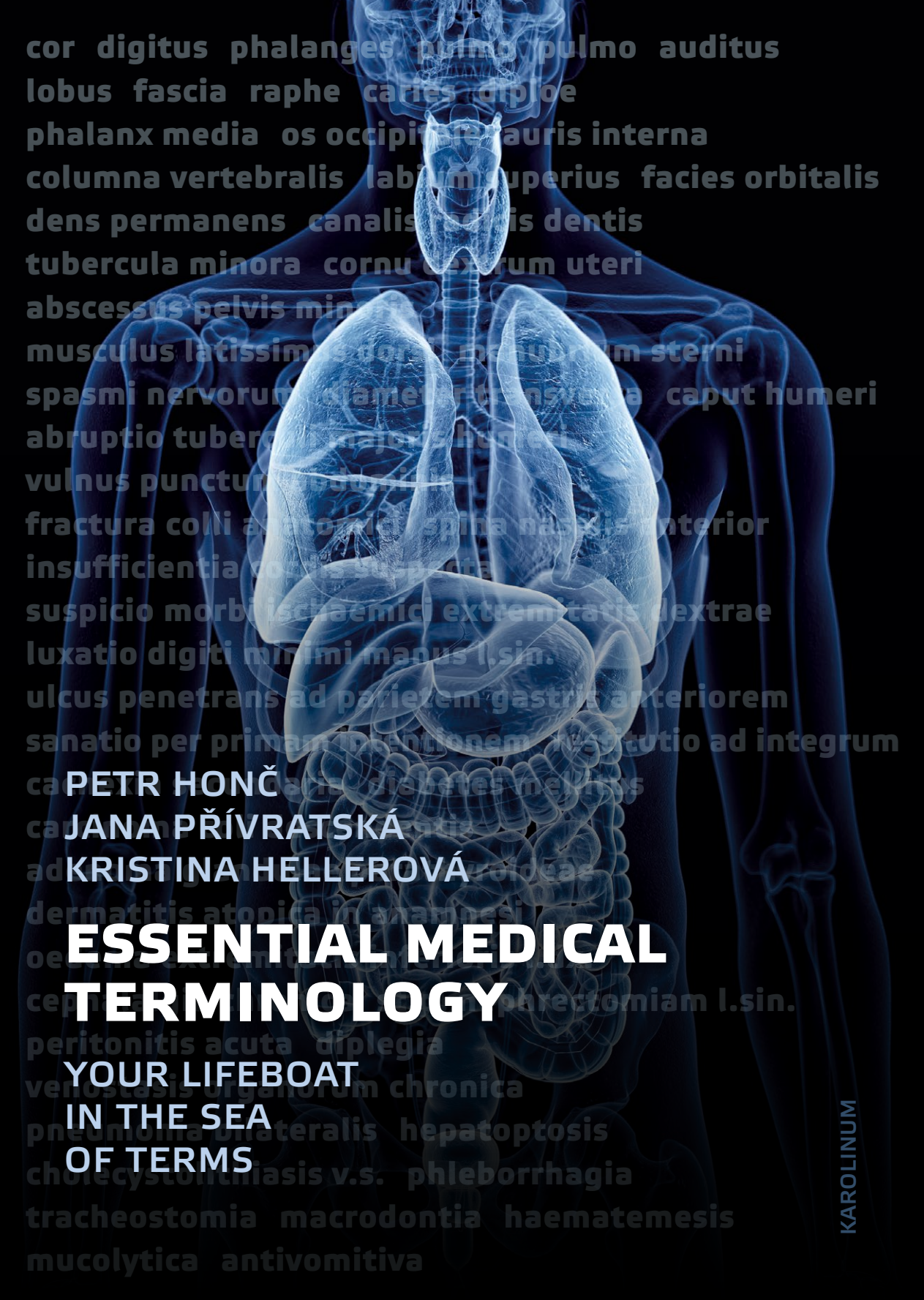

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ESSENTIAL MEDICAL TERMINOLOGY

YOUR LIFEBOAT IN THE SEA OF TERMS

KAROLINUM

Essential Medical Terminology
Your Lifeboat in the Sea of Terms

Petr Honč, Jana Přívratská, Kristina Hellerová

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FOREWORD

This medical terminology textbook is primarily intended for medical faculty students from highly diverse language environments. Its goal is to introduce the language of medicine and teach students basic Latin grammar and vocabulary they will need later in their studies and future practices. The contents of this independent textbook have been tailored to the needs of students with varying degrees of previous grammar knowledge; the book will serve mainly as the source text for Medical Terminology courses, but it is also suited for self-study.

The first section of the textbook describes noun and adjective inflection, gradually introducing students to the Latin declension system. The second part focuses on word formation, a crucial component of medical terminology, which, in addition to Latin words, often features words of Greek origin, compounds, and hybrid words. An overview of Latin and Greek prefixes and suffixes further contributes to the reader's understanding of specialized medical terminology. The textbook also includes an introductory chapter on basic grammatical categories and Latin pronunciation, as well as four **review** chapters that test the mastery of the subject matter.

The following brief description of chapter structure will provide instructions on making full use of the textbook. The introduction to each chapter features **"keywords"**, which are to be linked to their English equivalents by the students, without prior explanation of their respective meanings. Frequently encountered in medicine, the keywords have been selected to represent particular grammatical elements discussed in class. Students are likely to recognize and understand them based on similarities with their English counterparts, the use of accompanying illustrations, or by a simple process of elimination.

In addition, the **accompanying illustrations** may provide significant assistance to students without basic knowledge of anatomy. The captions are often in Latin and English, allowing a more thorough language comparison; consequently, the students will quickly discover the relationship between Latin and technical English, which, in many aspects, stems from Latin, or even borrows terms outright. The students may review the illustrations at their leisure once they have gained insight into the structure of specialized medical terminology.

Below the illustrations, there are excerpts from **authentic medical records**, making it clear from the start that apart from anatomy, a sizeable portion of medical terminology consists of pathological and clinical terms. The keywords and accompanying illustrations should enable students to discern the meanings of individual phrases, which gradually increase in difficulty. Students are also encouraged to find connections between words and their endings, allowing them to understand various phenomena using **contextual induction** even before the associated comprehensive grammar lectures. These sections may also include words from declensions discussed only later; however, this does not impede the comprehension of the whole phrase.

The explanation of grammar is simple and pragmatic, featuring many specific examples suited to the needs of self-learners as well. The explanations in individual chapters are directly linked to each other, emphasizing the most crucial grammar items one may encounter in anatomy and medical reports. Less important phenomena and various exceptions are explained and presented in a smaller font. The basic grammar paradigms are arranged clearly, sometimes including visual aids.

Grammatical explanations are followed by a variety of **exercises**, which let students thoroughly practice the subject matter. There are simple fill-in exercises, as well as translations, which require greater mastery of the chapter's grammar and vocabulary. Some exercises, such as crosswords and wordsearches, are intended to make the lesson more

enjoyable. The answers of four review chapters can be checked against the key included at the end of the textbook.

The textbook also includes frequently used **medical abbreviations**, which are always connected to the vocabulary and grammar of a given chapter. Additionally, the textbook provides many **phrases to remember**, often linked to the history of medicine or general knowledge. The role of these phrases in teaching and the degree to which they liven the course will depend on the teachers and students themselves.

Since they focus on the most significant issues of a given section, **"revision questions"** form an integral part of each chapter; these should motivate students to search for the right answers in the preceding text. Another important section of the textbook, referred to as **NB (nota bene)**, provides further grammatical assistance, emphasizes important aspects, features many analogies and anomalies, and offers various practical tips and tricks.

Every lesson concludes with a **vocabulary** section containing words from a given declension, which have been carefully selected based on their usage frequency. The vocabulary is divided according to grammatical gender and arranged alphabetically (only the 3rd declension is ordered differently). A word's meaning is sometimes specified using a brief description, which should significantly aid students unfamiliar with anatomy. In the chapters on adjectives, a word's meaning is often accompanied by an **example of its** usage, emphasizing the role of context. The textbook concludes with a general Latin-English dictionary, arranged in alphabetical order.

The textbook is closely linked with an e-learning course on the Moodle platform. Moodle is well suited for online instruction and uses various methods to test students' knowledge of individual sections of the textbook.

We hope this book will prove a sound introduction into medical terminology for students; we believe it will be a very effective tool for navigating around various linguistic obstacles. We further hope that as students utilize the textbook, they will have a feeling of accomplishment with their progress. An in-depth understanding of the language of medicine will serve as a natural gateway into medical school and will be a valuable tool for the study of all medical disciplines.

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ABBREVIATIONS USED IN THE TEXT

abl.	ablative
acc.	accusative
adj.	adjective
adv.	adverb
cf.	confer (compare)
decl.	declension
e.g.	exempli gratia (for example)
f.	feminine
gen.	genitive
i.e.	id est (that is)
lit.	literally
m.	masculine
n.	neuter
NB	nota bene (note well)
nom.	nominative
pl.	plural
prep.	preposition
sg.	singular

A BRIEF HISTORY OF MEDICAL TERMINOLOGY

The oldest medical texts in Western medicine were written in **Greek** by the most famous physician in Antiquity, **Hippocrates** (c. 460–370 BC), who is considered the founder of medical science, and whose work was expanded upon by his students and successors. Containing numerous medical terms, the "Hippocratic Corpus" (*corpus Hippocraticum*) covers all aspects of medicine at that time, including the Hippocratic Oath, which is still referred to in the Latin graduation oath of the Third Faculty of Medicine. You can read the Hippocratic Oath in the introductory chapter of this textbook.

Greek philosophers and physicians developed various concepts and theories to define the nature, character, and origins of disease. Their texts are preserved in Latin, Arabic, and Hebrew translations and provide many descriptions and treatments of individual medical cases (i.e., case studies). Many disease and symptom names coined by these authors are still used in today's modern languages (e.g., *catarrh*, *dyspn(o)ea*, *podagra*, *acne*, *diabetes*, *carcinoma*, etc.)

Greek continued to be the primary language of Western medicine even after the Roman conquest of Greece in the 1st century BC. With no comparable medical tradition of their own, the Romans adopted Greek medicine almost entirely. Most physicians working in the Roman Empire came from Greece; the renowned personal physician of Roman emperors, **Galen** (129–216 AD), deserves a special mention since he remained an authoritative figure in medicine until the early modern period.

A crucial development in the history of medical terminology took place in the 1st century AD courtesy of the Roman author **Aulus Cornelius Celsus** (25 BC – 50 AD), who is sometimes titled *Cicero medicorum* (the Cicero of doctors). Based on Greek sources, his encyclopedic books on medicine (*De medicina*) survive to this day. Celsus had to cope with the highly problematic fact that most specialized Greek terms had no Latin equivalents; consequently, he adopted some words completely, maintaining the original alphabet and grammatical endings. Using the Latin alphabet and Latin endings, he Latinized other words, and lastly, he translated many terms literally ("lexical calquing", e.g., the Greek word *kynodontes*, the Latin phrase *dentes canini*, and the English phrase *dog teeth*). In doing so, Celsus laid the foundations of **Latin medical terminology**.

In the Middle Ages, the history of medicine was strongly influenced by the Arabic language as well. Islamic scholars translated numerous texts from Greek to Arabic, but they also contributed to the development of medicine themselves. Islamic medicine was at its height in the 10th and 11th centuries; the famous physician **Abu Ali Sina** (in Latin, **Avicenna**, 980–1037) wrote *The Canon of Medicine*, an encyclopedic text that was translated into Latin as early as the 12th century and was used as a fundamental university textbook for many centuries afterward. Even now, Latin medical terminology features several words of Arabic origin (e.g., *nucha*, *influenza*).

In the Middle Ages, Islamic scholars helped the West rediscover often forgotten texts written by physicians in Antiquity, facilitating the development of scholastic medicine and the establishment of **medical faculties** founded in Western Europe from the 12th century onwards. Featuring a medical faculty since its inception, Charles University was founded in 1348. Latin was the primary language in medieval universities, and its position only strengthened during the Renaissance period. After the fall of Constantinople in 1453, many scholars fled to the West, bringing with them new thoughts and impulses; important medical texts were translated into Latin, and most new technical works were published in Latin until the 19th century. In 1543, the personal physician of Emperor Charles V, **Andreas Vesalius**

(1514–1564), published his pivotal text, *De humani corporis fabrica libri septem (The seven books on the human body)*. Featuring only Latin terminology and high-quality illustrations, this book laid the foundations of modern anatomy. In 1600, **Jan Jesenius** (1566–1621) carried out the first public autopsy in Bohemia in a residence hall of Charles University in Prague. The Latin lecture accompanying the autopsy was later published.

In the 19th century, the specialized language of medicine underwent a period of nationalization, with varying effects on different national languages. Latin stopped being used as the language of international communication among doctors; still, medical terminology would continue to use the Greco-Latin base, which applied to newly coined terms as well (e.g., *nephrectomy; [G. nephr-, kidney + G. ektomē, excision]*). Consequently, medical terminology remained comprehensible internationally.

The first systematic unification of the Latin anatomical nomenclature occurred in 1895, resulting in the publication of *Basiliensia Nomina Anatomica*. Currently, the 1998 *Terminologia Anatomica* collection is the worldwide reference point, containing 7,635 anatomical terms in Latin as well as their English equivalents. English anatomical terminology is very similar to the Latin original, with the main difference arising from adjective positions (*styloid process* [English] as opposed to *processus styloideus* [Latin]). Unfamiliarity with the original Latin nomenclature in its grammatical context makes the study of anatomy far more difficult and mechanical.

Today, English is the international language of medicine, having taken over the role of Latin in many respects. As a result, some newly coined terms (e.g., *bypass*, *screening*) are not based on Greco-Latin stems. Still, half of the English vocabulary consists of Latin words, and the ratio grows substantially for specialized terminology. Therefore, studying Latin medical terminology offers a deeper insight into the workings of the language of medicine; Latin has been providing precise descriptions of specific medical phenomena for a thousand years and considerably facilitates the study of **specialized medical English**.

LINGUISTIC GLOSSARY

An **adjective** is a part of speech that modifies a noun, usually describing it or making its meaning more specific (*longus*, *a*, *um*; *dexter*, *dextra*, *dextrum*; *abdominalis*, *e*; *simplex*, *icis*). Grammatically, adjectives agree with nouns in case, number, and gender (*vena longa*, *musculus transversus*, *cavitas abdominalis*).

A **case** indicates a noun's function in a term or sentence. There are 6 cases in Latin: nominative, genitive, dative, accusative, vocative, and ablative. We do not use the dative and vocative in medical terminology; the accusative and ablative are usually prepositional cases (i.e., they are only used following prepositions). The nominative is the form of the word (noun, adjective, numeral) which answers the questions "who" or "what". The genitive is a form of the word expressing possession ("whose, of what"). It parallels the use of the preposition **"of"** in English.

The nominative and genitive singular determine the declension of a noun or adjective. Together with grammatical gender, they form the dictionary entry of a noun (*vena*, *ae*, *f.*).

A **consonant** is a speech sound made by obstructing the air stream, such as *p*, *b*, *t*, *d*, *m*, etc.

A **declension** is a paradigm describing how nouns (adjectives and numerals) change their form according to their grammatical function in a term or sentence. The different forms of nouns (adjectives and numerals) are called cases.

A **dictionary entry** contains the word itself and additional information necessary for its correct use. For nouns, it is important to memorize both the nominative and genitive singular and the gender when learning medical terms, since all these are needed for declension and the correct attribution of an adjective.

A **diphthong (gliding vowel)** is a combination of two adjacent vowel sounds within the same syllable (ae, oe).

Gender is a category of nouns and all parts of speech describing nouns. The gender of Latin nouns is an inherent quality which often cannot be deduced and must be memorized. The three genders in Latin - masculine, feminine, and neuter - are commonly abbreviated to m., f., n.

A **noun** is a part of speech used to name people, animals, places, things, and abstract ideas (medical terminology examples: *vena*, *musculus*, *cavum*, *patiens*, *longitudo*, *processus*, *cornu*, *facies*).

A **numeral** is a word that represents a number (*unus*, *a*, *um*; *duo*, *duae*, *duo*; *secundus*, *a*, *um*).

The **plural** is a grammatical form describing the number of nouns (adjectives and numerals), which indicates a quantity of more than one (*venae*; *musculi longi*; *operationes tres*) as opposed to the singular, which indicates a quantity of one.

A **prefix** is a syllable or group of syllables joined to the beginning of a word to alter its meaning (***ante****brachium* – forearm, cf. *brachium* – arm; ***post****traumaticus* – posttraumatic, cf. *traumaticus* – traumatic). Prefixes are connected to word stems and precede them.

A **preposition** links nouns and phrases to other words in a term or sentence. A preposition usually indicates the temporal, spatial, or causal link of its object to the rest of the phrase (*contra scapulam*; *in morbo*; *propter infarctum*; *ad recessum palatinum*).

The **singular** is a grammatical form describing the number of nouns (adjectives and numerals), which indicates a quantity of one (*vena*; *musculus*; *operatio*) as opposed to the plural, which indicates a quantity of more than one.

A **stem** is a morphological term for the smallest part of a word carrying meaning, which cannot be divided further. Prefixes and suffixes are added to the stem to alter a word's meaning.

A **suffix** is a syllable or group of syllables joined to the end of a word stem to alter its meaning (*abdomen – abdomin**alis***; *longi**tudo***; *stomat**itis***). Suffixes are connected to the stem of the word.

A **syllable** is a part of a word pronounced with a single, uninterrupted sound of the voice. For example, the word *dens* consists of one syllable, while the word *pulmo* consists of two syllables.

A **vowel** is a speech sound made by air passing in a continuous stream through the open mouth, such as *a*, *e*, *i*, *o*, *u*.

ALPHABET

The Latin language, including Latin medical terminology, uses Roman characters. The Latin alphabet is the same as the English one with the omission of **w**. The letters **y**, **z**, **ch**, and **k** do occur, however only in words of Greek origin. In the beginning, the Latin alphabet only used capital letters (called *majusculi*); lower case letters (*minusculi*) were not introduced until the Middle Ages.

International medical terminology uses Latinized forms of Greek words, which were also converted to Latin script.

PRONUNCIATION OF LATIN

VOWELS

Every syllable in a Latin word has a vowel. There are two types of vowels in Latin: short and long. Long vowels are marked with the long mark called a macron (¯), i.e., a horizontal length mark. Nowadays, macrons are not used in medical texts (except for practicing pronunciation in textbooks). In our textbook, we will only use this length mark in keywords at the start of each chapter, pronunciation exercises, vocabulary sections at the end of each chapter, and within declension paradigms to clarify that some cases differ just in having a long vowel in the ending:

-a- pronounced as the "u" in luck: *clavicula*
-e- pronounced as in pet: *membrum*
-i/y- pronounced as in fit: *tibia*
-o- pronounced as in drop: *collum*
-u- pronounced as the "oo" in look: *ruber*

DIPHTHONGS (GLIDING VOWELS)

-ae-, -oe- [e:] pronounced as long e
e.g., *praematurus*, *lagoena*, *oesophagus, praevius*
-oē- [with the long vowel -ē-, -oē-]
read separately, mainly at the end of the words of Greek origin, it is not a diphthong; to differentiate, the length will be marked in the dictionary, too
e.g., *eupnoē*, *diarrhoē*, *dyspnoē*

CONSONANTS

-c- [ts/c] if followed by -e-, -i-, -y-, -ae-, -oe-, e.g., *cerebrum*, *cibus*, *sectio caesarea*
[k] if followed by -a-, -o-, -u-, before consonants, and at the end of words, e.g., *cavum*, *corpus*, *clavicula*, *sectio*, *oculus*, *lac*
-cc- [kts] e.g., *coccygeus*, *occipitalis*, *accessorius*
-j- [j] at the beginning of the word before a vowel or a diphthong, and between two vowels, e.g., *junctura*, *jugularis*, *major*

-s- [z]	between two vowels, e.g., *nasus*, *venosus*, *contusio* l, r, n + s + vowel, e.g., *pulsus*, *morsus*, *mensis*
-ss- [s]	e.g., *tussis*, *accessorius*
-ti- [ci]	before a vowel or a diphthong, e.g., *operatio*, *resistentia*
[ty]	hard pronunciation after s, x, and in Greek words, e.g., *testium*, *ostium*, *mixtio, aetiologia*
-di-/-ti-/-ni- [dy/ty/ny]	hard pronunciation, e.g., *tibia*, *medicina, minimus*
-qu- [kv]	e.g., *aqua*, *quattuor*, *quinque*
-g- [g]	e.g., *oesophagus, gramma*
-ngu- [ngv]	e.g., *lingua*
-th- [t]	e.g., *thymus*, *therapia*
-ph- [f]	e.g., *physiologia*, *aphasia*, *alphabet*
-rh- [r]	e.g., *haemorrhagia*, *rhinitis*

During the historical development of medical terminology, pronunciations developed remarkable variety (historically and geographically). As characterized above, the present-day pronunciation in Central Europe is not identical with the classical form, nor is it the only one existing worldwide. However, it represents the most typical phonetic use of the terms in Central Europe.

BASIC GRAMMATICAL CATEGORIES

NOUNS

A noun is a part of speech used to name people, animals, places, things, and abstract ideas (in medical terminology, words such as "muscle", "vein", "face", "process", etc. are nouns). Every noun in Latin has two characteristics that do not change: **declension** and **gender**.

1. Declension

Declension is a paradigm describing how nouns (and adjectives and numerals, i.e., words representing numbers) change their form according to their grammatical function in a term or sentence. The different forms of nouns (adjectives and numerals) are called cases. There are five declensions in total grouped by unique genitive singular endings, i.e., all words in a declension will have the same genitive singular ending. Each declension has one or two paradigms, according to which words in the declension are declined. There are differences between the declension of neuter nouns on one hand and masculine or feminine nouns on the other; see Grammatical gender below.

CASE	DECLENSION				
	I	II	III	IV	V
nominative	-a	-us -r -um/on	???	-us -ū	-ēs
genitive	-ae	-ī	-is	-ūs	-ēī

Based on its genitive ending, a particular noun can be attributed to a declension. Nominative endings, as the overview above presents, may, on the contrary, be identical in some declensions and, therefore, the nominative form cannot be used to determine a noun's declension.

2. Grammatical gender

Unlike English, Latin uses gender as an inherent quality, which functions as a grammatical category. Latin differentiates masculine, feminine, and neuter gender for nouns and adjectives. Besides memorizing the nominative and genitive singular forms, you also need to learn the genders of nouns. Without knowing the gender of the noun, you will be unable to combine nouns with adjectives, since adjective forms are associated with noun gender.

Nouns also have two characteristics that can change: **case** and **number**.

3. Case

A **case** is a varying form which indicates a noun's function in a term or sentence. In a grammatical sense, the word "case" refers to particular forms of nouns and adjectives that modify them. **Case means form or "variation".**

Each case has a different form to indicate different **uses**. In English, the words "he" and "him", "she" and "her" are used differently. Latin has a more **complex system of differences**, but the idea is the same. Different **cases** are indicated by different word endings.

Latin nouns and adjectives are declined in six cases and two numbers (singular and plural); but in medical terminology, you need to know only **four cases in the singular** and **two cases (nominative and genitive) in the plural**. The accusative and ablative plural are sometimes featured in pathology reports; consequently, these cases are included in the declension tables, but active knowledge is not required. The cases have specific names, and each of them functions in a specific way within a term:

Nominative (nom.)	who, what?
Genitive (gen.)	whose, of what?
Accusative (acc.)	object of certain prepositions
Ablative (abl.)	object of certain prepositions

In the framework of medical terminology, using the **genitive case** is quite common since it parallels the use of the preposition **"of"** in English**.** In other words, any English phrase using "of" will be translated to Latin using the genitive form of the noun, e.g., fracture **of** the scapula = *fractura scapul**ae*** **(gen. sg.)**. The genitive case also reflects a possessive relationship when people are involved, which is expressed by adding an **apostrophe and an "s" in English**, e.g., to doctor's hands = *ad manus medici*.

Nominative and genitive forms are integral to dictionary entries of nouns, which contain the word itself in nom. sg., its genitive sg. ending, and information about the gender of the noun (*vena*, *ae*, *f.*). It is important to memorize both the nominative and genitive singular, and the gender of nouns when learning medical terms, since all these are needed for declension and the correct attribution of an adjective.

The genitive case enables us to recognize the **stem** of a word, which is the smallest part of the word carrying meaning and cannot be further divided; it is the unchangeable part in all other case forms of the word. **The noun stem is formed by removing the case ending from the genitive singular** (***cost****-ae*, ***muscul****-i*, ***cancr****-i*, ***capit****-is*). The endings of each case are added to the stem (*ven*-ae, *ven*-a, *ven*-am, *ven*-arum; *muscul*-i, *muscul*-um, *muscul*-orum; *capit*-is, *capit*-e, *capit*-um; *process*-us, *process*-uum; *faci*-ei, *faci*-es, *faci*-erum). We need to know the stem to decline a word correctly.

In medical terminology, the accusative and ablative are mostly used following prepositions.

4. Number

The **singular** (sg.) is a grammatical form describing the number of nouns (adjectives and numerals), which indicates a quantity of one (*vena*, *musculus*, *operatio*) as opposed to the plural, which indicates a quantity of more than one.

The **plural** (pl.) is a grammatical form describing the number of nouns (adjectives and numerals), which indicates a quantity of more than one (*venae*, *musculi longi*, *tres operationes*) as opposed to the singular, which indicates a quantity of one.

A noun's number can be singular (only one) or plural (more than one).

singular	plural
vena	*venae*
vein	veins

EXERCISES

1. Read the following expressions with proper pronunciation:

āla, āreola, artēria, maxilla, tabula, membrāna, trānsversus
vertebra, ante, medulla, vēna, venēnum, porta artēriārum
sine, vitrum, spīna, rīma palpebrārum
kinētōsis, arcus zygomaticus
inferior, anterior, ātrium, artēria, intestīnum, jējūnum, jugulāris, faciēs, superficiēs
post, prostata, prōcessus, dolōrōsus
apud, uterus, glandula, ruptūra, ūrīna, bronchus, cōnfluēns sinuum

praemātūrus, aegrōtus, lagoena, anaemia, oedēma, costae
dyspnoē, diploē, aēr, eupnoē
auris, caudālis, pleura, balneum, felleus, neurologia, pneumonia, āreola, aorta, pȳogenēs

acidum sulphuricum, īnsufficientia, cerebrum, faciēs, cervīx, cystis, forāmina nūtrīcia
frāctūra, suspīciō frāctūrae, oculus, crānium, morbus congenitus, canālis palātīnus major,
icterus, corpus ossis, columna vertebrālis, cavum crāniī, cavitās, cornū, collum, scapula,
ductus cholēdochus, tunica mūcōsa, nāsolacrimālis, spatia intercostālia, cutis, clāvicula,
fasciculus, bactēria
vaccīna, coccygeus, occipitālis

nāsus, basis, pulsus, mēnsis, incīsūra, resistentia, tarsī
commissūra, ossa, hypoglōssus, pertussis, mūsculus lātissimus dorsī, prōcessus styloīdeus

tībia, tīnctūra, ōstium, digitus, hernia, aqua dēstīllāta
amputātiō, trānsplantātiō, substantia, spatium, periodontium, tertius

angulus, sublinguālis, sanguis, unguis, inguinālis; aqua, partēs aequālēs, morbus acquīsītus,
quadrātus, quīntus

therapia, thōrax, hypothalamus, thȳmus, arthrītis, arthrōsis, gonarthrītis
phalanx, diaphragma, claustrophobia, aphtha
rhīnorrhagia, diarrhoē

2. Read syllable by syllable:

re-si-sten-ti-a, ab-dō-mi-nā-lis, jūnc-tū-ra, syn-chon-drō-sis, cho-lē-do-chus, lin-gua, pa-ra-thy-roī-de-us, tī-bi-a, clā-vi-cu-la, ra-bi-ēs, tu-ni-ca, ki-nē-tō-sis, pha-lanx, in-car-nā-tus, co-llum, ci-bus, cae-cum, ce-re-brum, ca-vum, sa-nā-ti-o, cup-rum, mor-sus, plas-ma, a-or-tae, res-pī-rā-tō-ri-us, pha-lan-gēs, ōs-ti-um

3. Hippocratis iūsiūrandum / Hippocratic Oath:

Per Apollinem medicum et Aesculapium, Hygiamque et Panaceam iūre iūrandō affirmō et Deōs Deāsque omnēs testor, mē quantum vīribus et iūdiciō valuerō, quod nunc iūrō et ex scriptō spondeō plānē observātūrum.

Praeceptorem quidem quī mē hanc Artem ēdocuit, parentum locō habitūrum, eīque cum ad victum, tum etiam ad ūsum necessāria, grātō animō communicātūrum et suppeditātūrum. Eiusque posterōs apud mē eōdem locō quō germānōs frātrēs fore, eōsque sī hanc artem addiscere volent, absque mercēde et syngraphā ēdoctūrum.

I swear by Apollo the Healer, by Asclepius, by Health, by Panacea, and by all the gods and goddesses, making them my witnesses, that I will carry out, according to my ability and judgment, this oath and this indenture.

To hold my teacher in this art equal to my own parents; to make him a partner in my livelihood; when he is in need of money to share mine with him; to consider his family as my own brothers, and to teach them this art, if they want to learn it, without fee or indenture;

Praeceptiōnum quoque et auditiōnum, tōtīusque relīquae disciplīnae, cum meōs et eius quī mē ēdocuit līberōs, tum discipulōs quī medicō iūre iūrandō nomen fīdemque dederint, participēs factūrum, aliōrum praetereā nēminem.

Victūs quoque ratiōnem, quantum facultāte et iūdiciō consequī potuerō, aegrīs ūtilem mē praesriptūrum, eōsque ab omnī noxiā et iniūriā vindicātūrum. Neque cuiusquam precibus adductus, alicuī medicāmentum lēthāle propīnābō, neque huius reī author erō. Neque similī ratiōne mulierī pessum subdititium ad foetum corrumpendum exhibēbō, sed castam et ab omnī scelere tum vītam cum artem meam perpetuō praestābō. Neque vērō calculō labōrantēs secābō, sed magistrīs eius artis perītīs id mūneris concēdam.

In quancunque autem domum ingressus fuerō, ad aegrōtantium salūtem ingrediar, omnem iniūriae īnferendae et corruptēlae suspīciōnem procul fugiēns, tum vel māximē rērum venereārum cupiditātem ergā mulierēs iuxtā ac virōs, tum ingenuōs cum servōs.

Quae vērō inter cūrandum – aut medicīnam minimē faciēns – in commūnī hominum vītā vel vīderō vel audierō, quae minimē in vulgus efferrī oporteat, ea arcāna esse ratus silēbō.

Hoc igitur iūs iūrandum sī relīgiōsē observārō ac minimē irritum fēcerō, mihi liceat cum summā apud omnēs exīstimātiōne perpetuō vītam dēgere et artis ūberrimum frūctum percipere. Quodsī illud violāverō et pēierāverō, contrāria mihi contingant.

to impart precept, oral instruction, and all other instruction to my own sons, the sons of my teacher, and to indentured pupils who have taken the physician's oath, but to nobody else.

I will use treatment to help the sick according to my ability and judgment, but never with a view to injury and wrong-doing. Neither will I administer a poison to anybody when asked to do so, nor will I suggest such a course. Similarly I will not give to a woman a pessary to cause abortion. But I will keep pure and holy both my life and my art. I will not use the knife, not even, verily, on sufferers from stone, but I will give place to such as are craftsmen therein.

Into whatsoever houses I enter, I will enter to help the sick, and I will abstain from all intentional wrong-doing and harm, especially from abusing the bodies of man or woman, bond or free.

And whatsoever I shall see or hear in the course of my profession, as well as outside my profession in my intercourse with men, if it be what should not be published abroad, I will never divulge, holding such things to be holy secrets.

Now if I carry out this oath, and break it not, may I gain for ever reputation among all men for my life and for my art ; but if I transgress it and forswear myself, may the opposite befall me.

4. Work with the dictionary at the end of the textbook and complete the following table:

Nominative	Genitive	Gender	Stem	Declension
costa	*costae*	feminine	*cost-*	1
articulatio				
oculus				
ductus				