

Unit L: Sensory System Terminology List

Eye

1. accommodation
2. anterior chamber
3. aqueous humor
4. choroid coat
5. cones
6. conjunctiva
7. constrict
8. cornea
9. dilate
10. extrinsic muscles
11. intrinsic muscles
12. iris
13. lacrimal glands
14. lens
15. optic disc
16. optic nerve
17. orbital cavity
18. posterior chamber
19. pupil
20. retina
21. rods
22. sclera
23. vitreous humor

Disorders and Related Terminology

1. astigmatism
2. cataracts
3. color blindness
4. conductive hearing loss
5. conjunctivitis
6. deafness
7. epistaxis
8. glaucoma
9. hordeolum
10. hyperopia

Ear

1. auricle
2. cerumen
3. cochlea
4. Eustachian tube
5. external auditory canal
6. incus
7. malleus
8. organ of Corti
9. pathway of hearing
10. pinna
11. semicircular canals
12. stapes
13. tympanic membrane

Nose/Tongue

1. olfactory nerve
2. papillae
3. taste buds

11. myopia
12. ophthalmoscope
13. otitis media
14. presbyopia
15. rhinitis
16. sensorineural hearing loss
17. Snellen eye chart
18. sty
19. vertigo

Appendix 1H12.01A

Unit L Master Outline

L. Sensory System

1H12.01 Explain the structure of the eye.

- a. Sclera
- b. Choroid
- c. Retina

1H12.02 Analyze the function of the eye.

- a. Protection of the eye
 - 1. Eye
 - 2. Conjunctiva
 - 3. Lacrimal glands
 - 4. Aqueous and vitreous humor
- b. Accommodation
- c. Color and light
- d. Pathway of vision

1H12.03 Explain the structure and function of the ear, nose, and tongue.

- a. Divisions of the ear
 - 1. Outer
 - 2. Middle
 - 3. Inner
- b. Functions of the ear
 - 1. Hearing
 - 2. Equilibrium
- c. Olfactory nerve and receptors
- d. Taste buds

1H12.04 Discuss characteristics and treatment of common sensory disorders.

- a. Disorders of the eye
- b. Disorders of the ear
- c. Disorders of the nose

- D. Choroid coat
 - 1. Middle layer, contains blood vessels
 - 2. Intrinsic muscles – change size of iris to control amount of light entering through pupil
 - 3. Pupil constricts – gets smaller – in bright light
 - 4. Pupil dilates – gets larger – in dark light
- E. Lens
 - 1. Where light rays are refracted
 - 2. Accommodation – change in the shape of the lens to allow for near and distant vision
- F. Retina
 - 1. Light rays focus image on retina
 - 2. Image travels to the cerebral cortex via optic nerve
 - 3. Rods – sensitive to dim light
 - 4. Cones – sensitive to bright light and color
 - 5. Optic disc – on retina, known as blind spot, nerve fibers that form optic nerve
- G. Pathway of vision - Image travels through cornea, then pupil, through lens, hits retina, picked up by rods and cones and carried to optic nerve where the brain interprets image

1H12.03

Explain the structure and function of the ear, nose, and tongue.

- A. Outer ear
 - 1. Pinna (auricle)
 - a. Visible ear
 - b. Collects sound waves
 - 2. External auditory canal – ear canal
 - 3. Cerumen – ear wax, protects the ear
 - 4. Tympanic membrane – ear drum, separates outer and middle ear
- B. Middle ear
 - 1. Cavity in temporal bone
 - 2. Connects with pharynx by Eustachian tube - which equalizes pressure in the middle ear with outside atmosphere
 - 3. Bones - transmit sound waves from ear drum to inner ear
 - a. Malleus (hammer)
 - b. Incus (anvil)
 - c. Stapes (stirrup)
- C. Inner ear
 - 1. Cochlea - spiral shaped organ of hearing, contains a membranous tube, the cochlear duct – which is filled with fluid that vibrates when sound waves are transmitted by the stapes
 - 2. Organ of Corti – delicate hairlike cells that pick up vibrations of fluid and transmit them as a sensory impulse along the auditory nerve to the brain
 - 3. Semicircular canals – three structures in inner ear that contain liquid set in motion by head and body movements
 - 4. Impulses sent to cerebellum to help maintain body balance (equilibrium)
- D. Pathway of hearing – ear to external auditory canal to tympanic membrane to ossicles (malleus, incus and stapes) to cochlea to auditory nerve to brain
- E. Nose
 - 1. Smell accounts for 90% of taste
 - 2. Tissue in the nose, olfactory epithelium, contains specialized nerve cell receptors
 - 3. Those receptors stimulate the olfactory nerve to the brain

5. Diplopia – double vision
 6. Strabismus (cross-eyed)
 - a. Eye muscles to not coordinate their actions
 - b. Usually in children
 - c. Rx – eye exercises or surgery
 7. Ophthalmoscope – instrument for viewing inside the eye
 8. Snellen eye chart – chart that uses letters or symbols in calibrated heights to check for vision defects
- C. Disorders of the ear
1. Hearing loss
 - a. Hearing is fragile, loud noise over period of time can cause hearing loss
 - b. Symps – tinnitus (ringing in ears) and difficulty understanding what people are saying
 2. Otitis Media
 - a. Infection of middle ear
 - b. Often complication of common cold in children
 - c. Rx – antibiotics
 - d. Myringotomy – tubes inserted through tympanic membrane to relieve pressure
 3. Otosclerosis
 - a. Chronic , progressive middle ear disorder
 - b. Stapes becomes spongy and then hardens, becoming fixed and immobile
 - c. Rx – stapedectomy and total replacement of stapes
 4. Tinnitus – ringing of ears from impacted wax, otitis media, loud noise, etc.
 5. Types of hearing loss
 - a. Conductive – sounds prevented from reaching inner ear
 - b. Sensorineural – problem with inner ear and auditory nerve
- D. Disorders of the nose
1. Rhinitis
 - a. Inflammation of lining of nose with congestion, drainage
 - b. Cause – allergies, drugs, infection, odors, etc.
 - c. Rx – eliminate cause, antihistamine