

# Study on the Characteristics and Learning Strategies of Medical English Vocabulary

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**Keywords:** Medical english vocabulary, Learning strategies, Characteristics study

**Abstract:** Medical English is a special-purpose English category. With the deepening of China's reform and opening up, international academic exchanges are becoming more and more frequent. Understanding the vocabulary characteristics of medical English and mastering its learning strategies is a vital part for medical professionals and learners to learn medical English well. The purpose of this article is to outline the salient features of medical English vocabulary and related learning strategies, in order to eliminate the blindness of medical English vocabulary learning, and strive to help learners achieve the desired learning results in a limited time.

## 1. Introduction

With the rapid development of scientific and technological level, the development of medical science is also changing with each passing day, and international medical academic exchanges are increasing day by day. To master the most cutting-edge medical scientific research trends, higher requirements for professional English skills of medical workers are also required. In this international context, many medical universities in China have focused on teaching English to students. Since 2008, our college has provided medical English as a basic course for students of all majors in the school. From 2008 to 2014, Medical English is only available for juniors who have passed CET4. Teaching, because the teaching object has a good general English learning foundation, so achieved good teaching results. Since 2015, in order to improve the medical professional English ability of all students in all majors of our college, a "Medical English" course has been offered to all juniors. After expanding the scope of teaching, students reported that the learning problems encountered in the study of medical English gradually highlighted and focused on the medical English vocabulary. Students generally think that medical English vocabulary is long, difficult to read, and difficult to remember, so they have a feeling of fear. In the course of teaching, I found that the reason why students have such learning confusion is that the learning strategy is not proper. Once you delve into the characteristics of medical English vocabulary and use appropriate learning strategies, these problems can be solved.

## 2. Characteristics of Medical English Vocabulary

According to relevant data, about 80% of vocabulary in medical English comes from basic English vocabulary. These vocabularies are not professional medical vocabulary, but the meanings of the words in medical English have changed, expressing special medical meanings, which is completely different from common word meanings. For example, the general meaning of "arrest" is "arrest", its medical meaning is "cardiac arrest", the word "culture" should be translated as "culture" in medical English, and the special medical meaning of "pupil" is "pupil".

Throughout history, major changes such as the Roman conquest, the Anglo-Saxon invasion, the Renaissance, and the Normandy conquest in the history of British development have caused foreign languages such as Latin, Greek, German, and French to have a profound impact on English and blend with each other. To form a specific medical English system. Chinese medical English expert Professor Yang Mingshan conducted a statistical analysis of the source of medical English terms. The results show that medical English morphemes mainly come from Greek (48.2%), Latin (38.3%), and English (12.2%). Greek and Latin morphemes are the key elements in the formation of medical

English terms. This is because they have a single fixed part of speech and a single meaning, and they are accurate and objective in their expressions, avoiding the confusion of the same name or foreign name. At the same time, the Greek and Latin etymology is rich, and the word formation is broad through synthesis, derivation, and addition of suffixes. It has continually spawned a large number of new medical English words to describe complex, subtle and colorful medical concepts and medical phenomena. According to the author's incomplete statistics, medical English words beginning with “cardi (o)” (Greek etymology, meaning “heart, heart-related”) are used as an example in the World's Newest English-Chinese Medical Dictionary There are nearly 150 of them, and you can expand more: cardiogram (cardiogram) = cardio + -gram (graph, chart); cardiomyopathy (cardiomyopathy) = cardio + myo (greek morpheme, meaning “muscle”) + pathy (Greek morpheme, meaning “disease”); cardiovascular (cardiovascular) = cardio + vascular (Latin morpheme, meaning “vascular, ductal”); cardiotomy = cardio + ( o ) tomy (Greek morpheme, meaning “incision”).

Common diseases in medical English, clinical treatment, scientific research methods, formula laws, anatomical structures, medical inventions, etc. are often named by people in honor of scientists and medical workers who have made outstanding contributions to the cause of human medicine. Such as: Meniere's Syndrome (Ear Vertigo), Gram's method Gram's method (a staining method for identifying bacteria), Todaro's tendon, Van Hoornes canal Wait. We can see from the above examples: These title terms usually consist of two parts, the first part is the first name and last name, and the second part is disease (disease), syndrome (syndrome), maneuver (manipulation), operation (surgery), formula (Formula), law, law, anatomical structure, apparatus, etc. In addition to terms that are named by people, there are some terms that are named by places in Medical English. Such as Tularemia (Tulare is a city in central and southern California in the United States, the disease was first found here), Mediterranean anemia (Midland Sea is a high incidence of the disease).

Medical English strives to convey information in a concise and clear way, so in real life, acronyms are widely used. Abbreviations are the extraction and condensing of the original word or phrase according to certain rules. The main forms of expression are as follows: Acronyms of the words in the original phrase, such as RBC = red blood cell, DIC = disseminated intravascular coagulation; Take the main letter or a part of the original word to form an acronym (Abbreviation), such as Hgb = hemoglobin, hemoglobin, flu = influenza. In addition, acronyms are often used by academic groups and medical services. Such as WHO (World Health Organization), ICU (Intensive Care Unit) intensive care unit.

### 3. Medical English Vocabulary Learning Strategies

Etymological Analysis of Medical English Vocabulary. Compared with the general English vocabulary that students have learned for many years, medical English vocabulary has a large difference, which has led many students to be stumped by these long, difficult to read and difficult to remember vocabulary in the entry stage of medical English. To learn medical English well, we must first understand the source of medical English vocabulary. Throughout history, Britain has undergone cultural and historical changes such as the Roman conquest, the Anglo-Saxon invasion, the Renaissance, and the Normandy conquest. This has caused foreign languages such as Latin, Greek, French, German, and Italian to have a profound impact on English. Among them, these foreign words have the most extensive influence on medical English vocabulary. According to statistics, more than 75% of medical English terminology comes from Greek and Latin. Of these, 48% are Greek source terms and 38% are Latin source terms. For example: Medical English vocabulary of Greek etymology includes coma (coma), pneumonia (lung), etc.; medical terms of Latin etymology include diag nosis (diagnosis), bacteria (bacteria), etc. There are also medical English vocabularies from French, German, Italian, Spanish, Arabic, and other languages. For example: words from French are ambulance, anatomic, etc.; words from German are aspirin, chemotherapy, etc .; words from Italian are malaria. And quarantine (quarantine), etc.; words derived from Spanish are mosquito (mosquito) and quinine (quinine), etc.

Characteristics of Medical English Vocabulary. Although medical English vocabulary is long and complicated, their method of word formation can be followed regularly. In general, most medical English vocabulary consists of the following: root, prefix, suffix, and combining vowel. The root is the core part of medical English terminology, which determines the basic meaning of the vocabulary. A root can be combined with other roots, different prefixes and suffixes to generate new medical English words. For example: cardi / o-meaning the heart, brady (slow, slow) / cardia (heart) means bradycardia, electr (electrical) / o / cardi (heart) / o / gram (write, figure) means Electrocardiogram, cardi / o / vascular means cardiovascular. In the above medical English vocabulary, as long as the student masters the root “cardi / o” meaning “heart,” the new word composed of the root and other roots, prefixes, and suffixes can be inferred that it is related to the heart, so master The root helps students memorize a large number of medical English vocabulary. The prefix (prefix) is the part in front of the root. The prefix itself has a meaning, which can change the meaning of the original root, but generally does not change the part of speech. For example: tension-the root itself indicates pressure, With the prefix hyper-(high), the meaning of hyper / tension becomes too high blood pressure; with the prefix hypo-(low), the meaning of hyper / tension becomes too low blood pressure. The suffix is the part after the root the suffix can also change the meaning of the word itself. For example-itis (inflammatory), this suffix is placed on the root of many organs to get a new word, which is the inflammation of this organ, pancreat-(pancreas) plus-it is obtained the word pancreatitis means pancreatitis. The suffix can also change the part of speech of the word, such as:-ic is an adjective suffix, added to pancreat-(pancreas ) Then we get the word pancreatic, which means pancreas. A combining vowel is a vowel that connects the root and the suffix or root, but sometimes there is a connecting vowel between the root and the suffix or root, sometimes it doesn't. Most of the vowels are connected with the vowel letter “o”, sometimes “a” or “e”, and the letter “u” appears infrequently. The function of connecting vowels is to make it easier to read the roots of some difficult words. Root sounds such as cardi-, gastr- are relatively jerky, and after connecting the vowel “o”, it becomes easy to pronounce “cardio” and “gastro”.

Roots and affixes commonly used in medical English vocabulary. From the above analysis of the word-forming characteristics and rules of medical English vocabulary, it can be seen that as long as the common roots and affixes are kept in mind, the meaning of these new words formed by combining roots and affix transformations can be known. When memorizing roots, students can memorize according to each system of the human body, which can greatly reduce the difficulty of memorizing medical English vocabulary. Use medical platforms such as “Rain Classroom” to strengthen medical English vocabulary memory. At present, the “Rain Classroom” online teaching platform that is fully promoted by our college can play a positive role in promoting students to learn medical English vocabulary. After explaining the etymology, word-forming characteristics, word-forming methods, roots, suffixes, and suffixes of medical English vocabulary to students, teachers can explain the English and English roots or affixes or roots and affixes involved in this classroom teaching content. Contents such as matching with corresponding medical pictures are pushed to students with “Rain Classroom” for pre-class preview before class; in the course of class explanation, students can use the “Rain Classroom” to push the courseware to make it clearer and intuitive. The correct meanings of all the mentioned roots and affixes are combined with rules; after the class, students are given practice questions related to the teaching content of the roots and affixes to consolidate the teaching content of the classroom, so as to achieve the pre-class, during-class, The three-pronged learning steps after class enable students to gradually overcome the fear of learning medical English vocabulary, and gradually master the method of learning and memorizing medical English vocabulary.

#### 4. Conclusion

Students are actively using and improving their learning strategies in both general English and medical English vocabulary learning. The author believes that in the future teaching of medical English vocabulary, strategy development should run through the entire teaching process, no matter before, during or after class, students should be more deeply aware of the impact of learning

strategies on learning effects, and help students skillfully use a variety of strategies to gradually cultivate students' good study habits and improve their learning kinetic energy, so as to obtain better teaching results.

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