

# Theoretical aspects of medical terms translation from Ukrainian into English

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**Анотація:** Стаття присвячена комплексному вивченню особливостей перекладу термінологічної медичної лексики з української мови на англійську. Встановлено шляхи творення медичних термінів в українській та англійській мовах. Окрему увагу приділено виявленню перекладацьких трансформацій, а також перекладу метафоричних сполук. Звернено увагу на явище полісемії, омонімії, синонімії та антонімії в медичних терміносистемах української та англійської мов.

**Ключові слова:** *терміносистема, медична термінологія, перекладацькі трансформації, терміни-метафори, багатозначність, омонімія, синонімія, антонімія.*

## Introduction

The present stage of development of the medical educational system is characterized by the context of integrated training of foreign students whose native language is not the language of the state in which they receive education. Therefore, the question of quality of the special scientific terminology translation into English, as a means of international educational and scientific communication, is becoming more and more urgent. It is known that the translation of medical text is one of the most difficult in the practice of translation, and the translation of special terminology is vital, since the terminology that functions in medical circles is regularly updated with new names and definitions. Such a process takes place due to significant world-scale scientific work, new discoveries and achievements in all spheres of medicine.

## Medical terms translation

There are a lot of works by well-known scholars dedicated to various issues of special medical terminology translation. Among them there are distinguished scientific papers, dealing with certain aspects of this problem. In particular, a number of studies

concerning the ways of creating medical terms (A. Botsman [1], O. Petrova [6]), defining functional parameters of foreign-language medical terms in Ukrainian-language special literature (W. Labov [11]), establishing the etymology of medical terminology (S. Vostrova [2]). Scientific findings by L. Zubova [4], T. Kyiak [5], D. Samoilov [7], S. Galinski [10] are considered to be fundamental. Their works formed the basis for the main concepts of special medical terminology translation.

Medical terminology system is extremely rich (there are several thousand terminological lexemes), and is constantly updated. It is changing and is being replenished with new terminology, which is stipulated by the constant development of medical science. So, the terminology that serves medicine is one of the richest terminology systems, and in this connection has a wide scope of studying the features of medical terminology translation into English. Especially important is seen the study of the specificity of the Ukrainian and English denotations of basic concepts as the theoretical basis of medicine.

Modern medical terminology is a macro-system, the content of which is diverse: morphological formations and processes observed in the human body in normal and pathological conditions at different stages of their development; diseases and pathological conditions of a human; forms of their course and symptoms pathogens and carriers of diseases; surgical operations; organizational forms of providing medical and preventive care to the population, devices, tools and other technical means, etc.

Within terminological macro-system, the leading role belongs to the following subsystems: 1) anatomical and histological nomenclature; 2) a complex of pathological-anatomical, pathological-physiological and clinical terminology system; 3) pharmaceutical terminology. Hereby, medical terminology is a system that combines the terms of pharmaceutical and biological disciplines, where a considerable amount of them are borrowings (mainly of Greek and Latin origin). Thus, the system of medical terminology refers to a set of terms correlated with the professional field of medicine and interrelated at both lexical-grammatical and word-building levels.

Medical terms are characterized by the following aspects: definition, maximum abstraction, monosemicity, lack of expression and emotional coloration, stylistic neutrality, correlation with special concepts and strict logicity. Modern medical terminology includes several hundred thousand words and stable phrases that constitute a terminological base for a number of medical and biological subjects. This is a naturally formed terminological system that has century-long tradition. Medical terminology predominantly originates from Latin and Greek. A few terms come from Arabic, Italian, German, English, and French.

Medical terminology database is constantly being replenished with new terms, which require justifications of their translation into other languages (English, in particular). It facilitates the process of teaching course to foreign students who receive medical education in Ukraine, and English for them has the status of the language of scientific communication.

Translation is a complex and versatile form of human activity. In the process of translation, there is not just a replacement of one language by another. The basic requirement for translation is accuracy and completeness. Depending on the type of translation, the consequences of changing the meaning of the primary source may differ. As for the translation of medical and biological texts, the consequences could be harmful to human life. The translation of scientific and technical literature is achieved by methods not related to the translation of fiction. The translation of fiction tends to the field of art, while the translation of non-fiction is related to the scientific spheres of the world perception. Therefore, the translator of scientific texts should have a good command of not only required languages and subjects, but also possess a scientific thinking, and

differentiate logical categories of a particular field, including medicine. What was mentioned above implies the existence of specific translation patterns of scientific literature, providing the main task of translation, i.e. clear and accurate information. Moreover, it can be argued that in some cases the translation of a scientific text should outgo the original version. This paradoxical statement is fully justified and follows as a natural consequence of following requirements for the translator of scientific and technical literature: the translation must be accurate, that is, convey exactly what is contained in the original version; the translation should be clear and accurate regardless the degree of clarity of the original version.

Systematic analysis of the problem of medical terms translation presupposes, first of all, the definition of the word “term” and “medical term” in both the English and Ukrainian languages. It also includes the investigation of various options for the translation of medical Ukrainian terms into English. It is of great importance to define the methods that are the most acceptable for the translation of metaphorical medical terms.

When translating this type of terms, different methods are used. The most common one is the search for dictionary equivalent. Due to the differences in syntactic, grammatical and morphological features of word-building in both the English and Ukrainian languages, in the medical terminology translations, the lexical and grammatical transformations are widely applied. They distinguish generalization, specification, lexical additions, transcoding, loan translations, contextual replacement, extraction, descriptive translation.

It is worth mentioning that particular attention is paid to the metaphorical medical terms, which often coincide in English and Ukrainian. It ensues that many of these terms have direct equivalents in both languages. Medical linguistic term-metaphors can be transmitted in two ways: through a metaphorical word or a non-metaphorical word. Speech terms-metaphors are translated in three main ways: by a metaphorical word with the same or a similar character of figurativeness, by a metaphorical word with a different character of figurativeness, as well as by a non-metaphoric word that transmits only the denotative meaning of the metaphorical word

When studying the problem of medical terminology translation into English, it is of primary importance to take into account the following issues: the fact that the Ukrainian medical terminology system was formed from the words and root morphemes of the Ukrainian language in accordance with the terms of the Latin language (*kistochka, kanal* – *ankle, canal*); the system of Ukrainian terms took as the formation basis the words originating from native language, as well as neologisms, transliteration, borrowings from classical languages (*vena, plevra, miaz* – *vein, pleura, muscle*); the terminology system is a collection of one-word and multi-word notions, most terms consist of nouns, adjectives, and sometimes contain a numerical component, they may include as well prepositions and conjunctions, though Ukrainian terminological structures never include verbs and adverbs (*sonna arteriia, bilky do mozku* – *the carotid artery, limbs to the brain* etc); nominative inaccuracies usually apply to the determination of position, form, outer view, function, belonging (*niukhovi retseptory* – *olfactory receptors*).

English medical terminology is characterized by the following ways of word-formation: compounding (*headache, backbone, gastrointestinal*); synthesis of existing words in the form of combinations (*cardiovascular disease*); numerical abbreviations (*AID, BP, T, ECG*). Word-formation of classical genesis terms is of Greek origin.

From the point of view of the lexical-semantic features of Ukrainian and English terminology systems, it remains important that both are characterized by the phenomena of polysemy, homonymy, synonymy, antonymy. National terms tend to polysemy, whereas

Latin-Greek, on the other hand, have a tendency to monosemy. In our opinion, the solution to the problem of polysemy, homonymy, synonymy, antonymy in medical terminology should be the result of the joint work of linguists-terminologists, translators and medical specialists. As a rule, the analysis of terminology is conducted when taking into account primarily linguistic aspects, in which the object of study is represented by the linguistic material. In sources of special vocabulary (dictionaries, glossaries, publications, encyclopedias), the establishment of links between special lexemes often has a subjective character. Therefore, when choosing the most accurate, expedient, “ideal” variant of the term one should consider the specificity and features of synonymous lexemes, treating them as special words and units of the analyzed terminology, as well as accept the recommendations and methodical guidance of specialists in a particular field of medicine.

### Conclusion

In conclusion, the translation of scientific medical and biological literature is a complex, painstaking, and independent work. It represents an intensive research work in the field of language and particular specialty. This work requires a high qualification of the translator, a good command of the language of scientific literature, both of the original version and the translation. Theoretically, this is possible only within the limits of a narrow specialty, for example, cardiology, or ophthalmology. It is assumed that the proficiency in target language is more important than the awareness of the source language. Undoubtedly medical topics are one of the most difficult. The symptoms of the disease, the diagnosis, treatment patterns and rehabilitation measures, accompanying documents for medicine and medical equipment constitute the area where the approximation of the wording and the inaccuracy of terms are considered to unacceptable. This is the language of rigid forms and clichés, of accuracy and asceticism. The translated texts should contain carefully selected medical terminology in order not to be the cause of inaccurate diagnostics, misinterpretation of scientific achievements, and, as a consequence, could lead to gross mistakes in a professional field.

Consequently, the urgent problems of the translation of medical terminology include the following factors: a significant number of synonyms, homonyms, polysemantic terms; widespread use of abbreviations and shortenings. One of the most noticeable things is that medical vocabulary is constantly expanding and regularly being replenished. Therefore, the primary task for translation is to define the linguistic properties of medical terms and translational transformations that occur when translating Ukrainian medical terms into English.

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