

DEVELOPMENT AND WORD STRUCTURE OF LATIN MEDICAL TERMINOLOGY

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Abstract: The ancient Greek scientist Hippocrates and the Roman physician Galen made an invaluable contribution to the early stages of the development of medical terminology. Many terms used today are borrowed from ancient Greek and Latin, which give them scientific accuracy, brevity, and clear meaning. One of the main methods for studying most medical terms is the analysis of word structure. Because each term can consist of parts that have a clear meaning in themselves, namely a prefix, a root, a word-forming suffix, and an ending.

Keywords: Latin, Greek, development, suffix, prefix, root, word.

The Latin terms used in modern medicine have a history of several thousand years and are inextricably linked with the formation and development of medical science. The scientific heritage of ancient Greek and Roman natural scientists remains one of the main foundations of medicine today. In particular, the ancient Greek scientist Hippocrates and the Roman physician Galen made an invaluable contribution to the early stages of the development of medical terminology. Initially, medical concepts were expressed in simple, everyday words, but later, with the development of science, a deeper study of diseases, and the formation of the sciences of anatomy and physiology, their vocabulary increased. Over time, many medical terms have been revised, some have changed their meaning, and new ones have appeared. Today, in order to correctly understand medical terms, it is extremely important not only to know the superficial meaning of the word, but also to understand its structure and the function of its components.

In the study of most medical terms, word composition analysis is one of the main methods. Because each term can consist of parts that have a specific meaning, namely a prefix, a stem, a word-forming suffix and an ending. Each of these parts gives the word a separate meaning and allows for the correct interpretation of the medical term.

The most important part of the word is the stem, that is, the part that expresses the basic meaning of the word, without suffixes. It is the stem that constitutes the semantic center of the word. In medical terminology, many new words are formed on the basis of one stem.

Examples:

cardia - heart, cardiacus - related to the heart, cardiologia - the science that studies the functioning of the heart (cardiology)

The common stem in these terms is cardi-, which means "heart".

Another example of a root: pulmo - lung, pulmonarius - pertaining to the lungs, pulmonology - the science that studies lung diseases.

In these words, the root is pulmon-. Thus, knowing the roots helps both doctors and medical students to quickly understand complex terms. In Latin medical terms, the prefix - is added before the root of the word and gives it a new nuance, additional direction or quality. Prefixes often indicate the location of the disease, the direction of the process, the anatomical location or quantity.

New examples:

sub- (under, under): subcutaneous - subcutaneous, subhepaticus - located under the liver.

peri- (around, next to): pericardium - the membrane around the heart, perinephricus - the area around the kidney.

trans- (through, across): transabdominalis - passing through the abdominal cavity

transversus - located transversely.

The translation of the prefix can often explain half of the meaning of the term. This makes it very convenient to read complex medical terms.

Suffixes are added to word roots to form new terms with different meanings. In medicine, suffixes are used not only to create new words, but also to express many meanings, such as type of disease, inflammation, surgical procedure, size, condition, etc.

New examples:

-itis — inflammation:

bronchitis — inflammation of the bronchi

gastritis — inflammation of the stomach

-oma — tumors:

fibroma — tumor of fibrous tissue

lipoma — tumor of adipose tissue

-logia — science, field of study:

neurologia — study of the nervous system

dermatologia — study of skin diseases

-alis / -arius — indicates belonging:

renalis — kidney

ulnarius — related to the elbow

Suffixes, in addition to changing the meaning of the term, serve to divide it into medically defined categories.

In Latin, words are classified, that is, they change depending on the case and gender. This change is carried out through the use of endings. The ending does not give the word additional lexical meaning, but determines its grammatical function in the sentence.

Examples (updated):

musculus longus — long muscle (nominative)

musculi longi — of long muscles (genitive)

vena magna — great vein

venam magnam — great vein (accusative)

The correct use of endings ensures the clarity of terms in anatomical atlases, medical documents or scientific literature.

Since the field of medicine is very extensive and complex, understanding the terms used in it requires high qualifications. Although many Latin terms may seem complicated at first glance, their meaning can be easily understood by studying them in their constituent parts.

For example, let's take the word "subendocardialis":

sub- — under

endo- — inside, inside

cardi- — heart

-alis — pertaining

So, this term means "pertaining to the inner layer of the heart".

Or "peribronchialis":

peri- — around

bronchi- — bronch

-alis — pertaining

Meaning — "around the bronchi".

Such analyses make it easier to memorize terms in medicine, create clarity in their use and prevent errors in practice.

In Latin medical terminology, the use of words in different grammatical forms is expressed by their endings. For example, in such compounds as succus purus – “pure juice”, aqua pura – “pure water”, unguentum purum – “pure ointment”, the endings -us, -a, -um indicate the form of words of different genders. The change of these endings is determined in accordance with the grammatical position of the term in the sentence.

In terms, the part of the word that does not have a suffix, which expresses the basic meaning of the word, is called the stem. For example, the stem of the word costa (rib) is cost-, the stem of the word vertebra (vertebra) is vertebr-, and the stem of the term intervertebralis is intervertebr-. It is this stem that determines the main meaning of the word and makes it possible to form new terms from it.

In medicine, Latin is mainly used in anatomical and pharmaceutical terms. In contrast, many terms used in clinical sciences, disease names, and medical practice are derived largely from Greek. Therefore, the role of both languages is of great importance in the complete study of medical terminology.

Compound medical terms are formed by combining two or more roots. They are usually connected by a connecting vowel. For example, the term psychotherapy is formed by combining the words psyche - "soul" and therapia - "treatment", meaning "treatment of mental illnesses". Also, the term oncologia is formed from the roots onco - "tumor" and logia - "science" and meaning "science that studies tumors". Dermatology is formed from the roots dermat- - "skin" and logia - "science", meaning "science of skin diseases". The names of compound drugs are also often formed by combining two or more root words in abbreviated form. Such names are derived from the names of the active ingredients in the drug, indicating their general composition or direction of action. Therefore, it is important to determine the basis of each abbreviated term when studying pharmaceutical products.

Latin medical terminology is the scientific language of medicine, the process of its formation has been ongoing for centuries. Many terms used today are borrowed from ancient Greek and Latin, which give them scientific accuracy, brevity, and clear meaning.

To fully understand the meaning of a term, it is very important to know its structure, that is, the root, prefix, word-forming suffix, and ending. The interaction of these elements clearly reveals the meaning of medical terms and makes them easier to learn. Therefore, for students studying in medical fields, mastering Latin and medical terminology is an important foundation for future professional activities.

The primary objective of studying Latin in the field of medicine is to master medical terminology and the system of professional terms that form the basis of scientific communication. Medical terminology serves as a universal linguistic tool that allows specialists from various branches of healthcare to understand one another precisely and efficiently. Since medicine relies heavily on accuracy, clarity, and standardization, the use of internationally recognized terms helps prevent misunderstandings and ensures that diagnoses, treatments, and medical procedures are communicated correctly.

In the global medical community, doctors, pharmacists, biologists, and other healthcare workers must often collaborate across borders. The shared medical terminology derived from Latin and Greek enables this international cooperation. When a physician from Asia communicates with a specialist from Europe or America, both professionals can understand medical terms without ambiguity. This global medical language reduces the risk of errors and provides a uniform system that supports scientific research, clinical practice, and professional education.

Many of the terms that medical students and practitioners encounter daily have historical roots going back thousands of years. A large portion of medical vocabulary is derived from ancient Greek and Latin, forming the core of scientific and practical medical usage. For example, words such as epidemic, bronchus, herpes, carcinoma, and emphysema are originally Latin terms. These words have not only been preserved but have also become central elements within modern medical communication. Their consistency and stability make them universal reference points used in textbooks, research articles, clinical reports, and international medical conferences.

Latin continues to exist not merely as a relic of ancient Roman civilization. Instead, it plays a vital role in contemporary scientific discourse. In disciplines such as biology, chemistry, pharmacy, law, and particularly medicine, Latin serves as the foundation upon which new scientific terms are built. Anatomical structures, pathological conditions, surgical procedures, pharmacological agents, and diagnostic tools are often named using Latin or Latinized Greek forms. For instance, terms such as *musculus biceps brachii*, *arteria carotis communis*, *septum nasi*, and *vertebra thoracica* all follow classical Latin patterns and are universally understood by medical professionals worldwide.

Moreover, the study of Latin and Greek in medical education offers learners several important advantages. First, it allows them to recognize and correctly interpret the components of complex medical terms. Understanding prefixes, roots, and suffixes—many of which come from these ancient languages—helps students decipher the meaning of unfamiliar words without memorizing each one individually. For example, knowing that the prefix *hyper-* means “excessive,” *hypo-* means “below” or “insufficient,” and *cardio-* refers to the heart enables students to understand terms such as *hypertension*, *hypoglycemia*, or *cardiomegaly* with ease.

Second, a foundational knowledge of Latin and Greek provides access to expanding medical literature. As scientific discoveries continue to accelerate, new terms, diagnoses, and medical technologies are introduced regularly. Because these new terms are often constructed based on classical linguistic patterns, professionals familiar with Latin and Greek can adapt more quickly to emerging information.

Finally, studying Latin deepens one’s understanding of the historical and cultural development of medicine itself. Many of the first medical texts, anatomical descriptions, and pharmacological works were written in Latin or Greek. By studying these languages, medical professionals gain insight into the origins of medical thought, the historical evolution of terminology, and the traditional foundations upon which modern medical knowledge is built.

In conclusion, learning Latin and Greek in medicine is not merely an academic requirement; it is an essential component of professional competence. Mastery of medical terminology ensures precise communication, strengthens scientific understanding, and provides healthcare workers with the tools they need to engage with the global medical community and stay informed about the continual advancements in their field.

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