

## SOME METHODOLOGICAL ASPECTS IN TEACHING LATIN IN MEDICINE

---

*Веселин Стойков, Надежда Амуджиева*

*English and Latin.* English grammar is independent of Latin grammar. However, as many as half of the words in English were derived from Latin, including many words of Greek origin first adopted by the Romans, not to mention the thousands of French, Spanish, and Italian words of Latin origin that have also enriched English. Latin was once taught in most schools. However, it was gradually replaced by other languages, although it is now being taught at more schools along with other classical languages.

Latin is an inflectional language: affixes are attached to fixed stems to express gender, number, and case mainly in nouns, adjectives, and numerals. An affix is a morpheme that is attached to a base morpheme such as a root or to a stem, to form a word. Affixes may be derivational, like English **-ness** and **pre-**, or inflectional, like English plural **-s** and past tense **-ed**. Affixes are divided into several types, depending on their position with reference to the root: prefixes (attached before another morpheme), suffixes (attached after another morpheme). Prefixes and suffixes may be separable affixes.

The suffix on *please* is an *e*. But if you look at the word *pleas-ure*, it makes sense, since removing its suffix leaves the same root as in *pleas-e*. Roots rarely exist alone. They usually precede suffixes. The same is true of Greek and Latin, when borrowed in English, sometimes the suffix is dropped. Thus, the word *cell* in English is really the Latin *cella*, from which the *a* suffix has been dropped. Suffixes can't stand alone but need to be connected to the root. A suffix is an inseparable form that cannot be used alone but that carries an indication of quality, action, or relation. When added to a combining form, it makes a complete word and will determine whether the word is a noun, adjective, verb, or adverb.

There are so many Latin words in English that it is no exaggeration to say that English has a special place in its word-formation rules for words which preserve their original Latin forms. It concerns not only words which have been borrowed and reshaped along English lines, but words which have

been imported from Latin complete with their Latin patterns, as in **curriculum** (sg.) and **curricula** (pl.).

One of the differences is that in Latin adjectives agree with their nouns. In Latin, it is not necessary to use articles, but it is necessary for adjectives to agree with the nouns they describe. The opposite is true in English. Word order is crucial for English, but not so much in Latin. Latin has more noun cases than English, where cases are visible mostly with pronouns. Nouns in Latin also have gender, which English lacks.

Latin words must agree in number, gender, case and person. In a language like English, where objects don't have genders, this is an almost entirely alien concept, although when someone uses the adjective "handsome" to describe a female or "pretty" to describe a male, the listener notices this is an unusual gender alignment. But on the whole, in English, the only agreement is between singular/plural subject and singular/plural verb.

*Latin in Medicine.* A course of MEDICAL TERMINOLOGY has been prepared for use by medical students at Varna University of Medicine. It is designed to help them obtain knowledge of *basic medical terminology*. It is not intended to be complete or comprehensive. There are numerous sources like textbooks and Internet online articles and resources on medical terminology for those students desiring a more complete study of the subject. We recommend and encourage them to continue their study of medical terminology after completing this basic course.

The content of the course includes pronunciation, morphology, grammatical terminology; syntactic structure of medical terms, 1st and 2nd declension of substantives, adjectives, substantive-adjective connection; 3rd declension (Latin substantives, imparisyllables, parisyllables, Greek substantives, adjectives), adjectives-positives, some forms of comparatives and superlatives; 4th and 5th declension; some of the prepositions and adverbs used in the medical terminology, Latin and Greek components in medical terminology; composed Latin and Greek words; hybrid words, Latin and Greek equivalents of the most frequent medical terms; idioms in medical practice, etc.

The purpose is to learn the fundamentals of Latin morphology; knowledge of the common terms used in the medical terminology, knowledge of Latin and Greek roots, suffixes, and prefixes; ability to understand the composed terms; ability to make simple diagnoses. This means that when a student is given the definition of a medical term, he/she will be able to identify the proper medical term or, when the medical term is given, he/she will be able to identify the proper definition.

As Latin was the only language that many countries had in common, it formed the basis of anatomical terminology. The anatomical terminology is a source for medical communication. It is elaborated into a nomenclature in Latin. Its history goes back to 1895, when the first Latin anatomical nomenclature was published as *Basiliensia Nomina Anatomica*. Then it was followed by seven revisions (*Jenaiensia Nomina Anatomica* 1935, *Parisiensia Nomina Anatomica* 1955, *Nomina Anatomica* 2nd to 6th edition 1960–1989). The last revision, *Terminologia Anatomica*, was created by the Federative Committee on Anatomical Terminology and approved by the International Federation of Associations of Anatomists, and was published in 1998. FCAT's aim has been to democratize the terminology and make it the internationally accepted, living language of anatomy. The new terminology is thus the result of worldwide consultation and contains Latin and recommended equivalent English terms.

Most medical words originated in Greek or Latin or a combination thereof. Professional communicative acts in the national languages have so far been realised with the use of international Latin-Greek terms. This state follows from the advantages that have been generally known: terminological continuity, on the one hand as regards space (it is a worldwide, universal terminology, not bound to any nation), and on the other hand as regards history (terms have been used in a more or less unchanged form for over 2000 years).

Medical terminology is a special vocabulary used by health care professionals for effective and accurate communication. Because it is based mainly on Greek and Latin words, medical terminology is consistent and uniform throughout the world. It is also efficient; although some of the terms are long, they often reduce an entire phrase to a single word. The medical vocabulary is vast, and learning it may seem like learning the entire vocabulary of a foreign language. It is always expanding. Such terminology is often difficult to understand because of the number of words whose meaning must be memorized. At first the medical terms may seem strange and bewildering to students and appear to be extremely difficult to learn. Fortunately, there is a logical method found in medical terminology. Many of the words used in medicine are made up of parts which are also used in other words. Once the students know the meanings of the basic parts of the words, they can put them together to understand the meanings of many medical terms. These basic parts of medical terms are called stems/roots, prefixes, and suffixes.

During the course of study, they will learn to identify and define a stem, a prefix, and a suffix. They will also learn how they are used in combination to describe a medical term. By learning these meanings, the students can analyze and remember many words and will be able to recognize and learn new terms when they come across them in the future, as the word parts are going to be used repeatedly.

A word root is usually the middle of the word and its central meaning, a prefix comes at the beginning and usually identifies some subdivision or part of the central meaning, and a suffix comes at the end and modifies the central meaning as to what or who is interacting with it or what is happening to it. Let us introduce a few examples of the **heart** terms. These basics are just to acquaint the students with the parts of medical terms and demonstrate how moving the parts around, modifies the central meaning without changing the “root” (cardio), as in **myo-card-itis** where:

<b>myo-</b>	– muscle
<b>cardi- or cardio-</b>	– the heart
<b>-itis</b>	– occurs in terms for inflammatory disorders that it has acquired the denotation of inflammation
<i>myocarditis</i>	– inflammation of the muscular walls of the heart muscle

Prefix and suffix changes can alter the meaning of a term without changing its central meaning by keeping the root the same.

Prefix change:

<b>pericarditis</b>	– inflammation of the pericardium (the outer fibroserous membrane covering the heart)
---------------------	---

<b>endocarditis</b>	– inflammation of the membranous lining of the heart’s cavities
---------------------	---

Suffix change:

<b>cardiology</b>	– a branch of medicine dealing with the diagnosis and treatment of heart disorders and related conditions
-------------------	---

<b>cardiologist</b>	– a physician specializing in the heart
<b>cardiomyotomy</b>	– longitudinal division of the muscular layer down to the lowest part of the esophageal wall
<b>cardiomyopathy</b>	– a disease of the heart muscle, usually chronic and with an unknown or obscure cause
<b>cardiomegaly</b>	– pathological enlargement of the heart

In addition, in the course of study the students will notice that some organs have more than one word root. Example: “myo-” and “muscul-”, both meaning “muscle”. Typically, one is derived from Greek and one from Latin. But, students need to know both roots because they may see either of them used.

The language of medicine is concerned in greater detail with the three basic terminological vocabularies. In this sense a primary rank is occupied by anatomical nomenclature whose international version remains Latin to a large extent. A more varied picture is presented by the clinical disciplines where, apart from Latin terms, prevail terms of Greek origin. In pharmaceutical terminology Latin has, for the time being, remained a functioning means of international communication.

Medical terminology is the professional language of those who are directly or indirectly engaged in the art of healing. The students will need to know medical terms in order to read a medical record, to complete forms, to decipher a physician’s handwriting, and to communicate with others in the hospital in a professional manner.

All the information about a word in the different units is called an entry. An entry contains a variety of information and may include all or part of the following information: definition or definitions of the term, synonyms, these are words which have a similar meaning to the entry word and derived words (Latin derivatives) words which are closely related or derived from the entry words.

Examples of Latin derivatives are given, too. These examples will convey students the opportunity to guess other derivatives on their own. They will discover how learning Latin derivatives can become a powerful tool for

building English vocabulary. Our strategy raises each student's awareness of the foundations of a large vocabulary.

e.g.

ars, artis f

– art, techniques, craft, skill

The Latin stem *art-* is also the source of the English words:

*artificial*

– made by human beings, rather than nature

*artisan*

– skill craftsman

*inert*

– motionless, non reactive (literally: “having no skill”)

Thus in the course of studying the MEDICAL TERMINOLOGY the students come to the conclusion that the influence of Latin on English medical nomenclature is indisputable and the English medical terminology can not at all be reasonably mastered without the knowledge of basic Latin.

## БЕЛЕЖКИ

Большой толковый Медицинский Словарь (Concise Medical Dictionary), том I – III, ВЕЧЕ – АСТ, Москва, 1999, ISBN 5-7838-0242-5 (Вече)

Chabner, Davi-Ellen, **The Language of Medicine**, A Short Course, 4<sup>th</sup> edition, W. B. Saunders Company, 2005, ISBN 1-4160-0165-4

Chabner, Davi-Ellen, **The Language of Medicine**, 6<sup>th</sup> edition, W. B. Saunders Company, 2001, ISBN 0-7216-8569-2

Jenney's **First Year Latin**, Copyright 1984, ISBN 0-205-07859-1

**Merriam-Webster's Medical Desk Dictionary**, Merriam-Webster On line, <http://www.merriam-webster.com/>

Standards for Classical Language Learning –

<http://www.aclclassics.org/pdf/standards.pdf>

*Why study Greek and Latin and the Classical Humanities?* –

[http://www.slu.edu/colleges/\\_AS/languages/classical/sluclassics.html](http://www.slu.edu/colleges/_AS/languages/classical/sluclassics.html)