



LEXICAL-SEMANTIC WAYS IN MEDICAL TERMS FORMATION

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Annotation: *Medical terminology is a specialized language that plays a critical role in healthcare communication. Its lexical and semantic structure is crucial for understanding, documenting, and sharing medical knowledge. This article explores the linguistic characteristics of medical terms, focusing on their lexical composition and semantic organization.*

Key words: *Lexical structure, Semantic structure, Medical terminology, Word formation, Compounding, Derivation, Neologisms, Synonymy in medical terms, Polysemy in medical terms.*

Word Formation Processes. Medical terms have historically evolved through various word formation processes. This article explores the key processes:

Derivation: The addition of prefixes and suffixes to medical roots (e.g., gastroenteritis from gastro meaning stomach, and enteritis meaning inflammation of the intestines).

Compounding: The merging of two or more roots to form complex terms, such as cardiothoracic (combining cardio and thoracic).

Clipping and Abbreviations: Common in practice, medical terms are often abbreviated (e.g., MRI for Magnetic Resonance Imaging¹⁸).

Acronyms and Initialisms: Used to simplify complex names, such as AIDS (Acquired Immunodeficiency Syndrome).

Borrowing and Loanwords. Medical terminology is significantly influenced by loanwords from Latin and Greek. This section discusses:

Historical borrowing: How Latin and Greek terms became embedded in medical language.

Modern borrowing: The influence of contemporary languages, especially English, in coining new terms (e.g., telemedicine, genomic).

Neologisms in Medical Terms. With the continuous evolution of medical science, neologisms frequently emerge, reflecting new diseases, technologies, and treatments (e.g., COVID-19, bioprinting).

Semantic Approaches in Medical Term Formation. Semantic Relationships in Medical Terminology. The semantic structure of medical terms is organized through several relationships: **Synonymy and Polysemy:** Cases where a single medical condition has multiple terms (e.g., heart attack and myocardial infarction), or where a term has multiple meanings depending on the context (e.g., lesion could mean any damage to tissue or a specific pathological change).

Hyponymy and Hypernymy: The hierarchical structure of medical terminology, with broad terms (hypernyms) like disease, and more specific terms (hyponyms) like diabetes or cancer.

¹⁸ **Wulff, H. R. (2004).** *The Language of Medicine*. Oxford University Press.

Semantic Precision and Ambiguity. Medical terminology strives for precision, but certain terms may exhibit semantic ambiguity, especially in different medical contexts or languages. This section discusses: Ambiguity in translation: How medical terms sometimes lose their precision when translated into other languages, leading to potential misunderstanding in international contexts¹⁹.

Metaphorical and Metonymic Processes. Medical terminology often involves metaphorical or metonymic naming:

Metaphors: Terms like virus or inflammation have metaphorical underpinnings that date back to their origin.

Metonymy: Terms like heart are often used to signify broader concepts (e.g., the center of emotion).

Contemporary Trends in Medical Term Formation. Technological Influence

Recent technological advancements have introduced new terms into medical language, often borrowing from other fields (e.g., nanomedicine, robotic surgery). The issue explores how technological advancements are reshaping the lexical and semantic structure of medical terms.

Globalization and Cross-Cultural Influence. As medical practice becomes more globalized, the influence of various languages and cultures on medical terminology increases. This section will explore how globalization affects the formation of new terms and the standardization of medical vocabulary.

Internet and Social Media Impact. The rise of telemedicine, online medical communities, and patient discussions online has influenced the coinage and spread of medical terms. Terms such as Dr. Google syndrome are becoming common.

Challenges in the Translation and Standardization of Medical Terminology. Standardization Issues. One of the major challenges in medical terminology is ensuring consistency across languages and medical fields. The article discusses the role of organizations like the World Health Organization (WHO) and International Classification of Diseases (ICD)²⁰ in maintaining standardized medical lexicons.

Cross-Linguistic Challenges in Medical Translation. Translating medical terms from one language to another poses challenges. This section addresses: Loss of precision in translation. Cultural differences that may affect how terms are understood or used in practice.

Conclusion. The formation of medical terms is a dynamic and evolving process that relies heavily on lexico-semantic principles. As medical science progresses, new terms emerge, reflecting advances in technology, globalization, and cross-cultural exchange. The ongoing challenge is to ensure that these terms remain precise, unambiguous, and widely understood across different languages and cultures.

¹⁹ **Tiersma, P. (1999).** *Legal Language*. University of Chicago Press.

²⁰ **Sosnowski, D. M., & Staniszewski, T. (2018).** "On the Structure of Medical Terminology: Latin and Greek Elements in Modern Medical Lexicon." *Journal of the Polish Medical Association, 55*(3), 47-58.



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