First Lecture

Medical terminology

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Medical terminology

Medical terminology is a language used to precisely describe the *human body including all its components, processes, conditions affecting it, and procedures performed upon it*. Medical terminology is used in the field of medicine.

Medical terminology has quite regular morphology, the same prefixes and suffixes are used to add meanings to different roots. The root of a term often refers to an *organ, tissue, or condition*. For example, in the disorder known as hypertension, the prefix "hyper-" means "high" or "over", and the root word "tension" refers to pressure, so the word "hypertension" refers to abnormally high blood pressure. The roots, prefixes and suffixes are often derived from Greek or Latin, and often quite dissimilar from their English-language variants. This regular morphology means that once a reasonable number of morphemes are learnt it becomes easy to understand very precise terms assembled from these morphemes. Much medical language is anatomical terminology, concerning itself with the names of various parts of the body.

Introduction to Medical Terminology

Medical terminology is language that is used to describe anatomical structures, processes, conditions, medical procedures, and treatments. At first glance, medical terms may appear intimidating, but once you understand the standard structure of medical words and the definitions of some common word elements, the meaning of thousands of medical terms is easily unlocked.

The physicians of Greece are considered the founders of rational medicine, and medical terms are primarily derived from Greek and Latin. Over the centuries, the language of medicine has evolved into multiple national medical languages. Today, medical English is the primary language for international communication. It is used in most influential medical journals and has become the language of choice at international conferences.

Basic Term Structure

Medical terms are composed of these standard word parts:

Prefix: When included, the prefix appears at the beginning of a medical term and usually indicates *a location, direction, type, quality, or quantity*.

Root: The root gives a term its essential meaning. Nearly all medical terms contain at least one root. When a prefix is absent, the term begins with a root.

Suffix: The suffix appears at the end of a term and may indicate a *specialty, test, procedure, function, disorder, or status.* Otherwise, it may simply define whether the word is a noun, verb, or adjective.

Combining vowel: A combining vowel (usually the letter “o”) may be added between word parts to aid in pronunciation.

Breaking a word down into its component parts should help readers ascertain the meaning of an unfamiliar term. For example, hypothermia has the prefix hypo- (meaning below normal), the root therm (heat or warmth), and the suffix -ia (condition)

.Prefix, root, and suffix for hypothermia

Word Roots

A root is the foundational element of any medical term. Roots often indicate *a body part or system*.

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Introduction to Language Medical Terminology

The language of medicine is a specialized vocabulary used by health care providers. Many current medical word elements originated as early as the 4th century B.C., when Hippocrates practiced medicine. With technological and scientific advancements in medicine, new terms have evolved to reflect these innovations. For example, radiographic terms, such as magnetic resonance imaging (MRI) and ultrasound (US), are now used to describe current diagnostic procedures.

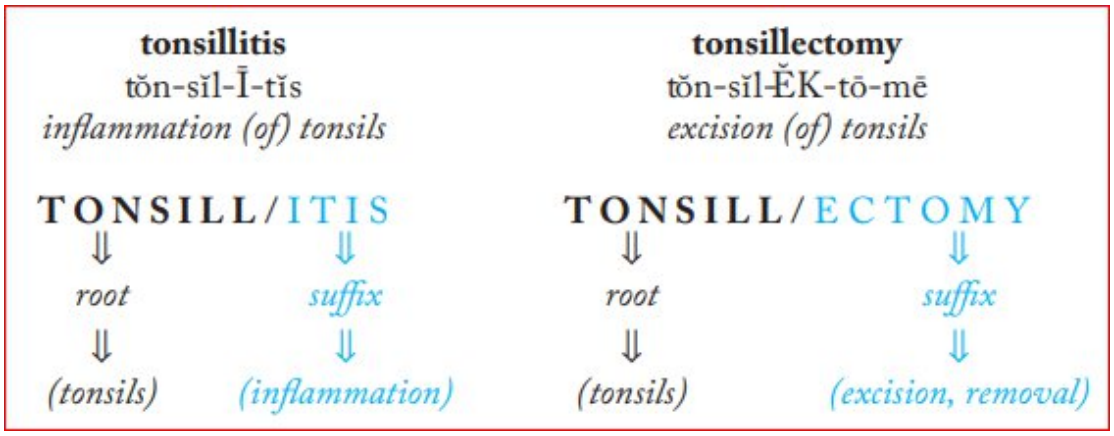
Medical Word Elements

A medical word consists of some or all of the following elements:

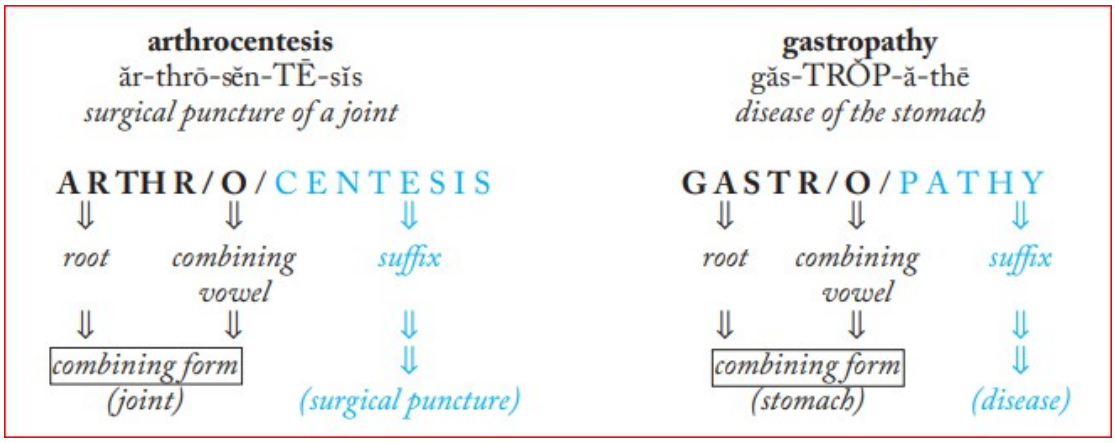
- **word root**
- **combining form**
- **suffix**
- **prefix**

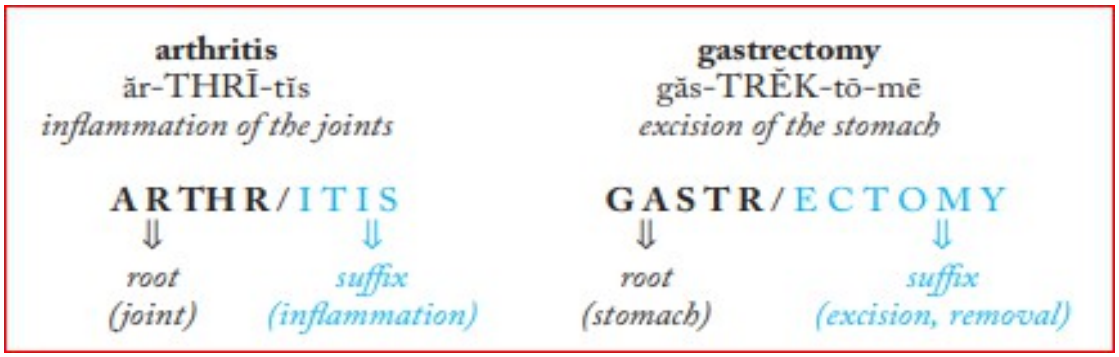
Word Roots

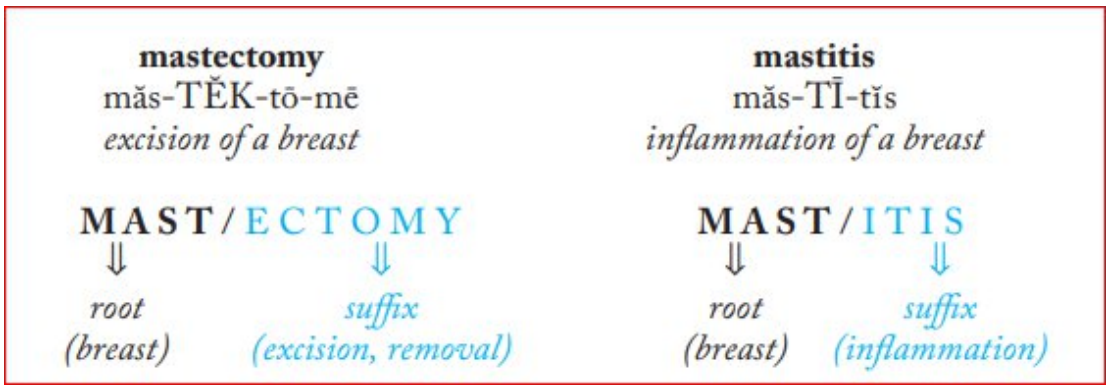
A word root (WR) is the foundation of a medical term and contains its primary meaning. All medical terms have at least one word root. Examine the terms tonsillitis, tonsillectomy, colitis, and colectomy listed below to determine their basic elements (roots and suffixes) and meanings. You will note that the meaning of the word changes whenever you change one of the word elements. (for example.)



A combining form (CF) is created when a word root is combined with a vowel. The vowel, known as a combining vowel, is usually an o, but sometimes it is an i or e. The combining vowel has no meaning of its own but enables two word elements to be connected. Like the word root, the combining form is the basic foundation to which other word elements are added to build a complete medical word. In this text, a combining form will be listed as word root/vowel (such as arthr/o, gastr/o, nephr/o, neur/o, and oste/o), as illustrated in the following examples. The difficulty of pronouncing certain combinations of word roots requires insertion of a vowel. Like the word root, the combining form usually indicates a body part. A CF links with a suffix that begins with a consonant. Examples of suffixes that begin with a consonant are -centesis and -pathy. This linking is illustrated below in the terms arthr/o/centesis and gastr/o/pathy. Medical Word Elements 3 Word Analysis The roots tonsill and col indicate body parts, the tonsils and colon, respectively. The suffix -itis means inflammation; the suffix -ectomy means excision, removal. By adding a different suffix to the root, the meaning of the word changes, as shown in the above examples.





Suffixes

A suffix is a word element placed at the end of a word that changes the meaning of the word. In the terms mast/ectomy and mast/itis, the suffixes are -ectomy (excision, removal) and -itis (inflammation). Changing the suffix changes the meaning of the word. In medical terminology, a suffix usually describes a *pathology (disease or abnormality), symptom, surgical or diagnostic procedure, or part of speech*.