HQMT Online/Distance Medical Transcription Training Module

Welcome to Free Trial Course (First Week Module)

This is a sample trial course that is designed to give you a first-hand experience of online medical transcription course. Please note, many portions of first week modules are not included in this trial version due to space constraints. For Ex. American Accent training and Phonetics, Typing Tutor, Print Books, etc. are not included in this.

COURSE STRUCTURE IN FIRST WEEK MODULE

A) Medical Terminology Essentials.

1) Basic Elements of A Medical Word..

B): American English for MTs.

1) Basic English.
2) Words and Expressions Mostly Commonly Misused.
3) Words Often Misspelled.

C) Study of Americanism and American Culture:

1) List of American States and Cities.
2) Common Words in American and British English.
3) Spelling Differences Between American and British English.

D) Anatomy, Physiology, Pharmacology, Body Systems.

Dermatology.
Drugs Classifications.

E) Applied Phonetics.

(1) BASIC ELEMENTS OF A MEDICAL WORD

- **STUDENTS OBJECTIVES**
- **WORD ROOTS**
- **COMBINING FORMS**
- **SUFFIXES**

- **PREFIXES**
- **BASIC RULES FOR BUILDING AND DEFINING MEDICAL WORDS**
- **WORKSHEETS**

STUDENTS OBJECTIVES

By the time we reach the end of this module we will be able to do the following:
1) Define and provide several examples of word roots, combining forms, suffixes, and prefixes.
2) Divide medical words into their components parts.
3) Describe how medical words are formed.
4) Explain the two basic rules for building medical words.
5) Explain three basic guidelines for defining medical words.
6) Demonstrate our knowledge by completing the worksheets.

Medical words building follows simple rules. Once these rules are learned, numerous medical terms can be formed and defined. As in all languages, some words are exceptions to such rules. Fortunately, in medical terminology few words are subject to irregularities.

To analyze medical words, you meed to identify the four elements that are used to form words: word root, combining form, suffix, and prefix.

WORD ROOTS

The main part or stem of a word is called a **word root (WR).** A word root is usually derived from the Greek or Latin language and frequently indicates a body part. All medical words have one or more roots.

EXAMPLES OF WORD ROOTS:

Greek Word	Word Root
Kardia (heart)	Cardi
Erythros (red)	erythr
Gastris (stomach)	Gastr
Nephros (kidney)	nephr
Osteon (bone)	oste

WORD ROOT	MEANING
Blephar/o	Eyelid
Bronch/o	Bronchial tube
Cephal/o	Head
Crain/o	Skull
Dent/i, Don't/o, Odont/o,	Tooth
Encephal/o	Brain
Gloss/o, Lingu/o	Tongue
Laryng/o	larynx
Lumb/o	Lower back
Mening/o	Meninges
Myring/o, Tympan/o	Tympanic membrane
Ocul/o, Ophthalm/o, Opt/o	Eye
Ot/o	Ear
Pharyng/o	Pharynx
Pyel/o	Kidney, renal pelvis
Rhin/o	Nose
Thorac/o	Thorax
Tonsil/o	Tonsils
Trache/o	Trachea
Angi/o, Vas/o	Vessels
Ateri/o	Arteries
Arthr/o	Joint
Cardi/o	Heart
Chondr/o	Cartilage
Chol/e	Gall, Bile
Col/o	Colon
Cost/o	Ribs
Cutane/o, Cuti, Dermat/o , derm/o	Skin
Cyst/o	Bladder/ Cyst
Enter/o	Intestine
Gastr/o	Stomach
Hepat/o	Liver
Pancreat/o	Pancreas
Pleur/o, Pneum/o	Pleura
Salpin/o	Fallopian tube

Brachi/o	Upper arm
Colp/o	Vagina
Hyster/o, Metr/o	Uterus
Mast/o	Breast
My/o	Muscles
Myel/o	Bone marrow
Nephr/o	Kidney
Neur/o	Nerve
Oophor/o	Ovary
Orch/o, orchid/o	Testes
Oste/o	Bone
Peritone/o	Peritoneum
Phleb/o	Vein
Proct/o, rect/o	Anus
Ren/o, Nephr/o	Kidney
Splen/o	Spleen

COMBINING FORMS

The **combining forms (CF)** is a word root plus a vowel, usually an "o". Like the word root, the combining form usually indicates a body part. In this text, a combining form will be listed as word root/vowel (e.g, cardi/o), as illustrated in the following chart.

EXAMPLES OF COMBINING FORMS

Word Root	**Combining Vowel**		**Combining Form**	**Meaning**
Cardi/ +	o	=	**cardi/o**	heart
Erythr/+	o	=	**erythr/o**	red
Gastr/+	o	=	**gastr/o**	stomach
Nephr/+	o	=	**nephr/o**	kidney
Oste/ +	o	=	**oste/o**	bone

Try to learn the combining form rather than the word root because the combining form makes many words easier to pronounce. For examples, in the previous list,the word roots erythr, gastr and nephr are difficult to pronounce, whereas their combining forms erythr/o, gastr/o, nephr/o are easy to pronounce.

SUFFIXES

A **suffix** is a word ending. In the words work/*er*, and work/*ing*, the suffixes are *-er* and *ing*. Changing the suffix gives the word a new meaning. This is also true in medical terminology. Whenever you change the suffix, the medical word takes on a new meaning. In medical terminology, a suffix usually indicates a procedure, condition, disease or part of speech. Many suffixes are derived from Greek or Latin words.

Combining Form	**Suffix**	**Medical Word**	**Meaning**
Arthr/o(joint)	**-centesis(puncture)**	arthrocentesis	puncture of a joint
Thorac/o	**-tomy**	thoracotomy	incision of the chest
Gastr/o(stomach)	**-megaly (enlargement)**	gastromegaly	enlargement of the stomach

PREFIXES

A **prefix** is a word element located at the beginning of a word. Prefixes occur frequently in general language as well as in medical and scientific terminology. When a medical word contains a prefix, the meaning of the word is influenced. The prefix usually indicates a number, time, position, direction, or sense of negation.

EXAMPLES OF PREFIXES

Prefix +	**Word Root +**	**Suffix =**	**Medical Word**	**Meaning**

Hyper- **(excessive)**	Therm	-ia	hyperthermia	condtition of excessive heat
Macro- **(large)**	Gloss (tongue)	-ia (condition)	macroglossia	condition of a large tongue
Micro- **(small)**	Card (heart)	-ia (condition)	microcardia	condition of a small heart

Basic rules for Building and Defining Medical Words

BUILDING MEDICAL WORDS

There are two basic rules for building medical words.

Rule 1. A word root is used before a suffix that begins with a vowel.

WORD ROOT	**SUFFIX**	**MEANING**
Scler/	Osis	abnormal
(hardening)	(abnormal condition)	(condition of hardening)

Rule 2. A combing vowel is used to link to a suffix that begins with a consonant and to link a word root to another word root to form compound word.

Here is an example of a combining vowel linking a word root to a suffix that begins with a consonant.

WORD ROOT AND COMBINING VOWEL + SUFFIX = MEANING

- therm/o meter = instrument for measuring

Here are two examples of a combining vowel linking one word root to another word root to form a compound word.

Word Root	Combining Vowel	Word Root	Suffix Meaning

oste/	o/	chondr/	itis	inflammation of bone and cartilage
oste/	o/	chondr/	itis	inflammation of joint and cartilage

In most instances, the combining vowel is retained two roots even if the second root begins with a vowel, as illustrated in the preceding example, oste/o/arthr/itis.

DEFINING MEDICAL WORDS

There are three basic steps to defining medical words.

First, define the **suffix,** or last part of the word.

Second, define the **prefix,** or **first part of the word.**

Last, define the **middle** of the word.

Here is an example.

gastr/ o/ enter/ itis

(stomach) (intestine) (inflammation)

(2) (3) (1)

Read the above example as follows:

1. inflammation (of) [suffix].

2. stomach (and) [first part of the word].

3. intestine [middle].

The definition of gastr/o/enter/itis is "inflammation (of) stomach and intestine".

Suffixes: Surgical, Diagnostic, Symptomatic, and Related

A WORD ROOT IS USED BEFORE A SUFFIX THAT BEGINS WITH A VOWEL

Word Root + Suffix = Medical Word

gastr + itis = gastritis

(stomach) (inflammation) inflammation of the stomach

cephal + algia = cephalalgia

(head) (pain) pain in the head, headache.

mast + ectomy = mastectomy

(breast) (excision) excision of the breast.

Following are additional examples applying rule 2 of medical word building.

A COMBINING VOWEL IS USED BEFORE A SUFFIX THAT BEGINS WITH A CONSONANT

Combining Form

(WR+O) + Suffix = Medical Word

phleb + o + tomy = phlebotomy

(vein) (incision) incision of the vein

colon + o + scopy = colonoscopy

(colon) (visual examination) visual examination of colon

arthr + o + centesis = arthrocentesis

(joint) (puncture) puncture of a joint

thorac + o + tomy = thoracotomy

(chest) (incision) incision of the chest

A COMBINING VOWEL IS USED TO LINK A WORD ROOT TO ANOTHER WORD ROOT TO FORM A COMPOUND WORD

Combining Form +	WR +	Suffix =	Medical word
gastr + o +	enter +	itis =	gastroenteritis
oste +o +	arthr +	itis =	osteoarthritis
encephal + o +	mening +	itis =	encephalomeningitis

An effective strategy in mastering medical terminology is learning the major suffixes first. To become proficient in medical terminology, review the examples in each section and say each word by referring to its phonetic pronunciation. Define medical words by following the three basic steps outlined in "Basic elements of a Medical word". *First define the suffix,* or end part of the word; *second, define the prefix,* or *first part of the word. Last, define the middle* of the word. For example, gastr/o/enter/itis is defined as inflammation of the stomach and intestine; append/ectomy is defined as excision of the appendix.

Surgical Suffixes

SUFFIXES DENOTING INCISIONS

Suffix	Meaning	Example	Pronunciation
-centesis	puncture	arthr/o/centesis	ar-thro-sen-TE-sis
-stomy	forming an opening	col/o/stomy	ko-LOS-to-me
-tome	instrument	oste/o/tome	OS-te-o-tom
-tomy	incision, cut	phleb/o/tomy	fle-BOT-o-me
-ectomy	excision	append/ectomy	ao-en-DEK-to-me

SUFFIX DENOTING RECONSTRUCTIVE SURGERIES

Suffix	Meaning	Example	Pronunciation
-desis	binding, fixation	arthr/o/desis	ar-thro-DE-sis
-pexy	fixation (of an organ)	mast/o/pexy	MAS-to-peks-e

-rrhaphy	suture	my/o/rrhaphy	mi-OR-a-fe
-plasty	surgical repair	rhin/o/plasty	RI-no-plas-te

SUFFIXES DENOTING REFRACTURING, LOOSENING, OR CRUSHING

Suffix	Meaning	Example	Pronunciation
-clasis	break, fracture	oste/o/clasis	os-te-O-klah-sis
-**lysis**	separation, destruction, loosening	enter/o/lysis	en-ter-OL-I-sis
-**tripsy**	crushing	lith/o/tripsy	LITH-o-trip-se

Diagnostic, Symptomatic, and Related Suffixes

Suffix	Meaning	Example	Pronunciation
-algia	pain	cephalalgia	sef-al-AL-je-ah
-cele	hernia, swelling	hepat/o/cele	HEP-a-to-sel
-dynia	pain	gastr/o/dynia	gas-tro-DIN-e-ah
-ectasis	dilation, expansion	bronchi/ectasis	bron-ke-EK-tah-sis
-emesis	vomiting	hyper/emesis	hi-per-EM-e-sis
-emia	blood condition	leuk/emia	loo-KE-me-ah
-genesis	forming, producing,	carcin/o/genesis	os-te-o-JEN-e-sis
-gen	forming, producing	carcin/o/gen	kar-SIN-o-jen
-gnosis	knowing	pro/gnosis	prog-NO-sis
-gram	record, a writing	cardi/o/gram	KAR-de-o-gram
-graph	instrument for	cardi/o/graph	KAR-de-o-graph

	recording heart		
-**graphy**	process of recording heart	cardi/o/graphy	kar-de-OG-ra-fe
-iasis	abnormal condition	chole/lith/iasis	ko-le-li-THI-ah-sis
-itis	inflammation	gastr/itis	gas-TRI-tis
-lith	stone, calculus	chol/e/lith	KO-le-lith
-logist	specialist	dermat/o/logist	der-ma-TOL-o-jist
-logy	study of	psych/o/logy	si-KOL-o-je
-malacia	softening	oste/o/malacia	os-te-o-mah-LA-she-

*** There are few exceptions to this rule.**

Suffix	Meaning	Example	Pronunciation
-megaly	enlargement	hepat/o/megaly	hep-ah-ti-MEG-ah-le
-**meter**	measuring instrument	therm/o/meter	ther-MOM-e-ter
-metry	act of measuring	pelv/i/metry	pel-VIM-et-re
-oid	resembling	lip/oid	LIP-oyd
-oma	tumor	aden/oma	ad-e-NO-mah
-osis	abnormal condition,	dermat/osis	der-mah-TO-sis
-para	to bear(offspring)	multi/para	mul-TIP-a-ra
-paresis	partial paralysis	hemi/paresis	hem-e-pa-RE-sis
-phagia	eating, swallowing	dys/phagia	dis-FA-je-ah
-phillia	attraction	hem/o/philia	he-mo-FIL-e-ah
-phobia	fear	claustr/o/phobia	klaws-tro-FO-be-ah
-phasia	speech	a/phasia	ah-FA-ze-ah
-rrhage	bursting forth	hem/o/rrhage	HEM-or-ij

-rrhea	discharge, flow	dia/rrhea	di-a-RE-ah
-rrhexis	rupture	angi/o/rrhexis	an-ji-o-REK-sis
-scope	instrument to view or examine	gastr/o/scope	GAS-tro-skop
-scopy	visual examination	proct/o/scopy	prok-TOS-ko-pe
-spasm	involuntary contraction	blephar/o/spasm	BLEF-ah-ro-spazm
-stasis	standing still	hem/o/stasis	he-mo-STA-sis
-stenosis	narrowing, stricture	arteri/o/stenosis	ar-te-re-o-ste-NO-sis
-trophy	development	a/trophy	AT-ro-fe
-toxic	Poison	thyr/o/toxic	thi-ro-TOKS-ik

American English for MTs

(1) English Basics

Approach to and understanding of English language in American way is as important as an in-depth knowledge of medical terminologies. Hence a grasp of functional grammar, punctuations, and American slangs is essential. With a view to familiarize the transcriptionists with these essentials and certain AAMT requirements, a comprehensive program has been designed.

SENTENCE STRUCTURE:

A sentence is nothing but a group of words making complete sense.

While constructing a sentence, the essentials to be kept in mind are --

Word order.

Eg: The patient, a victim of physical and mental abuse,

was a perpetrator of the same.

Identification of subject and subject-verb agreement.

It is essential to match the verb and subject while constructing a sentence. A agrees in number with its subject, singular verb for singular subject, plural verb for plural subject. Only in present tense does a verb have more than one form. Third person singular tense always ends in **s**.

Example:

1. Abdomen is soft and nontender.
2. Patients demand constant reassurance.
3. The patient demands constant reassurance.

SUBJECT	VERB
Abdomen	Is
Patients	Demand
Patient	Demands

Some general subject-verb agreements are as follows --

I, you, we, they **do**

He, she, it **does**

I **am**

You, we, they **are**

He, she, it **is**

Two or more singular subjects joined by **or/nor** take singular verb.

Eg: Neither the heart nor the abdomen is in good condition.

But,-- Heart **and** abdomen are in poor condition.

Sentences with **each** and **every** require a singular verb.

Eg: Each organ was thoroughly checked during the annual evaluation.

Every member has to participate in the seminar.

Two or more plural subjects joined by a conjunction take plural verb.

Eg: The transcriptionists and their instructors participate in seminars together.

Collective nouns may be singular or plural and take the matching

Verb.

Example:

1. Medical information is considered confidential.
2. One of the medical units rushes to the site of accident.
3. All medical units rush to the site of accident.

SUBJECT	**VERB**
1. Medical information	Is
2. One of the medical units	Rushes
3. All medical units	Rush

Identify subject and rectify verb as necessary:

1. Health insurance pay for the patients' treatment.

2. The cardiologists recommends stress tests.

3. The patient's parents accompanies him to the sessions.

4. Medical knowledge is a must in the transcription industry.

5. The HRD personnel was successful in controlling the feud.

Capitalization.

A. Sentence should not start with words whose first letter cannot be capitalized.

Eg: x pH is negative.

() The pH is negative.

B. Capitalize all letters in main headings, unless instructed otherwise. Subheadings may sometimes be capitalized.

Eg: PHYSICAL EXAMINATION:

VITAL SIGNS/Vital signs -- Temperature normal, blood pressure 114/76.

CARDIOVASCULAR/Cardiovascular -- Rhythm regular.

C. Capitalize the first word after a colon.

Eg: ASSESSMENT: Prostate carcinoma.

D. Do not capitalize diseases or anatomic landmarks unless they are eponyms (named after persons).

Eg: 1. The patient has diarrhea.

2. The patient has Parkinson's disease.

When eponym is made into adjective or verb, do not capitalize.

Eg: parkinsonian symptoms

E. Capitalize brand/trade names of drugs, but not the generic names.

Eg: Lortab.

erythromycin.

F. Capitalize genus name but not the species name of microorganisms.

Eg: Staphylococcus aureus

G. Capitalize titles such as M.D., DPM etc.

H. Do not capitalize words that denote classification or category.

Eg: grade 1/6 murmur.

Stage I.

I. Patient's allergies may be typed in all capitals to draw attention.

Eg: THE PATIENT IS ALLERGIC TO MOTRIN.

J. Greek letter names are not capitalized.

Eg: beta-blockers

alpha-fetoprotein

Clipped sentences.

Clipped sentences are acceptable as long as they achieve directness, and it is preferable to keep them as such when dictated by the dictator.

Eg: Mood labile. Speech coherent. Judgment intact.

Run-on sentences.

Run-on sentences consist of two or more main clauses which run together without punctuation. But while speaking in these kind of sentences, we often pause or change our tone in order to emphasize on the proper meaning of the sentence. But, this is not possible while writing. Hence, when the dictator is dictating in a run-on sentence, the transcriptionist should insert proper punctuations to break them into shorter units in accordance with the pauses and change of tone of the dictator.

Eg of run-on sentence: The heart sounds were in regular rate and rhythm S1 S2 without murmurs rubs or gallops.

U. The heart sounds were in regular rate and rhythm, S1, S2, without murmurs, rubs, or gallops.

(2) WORDS AND EXPRESSIONS COMMONLY MISUSED

(Many of the words and expressions here listed are not so much bad English as bad style, the commonplaces of careless writing. As illustrated under *Feature,* the proper correction is likely to be not the replacement of one word or set of words by another, but the replacement of vague generality by definite statement.)

- **All right.** Idiomatic in familiar speech as a detached phrase in the sense, "Agreed," or "Go ahead." In other uses better avoided. Always written as two words.

- **As good or better than.** Expressions of this type should be corrected by rearranging the sentence.

My opinion is as good or better than his.	My opinion is as good as his, or better (if not better).

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- **As to whether.** *Whether* is sufficient; see under

- **Bid.** Takes the infinitive without *to.* The past tense is *bade.*

- **Case.** The *Concise Oxford Dictionary* begins its definition of this word: "instance of a thing's occurring; usual state of affairs." In these two senses, the word is usually unnecessary.

In many cases, the rooms were poorly ventilated.	Many of the rooms were poorly ventilated.
It has rarely been the case that any mistake has been made.	Few mistakes have been made.

- See Wood, *Suggestions to Authors,* pp. 68-71, and Quiller-Couch, *The Art of Writing,* pp. 103-106.

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- **Certainly.** Used indiscriminately by some speakers, much as others use *very*, to intensify any and every statement. A mannerism of this kind, bad in speech, is even worse in writing.

- **Character.** Often simply redundant, used from a mere habit of wordiness.

Acts of a hostile character	Hostile acts

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- **Claim, vb.** With object-noun, means *lay claim to.* May be used with a dependent clause if this sense is clearly involved: "He claimed that he was the sole surviving heir." (But even here, "claimed to be" would be better.) Not to be used as a substitute for *declare, maintain,* or *charge.*

- **Compare.** To *compare to* is to point out or imply resemblances, between objects regarded as essentially of different order; to *compare with* is mainly to point out differences, between objects regarded as essentially of the same order. Thus life has been compared to a pilgrimage, to a drama, to a battle; Congress may be compared with the British Parliament. Paris has been compared to ancient Athens; it may be compared with modern London.

- **Clever.** This word has been greatly overused; it is best restricted to ingenuity displayed in small matters.

- **Consider.** Not followed by *as* when it means, "believe to be." "I consider him thoroughly competent." Compare, "The lecturer considered Cromwell first as soldier and second as administrator," where "considered" means "examined" or "discussed."

- **Dependable.** A needless substitute for *reliable, trustworthy.*

- **Due to.** Incorrectly used for *through, because of,* or *owing to,* in adverbial phrases: "He lost the first game, due to carelessness." In correct use related as predicate or as modifier to a particular noun: "This invention is due to Edison;" "losses due to preventable fires."

- **Effect.** As noun, means *result;* as verb, means *to bring about, accomplish* (not to be confused with *affect,* which means "to influence").

As noun, often loosely used in perfunctory writing about fashions, music, painting, and other arts: "an Oriental effect;" "effects in pale green;" "very delicate effects;" "broad effects;" "subtle effects;" "a charming effect was produced by." The writer who has a definite meaning to express will not take refuge in such vagueness.

- **Etc.** Not to be used of persons. Equivalent to *and the rest, and so forth,* and hence not to be used if one of these would be insufficient, that is, if the reader would be left in doubt as to any important particulars. Least open to objection when it represents the last terms of a list already given in full, or immaterial words at the end of a quotation.

  At the end of a list introduced by *such as, for example,* or any similar expression, *etc.* is incorrect.

- **Fact.** Use this word only of matters of a kind capable of direct verification, not of matters of judgment. That a particular event happened on a given date, that lead melts at a certain temperature, are facts. But such conclusions as that Napoleon was the greatest of modern generals, or that the climate of California is delightful, however incontestable they may be, are not properly facts.

  On the formula *the fact that,* see under.

- **Factor.** A hackneyed word; the expressions of which it forms part can usually be replaced by something more direct and idiomatic.

His superior training was the great factor in his winning the match.	He won the match by being better trained.
Heavy artillery is becoming an increasingly important factor in deciding battles.	Heavy artillery is playing a larger and larger part in deciding battles.

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- **Feature.** Another hackneyed word; like *factor* it usually adds nothing to the sentence in which it occurs.

A feature of the entertainment	(Better use the same number of

especially worthy of mention was the singing of Miss A.	words to tell what Miss A. sang, or if the programme has already been given, to tell something of how she sang.)

- As a verb, in the advertising sense of *offer as a special attraction,* to be avoided.
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- **Fix.** Colloquial in America for *arrange, prepare, mend.* In writing restrict it to its literary senses, *fasten, make firm or immovable,* etc.

- **He is a man who.** A common type of redundant expression.

He is a man who is very ambitious.	He is very ambitious.
Spain is a country which I have always wanted to visit.	I have always wanted to visit Spain.

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- **However.** In the meaning *nevertheless,* not to come first in its sentence or clause.

The roads were almost impassable. However, we at last succeeded in reaching camp.	The roads were almost impassable. At last, however, we succeeded in reaching camp.

- When *however* comes first, it means *in whatever way* or *to whatever extent.*

However you advise him, he will probably do as he thinks best.
However discouraging the prospect, he never lost heart.

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- **Kind of.** Not to be used as a substitute for *rather* (before adjectives and verbs), or except in familiar style, for *something like* (before nouns). Restrict it to its literal sense: "Amber is a kind of fossil resin;" "I dislike that kind of notoriety." The same holds true of *sort of.*

- **Less.** Should not be misused for *fewer.*

He had less men than in the previous campaign.	He had fewer men than in the previous campaign.

- *Less* refers to quantity, *fewer* to number. "His troubles are less than mine" means "His troubles are not so great as mine." "His troubles are fewer than mine" means "His troubles are not so numerous as mine." It is, however, correct to say, "The signers of the petition were less than a hundred, "where the round number, a hundred, is something like a collective noun, and *less* is thought of as meaning a less quantity or amount.

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- **Line, along these lines.** *Line* in the sense of *course of procedure, conduct, thought,* is allowable, but has been so much overworked, particularly in the phrase *along these lines,* that a writer who aims at freshness or originality had better discard it entirely.

Mr. B. also spoke along the same lines.	Mr. B. also spoke, to the same effect.
He is studying along the line of French literature.	He is studying French literature.

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- **Literal, literally.** Often incorrectly used in support of exaggeration or violent metaphor.

A literal flood of abuse	A flood of abuse
Literally dead with fatigue	Almost dead with fatigue (dead tired)

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- **Lose out.** Meant to be more emphatic than *lose,* but actually less so, because of its commonness. The same holds true of *try out, win out, sign up, register up.* With a number of verbs, *out* and *up* form idiomatic combinations: *find out, run out, turn out, cheer up, dry up, make up,* and others, each distinguishable in meaning from the simple verb. *Lose out* is not.

- **Most.** Not to be used for *almost.*

Most everybody	Almost everybody
Most all the time	Almost all the time

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- **Nature.** Often simply redundant, used like *character*.

Acts of a hostile nature	Hostile acts

- Often vaguely used in such expressions as "a lover of nature;" "poems about nature." Unless more specific statements follow, the reader cannot tell whether the poems have to do with natural scenery, rural life, the sunset, the untracked wilderness, or the habits of squirrels.

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- **Near by.** Adverbial phrase, not yet fully accepted as good English, though the analogy of *close by* and *hard by* seems to justify it. *Near,* or *near at hand,* is as good, if not better.

  Not to be used as an adjective; use *neighboring.*

- **Oftentimes, ofttimes.** Archaic forms, no longer in good use. The modern word is *often.*

- **One hundred and one.** Retain the *and* in this and similar expressions, in accordance with the unvarying usage of English prose from Old English times.

- **One of the most.** Avoid beginning essays or paragraphs with this formula, as, "One of the most interesting developments of modern science is, etc.;" "Switzerland is one of the most interesting countries of Europe." There is nothing wrong in this; it is simply threadbare and forcible-feeble.

- **People.** *The people* is a political term, not to be confused with *the public.* From the people comes political support or opposition; from the public comes artistic appreciation or commercial patronage.

  The word *people* is not to be used with words of number, in place of *persons.* If of "six people" five went away, how many "people" would be left?

- **Phase.** Means a stage of transition or development: "the phases of the moon;" "the last phase." Not to be used for *aspect* or *topic.*

Another phase of the subject	Another point (another question)

-

- **Possess.** Not to be used as a mere substitute for *have* or *own.*

He possessed great courage.	He had great courage (was very brave).
He was the fortunate possessor of	He owned

-

- **Respective, respectively.** These words may usually be omitted with advantage.

Works of fiction are listed under the names of their respective authors.	Works of fiction are listed under the names of their authors.
The one mile and two mile runs were won by Jones and Cummings respectively.	The one mile and two mile runs were won by Jones and by Cummings.

- In some kinds of formal writing, as in geometrical proofs, it may be necessary to use *respectively,* but it should not appear in writing on ordinary subjects.

-

- **So.** Avoid, in writing, the use of *so* as an intensifier: "so good;" "so warm;" "so delightful."

  On the use of *so* to introduce clauses

- **Sort of.** See under **Kind of.**

- **State.** Not to be used as a mere substitute for *say, remark.* Restrict it to the sense of *express fully or clearly,* as, "He refused to state his objections."

- **Student body.** A needless and awkward expression, meaning no more than the simple word *students.*

A member of the student body	A student
Popular with the student body	Liked by the students
The student body passed resolutions.	The students passed resolutions.

-

- **System.** Frequently used without need.

Dayton has adopted the commission system of government.	Dayton has adopted government by commission.
The dormitory system	Dormitories

-

- **Thanking you in advance.** This sounds as if the writer meant, "It will not be worth my while to write to you again." Simply write, "Thanking you," and if the favor which you have requested is granted, write a letter of acknowledgment.

- **They.** A common inaccuracy is the use of the plural pronoun when the antecedent is a distributive expression such as *each, each one, everybody, every one, many a man,* which, though implying more than one person, requires the pronoun to be in the singular. Similar to this, but with even less justification, is the use of the plural pronoun with the antecedent *anybody, any one, somebody, some one,* the intention being either to avoid the awkward "he or she," or to avoid committing oneself to either. Some bashful speakers even say, "A friend of mine told me that they, etc."

Use *he* with all the above words, unless the antecedent is or must be feminine.

- **Very.** Use this word sparingly. Where emphasis is necessary, use words strong in themselves.

- **Viewpoint.** Write *point of view,* but do not misuse this, as many do, for *view* or *opinion.*

- **While.** Avoid the indiscriminate use of this word for *and, but,* and *although.* Many writers use it frequently as a substitute for *and* or *but,* either from a mere desire to vary the connective, or from uncertainty which of the two connectives is the more appropriate. In this use it is best replaced by a semicolon.

The office and salesrooms are on the ground floor, while the rest of the building is devoted to manufacturing.	The office and salesrooms are on the ground floor; the rest of the building is devoted to manufacturing.

- Its use as a virtual equivalent of *although* is allowable in sentences where this leads to no ambiguity or absurdity.

While I admire his energy, I wish it were employed in a better cause.

- This is entirely correct, as shown by the paraphrase,

I admire his energy; at the same time I wish it were employed in a better cause.

- Compare:

While the temperature reaches 90 or 95 degrees in the daytime, the nights are often chilly.	Although the temperature reaches 90 or 95 degrees in the daytime, the nights are often chilly.

- The paraphrase,

The temperature reaches 90 or 95 degrees in the daytime; at the same time the nights are often chilly,

- shows why the use of *while* is incorrect.
- In general, the writer will do well to use *while* only with strict literalness, in the sense of *during the time that.*
-
- **Whom.** Often incorrectly used for *who* before *he said* or similar expressions, when it is really the subject of a following verb.

His brother, whom he said would send him the money	His brother, who he said would send him the money
The man whom he thought was his friend	The man who (that) he thought was his friend (whom he thought his friend)

-
- **Worth while.** Overworked as a term of vague approval and (with *not*) of disapproval. Strictly applicable only to actions: "Is it worth while to telegraph?"

His books are not worth while.	His books are not worth reading (not worth one's while to read; do not repay reading).

- The use of *worth while* before a noun ("a worth while story") is indefensible.
-
- **Would.** A conditional statement in the first person requires *should,* not *would.*

I should not have succeeded without his help.

- The equivalent of *shall* in indirect quotation after a verb in the past tense is *should,* not *would.*

He predicted that before long we should have a great surprise.

- To express habitual or repeated action, the past tense, without *would*, is usually sufficient, and from its brevity, more emphatic.

Once a year he would visit the old mansion.	Once a year he visited the old mansion.

(3)WORDS OFTEN MISSPELLED

accidentally	formerly	privilege
Advice	humorous	pursue
Affect	hypocrisy	repetition
Beginning	immediately	rhyme
Believe	incidentally	rhythm
Benefit	latter	ridiculous
Challenge	led	sacrilegious
Criticize	lose	seize
Deceive	marriage	separate
Definite	mischief	shepherd
describe	murmur	siege
despise	necessary	similar
develop	occurred	simile
disappoint	parallel	too
duel	Philip	tragedy
ecstasy	playwright	tries
effect	preceding	undoubtedly
existence	prejudice	until
fiery	principal	

C) Americanism

US State List

Postal	State	Capital	Largest City
AL	Alabama	Montgomery	Birmingham
AK	Alaska	Juneau	Anchorage
AZ	Arizona	Phoenix	Phoenix
AR	Arkansas	Little Rock	Little Rock
CA	California	Sacramento	Los Angeles
CO	Colorado	Denver	Denver
CT	Connecticut	Hartford	Bridgeport
DE	Delaware	Dover	Wilmington
FL	Florida	Tallahassee	Jacksonville
GA	Georgia	Atlanta	Atlanta
HI	Hawaii	Honolulu	Honolulu
ID	Idaho	Boise	Boise
IL	Illinois	Springfield	Chicago
IN	Indiana	Indianapolis	Indianapolis
IA	Iowa	Des Moines	Des Moines
KS	Kansas	Topeka	Wichita
KY	Kentucky	Frankfort	Louisville
LA	Louisiana	Baton Rouge	New Orleans
ME	Maine	Augusta	Portland
MD	Maryland	Annapolis	Baltimore
MA	Massachusetts	Boston	Boston
MI	Michigan	Lansing	Detroit
MN	Minnesota	Saint Paul	Minneapolis
MS	Mississippi	Jackson	Jackson
MO	Missouri	Jefferson City	Kansas City
MT	Montana	Helena	Billings
NE	Nebraska	Lincoln	Omaha
NV	Nevada	Carson City	Las Vegas
NH	New Hampshire	Concord	Manchester
NJ	New Jersey	Trenton	Newark
NM	New Mexico	Santa Fe	Albuquerque
NY	New York	Albany	New York City
NC	North Carolina	Raleigh	Charlotte
ND	North Dakota	Bismarck	Fargo
OH	Ohio	Columbus	Columbus
OK	Oklahoma	Oklahoma City	Oklahoma City
OR	Oregon	Salem	Portland
PA	Pennsylvania	Harrisburg	Philadelphia
RI	Rhode Island	Providence	Providence
SC	South Carolina	Columbia	Columbia
SD	South Dakota	Pierre	Sioux Falls
TN	Tennessee	Nashville	Memphis
TX	Texas	Austin	Houston
UT	Utah	Salt Lake City	Salt Lake City
VT	Vermont	Montpelier	Burlington

VA	Virginia	Richmond	Virginia Beach
WA	Washington	Olympia	Seattle
WV	West Virginia	Charleston	Charleston
WI	Wisconsin	Madison	Milwaukee
WY	Wyoming	Cheyenne	Cheyenne
PR	Puerto Rico	San Juan	San

Common Words in American and British English

Here are a few of the more common words which are different in American and British English. This is only meant to highlight some of the variety which exists within English, and is not a complete list by any means. It also does not address different vocabulary which is used in Australia, Canada, South Africa and India as well as the Caribbean, Africa, and the many other places in the world which use English as the language of commerce or government.

American	British
apartment	flat
argument	row
Baby carriage	pram
Band-aid	plaster
bathroom	loo or WC
Can	tin
chopped beef	mince
Cookie	biscuit
Corn	maize

Diaper	nappy
elevator	lift
Eraser	rubber
flashlight	torch
Fries	chips
Gas	petrol
Guy	bloke, chap
highway	motorway
hood (car)	bonnet
Jello	jelly
Jelly	jam
kerosene	paraffin
Lawyer	solicitor
License plate	number plate
Line	queue
Mail	post
motor home	caravan
movie theater	cinema
muffler	silencer
Napkin	serviette
nothing	nought
overpass	flyover

pacifier	dummy
pants	trousers
parking lot	car park
period	full stop
pharmacist	chemist
potato chips	crisps
rent	hire
sausage	banger
sidewalk	pavement
soccer	football
sweater	jumper
trash can	bin
truck	lorry
trunk (car)	boot
vacation	holiday
vest	waistcoat
windshield (car)	windscreen
zip code	postal code

Spelling differences between American and British English

-or vs. -our	
American	British
col***or***	col***our***
fav***or***ite	fav***our***ite
hon***or***	hon***our***

-ze vs. -se	
American	British
analy***ze***	analy***se***
criticiz***e***	criticis***e***
memoriz***e***	memoris***e***

-ll vs. -l	
American	British
enro***ll***ment	enro***l***ment
fulfi***ll***	fulfi***l***
ski***ll******f***ul	ski***l***ful

-er vs. -re	
American	British
cent***er***	cent***re***
met***er***	met***re***
theat***er***	theat***re***

-og vs. -ogue	
American	British
anal***og***	anal***ogue***
catal***og***	catal***ogue***
dial***og***	dial***ogue***

-e vs. -oe or -ae	
American	British
encylop***e***dia	encylycop***ae***dia
man***e***uver	man***oe***uvre
medi***e***val	medi***ae***val

-ck or -k vs. -que	
American	British
ban***k***	ban***que***
che***ck***	che***que***
che***ck***er	che***que***r

-dg vs. -dge (or -g vs. -gu)	
American	British
a***g***ing	a***ge***ing
argu***ment***	argu***e***ment
judg***ment***	jud***ge***ment

-ense vs. -enze	
American	British
def*ense*	def*ence*
lic*ense*	lic*ence*

Other	
American	British
jewe*l*ry	jewe*ll*ery
dra*f*t	drau*gh*t
p*a*jamas	p*y*jamas
plo*w*	plou*gh*
prog*am*	prog*amme*
t*i*re	t*y*re

In British English, words that end in ***-l*** preceded by a vowel usually double the ***-l*** when a suffix is added, while in American English the letter is not doubled. The letter will double in the stress is on the second syllable.

Base Word	American	
counsel	counse*l*ing	couns
equal	equa*l*ing	equa*ll*
model	mode*l*ing	mode
quarrel	quarre*l*ing	quarre
signal	signa*l*ing	signa*l*
travel	trave*l*ing	trave*l*
excel	exce*ll*ing	exce*ll*
propel	prope*ll*ing	prope

Spelling of Verbs

This is related to formation of the past participle for verbs. Below is a sampling of the three main categories of differences with verbs.

-ed vs. -t

The first category involves verbs that use ***-ed*** or ***-t*** for the simple past and past participle. Generally, the rule is that if there is a verb form with -ed, American

English will use it, and if there is a form with ***-t***, British English uses it. However, these forms do not exist for every verb and there is variation. For example, both American and British English would use the word 'worked' for the past form of 'to work', and in American English it is common to hear the word 'knelt' as the past tense of 'to kneel'.

Base form	American	British
to dream	dream***ed***	dream***t***
to leap	leap***ed***	leap***t***
to learn	learned***ed***	learn***t***

base form vs. -ed

The second category of difference includes verbs that use either the base form of the verb or the ***-ed*** ending for the simple past.

Base form	American	British
to fit	Fit	fitt***ed***
to forecast	Forecast	forecast***ed***
to wed	Wed	wedd***ed***

irregular vs. -ed

The third category of difference includes verbs that have either an irregular spelling or the ***-ed*** ending for the simple past.

Base form	American	British
to knit	Knit	knitt***ed***
to light	Lit	light***ed***
to strive	Strove	striv***ed***

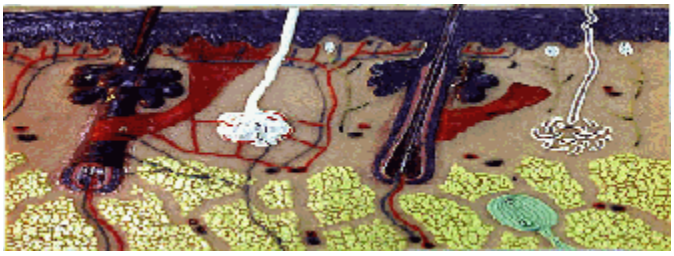
So what does tall his mean for learners of English? In the beginning, unfortunately, it means a lot of memorization (or memorisation) and of course, a few mistakes. For spoken English, the differences are barely audible, so forge ahead and don't be too concerned with whether a word is spelled 'dwelled' or 'dwelt'. With written English,

however, if you are unsure about the spelling, better to ask your teacher or look the word up in the dictionary and see what the experts say.

BODY SYSTEM LECTURES – 1) Dermatology

The skin is the largest organ of the body. It consists of specialized epithelial and connective tissue cells and has many protective and synthetic functions.

DIFFERENT LAYERS OF THE SKIN



The skin is composed of two layers, the **epidermis** and the **dermis**. The **subcutaneous tissue,** also referred to as the **subcutis or panniculus**, is located underneath the dermis.

1. EPIDERMIS

The epidermis is mainly composed of cells called **keratinocytes**. It is divided into four layers:

a. Stratum Basale (Stratum Germinativum or Basal layer).

b. Stratum spinosum.

c. Stratum granulosum.

d. Stratum corneum.

The **basal layer** is composed of undifferentiated proliferating stem cells. Newly formed cells from this layer migrate upward and begin the process of differentiation.

The **stratum spinosum** lies above the basal layer and is composed of **keratinocytes**, also known as **squamous cells**. These cells produce keratin, which is a fibrous protein. This stratum spinosum derives its name from the "spines" or intercellular bridges that extend between cells.

The **stratum granulosum**, or granular layer, is composed of cells that contain **keratohyaline granules**, which are visible with light microscopy.

The **stratum corneum** is composed of large**,** flat**,** keratin-filled cells. They are vertically stacked in layers that range in thickness from 15 layers on most surfaces, to as many as 100 layers on the palms and soles.

In summary, the epidermis is composed of cells that divide in the basal layer, keratinize in the stratum spinosum and granular cell layers, and ultimately differentiate into "dead" cells in the stratum corneum. It takes approximately 4 weeks for migration of a cell from the basal layer to the stratum corneum, where it will be shed.

Melanocytes are pigment-producing cells with long, squidlike extensions called **dendrites**. They are located in the basal cell layer. The dendrites facilitate the transfer of pigment granules, called **melanosomes**, to neighboring **keratinocytes**. The number of melanocytes in the epidermis is the same regardless of race or color. The number and size of the melanosomes account for racial differences in skin color. Sunlight stimulates melanocytic activity and transfer of melanosomes.

Langerhans' cells are also **dendritic cells** that have an immunologic function. They are located between **keratinocytes**. On electron microscopy, diagnostic tennis racket-shaped organelles called **Bribeck's granules** are seen.

Indeterminate dendritic cells lack melanosomes and Bribeck's granules**.** In some ways they are similar to Langerhans' cells; however, their exact function is not known.

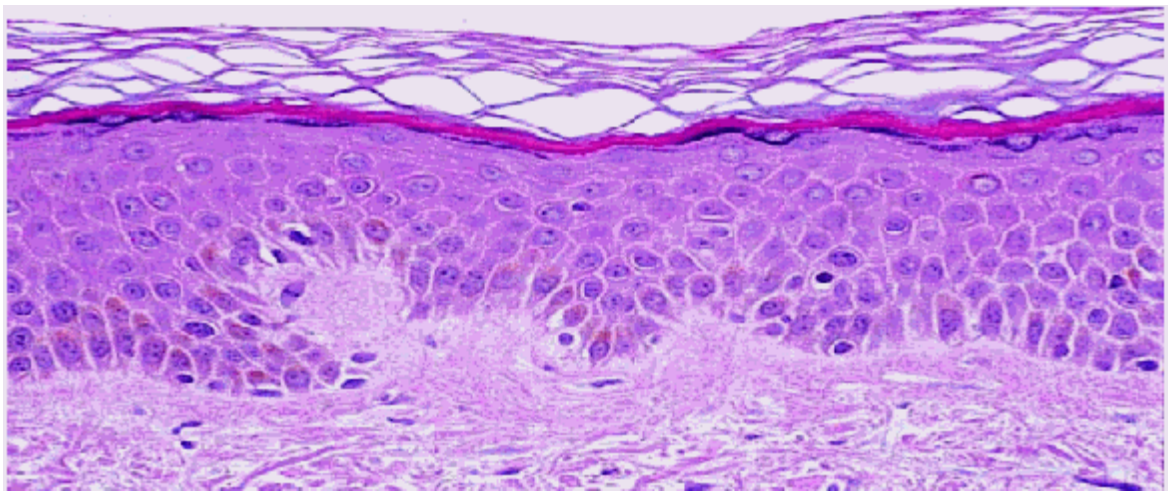
Merkel's cells are located directly above the basement membrane. They probably enhance touch sensation.

The junction between the epidermis and dermis is referred to as the basement membrane zone. It permits selective exchange of cells and fluid between the epidermis and dermis. Furthermore, it provides structural support for the epidermis and "glues" the epidermis to the dermis.

2. DERMIS

The dermis contains **blood vessels, nerves and cutaneous appendages**. It is much thicker than the epidermis. The principal components of the dermis are **collagen and elastic fibers** and **ground substance**, which are synthesized by **dermal fibroblast cells**. Collagen and elastic fibers are fibrous proteins that provide structural support to the dermis. The ground substance fills the spaces between fibers.

Beneath the dermis is the **subcutaneous tissue**. It is composed of **fat cells or lipocytes**, which are separated by islands (septa) of collagen and blood vessels.



VARIOUS SKIN APPENDAGES

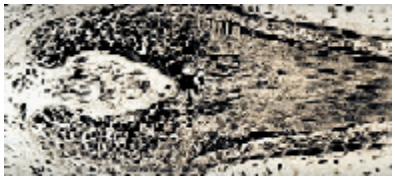
The skin appendages include the **eccrine and apocrine sweat glands**, **hair follicles, sebaceous glands, and nails.**

Eccrine sweat glands help regulate body temperature by releasing sweat onto the surface of the skin. The sweat evaporates, thereby facilitating the cooling process. There are 2 to 3 million eccrine sweat glands on the body, which can secrete 10 liters of sweat per day.

Apocrine sweat glands are responsible for body odor. The odor results when bacteria act on odorless apocrine sweat. Apocrine glands are most numerous in the axillae (armpits) and anogenital region.

HAIR

Hairs grow out of tubular invaginations of the epidermis known as follicles, and a hair follicle and its associated sebaceous glands are referred to as a **pilosebaceous unit**.



(An electron micrograph of the base of hair follicle. The epidermal papilla, shown at the base, controls the growth rate of the hair follicle)

Hair follicles (located over the entire body surface with the exception of the palms and soles) extend into the dermis at an angle.

A small bundle of smooth muscle fibers, the **arrector pili muscle**, extends from just beneath the epidermis and is attached to the side of the follicle at an angle. Arrector pili muscles are supplied by adrenergic nerves, and are responsible for the erection of hair during cold or emotional stress ('goose flesh'). The sebaceous gland is attached to the follicle just above the point of attachment 0of the arrector pili.

At the lower end of the follicle is the **hair bulb**, part of which, the **hair matrix**, is a zone of rapidly dividing cells which is responsible for the formation of the hair shaft. Hair pigment is produced by melanocytes in the hair bulb. Cells produced in the hair bulb become densely packed, elongated and arranged parallel to the long axis of the hair shaft. They gradually become keratinized as they ascend in the hair follicle.

Similar to skin and nails, actively dividing matrix cells differentiate and ultimately form a keratinous structure, the hair shaft. Hair growth is cyclic and is composed of three phases.

Anagen (growing)

Catagen (transition)

Telogen (resting)

The length of the phases varies from one site to another.

NAILS

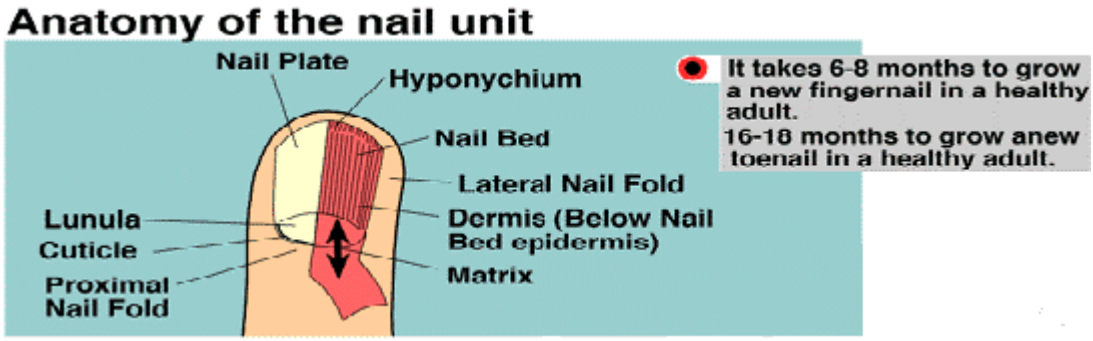
Nails similar to skin and hair, are made of **keratin** that is produced by a matrix of dividing and differentiating cell. The nail unit has four components:

i. **Proximals nail fold**

ii. **Matrix**

iii. **Nail bed**

iv. **Hyponychium**



The proximal nail fold protects the matrix and forms the **cuticle**. The matrix produces the cells that will ultimately become the **nail plate**. The nail bed is the surface on which the nail plate lies. The pink color of the nail bed is due to blood vessels in the dermis. The **hyponychium** is located beneath the distal free edge of the nail.

SENSORY APPARATUS OF THE SKIN

The skin is innervated with around one million **afferent nerve** fibers. Most terminate in the face and extremities; relatively few supply the back. The cutaneous nerves

contain **axons** with cell bodies in the **dorsal root ganglia**. Their diameters varies from 0.2-20 µm. The main nerve trunks entering the subdermal fatty tissue each divide into smaller bundles. Groups of myelinated fibers fan out in a horizontal plane to form a branching network from which fibers ascend, usually accompanying blood vessels, to form a mesh of interlacing nerves in the superficial dermis. Throughout their course, the axons are enveloped in **Schwann cells** and as they run peripherally, an increasing number lack myelin sheaths. Most end in the dermis; some penetrate the basement membrane, but do not travel far into the epidermis.

Sensory endings are of two main kinds -- corpuscular, which embrace non-nervous elements, and "free", which do not. Corpuscular endings can, in turn, be subdivided into encapsulated receptors, of which a range occurs in the dermis, and non-encapsulated, exemplified by Merkel's 'touch spot' which is epidermal.

Each Merkel's touch spot is composed of a battery of Merkel cells borne on branches of a myelinated axon. A **Merkel cell** has a lobulated nucleus and characteristic granules; it is embedded in the basal layer of epidermal cells, with which it has desmosomal connections; it contains intermediate filaments composed of low molecular weight keratin rather than neurofilament protein.

The **Pacinian corpuscle** is one of the encapsulated receptors. It is an ovoid structure about 1mm in length, which is lamellated in cross-section like an onion, and is innervated by a myelinated sensory axon which loses its sheath as it traverses the core. The **Golgi-Mazzoni corpuscle** found in the subcutaneous tissue of the human finger is similarly laminate but of much simpler organization. These last two lamellated end organs are movement and vibration detectors. The **Krause end bulb** is an encapsulated swelling on myelinated fibers situated in the superficial layers of the dermis. **Meissner corpuscles** are characteristics of the papillary ridges of **glabrous** (hairless skin) skin; they are touch receptors; they have a thick lamellated capsule, 20-40 µm in diameter and up to 150 µm long. **Ruffini endings** in the human digits have several expanded endings branching from a single myelinated afferent fibre; the endings are directly related to collagen fibrils; they are stretch receptors.

Free nerve endings, which appear to be derived from non-myelinated fibers occur in the superficial dermis and in the overlying epidermis; they are receptors for pain, touch, pressure and temperature. Hair follicles have fine nerve filaments running parallel to and encircling the follicles; each group of axons is surrounded by Schwann cells; they mediate touch sensation.

CUTANEOUS VASCULAR SYSTEM

Circulation through the skin serves two functions -- a) nutrition of the skin tissue, and b) regulation of body temperature by conducting heat from the internal structures of the body to the skin, where it is lost by exchange with the external environment (by convection, conduction and radiation).

The cutaneous circulatory apparatus is well-suited to its functions. It comprises two types of vessels -- a) the usual nutritive vessels (arteries, capillaries and veins), and (b) vascular structures concerned with heat regulation. The latter includes an extensive subcutaneous venous plexus which can hold large quantities of blood (to heat the surface of the skin), and arteriovenous anastomoses which are large direct vascular communications between arterial and venous plexuses. Arteriovenous anastomoses are

only present in some skin areas, which are often exposed to maximal cooling, as the volar surfaces of hands and feet, the lips, the nose and the ear.

The specialized vascular structures just mentioned, bear strong muscular coats innervated by sympathetic **adrenergic vasoconstrictor nerve fibers**. When constricted, blood flow into the subcutaneous venous plexus is reduced to almost nothing (minimal heat loss); while, when dilated, extremely rapid flow of warm blood into the venous plexus is allowed (maximal heat loss).

The blood flow required for the nutrition of the skin is very small (about 40ml/min). Yet, at ordinary skin temperature, the amount of blood flowing through the skin is 10 times (=0.25L/m2 =400ml/min in a normal adult) more than what is needed for the nutrition of the tissues.

The rate of cutaneous blood flow required to regulate body temperature varies in response to changes in the metabolic activity of the body and/or the temperature of the surroundings. Exposure to extreme cold reduces the rate of blood flow to very low values, so that the nutritive function may sometimes suffer. On the other hand, heating the skin until maximal vasodilatation occurs (as in hot climate), increases the cutaneous blood flow 7 times the normal value (2.8L/min.). This diminishes the peripheral resistance and increases the cardiac output, which may lead to the decompensation of the heart in borderline-heart-failure subjects exposed to hot weather.

acne	**decubitus ulcer**	**Fungal tests**	**melanin**	**pilosebaceous**	**squamous epithelium**
adipose	**dermatoheliosis**	**gangrene**	**lipocyte**	**polyp**	**steatoma**
albinism	**dermatologist**	**hair follicle**	**lipoma**	**pruritus**	**stratified**
Albino	**dermatomycosis**	**heparin**	**lunula**	**psoriasis**	**stratum (strata)**
Alopecia	**dermatophytosis**	**Herpes simplex**	**leukoplakia**	**purpura**	**subcutaneous**
Anhidrosis	**dermatoplasty**	**Herpes zoster**	**macrophage**	**purulent**	**subungual**
basal cell carcinoma	**dermis**	**herpetic**	**macule**	**pustule**	**systemic lupus erythematosus**
basal layer	**diaphoresis**	**histamine**	**mast cell**	**pyoderma**	**tinea**
bulla (bullae)	**ecchymosis (ecchymoses)**	**histiocyte**	**melanocyte**	**rubella**	**trichomycosis**
Callus	**eczema**	**ichthyosis**	**melanoma**	**rubeola**	**ulcer**
Causalgia	**epidermis**	**impetigo**	**mycosis fungoides**	**scabies**	**urticaria**
Collagen	**epidermolysis**	**integumentary system**	**nevus (nevi)**	**scleroderma**	**varicella**

comedo (comedones)	epithelium	Kaposi's sarcoma	onychomycosis	sebaceous gland	verruca (verrucae)
condyloma (condylomata)	erythema	Keloid	papule	seborrhea	vesicle
Corium	erythematous	keratin	paronychia	seborrheic dermatitis	vitiligo
Cuticle	exanthematous viral disease	keratosis	petechia(petechiae)	sebum	wheal
Cyst	fibroblast fissure	leukoderma	pilonidal cyst	squamous cell carcinoma	xanthoma, xeroderma

ABBREVIATIONS

Bx	Biopsy
C. & S	Culture and sensitivity
Derm	Dermatology
FS	Frozen section
HSV-1	Herpes simplex virus type 1
HSV-2	Herpes simplex virus type 2
I & D	Incision and drainage
KOH	Potassium hydroxide
ung	Ointment
UV	Ultraviolet

DERMATOLOGIC DRUGS

The dermatologic drugs are available as creams, lotions, liquids, ointments, and gels, as well as drugs given orally. Some common over-the-counter and prescription drugs are given below:

DRUGS USED TO TREAT ACNE VULGARIS

GENERIC	BRAND
adapalene	Differin
azelaic acid	Azelex
Tazarotene	Tazorac

Topical antibiotics for acne vulgaris:

GENERIC	BRAND
Clindamycin	Cleosin T
Erythromycin	Eryderm, Staticin
Metrocycline	Meclan
Tetracycline	Topicycline

Oral antibiotics for acne vulgaris

tetracycline (Panmycin, Sumycin)

Vitamin A-type drugs for acne vulgaris

isotretinoin (Accutane)

tretinoin (Retin-A, Versanoid)

DRUGS USED TO TREAT ACNE ROSACEA

GENERIC	BRAND
metronidazole	MetroGel

DRUGS USED TO TREAT PSORIASIS

Vitamin D type drugs for Psoriasis

GENERIC	BRAND
Calcipotriene	Dovonex

Vitamin A type drugs for Psoriasis

GENERIC	BRAND
acitretin	Soriatane
etretinate	Tegison

Other systemic drugs for Psoriasis

GENERIC	BRAND
Methotrexate	Rheumatrex

Psoralens for Psoriasis

Severe psoriasis which is unresponsive to the above drugs, may be treated with exposure to ultraviolet light and a drug that sensitizes the skin to the effects of ultraviolet light. This combination damages cell DNA and decreases the rate of cell division. This class of drugs is known as psoralens. Example: methoxsalen (Oxsoralen).

This combination therapy of methoxsalen and ultraviolet light is known as PUVA (psoralen/ultraviolet wavelength A).

Topical corticosteroids are also used for the treatment of psoriasis.

TOPICAL CORTICOSTEROIDS

Steroid is a general term encompassing a number of hormones produced by the body. Corticosteroids comprise those produced by the adrenal gland. Corticosteroid drugs are used to decrease tissue inflammation and itching.

GENERIC	BRAND
Alclometasone	Aclovate
Amcinonide	Cyclocort
Clobetasol	Temovate
clocortolone	Cloderm
desonide	Tridesilon
dilforasone	Florone, Maxiflor
flluocinolone	Flurosyn, Lidex
halcinonide	Halog

TOPICAL ANTIFUNGAL DRUGS

GENERIC	BRAND
Miconazole	Micatin, Monistat-Derm
amphotericin B	Fungizone
ciclopirox olamine	Loprox
econazole nitrate	Spectazole, Ecostatin
ketoconazole	Nizoral
Nystatin	Mycostatin, Nilstat
Tolnaftate	Aftate, Tinactin
butenafine hydrochloride	Mentax
oxiconazole nitrate	Oxistat

sulconazole nitrate	Exelderm

COMBINATION DERMATOLOGIC DRUGS

BRAND	GENERIC
Bactine	neomycin, polymyxin B
Mycitracin	neomycin, polymyxin B
Mycolog II	triamcinolone, nystatin
Neo-Cortef	hydrocortisone, neomycin
Lotrisone	betamethasone, clotrimazole
Neodecadron	dexamethasone, neomycin
Neo-Medrol	methylprednisolone, neomycin
Neosporin	neomycin, polymixin B
Polysporin	bacitracin, polymixin B

ANTIHISTAMINES FOR ALLERGIC REACTIONS (TOPICAL)

GENERIC	BRAND
Diphenhydramine	Benadryl
Doxepin	Apo-Doxepin, Sinequan

ANTIHISTAMINES FOR ALLERGIC REACTIONS (ORAL)

GENERIC	BRAND

Cyproheptadine	Cyprohept
Hydroxyzine	Atarax, E-Vista, Vistaril

DRUGS TO TREAT VIRAL INFECTIONS OF SKIN

GENERIC	BRAND
Acyclovir	Zovirax
famciclovir	Famvir
penciclovir	Denavir
Valacyclovir	Valtrex
capsaicin	Zostrix

DRUG CLASSIFICATION

Acne Vulgaris Drugs

These drugs control the inflammatory eruptions composed of cysts, papules, and comedones, predominantly on the face, upper back, and chest. The condition occurs in a majority of people during puberty and adolescence. Examples: Benzoyl peroxide, tretinoin, Ultra, Olux, and topical erythromycin.

Anabolic Agents

Anabolic agents are the ones, which can stimulate growth of muscle mass. They are the compounds with androgenic properties and are used in severe cases of emaciation and most prominently by athletes to increase their muscle size, strength, and endurance. Some of the examples are Histerone 100, Depo-Testosterone, Malogen, etc.

Analgesics

Analgesics or as the name suggests are drugs, which have the property of reducing the

pain or rather producing a neurologic and pharmacologic state in which the painful stimuli are blunted so much so that though they are still perceived, they are no longer painful.

Antacid

Antacids are agents used to neutralize the excess acid in the stomach released in cases of acidity, gastritis and ulcers. They neutralize the effects of HCl, thereby providing relief from indigestion and heartburn. The efficacy of antacids depends on their capacity to protect the mucosa of the stomach from acid and pepsin. Drugs: Calcium carbonate.

Antiallergics

Antiallergics prevent, inhibit, and alleviate allergic reactions. Generally, histamines are responsible for allergies. Antiallergics act as antihistamines and suppress their effects. Antiallergics act against itching and flash responses of the histamines. Antihistamines are subdivided in two broad categories: sedative and non-sedative. Cetirizine is one example of non-sedative antihistamine, while diphenhydramine and hydroxyzine are the examples of sedative antihistamines. Two lesser known categories of antihistamines are mast cell stabilizers and histamine receptor blockers.

Antianginals

Antianginals act against angina pectoris, that is the symptom exhibited in ischemic heart disease. Antianginals improve the balance between the delivery of oxygen to myocardium and its utilization by the myocardium. Antianginals are available in various forms, viz., calcium channel blockers, organic nitrates, beta-adrenergic blockers, potassium channel activators, and antiplatelet drugs. These drugs relieve angina pectoris by expanding blood vessels of the heart. Some are nitroglycerin, nifedipine, diltiazem, and verapamil.

Antiarrhythmics

Antiarrhythmic drugs are used to treat irregular heart rhythms resulting from the disturbance in the heart's electrical firing system. Antiarrhythmic drugs enhance the blood flow in the coronary vessels of the heart. This causes vasodilation and decreases the resistance felt in the peripheral vascular system. Clinically, antiarrhythmics are divided into three broad categories;

a) Which act on supraventricular arrhythmia (like digoxin and verapamil).
b) Which act on both supraventricular and ventricular arrhythmia (quinidine, amiodarone, metoprolol)
c) Which act solely on the ventricular arrhythmia.

Anticoagulants

Anticoagulants delay the clotting or coagulation process of blood. When any vessel is blocked by a clot of blood, an anticoagulant is administered to prevent new clots from forming with the earlier clots and thereby suppressing their enlargement. However, an anticoagulant only prevents from blood clotting but is incapable of dissolving an existing blood clot. Patients with artificial heart valves and atrial fibrillation are at the risk of forming blood clots and they are therefore prescribed anticoagulants to prevent such a

situation. Heparin and warfarin are the most commonly used anticoagulants.

Anticonvulsants

Anticonvulsants alleviate or reduce the severity of seizures and also prevent further seizure attacks.

Antidepressants

Drugs useful in treatment of depression are termed as anti-depressants. There are three kinds of antidepressants, viz., tetracyclic, triazolopyridine, and tricyclic.

Antidiabetics

Antidiabetic agents are drugs that lower the blood sugar level. They are therefore also called hypoglycemic drugs. They are of two types; sulfonylureas and biguanides. Examples of sulfonylureas are chlorpropamide and glipizide while Metformin and phenformin are biguanides.

Antidiarrheals

Antidiarrheals are the agents used to relieve diarrhea. They do so either by absorbing the excess fluids that cause diarrhea or by slowing the movement of fecal material through intestine thereby allowing more time for absorption of water. The first step in treatment of diarrhea is replacement of fluid and electrolytes.

Antiemetics

Antiemetics are agents that suppress nausea and vomiting. These drugs act on brain control centers to stop nerve impulses, control motion sickness and dizziness. Antiemetics can be further divided into various categories like antihistamines, anticholinergics, and dopamine antagonists. Eg: Ondansetron is one of the strongest antiemetic.

Antiflatulents

Antiflatulents reduce gas and bloating. These agents facilitate passing out of gas by breaking down gas bubbles into smaller size by stimulating intestinal motility. Eg: Maalox, Mylanta.

Antiglaucoma drugs

Drugs that lower the intraocular pressure of the eyes by reducing production of aqueous humor are called antiglaucoma drugs. Most drugs of this class are beta-adrenergics. Drugs: timolol maleate, betaxolol, levobunolol, pilocarpine.

Antihistamines

Histamines cause the swelling and inflammation of the nasal passages. Antihistamine counteracts that effect. Antihistamines are the primary agents used to relieve the allergic rhinitis symptoms. Antihistamines dry the respiratory tract and are effective in treating the cough caused by the allergens and the common cold in its early stages.

Antihypertensives

Antihypertensives are the agents used to lower high blood pressure. They include diuretics also known as water pills, beta blockers, alpha blockers, alpha-beta blockers, sympathetic nerve inhibitors, angiotensin converting enzyme inhibitors, and calcium channel blockers. Antihypertensives work one or more the following three ways to lower the blood pressures in the vessels, by decreasing the blood volume, restricting constriction or narrowing of the blood vessels and increase dilation thereby making the blood flow easier, by decreasing the force of the heart thereby decreasing the blood pumped through the arteries. Examples are amlodipine, quinapril, benazepril, captopril, clonidine, enalapril, furosemide, terazosin, lisinopril, nifedipine, and quinapril.

Anti-inflammatory drugs

Are the drugs that reduce inflammation in cases of infection, injuries etc. Anti-inflammatory drugs are available in two types: steroidal and non-steroidal called NSAID. Anti-inflammatory drugs do not act directly against the causative agents. They act on the mechanisms of the body and reduce the inflammation. Non-steroidal anti-inflammatory drugs are generally used in cases of arthritis and gout. Glucocorticoids and aspirin are the examples.

Antipsoriatic

Psoriasis refers to the circumscribed, silvery-scaled confluent, reddish lesions of the skin that primarily occur on knees, scalp, elbow, and trunk. Drugs treating psoriasis are called antipsoriatic drugs.

Antiseborrheics

These drugs are effective for treatment of seborrheic dermatitis manifested by erythematous and scaly lesion. Selenium sulfide, selenium disulfide with clotrimazole, cetrimide, & a combination of cetyl alcohol, sulphur precipitate, salicylic acid. Indications: Dandruff, seborrheic dermatitis.

Antispasmodics

Antispasmodics are the agents used in prevention and reduction of smooth muscle spasms by acting on the autonomic nervous system, thus relieving spasms of bowel. Eg: Belladonna alkaloids.

Antitussives

Antitussive drugs suppress cough. Codeine, dextromethorphan are some examples.

Antiulcers

Anti-ulcers are administered in the cases of peptic ulcers to get relief from pain, promote healing, and prevent recurrence. Drugs: ranitidine, cimetidine, omeprazole, famotidine, nizatidine.

Applied Phonetics (ESL Unit 1)

think bathroom teeth /TINk/ /bQTrum/ /tiT/

How to Make the Sound

Place the tip of your tongue between your upper and lower teeth. Don't put it between your lips. Make the sound by forcing air through the opening between your teeth and tongue. Don't vibrate your vocal cords.

Exercise One: Word Repetition
Listen to the following words and repeat.
Thursday without teeth
think bathroom path
third nothing method
throw breathless booth
Thelma mythology wrath

Exercise Two: Minimal Pairs
Listen to the following word pairs. Repeat them, being careful to make the distinction between the two sounds.
three free thin sin
Thor soar pass path
both boat fought thought
tore Thor moth moss
frilled thrilled three free

Exercise Three: Phrases with /T/
You will hear phrases of words that either contain the sound /T/ or do not. As you listen to each, phrase circle yes if you hear /T/, and circle no if you do not.
1. yes no 4. yes no 7. yes no
2. yes no 5. yes no 8. yes no
3. yes no 6. yes no 9. yes no

Exercise Four: Minimal Pair Distinction

Part One
You will hear the sentences below, but only one of the *italicized* words will be spoken. Circle the one word which you hear.
1. Geoffrey saw the *pass/path* and took it.
2. Thora and Thelma read all about the *trees/threes*.
3. After the rain, his *booths/boots* were covered with mud.
4. All the students saw the *free/three* men and applauded.
5. The new manager really liked his new *theme/team.*

Part Two
Listen for the missing words and write them on the lines below.
6. That man was when I saw him.
7. Paula and John were by the Halloween costumes.
8. The little girl had a big _____.
9. My are no good.
10. The baseball player had a hot .

Minimal Pair Exercises for Student Pairs A

You and your partner have different sheets, either A or B.
Read your words from the list below to your partner, and he or she will mark down which word was different (either the first, second, or third). Then, your partner will read, and you will mark down on your worksheet either the first, second, or third (whichever is different).
Example: You hear "Thor—sore—Thor"; you write 2 in the space provided, as the second (sore) was different from the first and third (Thor).
1. think sink sink 1. _____ (1, 2, or 3)
2. fought fought thought 2. _____
3. boat both boat 3. _____
4. broth broth brought 4. _____
5. sin thin thin 5. _____
6. moth moth moss 6. _____
7. Thor sore sore 7. _____
8. pass pass path 8. _____
9. three free three 9. _____
10. frilled frilled thrilled 10. _____

Unit One

Minimal Pair Exercises for Student Pairs B

You and your partner have different sheets, either A or B.
Read your words from the list below to your partner, and he or she will mark down which word was different (either the first, second, or third). Then, your partner will read, and you will mark down on your worksheet (either the first, second, or third, whichever is different).
Example: You hear "Thor—sore—Thor"; you write 2 in the space provided, as the second (sore) was different from the first and third (Thor).
1. thin sin sin 1. _____ (1, 2, or 3)
2. frilled thrilled thrilled 2. _____
3. boat both both 3. _____
4. path path pass 4. _____
5. thin thin sin 5. _____
6. moss moth moss 6. _____
7. free three three 7. _____
8. sink sink think 8. _____
9. brought broth brought 9. _____
10. sore Thor sore 10. _____

Unit One Pair Dictation A

Read the following text to your partner. Repeat as many times as your partner needs. Then, write down what your partner tells you. Ask your partner to repeat if necessary.

Beth and Faithful
Beth, a nurse, likes to think about how things were in the good old days. Beth remembers taking her dog, Faithful, for a walk along the garden path. She liked to throw things for Faithful to catch. The garden had 33 kinds of plants and thousands of flowers. For Beth, nothing compared to a thoughtful walk through the garden.

AAMT Answers Frequently Asked Questions About Medical Transcription FAQ

Q. What does a medical transcriptionist do?

Medical transcriptionists (MTs) are specialists in medical language and healthcare documentation who interpret and transcribe dictation by physicians and other healthcare professionals regarding patient assessment, workup, therapeutic procedures, clinical course, diagnosis, prognosis, etc., editing dictated material for grammar and clarity as necessary and appropriate.

The process of medical transcription may involve editing machine-translated text. This requires listening to dictation while reading a draft created through speech recognition technology and editing the text on screen. This editing may range from minimal to extensive, depending on the capabilities of the speech recognition software and the dictating habits of the originator, and may include correction of content as well as punctuation, grammar, and style.

Q. What characteristics do I need to become a medical transcriptionist?

You need excellent English language skills as well as a strong interest in the medical language. You need good hearing acuity and listening ability. You need reasonable keyboarding skills and must be able to work for long hours, often in a high-pressure environment. A high level of concentration for extended periods of time is also important.

Q. Where do medical transcriptionists work?

Medical transcriptionists work in transcription services. Many MTs

work in their homes as independent contractors, subcontractors, or home-based employees.

Q. How will speech recognition technology affect the future of medical transcription?

The amount of dictation requiring transcription continues to grow; however, the availability of qualified MTs is not growing at the same rate. Speech recognition technology is sometimes used to compensate for the shortage of MTs. However, it is impossible for this technology, with all of its limitations, to completely eliminate the need for medical transcriptionists. Even at its best, machine-translated text contains errors that need to be corrected by professionals with language skills and an understanding of the health record. MTs continue to be the best qualified to discern the nuances of human speech.