

LEXICO–SEMANTIC FEATURES OF THE FORMATION OF MEDICAL TERMS

Abdurasulov Nazirjon

nazirjonabdurasulov07@gmail.com

Abstract: This article examines the lexico–semantic features of the formation of medical terminology in modern English. The study focuses on the structural, morphological, and semantic processes that shape the vocabulary of medicine, including borrowing, compounding, affixation, and semantic extension. The analysis reveals that medical terms are formed not only through linguistic mechanisms but also through cognitive and cultural factors reflecting the evolution of medical science. The study emphasizes the importance of understanding these processes for translators, linguists, and medical professionals, as precise terminology contributes to clarity and accuracy in professional communication.

Keywords: medical terminology, lexico-semantics, word formation, affixation, borrowing

Annotatsiya: Ushbu maqolada zamonaviy ingliz tilidagi tibbiyot terminlarining leksik-semantik xususiyatlari tahlil qilingan. Tadqiqotda tibbiy terminlarning shakllanishida ishtirok etuvchi asosiy jarayonlar — soʻz yasash, soʻz qoʻshish, affiksatsiya, semantik kengayish va boshqa mexanizmlar oʻrganilgan. Maqolada, shuningdek, tibbiyot terminologiyasining rivojlanishiga kognitiv va madaniy omillar taʼsiri ham yoritilgan. Tadqiqot natijalari tibbiy tarjimonlar, tilshunoslar va mutaxassislar uchun terminlarning toʻgʻri qoʻllanishi ilmiy muloqotda aniqlik va samaradorlikni taʼminlashini koʻrsatadi.

Kalit soʻzlar: tibbiy terminologiya, leksik-semantika, soʻz yasash, affiksatsiya, oʻzlashma soʻz

Аннотация: В данной статье рассматриваются лексико–семантические особенности формирования медицинской терминологии современного английского языка. В исследовании анализируются структурные, морфологические и семантические процессы — словообразование, аффиксация, заимствование и расширение значения. Отмечается, что формирование медицинских терминов связано не только с языковыми, но и с когнитивными и культурными факторами, отражающими развитие медицинской науки. Понимание этих процессов важно для переводчиков, лингвистов и медицинских специалистов, так как точность терминологии обеспечивает ясность профессионального общения.

Ключевые слова: медицинская терминология, лексико-семантика, словообразование, аффиксация, заимствование

Introduction

Medical terminology represents one of the most rapidly evolving subsystems of the English lexicon. Its complexity is determined by the necessity for precision and universality in medical communication. The development of medical terms has a long history, deeply rooted in Latin and Greek traditions, which have provided the basis for a significant part of modern medical vocabulary.

The article explores the lexico–semantic characteristics of medical terms in modern English. It examines the linguistic and cognitive factors influencing their structure, meaning, and formation. The study identifies key word-formation patterns such as affixation, compounding, borrowing, abbreviation, and semantic extension. It also highlights how cultural, scientific, and technological developments contribute to the dynamic evolution of medical vocabulary. Understanding the lexico–semantic mechanisms of medical terminology helps improve professional communication, translation accuracy, and linguistic analysis within the field of medical discourse. From a lexical standpoint, medical terms often display high consistency, as they aim to convey specific meanings without ambiguity. Semantically, these terms tend to be monosemous, having one precise meaning. However, polysemy occasionally arises when a term acquires metaphorical or extended usage in general English, such as *virus* or *infection* in digital contexts. From a lexical perspective, medical terminology demonstrates systematicity and consistency. Each term usually has a fixed meaning to avoid ambiguity. Many medical terms are monosemous, which means they have one clear, context-specific definition. However, some terms — such as *virus*, *infection*, *therapy*, and *immunity* — have acquired extended meanings in everyday English, demonstrating semantic broadening. Medical terminology is not a static system but a dynamic linguistic phenomenon shaped by lexico–semantic processes, cognitive development, and cultural change. Its precise use ensures effective professional communication and facilitates cross-disciplinary research. A deep understanding of the lexical and semantic mechanisms of term formation helps linguists, translators, and medical practitioners achieve clarity, coherence, and consistency in international contexts. Medical terminology forms a crucial component of specialized language, aiming to provide clear, concise, and universal communication among healthcare professionals. The English medical lexicon constantly grows as new diseases, technologies, and treatments appear. Word formation plays a central role in this process, helping to create precise and internationally understandable terms. Understanding these mechanisms is essential for linguists, translators, and medical experts who work with medical documentation and discourse. Medical terms are formed through various word-formation processes, including:

1. **Borrowing:** Many English medical terms originate from Latin (*cor*, *ren*) and Greek (*cardio*, *neuro*).
2. **Affixation:** The use of prefixes and suffixes such as *-itis* (inflammation) and *-logy* (science) is widespread.
3. **Compounding:** Combining two roots, e.g., *blood pressure*, *heart rate*.
4. **Conversion and abbreviation:** Shortened forms like *ECG* (electrocardiogram) and *MRI* (magnetic resonance imaging) are common in modern usage.

Word formation processes in medical terminology demonstrate the richness and flexibility of English as a scientific language. Affixation, compounding, borrowing, and abbreviation remain the most productive mechanisms. They reflect the interaction between linguistic creativity and the growing needs of medical science. A deep understanding of these processes contributes to the development of more precise, standardized, and globally comprehensible medical communication.

Semantic change plays a crucial role in term development. For instance, words like *virus* and *syndrome* have undergone semantic broadening, moving beyond strictly medical use. This shift demonstrates how scientific vocabulary influences everyday language and digital

communication. Semantic mechanisms are central to the continuous evolution of medical terminology. Processes like metaphorization, metonymy, and semantic specialization not only enrich medical vocabulary but also bridge scientific and everyday communication. As medicine develops, so does its language — dynamically adapting to express new realities while preserving conceptual precision. Understanding these mechanisms enables linguists and practitioners to use medical terms more accurately and meaningfully.

Medical terminology is not only a linguistic system but also a reflection of human cognition and culture. Each medical term carries with it traces of how people perceive the body, illness, and healing. The evolution of medicine—from ancient spiritual practices to modern biotechnology—has shaped the way medical concepts are expressed linguistically. Therefore, studying the cognitive and cultural aspects of medical terminology provides valuable insight into how scientific and cultural knowledge interact in language. The cognitive and cultural dimensions of medical terminology reveal that language in medicine is not static but dynamic, shaped by both thought and society. Through metaphor, conceptualization, and cultural adaptation, medical terms encode centuries of scientific and human understanding. Recognizing these aspects is essential for linguists, translators, and healthcare professionals to ensure accurate, culturally sensitive, and effective communication across global contexts. The evolution of medical terminology is also influenced by human cognition and culture. Advances in technology, discovery of new diseases, and globalization all contribute to the expansion of medical vocabulary. For example, terms such as *COVID-19*, *quarantine*, and *telemedicine* reflect both linguistic innovation and societal change.

Conclusion

The formation of medical terms is a multifaceted process involving linguistic, semantic, and cultural dimensions. Understanding the lexico-semantic nature of these terms allows for better comprehension, translation, and application within medical and academic fields. The precision and stability of medical terminology play a key role in ensuring effective communication among professionals worldwide.

References

1. Allan, K. (2012). *The Oxford Handbook of the History of Linguistics*. Oxford University Press.
2. Cabré, M. T. (1999). *Terminology: Theory, methods and applications*. John Benjamins.
3. Crystal, D. (2010). *The Cambridge Encyclopedia of the English Language*. Cambridge University Press.
4. Wulff, H. R. (2004). *The language of medicine*. Oxford University Press.
5. Bowker, L. (2020). *Terminology and Language for Specific Purposes*. Routledge.
6. Dudeney, G., & Hockly, N. (2018). *The impact of digitalization on language use in healthcare communication*. Springer.
7. McCrae, J. (2021). *Lexical and Morphological Dynamics in Specialized Discourse*. Springer.
8. Kövecses, Z. (2010). *Metaphor: A Practical Introduction*. Oxford University Press.