INTRODUCTION TO MEDICAL TERMINOLOGY (Ch. 1)

I. Medical terms have 3 (or 4) parts

prefix + word root ( + combining vowel = combining form) + suffix

epi      +    gastr/o        +     ic =
upon         stomach            pertaining to

epigastric

--not all terms contain all parts
Ex: triceps
"3" + "heads"

--in contrast, eponyms give no useful information:
"beside" + "name"

Ex.: Eustachian tube — Bartholomeo Eustachia, an 16th c. It. anatomist
vs.
auditory tube

A. Word Root/Combining form
--usually Latin/Greek
--vowel is usually /o (think "omitted" if not necessary for pronunciation)
Ex: epigastroic harder to pronounce with an "o"
gastropathy – harder to pronounce without an "o"
"disease"

--/o usually retained when combining 2 roots to signal joining
Gastroenterology (could be pronounced without o's)
intestines + study of

B. Prefix
before

--often gives info about location, number, time (Note categories, p. 13)

Examples: hypodermis tachycardia bisexual
below skin fast heart 2 sexes

--Sometimes change consonant to match root.
Ex: con      +    gen      +     ital = "born with"
with production pertaining to

collateral = alongside
C. Suffix
   -- attached at end of word
   -- 4 “categories” (p. 18): questionable value except surgical (operative)

   -- commonly converts root to noun (6 on pp. 19-20) or to adjective (8 on p. 20)

   -- if begins w/vowel, "/o" usually dropped

   -- sometimes combined: -ist = specialist
                        -logy = study of
                        -logist = specialist in study or treatment of

   -- don’t confuse the “rrh” words (p. 21):
       • -rrhexis = rupture \( \rightarrow \) angiorrhexis: rupture of a vessel
       • -rrhage = burst forth \( \rightarrow \) hemorrhage: escape of blood from a ruptured vessel
       • -rrhea = discharge \( \rightarrow \) pyorrhea: discharge of pus
       • -rrhaphy = suture \( \rightarrow \) nephorrhaphy: suture of a kidney

II. Decipher meaning
   -- suffix first
   -- prefix next
   -- root last

   Ex: hypothyroidism
       low state of

   -- Doing this in reverse is "word construction" \( \rightarrow \) see Exercise 1

   -- Don't memorize words; memorize word parts

III. Pronunciation (p. 10, but don’t memorize “rules”)
    -- If you can't say it, you won't learn it.
    -- Use the text CD (while commuting?)
    -- Practice out loud
    -- Many different pronunciations acceptable
        "duodenum"      "capillary"

IV. Spelling
    A. Can be critical, will be graded
       ilium vs. ileum
B. Beginning sounds with multiple spellings (p. 11)
   psy- or cy-
   dis- or dys-

C. Silent “p”
   psychology, pneumonia, ptosis

D. Singulars & plurals – p. 12
   --often confusing: based on Latin/Greek or English
   --many exceptions
   -- see Chart, p. 12 & Ch. 1 Exercise

V. Abbreviations (See appendix)
   -- very common
   -- traditionally a weak area on exams

VI. Levels of organization (Fig. 1.1 → p. 28)

  organism
  organ system → digestive
  organ → structure with a distinct form composed of several tissues (stomach)
  tissue \((hist/o)\) → organized collections of similar cells (smooth muscle)
  cell \((cyt/o)\) → basic unit of life, both structure & function
  molecule → DNA, protein
  atom → carbon, oxygen

- 4 basic tissues
  - epithelial – cover body surface, line hollow organs, glands
  - muscle – skeletal, cardiac, smooth (in internal organs)
  - connective – include cartilage, bone, fat, blood
  - nervous – brain & spinal cord, nerves & sensory receptors