

# Comprehensive Medical Terminology

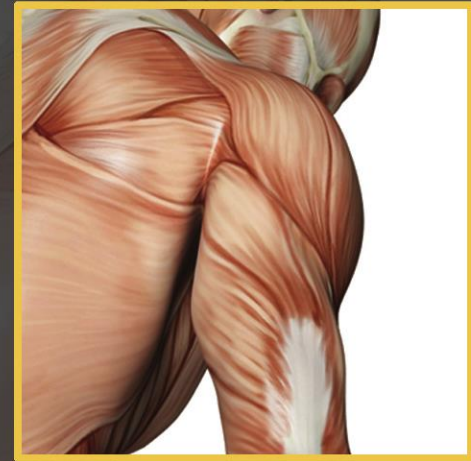
FIFTH EDITION

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## CHAPTER 1

# Word Building Rules



# Word Building Rules



- Success depends on:
  - Learning word parts
  - Learning rules for combining word parts

# Word Root



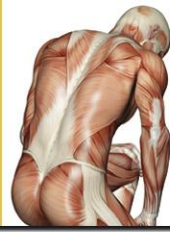
- Basic foundation of a word
  - Component parts are added to change meaning
- Example word: **cardiologist**
  - **cardi** (word root) = heart
  - Words with **cardi** will always refer to the heart

# Combining Form



- Word root + vowel = combining form
- Vowel is called a combining vowel
  - Usually an *o* – occasionally an *i*
  - Combining vowels join word parts appropriately

# Combining Vowels: Rule



- When using more than one word root – as in a compound word
  - Combining vowel is needed to separate the different word roots
  - Usually done whether or not the second or third word root begins with a vowel

# Combining Vowels: Rule



- Example word: myoelectric
  - Breakdown of word: my/o/electr/ic
  - Root = my
  - Combining vowel = o
  - Root = electr
  - Suffix = ic
- Note: root + vowel = combining form
  - my + o = my/o

# Combining Vowels: Rule



- A word cannot end in a combining form
  - Drop the combining vowel
  - Add a suffix
  - Makes the word a noun or an adjective
- Example word: megalocardia
  - Breakdown of word: megal/o/card/ia
  - Root = megal

# Combining Vowels: Rule



- Example word: megalocardia
  - Combining vowel = o
  - Root = card
  - Suffix = ia
- Note: Word **cannot** be megal/o/card/o
  - Must drop combining vowel o
  - Must add suffix as an ending



# Question



True or False: The word root is the basic ending of a word.

# Answer



***False. The word root is the basic foundation of a word.***

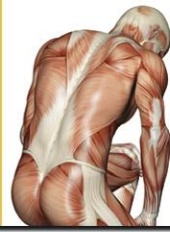
# Question



What usually needs to happen when a term has more than one word root?

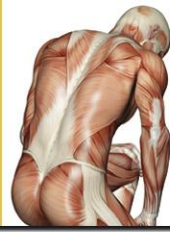
- a. You break it into two words.
- b. You hyphenate the two word roots.
- c. You need a combining vowel.
- d. You need a combining consonant.

# Answer



*c. A combining vowel is needed. It will usually be an “o” but occasionally an “i”.*

# Suffix



- Attaches to the end of the word root
  - Makes the word a noun or an adjective
- Meaning of suffix remains the same
  - Suffix changes the meaning of the root to which it is attached

# Suffix: Rule



- If suffix begins with a vowel (*a, e, i, o, u, y*)
  - Root will attach directly to it
- If suffix begins with a consonant
  - Root will need a combining vowel before attaching to the suffix

# Suffix: Rule



- Example word: cardiogram
  - Breakdown of word: cardi/o/gram
  - Root = cardi
  - Combining vowel = o
  - Suffix = gram
- Note: Suffix begins with a consonant
  - Combining vowel is needed

# Suffix: Rule



- Example word: **cardialgia**
  - Breakdown of word: **cardi/algia**
  - Root = **cardi**
  - Suffix = **algia**
- Note: Suffix begins with a vowel
  - Combining vowel is **not** needed



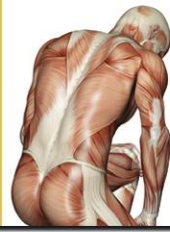
# Question



In the term hypodermic, why is there no combining vowel before the suffix?

- a. The suffix begins with a consonant.
- b. The suffix begins with a vowel.
- c. There is already an o after the prefix.
- d. This is an exception to the rule.

# Answer



***b. The suffix -ic already begins with a vowel, so no combining vowel is needed.***

# Prefix



- Attaches to the beginning of a word
- Meaning of prefix always remains the same
  - Prefix changes the meaning of the root to which it is attached
  - Not all words have prefixes

# Prefix: Rule



- Example word: endocardium
  - Breakdown of word: endo/cardi/um
  - Prefix = endo
  - Root = cardi
  - Suffix = um
- Prefix attaches directly to beginning of word
  - Note: Combining vowel is **not** needed

# Question



True or False: The meaning of prefixes and suffixes never changes, but both change the meaning of the word root.

# Answer



***True. The meaning change could be as simple as changing from a noun to an adjective, or from positive to negative.***

# Word Structure



- Review
  - Prefix is placed at the beginning of the word
  - Suffix is placed at the end of the word root
  - Combining forms are used when a word has more than one word root = compound word

# Word Structure



- Review

- Compound words are usually composed in the following order:

- Combining form + word root + suffix

- Example:

Leuk / o + cyt + osis

(Combining form) + word root + suffix



# Word Structure



- Review
  - Defining a medical term
    - Define suffix first
    - Read from right to left and define each word element
  - Example: carditis
    - Suffix = itis = inflammation
    - Word root = card = heart
    - Definition = inflammation of the heart

# Word Structure



- Review
  - Medical words with prefixes
    - Define suffix first, prefix second, word roots last

# Word Structure



- Example: intracardiac
  - Suffix = ac = pertaining to
  - Prefix = intra = within
  - Word root = cardi = heart
  - Definition = pertaining to within the heart

# Word Structure



- Review
- When medical words identify body systems or parts
  - Define suffix first, body organs in order they are studied in body system

# Word Structure



- Example: cardiopulmonary
  - Suffix = ary = pertaining to
  - Body organ = cardi = heart
  - Body organ = pulmon = lungs
  - Definition = pertaining to the heart and the lungs

# Question



When you have all three components of a term, what is the order in which you read them?

- a. Word root, suffix, prefix
- b. Prefix, word root, suffix
- c. The order does not matter
- d. Suffix, prefix, word root

# Answer



***d. The suffix is always read first.***

# Pronunciation Guidelines



- Pronunciation of medical word
  - May be exactly like it sounds
    - Example: febrile = ‘f’ sound, begins with *f*
  - May begin with a letter or letters that produce the same phonetic sound
    - Example: physiology = ‘f’ sound, begins with *ph*

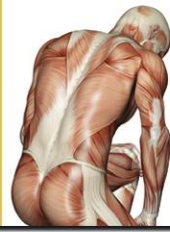


# Pronunciation Guidelines



- If it sounds like 'f'
  - Look for *f* = febrile
  - Look for *ph* = physiology
- If it sounds like 'j'
  - Look for *j* = jejunum
  - Look for *ge* = genesis
  - Look for *gi* = gingivitis
  - Look for *gy* = gyrus

# Pronunciation Guidelines



- If it sounds like 'k'
  - Look for *k* = kyphosis
  - Look for *c* = cornea
  - Look for *ch* = chorion
  - Look for *qu* = quadruplet

# Pronunciation Guidelines



- If it sounds like 'n'
  - Look for *n* = neonatal
  - Look for *pn* = pneumonia
  - Look for *kn* = knee
- If it sounds like 's'
  - Look for *s* = sarcoma
  - Look for *c* = cervix
  - Look for *ps* = psychology

# Pronunciation Guidelines



- If it sounds like 'sk'
  - Look for *sk* = skeleton
  - Look for *sc* = sclera
  - Look for *sch* = schizophrenia
- If it sounds like 'z'
  - Look for *z* = zygomatic
  - Look for *x* = xanthoma

# Question



If intra = within, cardi = heart, and -ac = pertaining to, define the term intracardiac:

- a. Pertaining to within the heart
- b. Pertaining to the heart within
- c. The heart pertains to within
- d. Within the heart it is pertaining

# Answer



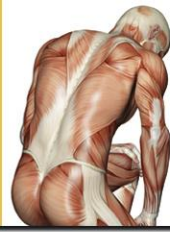
*a. Remember, read suffix, prefix, then word root.*

# Additional Pronunciation Rules



- Words that **begin** with *c*
  - If followed by *e*, *i*, or *y*
    - Pronounced as soft *c*
    - Has *s* sound
    - Examples
      - *ce* = cervix
      - *ci* = circumduction
      - *cy* = cyst

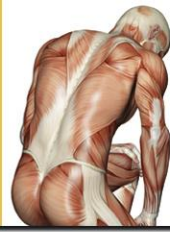
# Additional Pronunciation Rules



- Words that **begin** with *c*
  - If followed by *a*, *o*, *u*, or consonant
    - Pronounced as hard *c*
    - Has a *k* sound

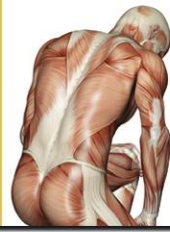


# Additional Pronunciation Rules



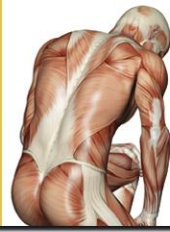
- Words that **begin** with *c*
  - If followed by *a*, *o*, *u*, or consonant
    - Examples
      - *ca* = cancer
      - *co* = collagen
      - *cu* = cuticle
      - *ch* = cheiloplasty

# Additional Pronunciation Rules



- Word roots that **end** in *g*
  - If followed by *e* or *i*
    - Pronounced as soft *g*
    - Sounds like *j*
    - Examples
      - laryngectomy
      - pharyngitis

# Additional Pronunciation Rules



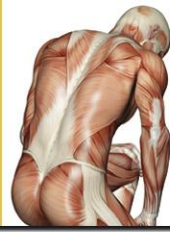
- Word roots that **end** in *g*
  - If followed by *a*, *o*, or consonant
    - Pronounced as hard *g*
    - Has “guh” sound
    - Examples
      - laryngalgia
      - meningocele

# Question



True or False: Thankfully, a medical term is spelled just like it sounds.

# Answer



***Totally false! It is very important to study and learn the pronunciation guidelines, not only for speaking, but also for writing.***

# Possessive Forms



- Some diseases are named after individuals
  - Preference to use possessive forms
  - Use of possessive form indicated by preference of employer or client
- Eponym (**EP**-oh-nim)
  - Name of a disease, organ, procedure, or body function that is derived from the name of a person

# Question



Which of these is an eponym?

- a. small cell carcinoma
- b. Parkinson's disease
- c. German measles
- d. Parkinson disease

# Answer



***b or d. German is a nationality, not a person. James Parkinson discovered a condition of the nervous system. Use of the possessive form depends on the employer, so both b and d could be considered correct.***