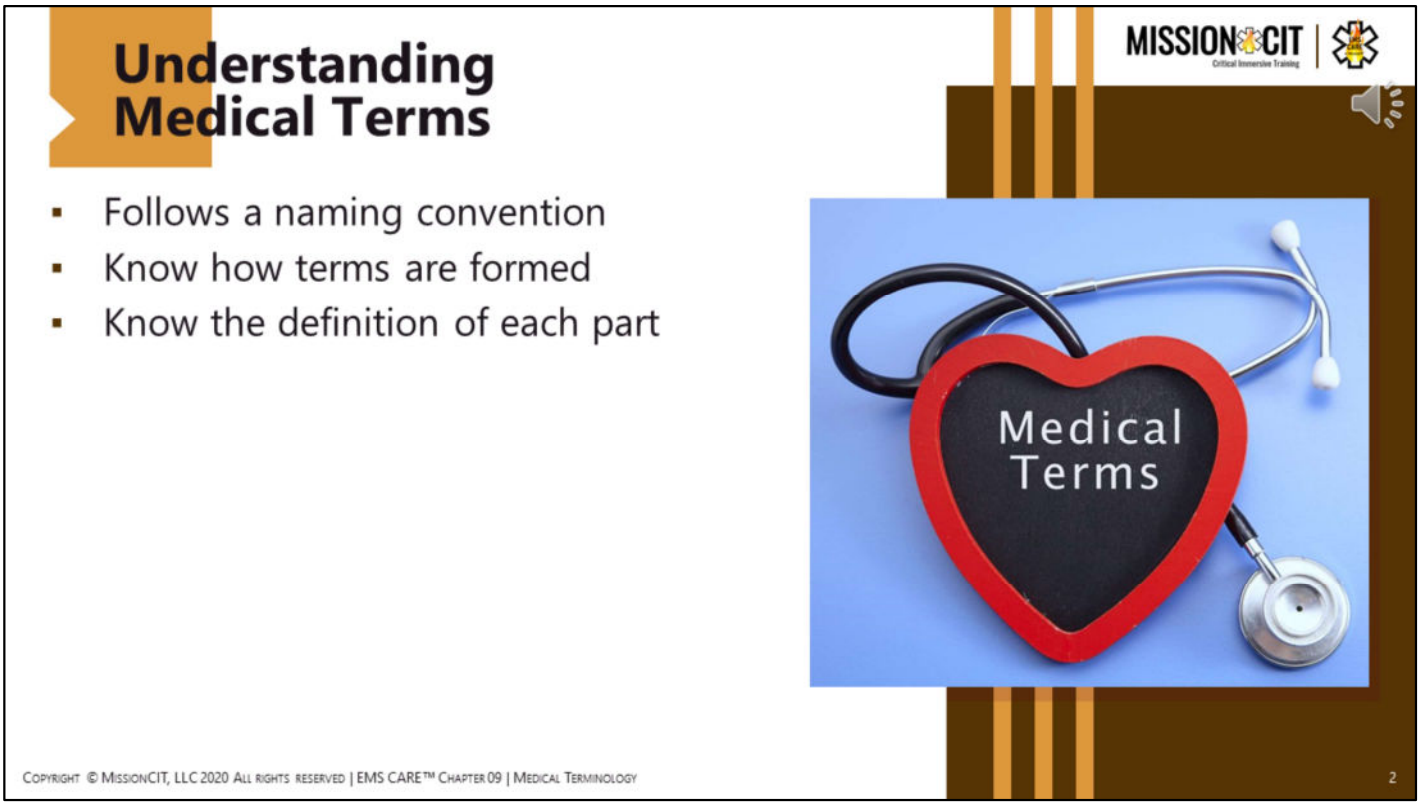


Thank you, Justin.

Welcome to the first lesson where we talk about medical terminologies.

As an EMT, you must have a strong working knowledge of medical terminology for effective communication and documentation.

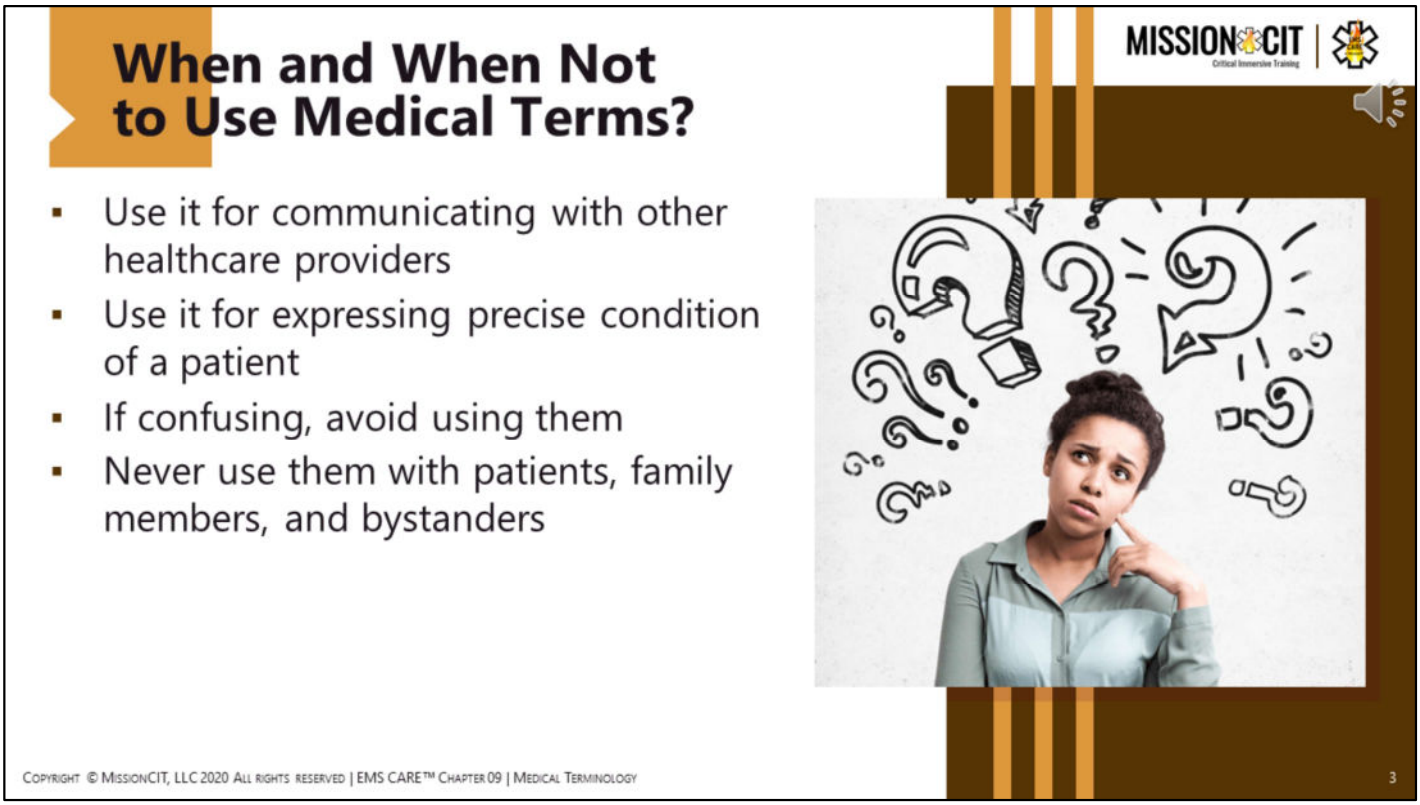
So, let's get started.



Every medical term has a certain naming convention, and you can easily identify what each term means by understanding this pattern.

You can understand the meaning of a new medical term by,

- Knowing how the terms are formed
- Knowing the definition of each part of a term

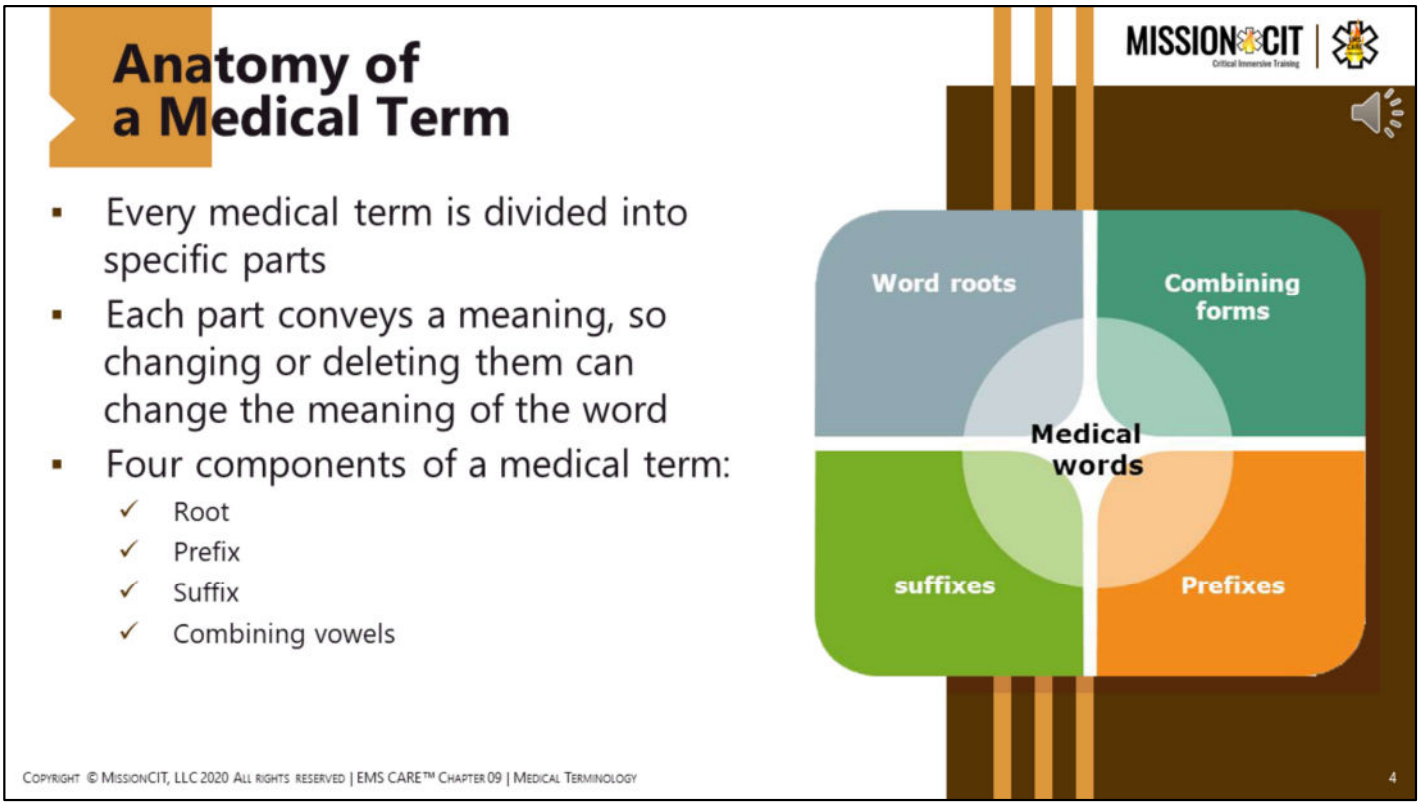


Before we jump into the anatomy of medical terms, know when you can and cannot use these medical terms.

You can and must use these terms when communicating with other healthcare providers to give them a clear understanding of the patient's condition, so appropriate care can be given. Such precise language can remove ambiguity.

Sometimes, complex terms used in messages can be confusing even among healthcare providers. So, if you think there's a possibility for a misunderstanding or ambiguity, revert to simple and commonly used words.

On the other hand, never use these terms while talking to a patient, family members, or bystanders as they cannot understand the meaning and it will lead to wrong understanding. Simplify the meaning of these terms and explain to them in a language that they can understand.



Every medical term is made of distinct parts that perform specific functions and changing or deleting any of those parts can significantly change the function or meaning of a word.

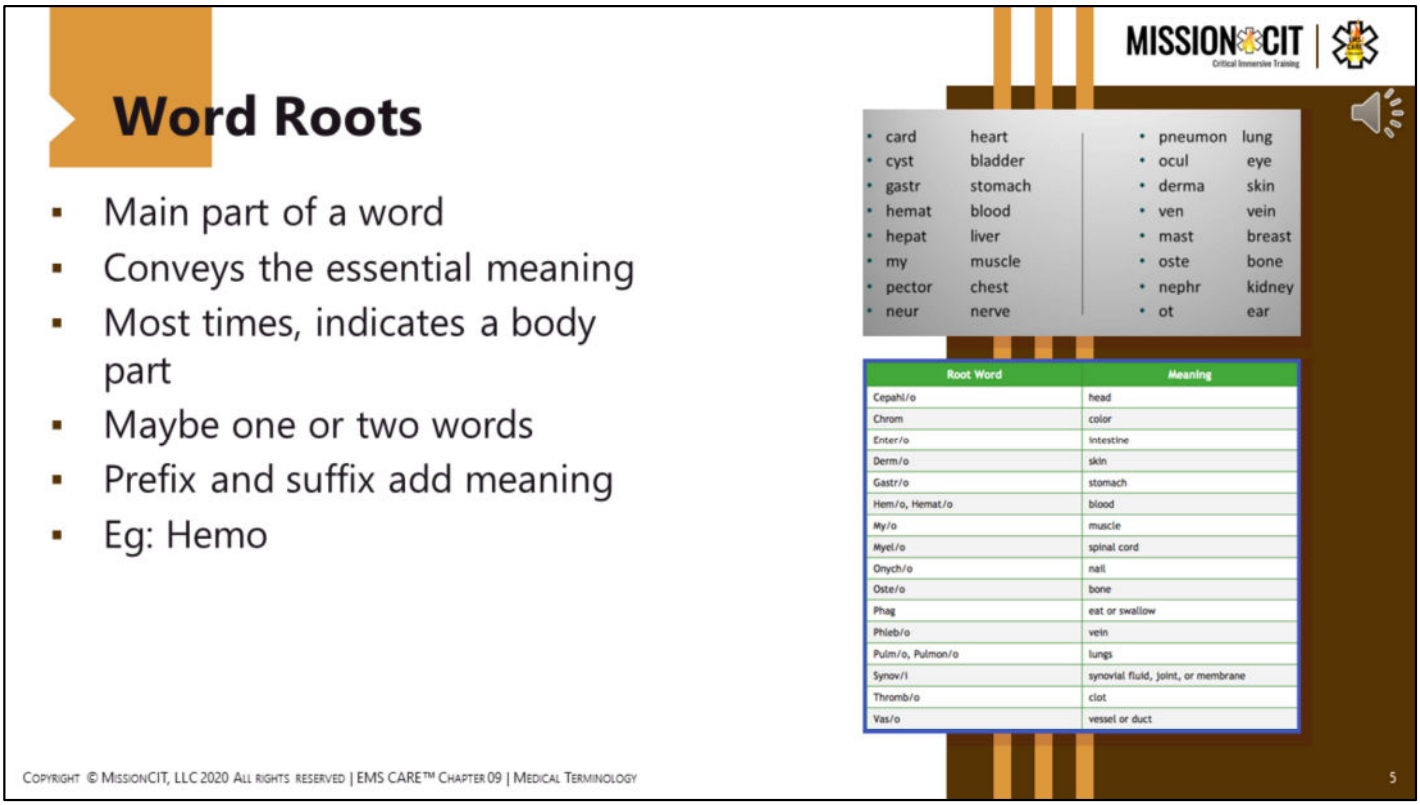
These terms are often made up of two or more words. For example, the word smallpox is divided into small plus pox. You can also combine the word pox with chicken to create the term chickenpox.

Components that comprise medical terms include the:

- Word root: The foundation of the word
- Prefix: What occurs before the word root
- Suffix: What occurs after the word root
- Combining vowels: Vowels that join one or more word roots to other components of a term

How the parts of a term are combined determines its meaning. Hence, accurate spelling is essential in medical terminology and knowing anatomy and the context of how these words are used can help you correctly determine and spell the term in a given situation.

Let's look at each of these components in depth.



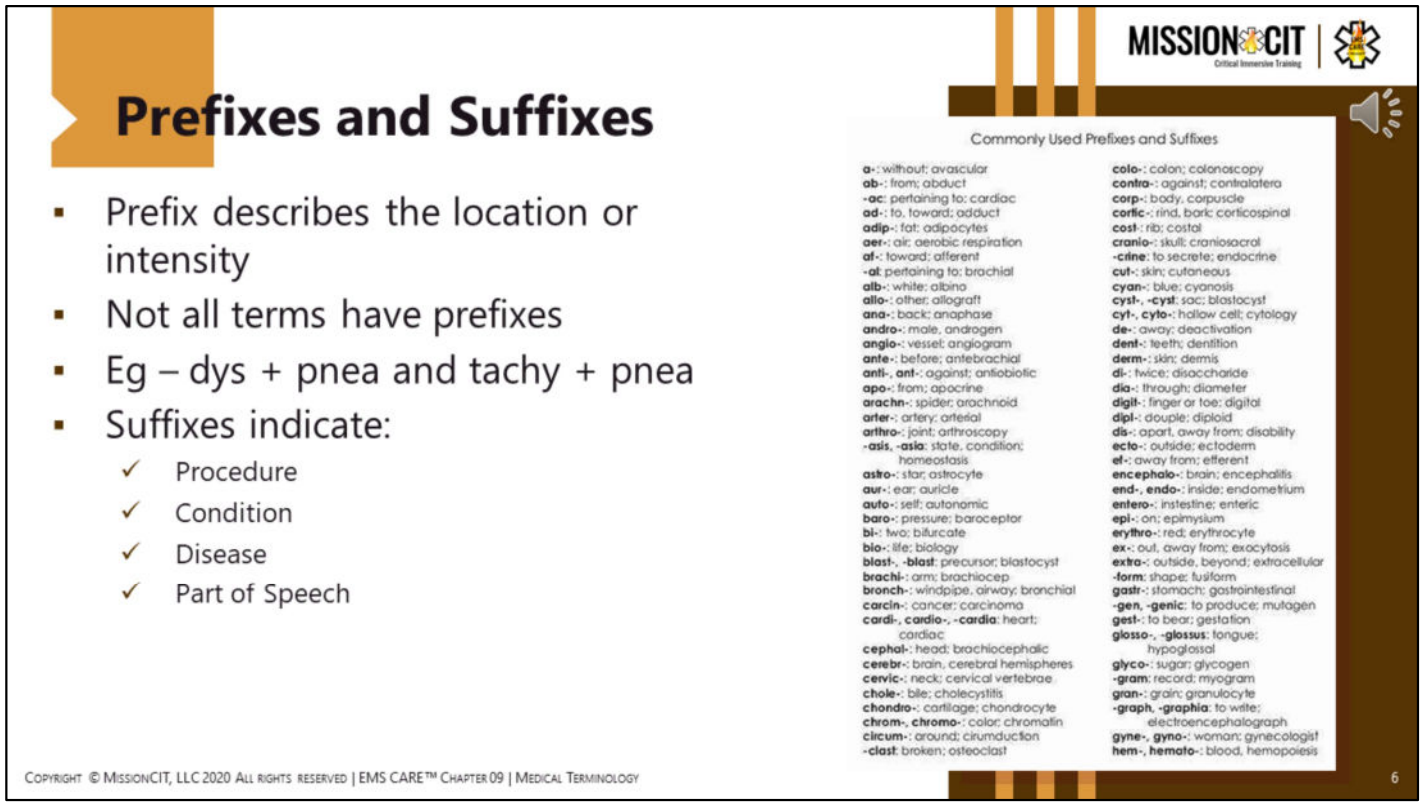
The main part or stem of a word is called a word root or root word. It conveys the essential meaning of the word and more often than not, indicates a body part. Most terms have at least a one-word root, and some have more than one root.

Adding a prefix or suffix to the word root creates a term while changing the prefix or suffix will change the meaning of the term.

Some word roots may also be used as prefixes or suffixes for other terms.

Let's understand this with an example.

The root word hemo means blood. When you add the suffix thorax to it, the word becomes hemothorax and this indicates blood in the chest cavity. Other examples are hemoglobin, hemostasis, hemorrhage, etc. But all of these words indicate that it has something to do with blood while the suffix tells you the context of blood.



Prefixes describe the location or intensity of the root word and give specific meaning to the root.

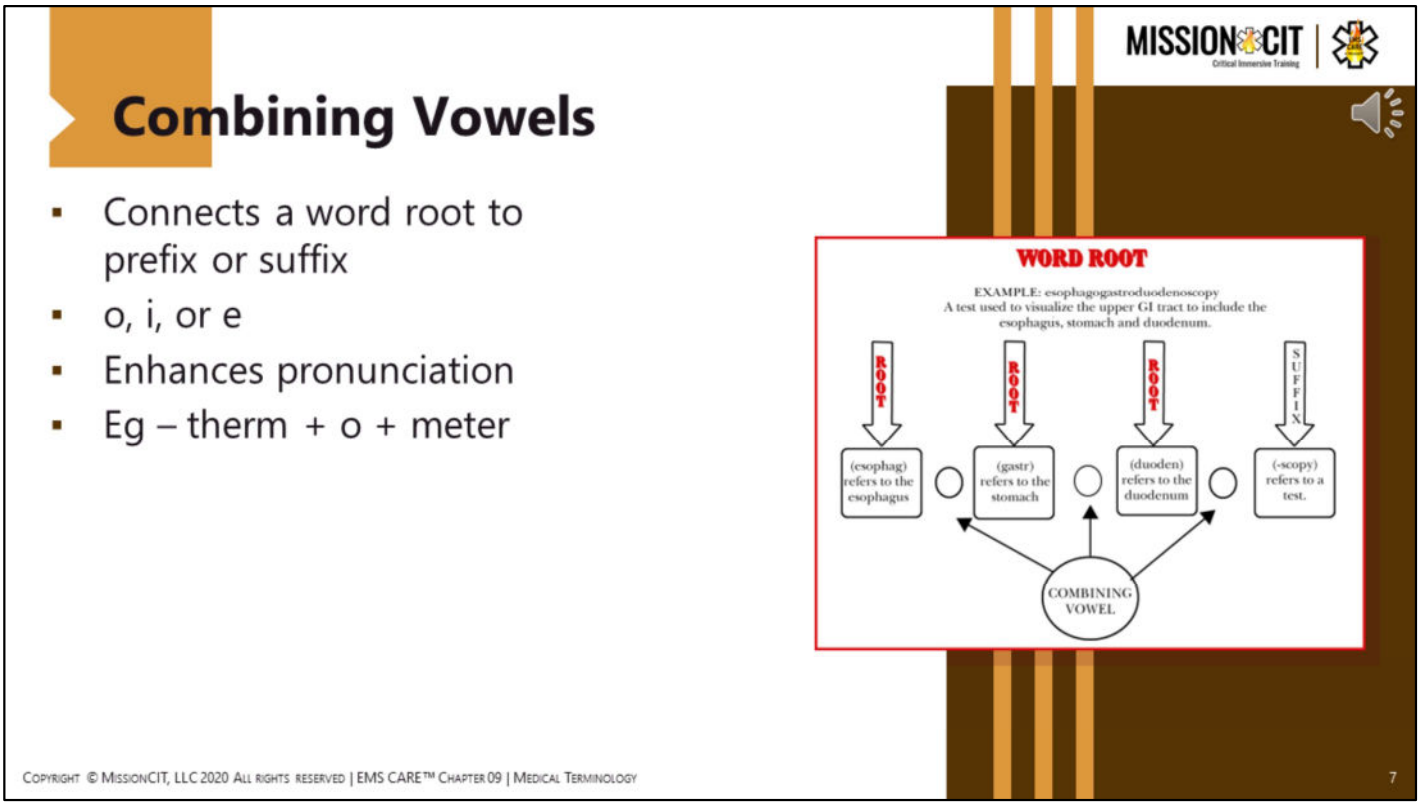
By learning the commonly used medical prefixes, you can figure out the meaning of terms that may not be familiar to you. However, not all medical terms have prefixes.

For example, the root word is pnea. By adding the prefix dys, you create dyspnea and give a specific meaning to the root. Likewise, tachypnea.

Suffixes, on the other hand, indicate a:

- Procedure
- Condition
- Disease, and
- Part of speech

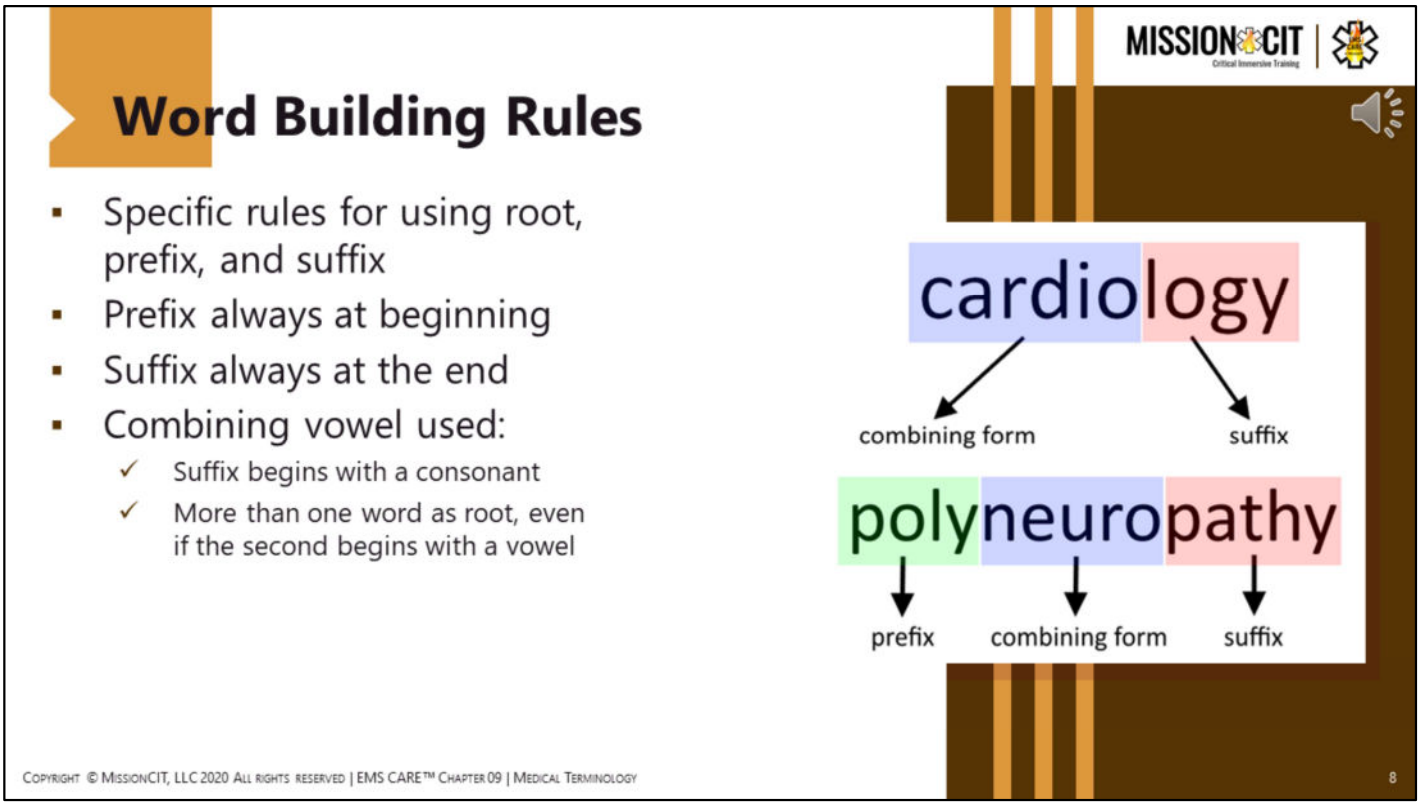
A good example is adding the suffix cardia to tachy. Here, cardia is heart and tachy is fast, so you know that the word tachycardia means a fast heart rate.



A combining vowel is the part of a term that connects a word root to a suffix or other word root. In most cases, it is an *o*; however, it may also be *i* or an *e*.

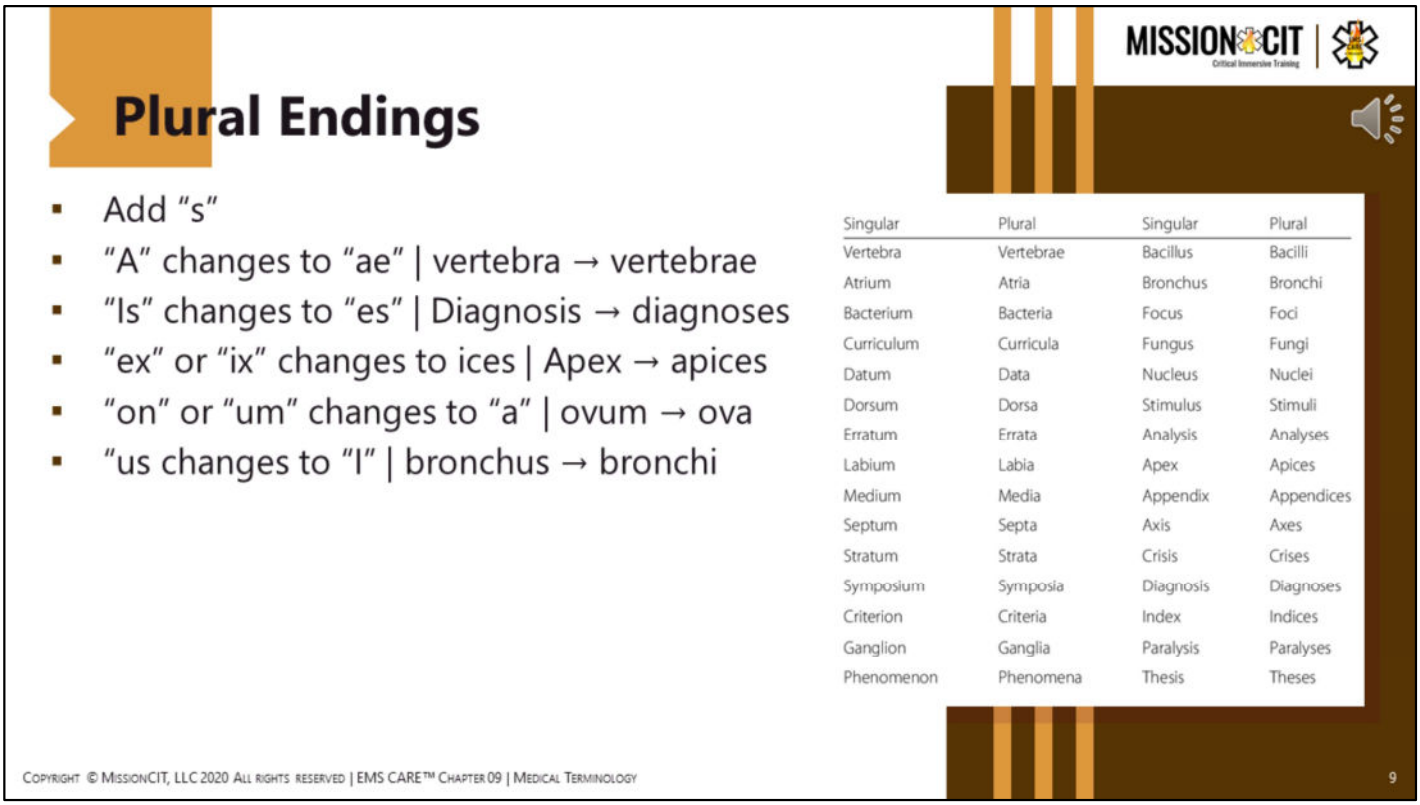
These vowels are used to join a suffix that begins with a consonant or when joining another word root. The combining vowel helps ease the pronunciation of the term.

For example, the word therm means heat and meter means a checking device. But for ease of pronunciation, the word o is added to the root to create the word thermometer.



Now, these roots, prefixes, suffixes, and vowels are not added randomly. There are specific word-building rules that are followed for each word, and they are:

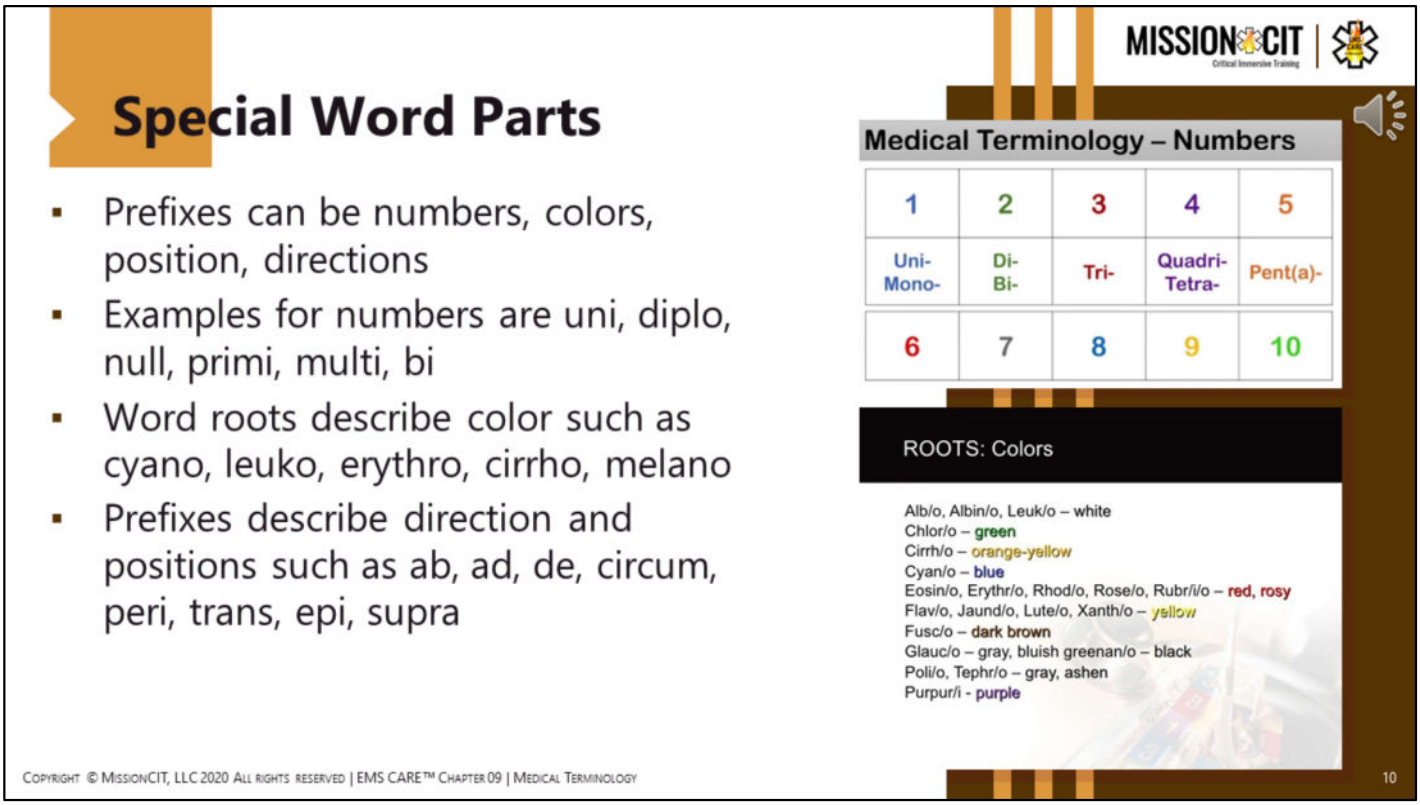
- The prefix is always at the beginning of a term; however, not all terms will have a prefix.
- The suffix is always at the end of the term.
- A combining vowel is used when:
  - A suffix begins with a consonant to make pronunciation easier.
  - A term has more than a one-word root. In such a case, a combining vowel must be placed between the two roots, even if the second root begins with a vowel.



Plural endings change a word from singular to the plural form. The most common way is to add the letter s to the word to make it plural. For example, adding the letter s to the word lung changes it to lungs.

However, some rules are more complicated. The rules for them are:

- Singular words that end in a change to ae. For example, vertebra becomes vertebrae
- Singular words that end in is change to es. For example, diagnosis becomes diagnoses
- Singular words that end in ex or ix change to ices. For example, apex becomes apices
- Singular words that end in on or um change to a. For example, ovum becomes ova
- Singular words that end in us change to i. For example, bronchus becomes bronchi



Besides what we discussed, some special word parts give specific meaning to a term. They are:

- Prefixes can be used to indicate numbers, colors, positions, and directions
- Examples for numbers are uni, diplo, null, primi, multi, bi
- Many word roots describe color such as cyano, leuko, erythro, cirrho, melano
- Some prefixes describe direction and positions such as ab, ad, de, circum, peri, trans, epi, supra

Justin will talk about these aspects in depth in the next lesson.