b) enteroptosis c) gastrorrhagia d) dysentaria e) gastroenterostomia <p>XII. X-ray examination of the gall bladder</p> <ul style="list-style-type: none"> a) spondylographia b) arthrographia c) mammographia d) cholecystographia e) electrocardiographia <p>XIII. the process of taking a small piece of living tissue for examination and diagnosis</p> <ul style="list-style-type: none"> a) lithiasis b) biopsia c) prophylaxis d) histopathologia e) myopia <p>XIV. therapy involving movements</p>
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c) amputatio

d) anastomosis

e) implantatio

V. a type of endoscope used to examine the kidney

a) nephrologia

b) nephroscopus

c) nephroscopia

d) nephrologus

e) nephropathia

VI. a surgical operation to make a permanent opening from the neck into the larynx

a) laryngotomia

b) laryngospasmus

c) laryngostomia

d) laryngostenosis

e) laryngoscopia

VII. disordered muscle tone

a) dystonia

b) myographia

c) myasthenia

d) myalgia

e) hypertensio

VIII. an operation where a vein or an artery is cut so that the blood can be removed

a) angiorrhaphia

b) phlebotomia

c) angiologia

d) phlebitis

e) phlebectomia

IX. the paralysis of one part of the body

a) paraplegia

b) monoplegia

c) tremor

d) spasmus

parts of the body

a) hydrotherapia

b) physiotherapia

c) heliotherapia

d) kinesitherapia

e) psychotherapia

XV. a membrane which surrounds and supports the heart

a) endocardium

b) myometrium

c) periosteum

d) periodontium

e) pericardium

XVI. a condition in which tissue becomes hard

a) stenosis

b) sclerosis

c) calculus

d) lithotomia

e) resectio

XVII. the surgical removal of uterus

a) hysterectomy

b) myometrium

c) metroptosis

d) hysterotomy

e) endometritis

XVIII. inflammation of the eye

a) rhinitis

b) ophthalmitis

c) otitis

d) phlebitis

e) arthritis

XIX. a benign tumor formed of nerve cells and nerve fibers

a) neuroma

b) neurotoma

c) neurologia

d) neurorrhaphia

e) monophobia

X. blood clot, a soft mass of coagulated blood in a vein or an artery

a) varix

b) oedema

c) thrombus

d) struma

e) ulcer

e) neuralgia

XX. a surgical operation to cut the abdominal cavity

a) angiostomia

b) tenorrhaphia

c) glossectomia

d) genioplastica

e) laparotomia

KEYS

Test (Lesson I) 1 b; 2 e; 3 a; 4 c; 5 d; 6 b; 7 a; 8 d; 9 b; 10 c; 11 e; 12 b; 13 e; 14 b; 15 d; 16 a; 17 c; 18 b; 19 c; 20 c.

Test (Lesson II) 1 c; 2 a; 3 e; 4 a; 5 d; 6 b; 7 d; 8 a; 9 c; 10 c; 11 c; 12 d; 13 a; 14 b; 15 e; 16 b; 17 e; 18 a; 19 e; 20 c.

Test (Lesson III) 1 d; 2 a; 3 c; 4 e; 5 d; 6 b; 7 a; 8 b; 9 b; 10 a; 11c; 12 e; 13 e; 14 c; 15 e; 16 b; 17 c; 18 a; 19 c; 20 d.

Test (Lesson IV) 1 b; 2 b; 3 d; 4 c; 5 a; 6 c; 7 e; 8 a; 9 d; 10 b; 11 b; 12 e; 13 a; 14 c; 15 e; 16 e; 17 b; 18 b; 19 a; 20 d.

Test (Lesson V) 1 d; 2 b; 3 a; 4 c; 5 c; 6 d; 7 a; 8 d; 9 e; 10 a; 11 b; 12 a; 13 b; 14 a; 15 a; 16 c; 17 b; 18 e; 19 a; 20 b.

Test (Lesson VI) 1 c; 2 a; 3 e; 4 b; 5 d; 6 e; 7 b; 8 d; 9 c; 10 c; 11 b; 12 a; 13 c; 14 d; 15 c; 16 d; 17 b; 18 a; 19 a; 20 c.

Test (Lesson VII) 1 b; 2 c; 3 a; 4 d; 5 b; 6 c; 7 a; 8 b; 9 b; 10 c; 11 b; 12 d; 13 b; 14 d; 15 e; 16 b; 17 a; 18 b; 19 a; 20 e.

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ОСНОВЫ КЛИНИЧЕСКОЙ ТЕРМИНОЛОГИИ

THE BASICS OF CLINICAL TERMINOLOGY

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