

Medical Terminology

Lecture 4: -Suffixes

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1. Suffixes Pertaining to Diagnosis, Disease and Symptoms

1) -megaly: suffix means enlargement

2) -oma: suffix means tumor or mass.

e.g., cardiomegaly:
enlargement of the
heart.

e.g., splenomegaly:
enlargement of the
spleen.

e.g., hepatomegaly:
enlargement of the
liver.

e.g., adenoma: tumor of
a gland.

e.g., osteosarcoma:
malignant tumor of the
bone.

e.g., hepatoma: liver
tumor

3) -ia: a condition (suffix used in the names of many diseases).

e.g. asphyxia: a condition of absence of oxygen -carbon
dioxide exchange in the lung.

Answer by yourself:

What are the meanings of the following:

a) Hyperpyrexia? a condition of high temperature

b) Hyperalgesia? a condition of high sensitivity to pain

- 4) **-cidal/ -cide**: killing, destroying.
5) **-stat**: stopping (inhibiting growth).

Bactericidal : a drug that kills bacteria.

Insecticidal: a chemical that kills insects.

Algacide: a drug that kills algae

Fungicide: a drug that kill fungi

Herbicide: chemicals that kill herbs

Spermicide: drugs that kill sperms

Suicide: Kill himself # **Homicide**

Rodenticide: killing rodents (rats, mice)

e.g., **Bacteriostatic**: agents that inhibit bacterial growth.

e.g., **Fungistatic**: agents that stop fungal development

e.g., **Hemostatic**: an agent that stops bleeding.

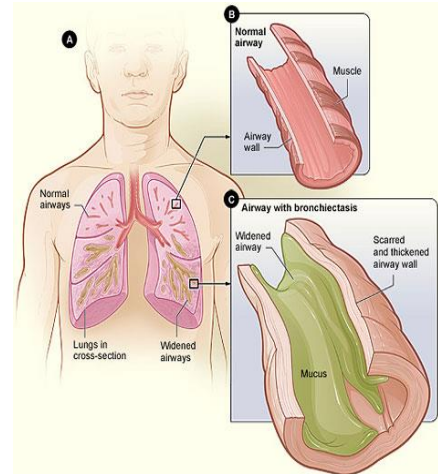
- 6) **-cele**: means swelling or protrusion or hernia.

e.g. **Gastrocele**: means hernia or protrusion in the stomach.

e.g., **Hydrocele**: painless watery fluid accumulation that causes the organ to swell (e.g. around one or both testicles).

7) **-ectasis or -ectasia**: means abnormal dilation or expansion

- e.g. **Angioectasia** : means abnormal expansion of blood vessels.
- e.g., **Bronchiectasis**: a condition in which damage to the airways causes them to widen and become scarred.



8) **-pathy or -patho**: means disease

- e.g. **neuropathy**: means nerve disease.
 - e.g., **Cardiomyopathy**: disease of the heart muscles.
 - e.g., **Nephropathy**: disease of the kidney.
 - e.g., **Pathology**: Science of diseases
- malacia**: means softening,
- e.g. **osteomalacia**: means bone softening,
- e.g., **chondromalacia**: means softening of cartilage (joints).
- sclerosis**: means hardening
- e.g., **Arteriosclerosis**: means hardening of arteries.
 - e.g., **Atherosclerosis**: hardening of blood vessels due to atheroma in the blood.
- megaly**: means enlargement
- e.g. **Hepatosplenomegaly**: means enlargement of liver and spleen.

-ptosis: means prolapse or downward displacement (**pronounced-tosis**).

e.g. **blepharoptosis** means downward dropping of upper eyelid.

e.g., **Apoptosis:** means programmed cell death (falling of the cells as the leaf leaves fall from tree)

9) -rrhexis: means rupture

- e.g. **cardiorrhexis** means rupture of the heart.
- e.g., **Angiorrhexis:** means rupture of blood vessels.

10) -algia or algesia: mean pain

- e.g., **Dentalgia:** means pain in teeth.
- e.g., **Hyperalgesia:** means excessive pain sensation
- e.g., **Analgesia:** no pain or pain removal.
- e.g., **Analgesic:** Pain killer; drug that alleviates pain.

11) -gen or -genic: means producing or generating or forming.

e.g. **pyogenic**: means producing pus,

e.g., **carcinogen**: means causing cancer.

e.g., **Teratogen**: means causing congenital anomalies.

12) -rrhage, -rrhagia or -rrhea: means excessive flow or discharge,

e.g. **Hemorrhage**: means excessive bleeding,

e.g., **Menorrhagia**: excessive menstrual bleeding.

e.g., **Diarrhea**: means excessive flow from the bowel.

13) -penia: means deficiency,

- e.g. **Erythropenia**: means decrease of red cell count
- e.g., **Neutropenia**: means decreased neutrophil count.
- e.g., **Thrombocytopenia**: means decreased count of platelets.
- **Leucopenia**: ???? **Lymphopenia**: ????????
- **Pancytopenia**: ?????

14) -spasm: means muscular contraction

e.g., **myospasm**: means muscle contraction.

e.g., **Bronchospasm**: means bronchial muscle contraction.

15) -ic, -ac, -al, -ar, -ary, -ical, -ous, -tic: mean pertaining to

- e.g., **Thoracic**: means pertaining to thorax,
- e.g., **Cardiac**: means pertaining to heart
- e.g., **Spinal**: means pertaining to spine,
- e.g., **Glomerular**: means pertaining to glomerulus
- e.g., **Salivary**: means pertaining to saliva
- e.g., **Surgical**: means pertaining to surgery,
- e.g., **Cutaneous**: means pertaining to skin,
- e.g., **paralytic**: means pertaining to paralysis.

16) -phasia: means speech

- e.g. **aphasia**: means without speech.
- e.g., **aphasic**: unable to speak (verbal or written) because of a brain lesion.
- e.g., **Dysphasia**: difficult in speech that is usually due to brain lesion.

2. Suffixes Pertaining to Surgical Procedures

1) -ectomy: means surgical removal

- e.g. gastrectomy: means surgical removal of stomach
- e.g., cholecystectomy: means surgical removal of gallbladder.

2) -otomy: making an incision or cutting.

- e.g. Craniotomy: means opening or cutting into skull,
- e.g., Laparotomy: means opening into the abdominal wall.

3) -ostomy: creation of an opening into organ,

- e.g. colostomy: means connecting a colon to surgically created opening in the abdomen to remove waste from the body.
- e.g., Nephrostomy: surgical opening in the kidney for tube insertion to remove urine
- e.g., Tracheostomy: surgical opening in the trachea for insertion of tube allowing air to pass to the lung.

4) -scope: an instrument for viewing,

- e.g. **Laryngoscope**: means an instrument for viewing larynx.
- e.g., **Laparoscope**: An instrument through which structures within the abdomen and pelvis can be seen.
- e.g., **Microscope**: an optical instrument having a magnifying lens for inspecting objects too small to be seen or too small
- e.g., **Proctoscope**: An instrument used to examine the anal cavity, rectum, or sigmoid colon (**syn: rectoscope**).

5) -scopy: means examination,

e.g. **Bronchoscopy** means examination of bronchi.

6) -desis: means binding or fixation,

e.g. **Arthrodesis**: means fixation of a joint.

6) -pexy: means fixation or suspension,

e.g. **Orchiopexy**: means fixation of undescending testis.

7) -plasty: means surgical repair,

- e.g. **Rhinoplasty**: means surgical repair of nose
- e.g., **Tympanoplasty**: means surgical repair of eardrum.

8) -centesis: means puncture or perforation

- e.g. **Arthrocentesis**: means puncture of joint to remove fluid.
- e.g., **Abdominocentesis** : Extraction of peritoneal fluid from the abdomen for evaluation

9) -rrhaphy: means suture repair,
e.g. hysteror**rrhaphy**: means suture repair of the uterus.
e.g., Aortor**rrhaphy**: surgical suture of the aorta.

10) -tripsy: means crushing or fragmentation
e.g. litho**tripsy**: means crushing of a stone.
e.g., Cholecystolitho**tripsy**: Fragmentation of a gallstone.

11) -gram: a record for data,
e.g. electroencephalo**gram**: means electric recording of brain signals (**EEG**).
e.g., electrocardio**gram**: means electric recording of cardiac signals (**ECG**)

12) -graph: an instrument for recording,
e.g. Electrocardio**graph**: an instrument used for recording electrocardiogram.
e.g., Electroencephalo**graph**: an instrument used for recording electroencephalogram

13) -meter: means an instrument for measuring,

- e.g. Thermo**meter**: means an instrument for recording body temperature.
- e.g., Colori**meter**: an instrument for measuring the depth of the color of anything.
- e.g., Audio**meter**: An instrument used for measuring the power of hearing.
- e.g., Spectrophoto**meter**: An instrument for measuring the intensities of the colors of the spectrum.

14) - ology: Science -ist: A specialist in a given field

- e.g., **Cardiology**: science of heart disease
- e.g. **cardiologist** a specialist in the field of cardiology,
- e.g., **Gynecologist**: means a specialist in the field of gynecologic diseases.
- e.g., **Toxicologist**: means a specialist in the field of toxicology.
- e.g., **Ophthalmologist**: a specialist in the field of ophthalmology.
- e.g., **Dentist**: a specialist in the field of dentistry; treatment of the teeth and gums.
- e.g., **Pharmacist**: a specialist in the field of pharmacy (syn.: **Druggist or chemist**)
- e.g., **Pharmacology**: Science of drugs
- e.g., **Pharmacologist**: means a specialist in the field of pharmacology.

3. Suffixes Pertaining to Small Versions (التصغير)

1) -ole: means a small version,
e.g. **Arteriole:** means a small artery (capillary).
e.g., **Bronchiole:** A minute bronchial tube.

2) -ule: another suffix for small versions,
e.g. **Venule:** means a small capillary vein.
e.g., **Glandule:** means A small gland
e.g., **Pustule:** small inflamed skin filled with pus.

4. Suffixes Pertaining to Abnormal Plurals

Note: mostly add s to the word noun;
e.g., glove-----glove**s**

Pleural of suffixes

- 1) **-ae**: the plural for term ending with **-a**
e.g. **Vertebrae** is the plural of **Vertebra**
e.g., **Pleurae** is the plural of **pleura**
 - 2) **-aces**: the plural of nouns ending with **-ax**
e.g. **Thoraces** is the plural for **thorax**.
 - 3) **-ina**: the plural for nouns ending with **-en**
e.g. **Lumina** is the plural for **lumen**.
 - 4) **-ices**: the plural for nouns ending with **-ex** or **ix**
e.g., **Indices** is the plural for **index**.
e.g., **Appendices** is the plural of **appendix**
e.g., **Apices** is the plural of **apex**
 - 5) **-es**: the plural for nouns ending with **-is**,
e.g. **Testes** is the plural for **testis**.
e.g., **Diagnoses** is the plural of **diagnosis**
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- 6) **-a**: is the plural for nouns ending with **on** or **um**
e.g. **Ganglia** the plural for **ganglion**
e.g., **Ova** is the plural for **ovum**.
e.g., **Bacteria** is the pleural for **bacterium**
 - 7) **-i**: the plural for nouns ending with **us**
e.g. **fungi** is the plural for **fungus** .
Note: viruses or virus particles is the plural of virus.
e.g., **Bronchi** is the pleural of **bronchus**
 - 8) **-ies**: the plural of **-y**.
e.g. **Deformities** is the plural of **deformity**.
 - 9) **-mata**: the plural for nouns ending with **-ma**,
e.g. **carcinomata** is the plural for **carcinoma** .

Collective Suffixes Pertaining Surgical Procedures

SUFFIXES: SURGICAL PROCEDURES		
Suffix	Meaning	Word Association
-centesis	surgical puncture to aspirate or remove fluid	<i>Paracentesis</i> is a puncture of the peritoneal cavity to remove fluid for diagnostic or therapeutic purposes.
-ectomy	excision (surgical removal or cutting out)	Excision of the appendix is referred to as an <i>appendectomy</i> .
-lysis	process of loosening, freeing, or destroying	This suffix can also mean dissolving or destruction, as in <i>hydrolysis</i> .
-pexy	surgical fixation (securing in a fixed position)	<i>Nephropexy</i> is a surgical fixation of a kidney that descends when the patient stands up.
-plasty	surgical repair	<i>Rhinoplasty</i> is a plastic surgery of the nose and is done for several reasons.
-rrhaphy	suture (fusing a wound by stitches)	<i>Herniorrhaphy</i> is surgical repair of the hernia with suture of the abdominal wall.
-scopy	visual examination with the use of a lighted instrument	<i>Colonoscopy</i> is a means of visualizing the colon with the use of a fiber-optic instrument.
-stomy	creation of an opening	<i>Colostomy</i> is a surgical procedure that creates an opening for the colon or large intestine through the abdomen.
-tome	an instrument used for cutting	A <i>microtome</i> is used to cut thin sections of tissue.
-tomy	incision (cutting into tissue)	<i>Sternotomy</i> is an incision of the sternum usually performed during heart surgery.
-tripsy	surgical crushing, breaking, or pulverizing	<i>Lithotripsy</i> is the surgical crushing of a renal calculus or stone.

Collective Suffixes of symptoms and diagnosis

SUFFIXES: SYMPTOMS OR DIAGNOSIS		
Suffix	Meaning	Word Association
-algia, -dynia	pain	<i>Arthralgia</i> is joint pain. <i>Vulvodynia</i> is a chronic pain condition affecting a woman's external genitalia.
-cele	hernia (results when organ pushes through the organ or muscle that contains it)	<i>Omphalocele</i> is an abdominal wall defect in which the abdominal organs protrude through an opening at the base of the umbilical cord.
-ectasia, -ectasis	dilatation	<i>Telangiectasia</i> is the dilation of the superficial blood vessels. <i>Lymphangiectasis</i> is the dilation of the lymphatic vessels.
-edema	swelling	<i>Edema</i> denotes the presence of excess fluid in the tissues, causing swelling. <i>Angioedema</i> involves the precipitous swelling of the tissues under the skin, usually due to an allergic reaction.
-emesis	vomiting	<i>Emesis</i> denotes vomiting. <i>Hyperemesis</i> means excessive vomiting.
-emia	condition of the blood	<i>Anemia</i> refers to a decrease in red blood cells or hemoglobin in the blood.
-ia, -iasis	condition	<i>Hysteria</i> is a mental disorder attributed to women in the nineteenth century. <i>Filariasis</i> is a parasitic disease caused by microscopic worms.
-itis	inflammation	Inflammation of the voice box or larynx is known as <i>laryngitis</i> .
-ith	stone or calculus	<i>Fecalith</i> is a hard mass consisting of feces.
-malacia	soft, softening	<i>Chondromalacia patella</i> is the softening of the cartilage underneath the knee.
-mania	excessive preoccupation	<i>Pyromania</i> is a compulsion to set things on fire.
-megaly	enlargement	<i>Cardiomegaly</i> is the enlargement of the heart.

Exercise

1- Hematology is the science of:

- a. Blood.
- b. Drugs
- c. Toxins
- d. Diseases

2- The suffix –pathy means:

- a. Excessive discharge
- b. Artificial opening
- c. Disease.
- d. Hardening

3- Atherosclerosis means:

- a- Swelling of the artery
- b- Hardening of the artery.
- c- Inflammation of the veins
- d- Tumour of the veins

Cont. MCQ exercise

4- Surgical repair of the eye is

- a) ophthalmalgia.
- b) ophthalmological.
- c. *ophthalmoplasty.*
- d. ophthalmorrhagia.

5- Science of eye disease is:

- a) Ophthalmoscope
- b) *Ophthalmology*
- c) Ophthalmic
- d) Otolaryngeology

6- The medical specialty that studies the nature and cause of disease is:

- a. cardiology.
- b. dermatology.
- c. *pathology.*
- d. urology.

7- A term that means pertaining to the eye is

- a. adenic.
- b. ophthalmic.
- c. otic.
- d. vascular.

Cont. MCQs Exercise

8. Excision of a gland is called

- a. *adenectomy*.
- b. appendectomy.
- c. neurectomy.
- d. tonsillectomy.

9. Dermatoplasty is

- a. any disease of the skin.
- b. pertaining to the skin.
- c. *skin grafting*.
- d. the science that studies the skin.

10. A 78-year-old man who had a blood vessel removed during surgery is likely to

have which term documented in his chart?

- a. Angiectomy
- b. Angiogram
- c. Angiotomy
- d. Angioscopy

12. During a physical examination, a physician can visualize the eardrum using a tool called an:

- a. ophthalmoplasty.
- b. ophthalmoscope.
- c. otoplasty.
- d. *otoscope*.

Cont. MCQs Exercise

13. The term that means the introduction of a catheter is

- a. catheter.
- b. *catheterization*.
- c. catheterize.
- d. fluoroscopy.

14. A term that means pertaining to a procedure that uses an illuminated instrument for the visualization of the interior of a body cavity or organ is:

- a. *endoscopic*.
- b. endoscope.
- c. fluoroscopic.
- d. fluoroscope.