**Guide to Common Medical Terminology**

There are some helpful techniques you can use to increase your understanding of medical terminology. Most medical terms contain at least one root, and they may also contain one or more prefixes or suffixes. This handout will describe how word parts create meaning to provide a strategy for decoding medical terminology and unfamiliar words in the English language

# Word Parts

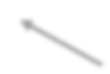
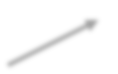
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| --- |
| The **prefix**, or the letter or group of letters before the  root word, is **anti-**, which means “against” or  “opposed to.” |

|  |
| --- |
| The **suffix**, or the letter or group of letters after the root word, is **-al**, which means “pertaining to.” |

|  |
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| The **root word**, or the word part that provides the basic meaning of the  word, is **bacteri**,  which means  “bacteria.” |

If all three word parts are present in medical terminology, they will be in the order of prefix  root word  suffix. Look at the following example to understand the function of each word part:

**anti-bacteri-al**



combinations such as root/suffix, prefix/root, prefix/suffix, etc. Some words will even contain two roots, such as *osteoarthritis* (**osteo** = bone, **arthr** = joint). Now let’s look at some of the most common roots, prefixes, and suffixes used in the different body systems.

**The Body’s Organization** The body is organized by cells, tissues, organs, and systems.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| anter/o | front, anterior | epi- | upon |
| cerv/o | neck | hypo- | below or deficient |
| chondr/o | cartilage | infra- | below |
| cyt/o | cell | leio- | smooth |
| dors/o | back | trans- | across |
| gastr/o | stomach |  |  |
| inguin/o | groin | **Word Part: Suffix** | **Meaning** |
| my/o | muscle | -algia | pain |
| myel/o | spinal cord | -cyte | cell |
| neur/o | nerve, neuron | -edema | watery fluid in tissues |
| poster/o | posterior, back | -ic | pertaining to |
| proxim/o | near | -ium | structure or tissue |
| sarc | flesh | -oid | resemblance to |
| super/o | superior | -oma | tumor |

Note: There are additional roots, prefixes, and suffixes that are not included within the tables throughout this handout; however, the examples will demonstrate how the word parts can be analyzed to determine the meaning of a word.

Example Terms:

epi (upon) + gastr (stomach) + ic (pertaining to) epigastric =

## area just above the stomach

hypo (below) + gastr (stomach) + ic (pertaining to) hypogastric =

pertaining to below the stomach

# The Integumentary System

This system, which protects the body from various kinds of damage, includes the skin, hair, nails, and sebaceous and sudoriferous glands.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| albin/o | white |  | an- | without |
| cirrh/o, jaund/o, xanth/o | yellow | anti- | against |
| cutane/o | skin | de- | removal |
| cyan/o | blue | epi- | upon |
| cyt/o | cell | hyper- | above normal |
| derm/o/at/ato | skin | para- | alongside of or abnormal |
| erythr/o | red | sub- | below or under |
| fero | to carry |  |  |
| ichthy/o | dry, scaly (fishlike) | **Word Part: Suffix** | **Meaning** |
| kerat/o | hornlike | -cyte | cell |
| melan/o | black | -derma | skin |
| myc/o | fungus | -ia | condition |
| onych/o | nail | -ism | condition |
| pil/o | hair | -logist | practitioner |
| scler/o | hardening | -logy | study |
| seb/o | sebum (oil; fat) | -malacia | softening |
| sudor/i/ | sweat | -oma | tumor |
| xer/o | dry | -osis | abnormal condition |

Example Term:

sclero (hardening) + derma (skin)

scleroderma =

chronic hardening and thickening of the skin

# The Skeletal System

The skeleton, which includes all the bones and joints, is the basic structure of our body.

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| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| ankyl/o | stiff, fused, closed | amphi- | both sides |
| arthr/o | joint | syn- | joined together |
| brachi/o | arm | zygo- | joined (yoked) together |
| cervic/o | neck |  |  |
| cheir/o | hand | **Word Part: Suffix** | **Meaning** |
| chondr/o | cartilage | -algia | pain |
| cost/o | rib | -gram | written record of |
| dactyl/o | finger, toe | -itis | inflammation |
| lumb/o | lower back | -kinesia | movement |
| myel/o | bone marrow | -malacia | softening |
| orth/o | correct, straight | -osis | condition |
| os/te/o | bone | -plasty | surgical repair |
| ped/o | foot, child | -porosis | porous |
| scoli/o | twisted | -scopy | to visually examine |
| thorac/o | thorax, chest | -sis | condition |

Example Terms:

osteo (bone) + arthr (joint) + itis (inflammation)

osteoarthritis =

degeneration of joint cartilage and the underlying bone

scolio (twisted) + sis (condition) scoliosis =

lateral curvature of he spine

# The Muscular System

This system, which is responsible for movement, posture, and control of certain circulatory functions, is made up of skeletal, smooth, and cardiac muscles.

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| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| cardi/o | heart | a- | deficient |
| fasci/o | fibrous membrane | epi- | around |
| fibr/o | fiber | hemi- | half |
| kinesi/o | movement | para- | beside, beyond, near |
| muscul/o | muscle | quadri- | four |
| my/o | muscle |  |  |
| orth/o | straight |  | **Word Part: Suffix** | **Meaning** |
| oste/o | bone |  | -algia | pain |
| pedics | child |  | -dynia | pain |
| scler/o | hard |  | -oma | tumor |
| sthen/o | strength |  | -osis | abnormal condition |
| tend/o, tendin/o | tendon |  | -paresis | partial paralysis |
| ton/o | tone |  | -plegia | paralysis |

Example Terms:

fibro (fiber) + my (muscle) + algia (pain)

fibromyalgia =

a disorder that causes widespread pain and tenderness to touch

hemi (half) + plegia (paralysis) hemiplegia =

paralysis of one side of the body

# The Nervous System

This system, which is made up of the central and peripheral nervous system, coordinates the body’s involuntary and voluntary actions.

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| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| cephal/o | head | an- | without |
| cerebell/o | the cerebellum | di- | two |
| cerebr/o | the cerebrum; the brain | hemi- | half |
| cortic/o | outer layer or covering | myel/o- | bone marrow; spinal cord |
| encephal/o | brain |  |  |
| esthesi/o | sensation | **Word Part: Suffix** | **Meaning** |
| gli/o | glue | -ia | condition of |
| hydr/o | water | -itis | inflammation |
| iatr/o | physician; to treat | -mnesia | memory |
| meningi/o | a membrane | -oid | like |
| ment/o | referring to the mind | -paresis | weakness, loss of movement |
| schiz/o | to split | -phasia | speech |
| psych/o | referring to the mind | -plegia | paralysis |

Example Terms:

an (without) + esthesi (sensation) + ia (condition of) anesthesia =

## a condition of absence of sensation

encephal (brain) + itis (inflammation) encephalitis =

inflammation of the brain

# The Endocrine System

This system, which consists of glands that produce hormones, works with the nervous system to maintain the body’s homeostasis.

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| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| acr/o | extremities | anti- | against or opposed to |
| aden/o | gland | epi- | upon |
| adren/o, adrenal/o | adrenal glands | hypo- | below or deficient |
| calc/i | calcium | para- | alongside of or abnormal |
| crin/o | to separate or secrete |  |  |
| endocrin/o | endocrine | **Word Part: Suffix** | **Meaning** |
| gluc/o, glyc/o/s | sugar, glucose, glycogen | -itis | inflammation |
| hypophys/o | pituitary gland | -megaly | enlargement |
| pancreat/o | pancreas | -oma | tumor |
| parathyr/o, parathyroid/o | parathyroid gland | -tropin | nourishment; stimulation |
| thyr/o, thyroid/o | thyroid gland | -uria | urine |

Example Terms:

glycos (sugar) + uria (urine) glycosuria =

## sugar in the urine

thyroid (thyroid gland) + itis (inflammation) thyroiditis =

inflammation of the thyroid gland

# The Cardiovascular System

This system, which carries oxygen and nutrients through the blood, includes the heart, blood, and blood vessels.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| angi/o | vessel | bi- | two |
| arteri/o | artery | brady- | slow |
| ather/o | fatty | endo- | inner, inside |
| atri/o | atrium | epi- | upon |
| cardi/o | heart | hypo- | below or deficient |
| coron/o | crown; encircling | peri- | around, surrounding |
| hem/o, hemat/o | blood | tachy- | fast |
| isch | restricted, narrowed | tri- | three |
| my/o | muscle |  |  |
| ox/o | oxygen | **Word Part: Suffix** | **Meaning** |
| phleb/o | vein | -ectasis | dilation |
| thromb/o | clot | -emia | blood condition |
| varic/o | dilated | -ia | condition |
| vas/o | vessel | -pathy | disease |
| ven/o | vein | -stenosis | a narrowing |

Example Terms:

brady (slow) + cardi (heart) + ia (condition) bradycardia =

## abnormally slow heartbeat

hypo (below or deficient) + ox (oxygen) + emia (blood condition) hypoxemia =

low level of oxygen in blood

# The Lymphatic System and Immunity

The lymphatic system is responsible for protecting the body from infection, maintaining a balance of fluids, and absorbing fats. It also consists of organs, tissues, and vessels.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| aden/o | gland | anti- | against or opposed to |
| hem/o | blood | auto- | self |
| immun/o | immune system | mono- | single |
| leuk/o | white | macro- | large |
| lymphaden/o | lymph nodes | micro- | small |
| lymphangi/o | lymph vessels |  |  |
| lymph/o, lymphat/o | lymph or lymphatic system | **Word Part: Suffix** | **Meaning** |
| path/o | disease | -edema | swelling |
| phag/o | ingest or engulf | -itis | inflammation |
| splen/o | spleen | -megaly | enlargement |
| thym/o | thymus | -osis | condition of |
| tonsill/o | lymph node, usually palatine tonsil | -pathy | disease |

Example Terms:

lymph (lymph or lymphatic system) + edema (swelling) lymphedema =

## lymph tissue swelling

tonsill (tonsils) + itis (inflammation) tonsillitis =

inflammation of a tonsil

# The Respiratory System

This system, which supplies oxygen to the cells and removes carbon dioxide, consists of the nose, pharynx, larynx, bronchi, bronchioles, alveoli, and lungs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| bronch/o, bronchi/o | bronchus | a- | without |
| laryng/o | larynx | brady- | slow |
| nas/o, rhin/o | nose | bronch/o-, bronch/i- | bronchus |
| or/o | mouth, opening | dys- | difficult |
| ox/o | oxygen | hypo- | below or deficient |
| phren/o | diaphragm | super-, supra- | above or excessive |
| pleur/o | pleura |  |  |
| pneum/o, pneumon/o | air, lung | **Word Part: Suffix** | **Meaning** |
| pulmon/o | lung | -ia | condition of |
| sinus/o | sinus cavity | -oxia | oxygen |
| thorac/o, thorac/i, thoracic/o | thorax, chest | -phonia | voice |
| trache/o | trachea | -pnea | breathing |

Example Terms:

a (without) + pnea (breathing) apnea =

## absence of breathing

hypo (below or deficient) + ox (oxygen) + ia (condition of) hypoxia =

low level of oxygen in tissue

# The Digestive System

This system, which allows the body to absorb nutrients from food and fluids, consists of the tract from the oral cavity to the anus.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| bucc/o | cheek | anti- | against |
| cheil/o | lip | dys- | difficulty |
| cholecyst/o | gallbladder | hyper- | excessive |
| dent/i, dent/o | teeth |  |  |
| enter/o | intestine | **Word Part: Suffix** | **Meaning** |
| gastr/o | stomach | -cele | hernia |
| gingiv/o | gums | -emesis | vomit |
| gloss/o | tongue | -ia | condition of |
| hepat/o | liver | -lith | stone |
| phag/o | eating, swallowing | -pepsia | digestion |
| proct/o | anus and rectum | -phagia | eat or swallow |
| sial/o | salivary glands | -scope | device for visual examination |
| stomat/o | mouth | -scopy | visual examination |

Example Terms:

dys (difficulty) + phag (eating, swallowing) + ia (condition of) dysphagia =

## excessive vomiting

hyper (excessive) + emesis (vomit) hyperemesis =

excessive vomiting

# The Urinary System

This system, which removes wastes and toxins from the body, consists of the kidneys, ureters, urinary bladder, and urethra.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| cyst/o | bladder | an- | without |
| glomerul/o | glomerulus | dys- | difficult |
| lith/o | stone | peri- | around |
| nephr/o, ren/o | kidney | poly- | much, many |
| noct/o | night | retro- | backward, behind |
| olig/o | little, few |  |  |
| py/o | pus | **Word Part: Suffix** | **Meaning** |
| pyel/o | pelvis | -algia | pain |
| ur/o, urin/o | urine | -ectomy | removal |
| ureter/o | ureter | -ia | condition |
| urethr/o | urethra | -lith | stone |
|  |  | -megaly | enlargement |

Example Terms:

dys (difficult) + ur (urine) + ia (condition) dysuria =

## difficult or painful urination

nephr (kidney) + ectomy (removal) nephrectomy =

surgical removal of a kidney

# The Reproductive System

This system, which allows us to perpetuate life, includes the reproductive organs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word Part: Root** | **Meaning** |  | **Word Part: Prefix** | **Meaning** |
| balan/o | glans penis |  | a- | without |
| cervic/o | cervix |  | dys- | painful, difficult |
| circum/o | around |  | hydro- | water |
| colp/o, vagin/o | vagina |  | neo- | new |
| gonad/o | gonads, sex glands |  | pre-, pro- | before |
| gynec/o | woman, female |  | re- | again |
| lact/o | milk |  | |  |
| mast/o, mamm/o | breast |  | **Word Part: Suffix** | **Meaning** |
| men/o | menstruation |  | -cele | hernia |
| nat/o | birth |  | -ectomy | excision |
| oophor/o, oo | ovary, egg |  | -genesis | production |
| ovari/o | ovary |  | -osis | process |
| prostat/o | prostate gland |  | -pathy | disease |
| salping/o | tube, fallopian tube |  | -plasty | surgical repair |
| uter/o, hyster/o, metr/o | uterus |  | -rrhea | flowing, discharge |
| vas/o | vessel, vas deferens |  | -sterone | steroid hormone |

Example Terms:

dys (painful) + meno (menstruation) + rrhea (discharge) dysmenorrhea =

## painful menstruation

hyster (uterus) + ectomy (excision) hysterectomy =

removal of the uterus

# Sense of Sight and Hearing

Certain root words are associated with the organs that process sight and sound.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sense of Sight** | |  | **Word Part: Prefix** | **Meaning** |
| **Word Part: Root** | **Meaning** |  | a- | without |
| blephar/o | eyelid | auri- | ear |
| dacry/o | tears, lacrima | extra- | outside |
| dipl/o | two, double | hyper- | above normal |
| ocul/o | eye | presby- | old |
| opt/o | light, eye, vision | sensor- | sensory |
| retin/o | retina |  |  |
|  | | **Word Part: Suffix** | **Meaning** |
| **Sense of Hearing** | | -cele | hernia |
| **Word Part: Root** | **Meaning** | -ectomy | excision or removal |
| acous/o, acus/o, acoust/o | hearing | -itis | inflammation |
| audi/o | sound | -lith | stone |
| aur/o | ear | -opia | eye, vision |
| auricul/o | ear | -plegia | paralysis |
| ot/o | ear | -ptosis | falling or downward displacement |
| tympan/o | eardrum | -rrhea | discharge |

Example Terms:

dipl (double) + opia (vision) diplopia =

## double vision

retin (retina) + itis (inflammation) retinitis =

inflammation of the retina

# Additional Resources

To provide you with additional practice to learn medical terminology, the Academic Center for Excellence suggests using the following resources:

* **Nursing Root Words Flashcards** <https://www.studystack.com/flashcard-689838>

This site can help you learn nursing terminology root words using a variety of methods including flashcards, matching games, hangman, crossword puzzles, and quizzes.

* **Pronunciation Guide for Medical Terminology** <https://www.merckmanuals.com/home/pronunciations>

Students can click on selected medical terminology to hear the correct pronunciation.

* **The PenguinProf Medical Terminology Video** <https://www.youtube.com/watch?v=3fiEszFPRE8>

This video simplifies breaking down medical terminology by prefixes, roots, and suffixes and provides visual aids, along with the explanations.

* **OchsNurse Medical Terminology Video** <https://www.youtube.com/watch?v=Ul2lRQGuhwc>

In this video, you will learn how to break down common medical terminology with simple, straightforward explanations.

* ***The Language of Medicine* by Davi-Ellen Chabnerand Evolve Study Resources** <https://evolve.elsevier.com/cs/product/9780323370813?role=student>

This book includes colorful illustrations, practical exercises, pronunciation guides, and content reviews. The chapters are organized by body systems, and words are broken down into simple explanations by prefixes, roots, and suffixes. The Evolve Study Resource that accompanies the book can be used online to do interactive activities, games, quizzes, and flash cards.

* ***Medical Terminology: A Short Course* by Davi-Ellen Chabner and Evolve Study Resource**

<https://evolve.elsevier.com/cs/product/9780323444927?role=student>

In this book, you will be guided through the process of learning the most common prefixes, roots, and suffixes by labeling diagrams, practicing pronunciation, and completing reviews. Case studies demonstrate how the medical terms are used in practice. There is also an English to Spanish glossary to help Spanish-speaking students translate common medical terms. This book provides access to the Evolve website, which includes word games, learning exercises, audio pronunciations, animations, an anatomy coloring book, and electronic flash cards.

Charts adapted from Collins, C. E. (2014) *A short course in medical terminology* (3rd ed.). Wolters Kluwer Health/Lippincott Williams & Wilkins.