Test Bank for Medical Terminology - Get Connected 4th Frucht

Medical Terminology: Get Connected!, 4e **(Frucht)**
Chapter 1 Introduction to Medical Terminology

All answers to questions asking for a combining form must be written in the combining form style, meaning word root/combining vowel. For example, the combining form meaning "gland" is *aden/o*. All answers to questions asking for a suffix must be written in suffix form, meaning a hyphen before your answer. For example, the suffix meaning "cell" is *-cyte*. All answers to questions asking for a prefix must be written in prefix form, meaning a hyphen after your answer. For example, the prefix meaning "three" is *tri-*.

Do NOT capitalize any of your answers or include a period at the end of your answer. The computer will NOT recognize your answer as correct if it is written in any other style.

1) The combining form that means *heart* is _____.
Answer: cardi/o; cardio
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

2) The combining form that means *stomach* is _____.
Answer: gastr/o; gastro
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

3) The combining form that means *liver* is _____.
Answer: hepat/o; hepato
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

4) The combining form that means *nose* is _____.
Answer: rhin/o; rhino
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

5) The combining form that means *head* is _____.
Answer: cephal/o; cephalo
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

6) The combining form that means *joint* is _____.
Answer: arthr/o; arthro
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

7) The combining form that means *muscle* is _____.
Answer: my/o; myo
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

8) The combining form that means *bone* is _____.
Answer: oste/o; osteo
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

9) The combining form that means *electricity* is _____.
Answer: electr/o; electro
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

10) The combining form that means *cancer* is _____.
Answer: carcin/o; carcino
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

11) The suffix that means *surgical removal* is _____.
Answer: -ectomy; ectomy
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

12) The suffix that means *inflammation* is _____.
Answer: -itis; itis
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

13) The suffix that means *enlarged* is _____.
Answer: -megaly; megaly
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

14) The suffix that means *study of* is _____.
Answer: -logy; logy
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

15) The suffix that means *a record* is _____.
Answer: -gram; gram
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

16) The suffix that means *disease* is _____.
Answer: -pathy; pathy
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

17) The prefix that means *between* is _____.
Answer: inter-; inter
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

18) A prefix that means *without* is _____.
Answer: a-; a
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

19) The prefix that means *abnormal*, *difficult*, or *painful* is _____.
Answer: dys-; dys
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

20) A prefix that means *under* is _____.
Answer: sub-; sub
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

21) A prefix that means *two* is _____.
Answer: bi-; bi
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

22) The prefix that means *after* is _____.
Answer: post-; post
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

23) A word _____ is the foundation of most medical terms.
Answer: root
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

24) Not all medical terms have a _____.
Answer: prefix
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

25) A _____ is found at the beginning of a medical term.
Answer: prefix
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

26) What are the parts of the medical term *pansinusitis?*
Answer: pan/sinus/itis
Learning Obj.: 1-4
Taxonomy: Remembering
Question Type: Word Building

27) What are the parts of the medical term *arthralgia?*
Answer: arthr/algia
Learning Obj.: 1-4
Taxonomy: Remembering
Question Type: Word Building

28) Medical terminology is an efficient method of conveying important information because each term has a flexible meaning.
Answer: FALSE
Explanation: Medical terminology is an efficient method of conveying important information because each term has a specific meaning.
Learning Obj.: 1-1
Taxonomy: Remembering
Question Type: Word Building

29) An eponym is based on a person's name or another proper noun such as a place.
Answer: TRUE
Learning Obj.: 1-1
Taxonomy: Remembering
Question Type: Word Building

30) The majority of medical terms are based on Latin and Greek word parts.
Answer: TRUE
Learning Obj.: 1-1
Taxonomy: Remembering
Question Type: Word Building

31) A combining form consists of a word root and a combining vowel.
Answer: TRUE
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

32) The prefix often indicates the body system or organ being discussed.
Answer: FALSE
Explanation: The word root often indicates the body system or organ being discussed.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

33) Combining vowels make medical terms easier to pronounce.
Answer: TRUE
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

34) Suffixes are placed before a word root.
Answer: FALSE
Explanation: Prefixes are placed before a word root.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

35) All medical terms must have a prefix.
Answer: FALSE
Explanation: Not all medical terms have a prefix. Note that when a prefix is written by itself, a hyphen is placed at the end.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

36) Terms ending in *-a* are pluralized by simply adding an *-e* to the end of the term.
Answer: TRUE
Learning Obj.: 1-5
Taxonomy: Remembering
Question Type: Plurals

37) Terms ending in *-um* are pluralized by simply adding an *-s* to the end of the term.
Answer: FALSE
Explanation: Terms ending in *-um* are pluralized by dropping *-um* and adding *-a*.
Learning Obj.: 1-5
Taxonomy: Remembering
Question Type: Plurals

38) When pronouncing a medical term, *c* and *g* have a soft sound if followed by *e*, *i*, or *y*.
Answer: TRUE
Learning Obj.: 1-6
Taxonomy: Remembering
Question Type: Pronunciation

39) When pronouncing a medical term, if *pn* is in the middle of a word, pronounce only the *n*.
Answer: FALSE
Explanation: When pronouncing a medical term, if *pn* is at the beginning of the word, pronounce only the *n*.
Learning Obj.: 1-6
Taxonomy: Remembering
Question Type: Pronunciation

40) A combining vowel is placed between a word root and a suffix if the suffix begins with a consonant.
Answer: TRUE
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

41) A combining vowel is placed between two word roots only if the second word root begins with a consonant.
Answer: FALSE
Explanation: A combining vowel is placed between two word roots even if the second word root begins with a vowel.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

42) A suffix can be used to indicate a surgical procedure.
Answer: TRUE
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

43) Word roots frequently refer to a body structure, organ, or system.
Answer: TRUE
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

44) The combining form gastr/o means "liver."
Answer: FALSE
Explanation: The combining form gastr/o means "stomach."
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

45) The combining form rhin/o means "head."
Answer: FALSE
Explanation: The combining form rhin/o means "nose."
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

46) The combining form oste/o means "bone."
Answer: TRUE
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

47) The suffix -ectomy means "study of."
Answer: FALSE
Explanation: The suffix -ectomy means "surgical removal."
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

48) The suffix -itis means "inflammation."
Answer: TRUE
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

49) The suffix -pathy means "enlarged."
Answer: FALSE
Explanation: The suffix -pathy means "disease."
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

50) The prefix dys- means "abnormal, difficult, or painful."
Answer: TRUE
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

51) The prefix sub- means "without."
Answer: FALSE
Explanation: The prefix sub- means "under."
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

52) The prefix post- means "after."
Answer: TRUE
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

53) Which of the following is NOT one of the word parts used in a medical term?
A) Combining vowel
B) Word root
C) Combining form
D) Suffix
Answer: C
Explanation:
A) The combining vowel links the root to the suffix or a root to another root, and it is a word part.
B) The word root is the core of the word and the element from which other words are formed. It is also a word part.
C) The combining form is not a word part; rather, it is constructed from two word parts.
D) The suffix is added at the end of the word, and it is a word part.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

54) Which of the following is NOT one of the common types of medical terms?
A) Latin words
B) French words
C) Modern English words
D) Greek words
Answer: B
Explanation:
A) Most of the body's organs are named from Latin words.
B) There are very few French words in medical terminology.
C) There are many modern English words used in medical terminology.
D) Many terms that describe diseases come from Greek words.
Learning Obj.: 1-1
Taxonomy: Remembering
Question Type: Word Building

55) Which of the following words is an example of an eponym?
A) Alzheimer disease
B) Cardiology
C) Irritable bowel syndrome
D) Magnetic resonance imaging
Answer: A
Explanation:
A) Alzheimer disease is named for physician Alois Alzheimer. An eponym may be based on a person's name or another proper noun such as a place.
B) Cardiology is not an eponym; it is built from word parts.
C) Irritable bowel syndrome is not an eponym; it is a modern English term.
D) Magnetic resonance imaging is not an eponym; it is a modern English term.
Learning Obj.: 1-1
Taxonomy: Remembering
Question Type: Word Building

56) Which of the following medical terminology word parts provides the essential meaning of a word?
A) Combining vowel
B) Word root
C) Suffix
D) Prefix
Answer: B
Explanation:
A) The combining vowel links the root to the suffix or a root to another root but has no real meaning.
B) The word root provides the essential meaning of a term.
C) A suffix is added at the end of the word root to modify the meaning.
D) A prefix is added at the beginning of the word root to modify the meaning.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

57) Which of the following is NOT the type of information typically provided by word roots?
A) Body structure
B) Organ
C) System
D) Diseases
Answer: D
Explanation:
A) Word roots commonly describe body structures, organs, or systems.
B) Word roots commonly describe body structures, organs, or systems.
C) Word roots commonly describe body structures, organs, or systems.
D) Information about diseases is typically provided by suffixes.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

58) Which of the following is NOT the type of information provided by a prefix?
A) Procedure
B) Position
C) Number
D) Time
Answer: A
Explanation:
A) Procedure information is typically provided by a suffix.
B) The position of something can be described by a prefix (e.g., pre- means "in front of").
C) A number can be described by a prefix (e.g., quadri- means "four").
D) Time can be described by a prefix (e.g., post- means "after").
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

59) Which of the following statements regarding prefixes is NOT true?
A) Prefixes indicate surgical procedures.
B) Prefixes are found at the beginning of terms.
C) Many medical terms do not have a prefix.
D) A hyphen is placed at the end of a prefix when it is written by itself.
Answer: A
Explanation:
A) Suffixes typically provide procedure information, not prefixes.
B) A prefix is found at the beginning of the term.
C) Not all terms have a prefix.
D) If you write a prefix by itself, a hyphen is placed at the end to denote it is a prefix.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

60) Which of the following types of information is provided by a suffix?
A) Diagnostic procedures
B) Positions
C) Numbers
D) Times
Answer: A
Explanation:
A) A suffix can provide information about a diagnostic procedure.
B) Position information is provided by a prefix.
C) Number information is provided by a prefix.
D) Time information is provided by a prefix.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

61) Which of the following statements regarding suffixes is NOT true?
A) A hyphen is placed at the front of a suffix when it is written by itself.
B) A suffix gives information such as conditions or diseases.
C) Suffixes give the essential meaning of the term.
D) Suffixes are placed at the end of a medical term.
Answer: C
Explanation:
A) If you write a suffix by itself, put a hyphen in front to show it is a suffix (i.e., -ate).
B) A suffix gives information such as a disease or a condition (i.e., -dipsia = "thirst").
C) Word roots—not suffixes—give the essential meaning of the term.
D) Suffixes are placed at the end of the term (i.e., in *cardiology*, the suffix is -logy).
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

62) In which of the following situations is a combining vowel never used?
A) Between two word roots
B) Between a word root and a suffix when the suffix begins with a consonant
C) Between a prefix and a word root
D) A combining vowel is always used.
Answer: C
Explanation:
A) Sometimes a combining vowel is needed to ease pronunciation between two word roots (i.e., *gastrointestinal*).
B) Sometimes a combining vowel is needed to ease pronunciation between a word root and a suffix (i.e., *cardiology*).
C) A combining vowel is never used between a prefix and a word root.
D) A combining vowel is not needed between a prefix and a word root.
Learning Obj.: 1-2
Taxonomy: Understanding
Question Type: Word Building

63) Which of the following statements regarding combining vowels is TRUE?
A) A combining vowel is used between a prefix and a word root.
B) A combining vowel is used to make a prefix more pronounceable.
C) A combining vowel is placed between two word roots.
D) A combining vowel is placed between a word root and a suffix if the suffix begins with a vowel.
Answer: C
Explanation:
A) A combining vowel is not used between a prefix and a word root.
B) A combining vowel is not used with a prefix.
C) A combining vowel is placed between two word roots.
D) If the suffix begins with a vowel, a combining vowel is not needed.
Learning Obj.: 1-2
Taxonomy: Understanding
Question Type: Word Building

64) When reading an unfamiliar medical term, the first step in analyzing the term is to _____.
A) put the meaning of the word parts together
B) sound out the word out loud
C) define each word part
D) divide the term into its word parts
Answer: D
Explanation:
A) You must first break the word into smaller pieces.
B) You must first break the word into smaller pieces.
C) You must first break the word into smaller pieces.
D) You must first break the word into smaller pieces.
Learning Obj.: 1-4
Taxonomy: Remembering
Question Type: Word Building

65) When pluralizing a term that ends in -um, you should _____.
A) keep the -um and add an -a
B) drop the -um and add an -a
C) drop the -um and add -ta
D) drop the -um and add a -y
Answer: B
Explanation:
A) When pluralizing an -um term, drop the -um and add an -a.
B) When pluralizing an -um term, drop the -um and add an -a.
C) When pluralizing an -um term, drop the -um and add an -a.
D) When pluralizing an -um term, drop the -um and add an -a.
Learning Obj.: 1-5
Taxonomy: Remembering
Question Type: Plurals

66) If a word ends in -us, make it plural by _____.
A) keeping the -us and adding -ta
B) dropping the -us and adding -ies
C) keeping the -us and adding -e
D) dropping the -us and adding -i
Answer: D
Explanation:
A) When pluralizing an -us term, drop the -us and add -i.
B) When pluralizing an -us term, drop the -us and add -i.
C) When pluralizing an -us term, drop the -us and add -i.
D) When pluralizing an -us term, drop the -us and add -i.
Learning Obj.: 1-5
Taxonomy: Remembering
Question Type: Plurals

67) Which of the following combining form means "heart"?
A) Cardi/o
B) Carcin/o
C) Gastr/o
D) Hepat/o
Answer: A
Explanation:
A) *Cardi/o* means heart.
B) *Carcin/o* means cancer.
C) *Gastr/o* means stomach.
D) *Hepat/o* means liver.
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

68) Which of the following combining forms is spelled incorrectly?
A) Gastr/o
B) Carcen/o
C) Rhin/o
D) Oste/o
Answer: B
Explanation:
A) *Gastr/o* is spelled correctly.
B) *Carcen/o* is spelled incorrectly; it should be *carcin/o*.
C) *Rhin/o* is spelled correctly.
D) *Oste/o* is spelled correctly.
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Spelling

69) Which of the following combining forms means "nose"?
A) Gastr/o
B) Hepat/o
C) Rhin/o
D) Electr/o
Answer: C
Explanation:
A) *Gastr/o* is "stomach."
B) *Hepat/o* is "liver."
C) *Rhin/o* is "nose."
D) *Electr/o* is "electricity."
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

70) Which of the following combining form means "stomach"?
A) Cardi/o
B) Gastr/o
C) Hepat/o
D) Arthr/o
Answer: B
Explanation:
A) *Cardi/o* is "heart."
B) *Gastr/o* is "stomach."
C) *Hepat/o* is "liver."
D) *Arthr/o* is "joint."
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

71) The combining form *cephal/o* means _____.
A) bone
B) head
C) muscle
D) liver
Answer: B
Explanation:
A) The combining form *oste/o* means "bone."
B) The combining form *cephal/o* means "head."
C) The combining form *my/o* means "muscle."
D) The combining form *hepat/o* means "liver."
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

72) Which of the following suffixes is misspelled?
A) -ektomy
B) -logy
C) -megaly
D) -itis
Answer: A
Explanation:
A) The suffix -ektomy is misspelled; it should be -ectomy.
B) The suffix -logy is spelled correctly.
C) The suffix -megaly is spelled correctly.
D) The suffix -itis is spelled correctly.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Spelling

73) Which of the following suffixes means "inflammation"?
A) -gram
B) -megaly
C) -logy
D) -itis
Answer: D
Explanation:
A) The suffix -gram refers to a record.
B) The suffix -megaly means "enlarged."
C) The suffix -logy means "the study of."
D) The suffix -itis refers to inflammation.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

74) The suffix -megaly means _____.
A) study of
B) enlarged
C) record or picture
D) disease
Answer: B
Explanation:
A) The suffix -logy means "the study of."
B) The suffix -megaly means "enlarged."
C) The suffix -gram means "a record."
D) The suffix -pathy means "disease."
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

75) Which of the following prefixes is misspelled?
A) Inter-
B) Post-
C) Dis-
D) Sub-
Answer: C
Explanation:
A) The prefix inter- is spelled correctly.
B) The prefix post- is spelled correctly.
C) The prefix dis- is misspelled; it should be dys-.
D) The prefix sub- is spelled correctly.
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Spelling

76) Which of the following prefixes means "without"?
A) A-
B) Bi-
C) Inter-
D) Post-
Answer: A
Explanation:
A) The prefix a- means "without."
B) The prefix bi- means "two."
C) The prefix inter- means "between."
D) The prefix post- means "after."
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

77) The prefix dys- means _____.
A) between
B) two
C) beneath
D) abnormal
Answer: D
Explanation:
A) Inter- is "between."
B) Bi- is "two."
C) Sub- is "under."
D) Dys- is "abnormal."
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

78) Why wouldn't you use the same abbreviation, *MS*, for *musculoskeletal*, *mitral stenosis*, and *multiple sclerosis?* **Select all that apply.**
A) Using the same abbreviation for multiple terms can cause problems for the patient.
B) Using the same abbreviation for multiple terms can affect insurance billing.
C) Using the same abbreviation for multiple terms can help with understanding the terms.
D) Using the same abbreviation for multiple terms can cause confusion in recordkeeping.
Answer: A, B, D
Explanation:
A) Using the same abbreviation for multiple terms creates confusion and affects the patient.
B) Using the same abbreviation for multiple terms can cause insurance billing issues.
C) Using the same abbreviation for multiple terms won't help improve understanding of the terms.
D) Using the same abbreviation for multiple terms causes confusion across all recordkeeping and communications.
Learning Obj.: 1-6
Taxonomy: Remembering
Question Type: Word Building

79) How are medical abbreviations correctly used? **Select all that apply.**
A) Made-up abbreviations are quicker to write than the whole word.
B) Health care facilities provide a list of approved abbreviations.
C) Medical specialties don't have their own specific abbreviations.
D) There are lists of abbreviations to be avoided.
Answer: B, D
Explanation:
A) Made-up abbreviations should never be used.
B) Health care facilities have reference lists of approved abbreviations.
C) Medical specialties have their own specialized lists of abbreviations.
D) There are compiled lists of abbreviations to be avoided.
Learning Obj.: 1-6
Taxonomy: Remembering
Question Type: Word Building

Match each term on the left with the correct definition on the right.

A) connects two word roots
B) electricity
C) cancer
D) used to indicate a procedure
E) muscle
F) abnormal
G) liver
H) inflammation
I) without
J) word root + combining vowel
K) disease
L) after
M) used to indicate time
N) between
O) nose
P) foundation of a medical term
Q) enlarged
R) heart
S) a record
T) bone
U) surgical removal
V) under
W) joint
X) stomach
Y) head

80) combining vowel
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

81) word root
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

82) suffix
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

83) prefix
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

84) combining form
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

85) cardi/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

86) gastr/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

87) hepat/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

88) rhin/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

89) cephal/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

90) arthr/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

91) my/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

92) oste/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

93) electr/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

94) carcin/o
Learning Obj.: 1-3
Taxonomy: Remembering
Question Type: Word Building

95) -pathy
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

96) -gram
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

97) -megaly
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

98) -itis
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

99) -ectomy
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

100) a-
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

101) inter-
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

102) dys-
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

103) sub-
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

104) post-
Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

Answers: 80) A 81) P 82) D 83) M 84) J 85) R 86) X 87) G 88) O 89) Y 90) W 91) E 92) T 93) B 94) C 95) K 96) S 97) Q 98) H 99) U 100) I 101) N 102) F 103) V 104) L

105) List and describe the four word parts used to build medical terms.
Answer:
1. Word root
   - foundation of a medical term
   - often indicates the body system or part of the body that is being discussed
2. Prefix
   - added to the front of the term
   - indicates positions, numbers, times, or abnormal conditions
3. Suffix
   - added to the end of the term
   - indicates condition, disease, or procedure
4. Combining vowel
   - usually an *o*
   - connects two word roots
   - connects word root and suffix if the suffix begins with a consonant

Learning Obj.: 1-2
Taxonomy: Remembering
Question Type: Word Building

106) Describe the strategy for defining an unfamiliar medical term.
Answer:
1. Divide the term into its word parts.
2. Define each word part.
3. Put the meaning of the word parts together in order to tell what the term is describing.

Learning Obj.: 1-4
Taxonomy: Understanding
Question Type: Word Building

Introduction to Medical Terminology

Lesson Plan

Chapter 1

Lesson 1 Learning Objectives

1-1 Identify the three types of medical terms.
1-2 Explain the differences between prefixes, suffixes, word roots, and combining vowels.
1-3 Form combining forms.
1-4 Explain how to analyze (build and interpret) medical terms.
1-5 Describe how to pluralize medical terms.
1-6 Understand how to pronounce medical terms.

Minutes	Concepts for Lecture	Teaching Notes
15 mins **LO 1-1**	**I. Identify the three types of medical terms.** A. In our daily lives, each of us is surrounded by medical terminology. 1. Health care professionals use it to communicate with each other. 2. It is also used in the doctor's office and when talking with friends, reading the newspaper, and watching television. B. Using medical terminology is an efficient way to convey very specific and important information.	**Teaching Tips** • Bring a medical dictionary to class or display an online medical dictionary. Point out all the types of information provided on both whole terms and word parts by the dictionary.

1. Each term has a precise meaning and detailed information can be quickly shared using only a few words.
2. As such, everyone has something to gain either personally or professionally from learning how to understand and use medical terminology.

C. There are three common types of medical terms:
1. Terms built from **Latin** and **Greek** word parts; examples are *cardiology* and *tonsillectomy*.
2. Terms based on a person's name, or another proper noun such as a place, are called **eponyms**; examples are *Alzheimer disease* and *Parkinson disease*.
3. Terms utilizing **modern English** words; examples are *magnetic resonance imaging* and *irritable bowel syndrome*.

- Set the proper tone early; make sure students realize they will have to do a significant amount of studying *outside of class* in order to be successful.
- Emphasize the point that medical terminology is a *language*. Fluency in any language requires that you can read, write, speak, and understand when listening.
- Stress the importance of learning the word parts through memorization.
- Review when a combining vowel is used and when it is not.

Classroom Activities

- **Guest speaker:** Invite a health information management worker to describe to the class all the places medical terminology is used, how records are stored, and confidentiality.

Homework Assignments

- Have each student look up 10 medical words in a medical dictionary and determine whether the origin of the word

		is Greek, Latin, or another language. Students should write the word, its origin, and its definition. Text • Recognizing Types of Medical Terms practice exercise MyLab Medical Terminology • Learning games **Competency Assessments** Quiz • Chapter Quiz Test Bank • True/False questions • Multiple-Choice questions
20 mins **LO 1-2**	**II. Explain the differences between prefixes, suffixes, word roots, and combining vowels.** A. The majority of medical terms is based on the Latin and Greek languages and constructed using four types of word parts: word roots, suffixes, prefixes, and combining vowels. B. The word root is the foundation of most medical terms and gives the essential meaning of the term. 1. The root frequently—though not always—refers to a body structure, organ, or system. 2. Examples of word roots include the following: **Word Root** | **Meaning** *arthr* | joint	**Teaching Tips** • Write the four categories of word parts on the board. Then make a list of common word parts under each category using word parts that are introduced in this chapter. • Stress how students will initially have to rely on straight memorization and it will seem very difficult to those who do not easily memorize material,

carcin	cancer
cardi	heart
cephal	head
electr	electricity
gastr	stomach
hepat	liver
my	muscle
oste	bone
rhin	nose

C. **The suffix is found at the end of a medical term** and provides information about conditions, diseases, surgical procedures, or diagnostic procedures involving the word root.
   1. When a suffix is written by itself, a hyphen is placed at the front.
   2. Examples of suffixes include the following:

Suffix	**Meaning**
-ectomy	surgical removal
-gram	a record
-itis	inflammation
-logy	study of
-megaly	enlarged
-pathy	disease

D. The prefix is f**ound at the beginning of a medical term** and provides information such as abnormal conditions, numbers, positions, or times.
   1. Not all medical terms have a prefix.
   2. Note that when a prefix is written by itself, a hyphen is placed at the end.
   3. Examples of prefixes include the following:

Prefix	**Meaning**
a-	without

but as they gain experience it becomes easier and easier.
- Have students think of word-building examples from everyday terms to show them that word building is not strictly related to medical terminology.
- Introduce the idea of word parts using *plain English* examples. For example, compare the terms *bicycle*, *tricycle*, *unicycle*, and *motorcycle* to illustrate how changing a prefix can change the definition of a word.
- Students commonly confuse the correct position of a prefix, root, and suffix in a complete word. To help students keep them in the correct order, ask them to note that the first letter of each part is in alphabetical order: the **P**refix comes first, the **R**oot is in the middle, and the **S**uffix is at the end.

Classroom Activities
- Write a variety of prefixes, word roots, and suffixes on the board. Select students to create new words using these word parts.

bi-	two
dys-	abnormal, difficult, painful
inter-	between
post-	after
sub-	under

E. Combining vowels (most often the vowel "o") are used to connect word parts and to make medical terms easier to spell and pronounce.
   1. Combining vowels are placed either:
      a. Between a word root and a suffix
      b. Between two word roots
   2. Combining vowels are not always necessary.
      a. To decide if one is needed between a word root and a suffix, you must look at the first letter of the suffix.
         i. Do not use a combining vowel between a word root and a suffix if the suffix begins in a vowel.
         ii. For example, the correct way to combine the word root *arthr* and the suffix *-itis* is *arthr/itis*, not *arthr/o/itis*.
   3. Place a combining vowel between two word roots, even if the second word root begins with a vowel.
      i. The term *gastr/o/enter/o/logy* is correct, while *gastr/enter/o/logy* is incorrect.

- Emphasize the importance of using study buddies and help your students get to know one another. Assign each student a word part (with definition). Then ask them to mingle with one another. Assign each student the task of creating 10 complete terms using the word part they were assigned combined with some from their classmates.
- Have students make flash cards using index cards. One word part should be placed on each card. Challenge the students to include a doodle that helps them picture the word.

Worksheets
- 1A—Med Term Analysis
- 1B—More Practice Building Medical Terms

Homework Assignments
Text
- Practice Defining Medical Terms practice exercise

MyLab Medical Terminology
- Encourage students to make flash cards as a method of

studying new word parts and remembering their meanings.
- Some students may find it easier to learn different word parts if they color-code their flash cards.
- Learning games

Competency Assessments
Quiz
- Chapter Quiz

Test Bank
- Fill-in-the-Blank questions
- True/False questions
- Multiple-Choice questions
- Matching questions

10 mins LO 1-3

III. Form combining forms.

A. **The combining form** consists of a word root and its' combining vowel.
   1. It is written with a slash between the two word parts.
   2. For example, *electr/o* is the combining form meaning electricity.
   3. See Figure 1.2 for examples of combining forms in the body.

B. **The combining form is** not another category of word part because it consists of two other word parts.

C. Word roots are normally presented as combining forms because they are easier to pronounce and easier to remember
   1. For example, try pronouncing the word roots *gastr* and *arthr* without a combining vowel.
   2. Word roots will be given as combining forms throughout this text.

Teaching Tips
- Have students identify the terms in each chapter where the combining vowel is dropped and terms where the combining form is retained when it is combined with a suffix.
- Use Figure 1.2 to emphasize the difference in word roots and combining forms.

Worksheets
- 1A—Med Term Analysis

		• 1B—More Practice Building Medical Terms • Labeling Quiz may be used as a worksheet **Homework Assignments** MyLab Medical Terminology • Learning games **Competency Assessments** Quiz • Labeling Quiz • Chapter Quiz Test Bank • Fill-in-the-Blank questions • True/False questions • Multiple-Choice questions • Matching questions
15 mins **LO 1-4**	**IV. Explain how to analyze (build and interpret) medical terms.** A. When using medical terms, it is essential to know both how to define terms used by other people and how to build medical terms for yourself. B. Whether defining or building terms, remember that the meaning of the individual word parts gives the information needed to understand at least the basic meaning of the word. C. When defining medical terms, follow these steps as illustrated with the example *dysmenorrhea*: 1. Divide the term into its word parts: dys / men / o / rrhea. 2. Define each word part: *dys-* = abnormal, difficult, or painful; *men/o* = menstruation; *-rrhea* = discharge.	**Teaching Tips** **Kinesthetic Learners** These students will especially learn from their use and handling of the flash cards. • Pass out note cards with different word parts on them. Have students interact with one another to build terms using their word parts. • Help students buy in to the value of learning word parts; show them how long,

3. Put the meaning of the word parts together in order to tell what the term is describing: difficult or painful menstrual discharge.

D. Building medical terms is almost the reverse of defining them, as illustrated with the example for *fibrous skin tumor*:
   1. Build a term for the phrase blood condition of insufficient sugar. Choose word parts that represent each portion of the phrase: prefix hypo- means insufficient, combining form glyc/o means sugar, suffix -emia means blood condition. Then place these word parts in the correct order to complete the whole term: hypoglycemia.
      a. Not all possible combinations of word parts build actual medical terms used by medical professionals—for example, fibrodermatoma combines the parts correctly but is not an actual term.
      b. This is frustrating at first but will get easier with time and practice. intimidating words can become manageable by breaking them down. If they learn the word parts, they can figure out the rest. Suggested example term: *esophagogastroduodenoscopy* (esophago/gastro/duodeno/scopy)

Teaching Resources

- PowerPoint presentation steps through the analysis process.

Classroom Activities

- Have students practice looking up 10 of the terms presented in this chapter in a medical dictionary.

Worksheets

- 1A—Med Term Analysis
- 1B—More Practice Building Medical Terms

Homework Assignments

Text

- Practice Defining Medical Terms practice exercise
- Practice Building Medical Terms practice exercise

MyLab Medical Terminology

- Learning games

Competency Assessments
Quiz
- Chapter Quiz

Test Bank
- Fill-in-the-Blank questions
- True/False questions
- Multiple-Choice questions
- Matching questions

10 mins V. Pluralize medical terms.
LO 1-5

A. Latin- and Greek-based medical terms do not follow the same pluralization rules used in English.
B. The following table shows the pluralization rules:

If the Word Ends In	Singular	Plural
-a, keep *-a* and add *-e*	vertebra	vertebrae
-ax, drop *-x* and add *-ces*	thorax	thoraces
-ex, drop *-ex* and add *-ices*	apex	apices
-is, drop *-is* and add *-es*	metastasis	metastases
-ix, drop *-x* and add *-ces*	appendix	appendices
-ma, keep *-ma* and add *-ta*	sarcoma	sarcomata
-on, drop *-on* and add *-a*	spermatozoon	spermatozoa

Classroom Activities
- **Pluralization Bee**: Write terms on the board, use note cards, or use PowerPoint slides of terms. Some terms will be singular and others will be plural. Begin with all students standing. Student is asked to make the term either plural or singular as appropriate. A student sits when they make an error. May be combined with pronunciation questions.
- Divide the class into two groups. Group 1 will write a word in its singular form. Group 2 will write its plural form.

Did You Know?
The medical words *fetus*, *sinus*, and *virus* are Latin singular nouns

-us, drop *-us* and add *-i*	alveolus	alveoli
-um, drop *-um* and add *-a*	ovum	ova
-x, drop *-x* and add *-ges*	phalanx	phalanges
-y, drop *-y* and add *-ies*	biopsy	biopsies

that end in *-us*. In Latin, they do not have a pluralized form. They have an English-type plural form: *fetuses*, *sinuses*, and *viruses*.

Worksheet

- 1C—Making Plurals

Homework Assignments

Text

- Forming Plurals practice exercise

MyLab Medical Terminology

- Learning games

Competency Assessments

Quiz

- Chapter Quiz

Test Bank

- True/False questions
- Multiple-Choice questions

10 mins VI. Pronounce medical terms.
LO 1-6

A. Medical terms are often difficult to pronounce because the word parts are unfamiliar or they contain letter combinations that do not occur in English words.
B. Refer to Table 1-6 for hints on pronouncing these letter combinations.
C. The following table offers some pronunciation hints, with stressed syllables written in uppercase:

Teaching Tips

- Introduce students to the Sound It Out learning activity that will begin in Chapter 5. Practice pronouncing terms out loud with the class.
- Emphasize the importance of correct pronunciation through

Hint	Examples
-ae or *-oe*, pronounce only the second letter	bursae (BER-see) coelom (SEE-lum)
c and *g* have a soft sound if followed by *e*, *i*, or *y*	cerebrum (seh-REE-brum) gingivitis (jin-jih-VIGH-tis)
c and *g* have a hard sound if followed by other letters	cardiac (KAR-dee-ak) gastric (GAS-trik)
ch- at beginning of a word has a hard k sound	cholesterol (koh-LES-ter-all) chemical (KEM-ih-kull)
-e or *-es* at the end of a word is pronounced as a separate syllable	syncope (SIN-koh-pee) nares (NAIR-eez)
-i at end of word pronounced "eye" written as "igh"	bronchi (BRONG-keye) nuclei (NOO-klee-eye)
pn- at the beginning of a word, pronounce only the n	pneumonia (noo-MOH-nee-ah) pneumogram (NOO-moh-gram)
pn in middle of a word, pronounce hard p and hard n	tachypnea (tak-ip-NEE-ah) hypopnea (high-POP-nee-ah)
ps- at beginning of a word, pronounce only the s	psychiatry (sigh-KIGH-ah-tree) psychology (sigh-KALL-oh-jee)

plain English examples (i.e., *win* vs. *wine*).

- Emphasize the importance of correct spelling through plain English examples (i.e., *bear* vs. *bare*).

Pronunciation Bee: Write terms on the board, use note cards, or use Power Point slides of terms. Begin with all students standing. A student who pronounces the word correctly remains standing. Students sit as they make a pronunciation error. May be combined with pluralization questions.

Critical Thinking Questions

1. Why is proper pronunciation important in medical terminology?
2. Medical words of Greek origin are often difficult to spell because many begin with a silent letter or have a silent letter within the word. Name some examples of medical words with Greek origin.
3. Why is spelling extremely important in medical terminology? Who could be

impacted by a mistake in medical terminology? Explain your answer.

4. Based on what you have learned in this chapter, how do you suppose you are going to be able to spell long and complicated medical terms?

Homework Assignment

Have students explore the health information management profession by visiting the following website:

- American Health Information Management Association at *www.ahima.org*

MyLab Medical Terminology

- Learning Games

Competency Assessments

Quiz

- Chapter Quiz

Test Bank

- True/False questions

Slide 1

Welcome to Medical Terminology, which is a language all its own. As you prepare for a career in health care, learning medical terminology is essential. But why?

Let’s think about it using a familiar example. All the abbreviations and acronyms associated with computers and computer networks can be frustrating. What do they mean? Those abbreviations are created as shortcuts that allow computer people to save time when working together on problems or when creating new products. It's the same with medical terminology.

It can be frustrating to try to read something medical or listen to a doctor who uses a lot of abbreviations when you don't know what they mean. In this course, you will learn what's behind all those mysterious words and abbreviations. You'll learn the code, so to speak. And then, you'll be able to get connected!

Slide 2

Here are the Learning Objectives for this chapter. Remember, learning objectives are your guide to what you need to learn in the chapter. Upon completing this chapter, you should be able to:

•Identify the three types of medical terms.
•Explain the differences between prefixes, suffixes, word roots, and combining vowels.
•Form combining forms.

Slide 3

•Explain how to analyze (build and interpret) medical terms.
•Describe how to pluralize medical terms.
•Understand how to pronounce medical terms.

Slide 4

Each of us is surrounded by medical terminology. Not only do health professionals use it when communicating with one another, but it pops up in news articles, on television, and in conversations with friends. The reason for this is simple—medical terminology offers an efficient way for conveying specific, important information.

Each medical term has a precise meaning, and it allows detailed information to be shared quickly. As a future health care professional, you have a lot to gain in your career by understanding medical terminology; you also stand to gain in your personal life by knowing about it!

Slide 5

There are three common types of medical terms.

The first type comes from Latin and Greek word parts. For example, the term cardiology is built from the Greek term *kardi*, which is spelled with a k. Similarly, the term tonsillectomy comes from the Latin term *tonsil*. Many medical terms are drawn from Latin and Greek, and that is a good thing—many of the word parts are used over and over again, and you will come to recognize and understand them. The majority of medical terms are built from Latin and Greek parts.

The second type of terms is eponyms, which are words that come from a person's name. For example, James Parkinson was an English physician who published an article in 1817 on shaking palsy, a condition we know today as Parkinson disease. In the past, it was common for eponyms to use the possessive form of the individual's name—so, Parkinson's instead of Parkinson. However, current use is leaning toward just the name without the possessive, and that is how eponyms will be presented in this course.

Finally, the third type of terms uses modern English words. Examples include magnetic resonance imaging and irritable bowel syndrome.

Slide 6

Figure 1-1 shows a medical team reviewing a patient's medical record on a tablet. This is an example of both health professionals using medical terminology when communicating and the importance of agreed-upon terminology when providing health care.

Slide 7

Learning medical terminology is a lot like learning a foreign language, and with good reason when you consider so many terms are from Greek and Latin. As you learn this new language, you will generally use the following process:

First, you will have to memorize individual word parts.

Then, using what you've memorized, you will learn how to analyze and build terms from those parts.

As time goes on, you will gain skill and confidence in building terms through repetition.

Finally, you will be able to seamlessly make these terms part of your professional vocabulary.

This process will be eased by the fact that Latin- and Greek-based medical terms are constructed from four basic types of word parts—word roots, suffixes, prefixes, and combining vowels. We will look closely at these on the following screens.

Slide 8

The word root is the foundation of most medical terms, and it gives the essential meaning of the term. In many—but not all—cases the word root refers to a body structure, an organ, or a body system.

Slide 9

Here you see some examples of word roots, some of which may be familiar to you; for example, you've likely heard words with the root carcin, meaning cancer, and cardi, meaning heart.

You'll hear these terms pronounced in a moment. Do your best to learn them now. Putting these into your memory bank will help you get a head start on learning this new language.

Now, on to the roots!

arthr
joint

carcin
cancer

cardi
heart

cephal
head

electr
electricity

gastr
stomach

hepat
liver

my
muscle

oste
bone

rhin
nose

Slide 10

As you probably noticed with our word root examples, none of the roots on its own forms a complete word. The roots need another word part in order to make terms.

Suffixes are one such word part, and they are found at the end of a medical term. Suffixes typically provide information about conditions, diseases, and surgical and diagnostic procedures involving the word root.

Slide 11

Here we have some examples of suffixes; as with the word roots, a few probably seem familiar. For example, -ectomy means surgical removal, like a tonsillectomy or an appendectomy.

I will pronounce these suffixes for you in just a minute. First, however, notice that each of these suffixes is preceded by a hyphen. This is a standard way of writing suffixes by themselves; however, it is important to note that the hyphen must be removed when the suffix is used as part of a medical term.

Now, let’s move on with our example suffixes.

-ectomy
surgical removal

-gram
a record

-itis
inflammation

-logy
study of

-megaly
enlarged

-pathy
disease

Slide 12

Prefixes are another word part, and they are found at the beginning of a medical term. Like a suffix, they add information to the word root; however, the information they add is of a different type from the information added by suffixes. Prefixes typically indicate abnormal conditions, numbers, positions, or times.

Many medical terms do not have a prefix. Also, some medical terms are built just from a prefix and a suffix with no root.

Slide 13

On this screen, you see some examples of prefixes. Notice that the prefixes end with a hyphen when written by themselves. This hyphen must be removed when the prefix is included in a medical term.

As with the other word parts, some of these prefixes probably look familiar. For example, the prefix inter- means “between,” like an interstate highway that goes between the states.

The prefixes shown here are pronounced as follows:

a-
without

bi-
two

dys-
abnormal, difficult, or painful

inter-

between

post-
after

sub-
under

Slide 14

The last word part we will discuss is combining vowels. Combining vowels are used for two reasons: to connect word parts and to make medical terms easier to spell and pronounce. Not every medical term uses a combining vowel. The most common combining vowel is o.

The combining vowel is only placed between a word root and a suffix or between two word roots. It is never used between a prefix and word root.

Slide 15

This screen shows examples of the use of combining vowels. All of the examples use the combining vowel o.

Electr/**o**/cardio/**o**/gram – This term uses two combining vowels.
Hepat/**o**/megaly
Oste/**o**/arthritis
Rhin/**o**/plasty

Slide 16

When using a combining vowel between a word root and a suffix, you must look at the first letter of the suffix. If that first letter is a consonant, use the combining vowel. If that first letter is a vowel, do not use the combining vowel.

For example, the term arthritis is built from the root arthr and the suffix -itis. If we added the combining vowel in this term, we'd wind up with arthritis.

When placing a combining vowel between two word roots, always use the combining vowel—even if the second root begins with a vowel.

For example, the term gastroenterology needs the combining vowel. If it wasn't used, it would be gastrenterology, which is difficult to pronounce and incorrect.

Slide 17

The combining vowel plus the word root is often referred to as the combining form. You will see a lot of the combining form as you work with medical terms; you will recognize it because it will appear in red text and will be a root word followed by a slash followed by a vowel.

The combining vowel is not another category of word part because it is actually built from two word parts. For the remainder of this course, we will give word roots as combining forms.

Slide 18

In Figure 1-2, parts of the body are called out and shown as combining forms. We reviewed the word roots earlier—hopefully, you remember them. We'll now go through them quickly as combining forms so that you can hear the way they are pronounced with the combining vowel. We will start at the top right-hand side and move around in a clockwise fashion.

rhin/o
Nose

my/o
Muscle

cardi/o
Heart

gastr/o
Stomach

oste/o
Bone

arthr/o
Joint

hepat/o
Liver

cephal/o
head

Slide 19

Using medical terms goes two ways—you will need to know both how to define a medical term when you hear or see it and how to build a medical term when you need to use one. Luckily, there are strategies that can help you do both things. We will start with strategies for defining terms.

Most importantly, when you encounter an unfamiliar medical term, do not panic. Identifying the individual word parts gives you the information you need to understand the basic meaning.

Once you've overcome your initial panic impulse, divide the word into its parts.

After that, define each word part.

Finally, put together the meaning of the word parts to figure out what the term is describing.

Slide 20

Let's practice this defining process with the term dysmenorrhea.

This word breaks into three parts: the prefix dys-, the combining form men/o, and the suffix -rrhea.

Dys- means abnormal, difficult, or painful.

Men/o means menstruation.

-rrhea means discharge.

If we assemble these meanings, we get difficult or painful menstrual discharge.

Slide 21

For some people, it is helpful to think about medical terms as a puzzle and the individual word parts as puzzle pieces.

You can see that symbolically represented in Figure 1-3, which shows how to work out the meaning of a medical term by dividing it into its word parts and then defining each part. Note the color and shape associated with each part of the word.

Slide 22

Now that you know how to define a term, let's look at the way to build a medical term. This is essentially the reverse process of that used to define terms.

In this case, we start with the definition.

Then, we identify the word parts that make up this definition.

Finally, we string the word parts together to make a medical term.

We will practice this by creating a term that means fibrous skin tumor.

Slide 23

We know that our definition is a blood condition of insufficient sugar.

The word parts we need are the root hyp/o, which means insufficient; the root glyc/o, which means sugar; and the suffix -emia, which means blood condition.

We string these together as hypoglycemia. Notice that we use the combining vowel between the two roots but we do not use it between the root and the suffix.

This term also shows us an interesting truth: not all possible combinations of word parts yield actual medical terms. This is frustrating for beginning students, but don't get discouraged. Over time, picking the correct combination gets easier.

Slide 24

Because many medical terms come from Latin and Greek, they follow Latin and Greek rules of pluralization. These rules are not the same as the pluralization rules used in English. In other words, you don't pluralize most medical terms by adding an -s or an -es to the end.

The table on screen shows rules for pluralizing medical terms.

Slide 25

The table on this screen continues to show rules for pluralizing medical terms ending in -us, -um, -x, and -y.

Take a few minutes to look through the tables, and work on committing the rules to memory as you work through this chapter of the text.

Slide 26

In addition to learning new pluralization rules for medical terms, you will have to learn some new methods of pronunciation. This is, again, largely due to the Latin and Greek backgrounds of many of these terms.

On this slide and the following slide, we'll show some pronunciation hints that will help you work through the new terms you are learning. I will pronounce the terms covered onscreen so you can hear them, but it is up to you to read through the hints yourself.

First, we have bursae and coelom.

Then, cerebrum and gingivitis.

Cardiac and gastric.

Then cholesterol and chemical.

And finally, syncope and nares.

Slide 27

Here we start with bronchi and nuclei.

Then, pneumonia and pneumogram.

Tachypnea and hypopnea.

Finally, psychiatry and psychology.

Slide 28

Abbreviations are commonly used in medical recordkeeping to save time. However, if there is a concern that an abbreviation might be confusing, the word should be spelled out.

All formal health care facilities have lists of approved abbreviations to improve communication, accuracy, and understanding among health care professionals. Never use a made-up abbreviation.

Congratulations! You have now finished your first chapter!

Doing the exercises at the end of the chapter in your textbook will best help you learn all the vocabulary you need for this course.

When you feel like you have a good handle on the Chapter 1 material and you've compared what you've learned to the Chapter Objectives, you will be ready to move on to Chapter 2.