LEARNING OBJECTIVES

After completing this chapter, you will be able to:

• Define and spell the word parts used to create terms for the special senses of sight and hearing.
• Identify the major structures of sight and hearing.
• Break down and define common medical terms used for symptoms, diseases, disorders, procedures, treatments, and devices associated with the special senses of sight and hearing.
• Build medical terms from the word parts associated with the special senses of sight and hearing.
• Pronounce and spell common medical terms associated with the special senses of sight and hearing.
CHAPTER 14
The Special Senses of Sight and Hearing

Worksheet 1

Phonetic Spelling Challenge
Spell the medical term correctly in the space provided.

1. mas toyd EYE tiss ____________________________
2. off thal MAH loh jist ____________________________
3. oh toh RAJ ee ah ____________________________
4. aw dee AH meh tree ____________________________
5. oh toh skler OH sis ____________________________
6. DAK ree oh lith EYE ah siss ____________________________
7. AHS then OH pee ah ____________________________
8. glaw KOH mah ____________________________
9. LAY sik ____________________________
10. ahp TOM eh trist ____________________________
11. ret in AH path ee ____________________________
12. KAT ah rakt ____________________________
13. oh TYE tiss ____________________________
14. mye OH pee ah ____________________________
15. dih PLOH pee ah ____________________________
16. lab ee rin THECK toh mee ____________________________
17. VER tih go ____________________________
18. kon JUNK tih VYE tiss ____________________________
19. eye RYE tiss ____________________________
20. BLEF ah RYE tiss ____________________________
Spelling Challenge

These terms are spelled incorrectly. Spell each term correctly in the space provided.

1. Malius ____________________________
2. Otoerhea ____________________________
3. Meyringahtomy ____________________________
4. Glawkoma ____________________________
5. Sicleara ____________________________
6. Opfalmplegia ____________________________
7. Timpanoplastic ____________________________
8. Mastoydeyetis ____________________________
9. Conjunktiveyetis ____________________________
10. Meyopia ____________________________
11. Kereyetitis ____________________________
12. Anakoosis ____________________________
13. Blefareptosis ____________________________
14. Equilibrium ____________________________
15. Retinna ____________________________

Abbreviation Matchup

Select and match the correct abbreviation to the definition.

______ 1. astigmatism a. AD
______ 2. otitis media b. ENT
______ 3. ear, nose, and throat c. TM
______ 4. emmetroopia d. Ast
______ 5. otology e. AU
______ 6. tympanic membrane f. OM
______ 7. left eye g. Oto
______ 8. intraocular lens h. OS
______ 9. right ear i. Em
______ 10. both ears j. IOL
True/False
Mark each statement as true (T) or false (F).

_______ 1. To treat dacryocystitis, antibiotic eye drops are often used to defeat the bacterial infection.

_______ 2. The condition of double vision is called glaucoma.

_______ 3. The lens of the eye is normally transparent.

_______ 4. Correcting vision disorders is usually attempted by the use of corrective lenses or contact lenses following a vision examination by an optometrist.

_______ 5. Nearsightedness is called hyperopia.

_______ 6. Emmetropia is the normal condition of the eye.

_______ 7. Hordeolum is also called a “sty.”

_______ 8. Ophthalmomalacia means hardening of the eye.

_______ 9. Presbyacusis is the gradual loss of eyesight due to advancing age.

_______ 10. LASIK surgery uses a laser to reshape the corneal tissue and correct vision disorders.

Fill in the Blank
Fill in the blank with the correct medical term from this chapter.

11. Progressive deterioration of the macula lutea leads to a loss of visual focus and is called ________________________.

12. An instrument used to view the ear canal and eardrum is called a(n) ________________________.

13. In the condition known as ________________________, transparency of the lens is reduced, usually as a normal part of the aging process.

14. The surgical repair of the eardrum is known as ________________________.

15. A(n) ________________________ can be caused by a severe blow to the head, high blood pressure, or old age.

16. In ________________________, a loss of vision occurs when then fluid pressure within the anterior chamber of the eyeball rises above normal.

17. ________________________ is another term for nearsightedness.

18. In ________________________, the curvature of the eye is defective to produce blurred vision.
19. _________________ is a relatively common bacterial infection of the middle ear.

20. A ringing or buzzing sensation in the ears is known as _________________.

**Short Answer**

Write the definition for each of the following terms.

21. Optometrist __________________________________________________________

22. Dacryocystorhinostomy __________________________________________________

23. Hyperacusis _________________________________________________________

24. Otosclerosis _________________________________________________________

25. Mastoiditis __________________________________________________________

**Word Search**

Fill in the blank with the correct medical term from this chapter, then find the words in the word search puzzle that follows.

1. The presence of rocky particles in the apparatus is a condition known as _________________.

2. The most common treatment for corneal damage is corneal __________________________.

3. _________________ is a procedure that evaluates the elasticity of the eardrum.

4. One who specializes in hearing disorders and treatment is called a(n) ________________.

5. A general term for disease of the retina is ____________________________.

6. This term is derived from the Latin, meaning “dizziness.” __________________________

7. The condition of double vision is called ____________________________.

8. The suffix -algia means “condition of ____________________________.”

9. The abnormal appearance of white film on the pupil is called ________________.

10. ________________ is another term for “sty.”

11. Abnormal discharge of the eye is known as ________________.

12. The term _________________ refers to the gradual loss of hearing with advancing age.
13. An incision into the eardrum is called _________________.

14. A(n) __________________ is a physician who specialized in the study and treatment of diseases associated with the eyes.
Dictation Report

Write each numbered term as you hear it, spelling each term correctly. This exercise will help you learn to hear, comprehend, visualize, and spell the new medical terms accurately.

The special senses are part of the nervous system that includes (1) _______________________. There are four special senses: (2) _______________________, smell, taste, and (3) _______________________.

Each eye contains photoreceptors and supportive structures. Hearing, also known as (4) _______________________, is centered within the (5) _______________________.

Some diseases of the eye are inherited, whereas others may result from injury, infection, or old age. (6) _______________________, commonly known as “pinkeye,” is a common and easily treatable infection. On the other hand, (7) ________________________ can causes a loss of vision in the eye. More common vision disorders are (8) ________________________, or nearsightedness; (9) ________________________, or farsightedness; and (10) ________________________, or reduction in vision due to age. The normal condition of the eye is called (11) ________________________, which can be abbreviated to (12) _________________________. Correcting vision disorders is usually attempted by the use of (13) _________________________ following a vision examination by a(n) (14) _________________________. Another medical professional, a(n) (15) _________________________, is a physician who specializes in the study and treatment of diseases associated with the eyes.

Two common symptoms of the ear and hearing are (16) ________________________ and (17) ________________________. These are common and can be treated. If they persist, it may result in a chronic disease of the inner ear known as (18) _________________________.

The general term for inflammation of the ear is (19) _________________________. In
one form of this disease, the middle ear is involved to cause local pain and temporary loss of
hearing. Known as (20) __________________________, it is relatively common among chil-
dren. In some severe cases of permanent hearing loss, the inner ear is surgically removed in a
process called (21) __________________________. The procedure involving the measure-
ment of hearing is usually performed by a(n) (22) __________________________ and is called
(23) __________________________. It is important to have regular eye and hearing checkups to
preserve these special senses in advanced age.
# Chapter 14
## The Special Senses of Sight and Hearing
### Worksheet 3

**Word Surgery**

Read the Medical Word. Break down the medical word into its word parts, and give the meaning of each word part. Then give the definition of the medical word.

1. **Blepharoptosis**
   - Definition: __________________________________________________________
   - Combining form and definition: __________________________________________
   - Suffix and definition: __________________________________________________

2. **Ophthalmoscope**
   - Definition: __________________________________________________________
   - Combining form and definition: __________________________________________
   - Suffix and definition: __________________________________________________

3. **Otalgia**
   - Definition: __________________________________________________________
   - Combining form and definition: __________________________________________
   - Suffix and definition: __________________________________________________

4. **Myringotomy**
   - Definition: __________________________________________________________
   - Combining form and definition: __________________________________________
   - Suffix and definition: __________________________________________________

5. **Labyrinthitis**
   - Definition: __________________________________________________________
   - Combining form and definition: __________________________________________
   - Suffix and definition: __________________________________________________

6. **Audiologist**
   - Definition: __________________________________________________________
   - Combining form and definition: __________________________________________
   - Suffix and definition: __________________________________________________

7. **Dacrolithiasis**
   - Definition: __________________________________________________________
   - Combining form and definition: __________________________________________
   - Suffix and definition: __________________________________________________
<table>
<thead>
<tr>
<th></th>
<th>Definition</th>
<th>Combining form and definition</th>
<th>Suffix and definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>Retinopathy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Leukocoria</td>
<td></td>
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</tr>
<tr>
<td>10.</td>
<td>Otitis media</td>
<td></td>
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</tr>
<tr>
<td>11.</td>
<td>Presbyopia</td>
<td></td>
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<tr>
<td>12.</td>
<td>Diplopia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Hyperacusis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Keratosclerosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Optometry</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Case Study

Fill in the blank with the correct medical term from this chapter.

Tonya is a 35-year-old who presented to her family practice doctor with a complaint of right ear pain for three days, which was increasing. The doctor visualizes her ear with an instrument. Tonya is diagnosed with an infection of the external ear. She is given appropriate medication and treatment plan. Before leaving she brought up another problem, which was occasional dizziness, ringing in her ear, and hearing loss. The doctor was concerned that this may be more than just Ménière’s and referred Tonya to a specialist in the ear, nose, and throat. Before the appointment with this doctor, she was also referred to a specialist to check her hearing.

When she saw the ear, nose, and throat specialist, he reviewed her history and also noted that she had a significant hearing loss in the right ear. After examining her, he was concerned that she may have an abnormality in her brain or the nerve supplying the ear. The doctor ordered an imaging test of the brain that uses magnetic fields to create sharp images of the brain. This test is called a magnetic resonance imaging test.

Tonya was found to have a tumor of the acoustic nerve, which is called an acoustic neuroma. She was then referred to a specialist who operates on the nervous system. She arranged for removal of this benign tumor and with a successful operation recovered completely and had no further symptoms.

What is the appropriate medical terminology for:

1. Infection of the external ear _____________________________
2. Instrument to visualize the ear __________________________
3. Dizziness ___________________________________________
4. Ringing in the ears ___________________________________
5. Ear, nose and throat specialist __________________________
6. Specialist who checks hearing acuity ___________________
Medical Report Analysis

Consider the following excerpt from a clinician’s notes following completion of an EENT examination. For the highlighted terms or word parts, provide the meaning.

Patient is a 2-year-old male presenting with increased fussiness and low-grade fever, and Mom indicates the child has been tugging at the right ear and was unable to sleep the previous night. **Otoscopic (A)________________________** examination reveals inflammation of the tympanic membrane. Mom reports that this is the fourth episode of **otitis media (B)________________________** in the past year. The patient is recommended for **myringotomy (C)________________________** with tubes to evacuate fluid from behind the eardrum. A follow-up exam was scheduled with an **audiologist (D)________________________** to conduct an **audiogram (E)________________________** to determine if any hearing loss had resulted from the recurrent infections.
Which Term Does Not Belong?

Circle the term that is not related to the other terms. Then explain why the term does not belong with the others.

1. Signs and symptoms
   a. blepharoptosis
   b. asthenopia
   c. sclera
   d. leukocoria
   e. ophthalmalgia

   Why does it not belong? __________________________________________________________

2. Disorders related to vision and the eye
   a. blepharoplasty
   b. conjunctivitis
   c. dacrolithiasis
   d. diplopia
   e. ophthalmoplegia

   Why does it not belong? __________________________________________________________

3. Disorders related to hearing and the ear
   a. hyperacusis
   b. mastoiditis
   c. myringotomy
   d. otalgia
   e. otosclerosis

   Why does it not belong? __________________________________________________________

4. Treatments and procedures
   a. audiometry
   b. blepharoptosis
   c. labrythectomy
   d. mastoidotomy
   e. myringoplasty

   Why does it not belong? __________________________________________________________
5. Terms related to special senses
   a. adenoma
   b. conjunctivitis
   c. otoscope
   d. retinopathy
   e. tympanometry

   Why does it not belong? ________________________________
CHAPTER 14
The Special Senses of Sight and Hearing

Worksheet 7

Labeling
Label the diagram below.
CHAPTER 14
The Special Senses of Sight and Hearing
Worksheet 8

Key Terms Double Check
Remember that the chapter’s key terms appeared alphabetically throughout this chapter. This exercise helps you to check your knowledge and review for tests.

1. First, fill in the missing word in the definitions for the chapter’s key terms.
2. Then, check your answers using the answer key.
3. If you got the answer right, put a checkmark in the right column.
4. If your answer was incorrect, go back to the frame number provided and review the content.

Use the checklist to study the terms you don’t know until you’re confident you know them all.

<table>
<thead>
<tr>
<th>Key Term</th>
<th>Frame</th>
<th>Definition</th>
<th>Know It?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. asthenopia</td>
<td>14.7</td>
<td>a symptom of eye _______________, commonly called eyestrain</td>
<td></td>
</tr>
<tr>
<td>2. anacusis</td>
<td>14.30</td>
<td>a condition of a(n) ________________ loss of hearing</td>
<td></td>
</tr>
<tr>
<td>3. audiologist</td>
<td>14.41</td>
<td>one who specializes in ________________ disorders and treatment</td>
<td></td>
</tr>
<tr>
<td>4. audiometry</td>
<td>14.41</td>
<td>a procedure that measures ________________</td>
<td></td>
</tr>
<tr>
<td>5. blepharitis</td>
<td>14.9</td>
<td>inflammation of the ________________</td>
<td></td>
</tr>
<tr>
<td>6. blepharoptosis</td>
<td>14.8</td>
<td>a(n) ________________ eyelid</td>
<td></td>
</tr>
<tr>
<td>7. cataract</td>
<td>14.13</td>
<td>a condition in which the eye ________________ transparency is reduced</td>
<td></td>
</tr>
<tr>
<td>8. cataract extraction</td>
<td>14.25</td>
<td>the surgical removal of a cataract and replacement with a(n) ________________ lens</td>
<td></td>
</tr>
<tr>
<td>9. conjunctivitis</td>
<td>14.14</td>
<td>________________ of the conjunctiva</td>
<td></td>
</tr>
<tr>
<td>10. corneal grafting</td>
<td>14.26</td>
<td>the surgical removal of an injured ________________ and replacement with a donor cornea</td>
<td></td>
</tr>
<tr>
<td>11. dacryocystitis</td>
<td>14.15</td>
<td>inflammation of the ________________ apparatus</td>
<td></td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
</tr>
<tr>
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</tr>
<tr>
<td>12. dacryocystorhinostomy</td>
<td>14.27</td>
<td>a procedure in which a channel is surgically created between the __________ cavity and lacrimal sac to promote drainage</td>
<td>☐</td>
</tr>
<tr>
<td>13. dacryolithiasis</td>
<td>14.15</td>
<td>the presence of __________ particles in the lacrimal apparatus</td>
<td>☐</td>
</tr>
<tr>
<td>14. detached retina</td>
<td>14.16</td>
<td>a condition that occurs when the retina tears away from the choroid layer of the ___________</td>
<td>☐</td>
</tr>
<tr>
<td>15. diplopia</td>
<td>14.17</td>
<td>__________ vision</td>
<td>☐</td>
</tr>
<tr>
<td>16. glaucoma</td>
<td>14.18</td>
<td>a loss of vision caused by an increase in the fluid ___________ within the anterior chamber of the eyeball</td>
<td>☐</td>
</tr>
<tr>
<td>17. hordeolum</td>
<td>14.19</td>
<td>a(n) __________ of the meibomian gland that produces a local swelling of the eyelid; a sty</td>
<td>☐</td>
</tr>
<tr>
<td>18. hyperacusis</td>
<td>14.31</td>
<td>a condition of having abnormally __________ hearing</td>
<td>☐</td>
</tr>
<tr>
<td>19. iritis</td>
<td>14.20</td>
<td>__________ of the iris</td>
<td>☐</td>
</tr>
<tr>
<td>20. keratitis</td>
<td>14.20</td>
<td>inflammation of the __________</td>
<td>☐</td>
</tr>
<tr>
<td>21. labyrinthectomy</td>
<td>14.42</td>
<td>the surgical removal of the __________</td>
<td>☐</td>
</tr>
<tr>
<td>22. LASIK</td>
<td>14.28</td>
<td>the use of a laser to reshape the corneal tissue beneath the surface of the cornea to correct __________ disorders</td>
<td>☐</td>
</tr>
<tr>
<td>23. leukocoria</td>
<td>14.10</td>
<td>a sign of disease that is an abnormal appearance of a(n) __________ film in the pupil</td>
<td>☐</td>
</tr>
<tr>
<td>24. macular degeneration</td>
<td>14.21</td>
<td>a progressive __________ of the macula lutea that leads to a loss of visual focus</td>
<td>☐</td>
</tr>
<tr>
<td>25. mastoidectomy</td>
<td>14.43</td>
<td>the surgical removal of part of the mastoid __________ to treat severe mastoiditis</td>
<td>☐</td>
</tr>
<tr>
<td>26. mastoiditis</td>
<td>14.36</td>
<td>inflammation of the __________</td>
<td>☐</td>
</tr>
<tr>
<td>27. mastoidotomy</td>
<td>14.44</td>
<td>the procedure of mastoidectomy is preceded by making a(n) __________ into the mastoid process</td>
<td>☐</td>
</tr>
<tr>
<td>28. Ménière disease</td>
<td>14.37</td>
<td>a chronic disease of the inner ear that causes __________ and ringing in the ears</td>
<td>☐</td>
</tr>
<tr>
<td>29. myringoplasty</td>
<td>14.44</td>
<td>the surgical repair of the __________</td>
<td>☐</td>
</tr>
<tr>
<td>30. myringotomy</td>
<td>14.44</td>
<td>a(n) __________ into the eardrum</td>
<td>☐</td>
</tr>
<tr>
<td>Key Term</td>
<td>Frame</td>
<td>Definition</td>
<td>Know It?</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>31. ophthalmalgia</td>
<td>14.11</td>
<td>a condition of ____________ of the eye</td>
<td>❑</td>
</tr>
<tr>
<td>32. ophthalmologist</td>
<td>14.29</td>
<td>a physician who specializes in the study and treatment of diseases of the ____________</td>
<td>❑</td>
</tr>
<tr>
<td>33. ophthalmomalacia</td>
<td>14.22</td>
<td>a(n) ____________ of the eye</td>
<td>❑</td>
</tr>
<tr>
<td>34. ophthalmoplegia</td>
<td>14.22</td>
<td>a(n) ____________ of the eye</td>
<td>❑</td>
</tr>
<tr>
<td>35. ophthalmorrhagia</td>
<td>14.12</td>
<td>a(n) ____________ of the eye</td>
<td>❑</td>
</tr>
<tr>
<td>36. optometrist</td>
<td>14.29</td>
<td>a health professional trained to examine ____________ to correct vision problems and eye disorders</td>
<td>❑</td>
</tr>
<tr>
<td>37. otalgia</td>
<td>14.32</td>
<td>____________ in the ear</td>
<td>❑</td>
</tr>
<tr>
<td>38. otitis</td>
<td>14.38</td>
<td>inflammation of the ____________</td>
<td>❑</td>
</tr>
<tr>
<td>39. otitis media</td>
<td>14.38</td>
<td>a disease common among children, it is the inflammation of the ____________ ear that causes local pain and a temporary loss of hearing</td>
<td>❑</td>
</tr>
<tr>
<td>40. otology</td>
<td>14.45</td>
<td>the medical field of ____________ disorders and their treatment</td>
<td>❑</td>
</tr>
<tr>
<td>41. otopathy</td>
<td>14.38</td>
<td>a(n) ____________ of the ear</td>
<td>❑</td>
</tr>
<tr>
<td>42. otorrhagia</td>
<td>14.33</td>
<td>an abnormal ear ____________</td>
<td>❑</td>
</tr>
<tr>
<td>43. otorrhea</td>
<td>14.34</td>
<td>a symptom of abnormal drainage of ____________ from the ear</td>
<td>❑</td>
</tr>
<tr>
<td>44. otosclerosis</td>
<td>14.39</td>
<td>an abnormal formation of ____________ within the ear</td>
<td>❑</td>
</tr>
<tr>
<td>45. otoscope</td>
<td>14.45</td>
<td>a handheld instrument used for performing a(n) ____________ examination of the ear</td>
<td>❑</td>
</tr>
<tr>
<td>46. presbyacusis</td>
<td>14.40</td>
<td>a gradual loss of hearing with advancing ____________</td>
<td>❑</td>
</tr>
<tr>
<td>47. retinopathy</td>
<td>14.23</td>
<td>a(n) ____________ of the retina</td>
<td>❑</td>
</tr>
<tr>
<td>48. tinnitus</td>
<td>14.35</td>
<td>a symptom of ____________ or buzzing sensation in the ears</td>
<td>❑</td>
</tr>
<tr>
<td>49. tympanometry</td>
<td>14.46</td>
<td>a procedure to evaluate the ____________ of the eardrum by measuring its movement</td>
<td>❑</td>
</tr>
<tr>
<td>50. tympanoplasty</td>
<td>14.46</td>
<td>the surgical repair of the ____________</td>
<td>❑</td>
</tr>
<tr>
<td>51. vertigo</td>
<td>14.35</td>
<td>a symptom of sensation of ____________</td>
<td>❑</td>
</tr>
<tr>
<td>52. vision disorders</td>
<td>14.24</td>
<td>conditions of the eye that result in a(n) ____________ of vision</td>
<td>❑</td>
</tr>
</tbody>
</table>
CHAPTER 14
The Special Senses of Sight and Hearing

Worksheet 9

Crossword Puzzle

Directions: Fill in the crossword puzzle with the words missing from the sentences below. Match the number of the sentence to the boxes placed across or down the grid. If filled out correctly, the words will fit neatly into the puzzle.

ACROSS
2 The condition of double vision is called __________.
5 The medical field of ear disorders and their treatment is called __________.
6 An abnormal formation of bone within the ear, usually between the stapes and the oval window of the middle ear, is known as __________.
8 In the disease of the eye known as __________, a loss of vision occurs when the fluid pressure within the anterior chamber of the eyeball rises above normal.
9 A common symptom of an inflammation of an eyelid is called __________.

DOWN
1 The most common treatment of corneal damage is corneal __________.
3 Each eye contains sensory receptors sensitive to light, called __________ and supportive structures.
4 In the condition __________, the curvature of the eye is defective to produce blurred vision.
7 In the condition known as __________, transparency of the lens is reduced.
**CHAPTER 14**  
The Special Senses Sight and Hearing  

**Worksheet 1 Answers**

### Phonetic Spelling Challenge
1. Mastoiditis  
2. Ophthalmologist  
3. Otorrhagia  
4. Audiometry  
5. Otosclerosis  
6. Dacryolithiasis  
7. Asthenopia  
8. Glaucoma  
9. LASIK  
10. Optometrist

11. Retinopathy  
12. Cataract  
13. Otitis  
14. Myopia  
15. Diplopia  
16. Labyrinthectomy  
17. Vertigo  
18. Conjunctivitis  
19. Iritis  
20. Blepharitis

### Spelling Challenge
1. Malleus  
2. Otorrhea  
3. Myringotomy  
4. Glaucoma  
5. Sclera  
6. Ophthamoplegia  
7. Tympanoplasty  
8. Mastoiditis

9. Conjunctivitis  
10. Myopia  
11. Keratitis  
12. Anacusis  
13. Blepharoptosis  
14. Equilibrium  
15. Retina

### Abbreviation Matchup
1. Ast  
2. OM  
3. ENT  
4. Em  
5. Oto  
6. TM  
7. OS  
8. IOL  
9. AD  
10. AU

### True/False
1. T  
2. F  
3. T  
4. T  
5. F

6. T  
7. T  
8. F  
9. F  
10. T
Fill in the Blank

11. macular degeneration
12. otoscope
13. cataract
14. tympanoplasty
15. detached retina
16. glaucoma
17. Myopia
18. astigmatism
19. otitis media
20. tinnitus

Short Answer

21. An optometrist is a health professional (not a physician) trained to examine eyes to correct vision problems and disorders.
22. A dacryocystorhinostomy is used to treat dacryocystitis. A channel is surgically created between the nasal cavity and lacrimal sac to promote drainage.
23. Hyperacusis literally means “condition of excessive hearing.” It refers to a symptom of abnormally sensitive hearing.
24. Otosclerosis is an abnormal formation of bone within the ear, usually between the stapes and the oval window of the middle ear. The disease causes progressive loss of hearing.
25. Mastoiditis literally means “inflammation of the part resembling a breast.” The mastoid process is an area of the temporal bone of the skull housing the middle and internal ear. Bacterial infections can travel here and cause mastoiditis.
Word Search

1. dacryolithiasis
2. grafting
3. Tympanometry
4. audiologist
5. retinopathy
6. vertigo
7. diplopia
8. pain
9. leukocoria
10. Hordeolum
11. ophthalmorrhagia
12. presbyacousis
13. myringotomy
14. ophthalmologist
CHAPTER 14
The Special Senses of Sight and Hearing

Worksheet 2 Answers

Dictation Report
Write each numbered term as you hear it, spelling each term correctly. This exercise will help you learn to hear, comprehend, visualize, and spell the new medical terms accurately.

The special senses are part of the nervous system that includes (1) sensory receptors. There are four special senses: (2) sight, smell, taste, and (3) hearing. Each eye contains photoreceptors and supportive structures. Hearing, also known as (4) audition, is centered within the (5) ears.

Some diseases of the eye are inherited, whereas others may result from injury, infection, or old age. (6) Conjunctivitis, commonly known as “pinkeye,” is a common and easily treatable infection. On the other hand, (7) glaucoma can cause a loss of vision in the eye. More common vision disorders are (8) myopia, or nearsightedness; (9) hyperopia, or farsightedness; and (10) presbyopia, or reduction in vision due to age. The normal condition of the eye is called (11) emmetropia, which can be abbreviated to (12) Em. Correcting vision disorders is usually attempted by the use of (13) corrective lenses following a vision examination by an (14) optometrist. Another medical professional, an (15) ophthalmologist, is a physician who specializes in the study and treatment of diseases associated with the eyes.

Two common symptoms of the ear and hearing are (16) tinnitus and (17) vertigo. These are common and can be treated. If they persist, it may result in a chronic disease of the inner ear known as (18) Ménière disease. The general term for inflammation of the ear is (19) otitis. In one form of this disease, the middle ear is involved to cause local pain and temporary loss of hearing. Known as (20) otitis media, it is relatively common among children. In some severe cases of permanent hearing loss, the inner ear is surgically removed in a process called (21) labyrinthectomy. The procedure involving the measurement of hearing is usually performed by an (22) audiologist and is called (23) audiometry. It is important to have regular eye and hearing checkups to preserve these special senses in advanced age.
CHAPTER 14
The Special Senses of Sight and Hearing

Worksheet 3 Answers

Word Surgery

1. **Blepharoptosis**
   
   Definition: Droopy eyelid
   
   Combining form and definition: blephar/o, eyelid
   
   Suffix and definition: -ptosis, drooping or falling down

2. **Ophthalmoscope**
   
   Definition: Instrument used to examine the eye
   
   Combining form and definition: opthalm/o, eye
   
   Suffix and definition: -scope, instrument used to visually examine a structure

3. **Otalgia**
   
   Definition: Ear pain
   
   Combining form and definition: ot/o, ear
   
   Suffix and definition: -algia, pain

4. **Myringotomy**
   
   Definition: To surgically cut the eardrum
   
   Combining form and definition: myring/o, eardrum
   
   Suffix and definition: -tomy, surgical incision

5. **Labyrinthitis**
   
   Definition: An inflammation of the inner ear
   
   Combining form and definition: labyrinth/o, inner ear
   
   Suffix and definition: -itis, inflammation

6. **Audiologist**
   
   Definition: A clinician who studies abnormalities associated with hearing
   
   Combining form and definition: audi/o, hearing; log/o, the study or science of
   
   Suffix and definition: -ist, one who specializes

7. **Dacrolithiasis**
   
   Definition: A condition where a stone develops in the tear ducts or glands
   
   Combining form and definition: dacr/o, tear; lith/o, stone
   
   Suffix and definition: -iasis, condition

8. **Retinopathy**
   
   Definition: Disease affecting the retina of the eye
   
   Combining form and definition: retin/o, retina
   
   Suffix and definition: -pathy, disease

9. **Leukocoria**
   
   Definition: A white film or spot in the pupil of the eye
   
   Combining form and definition: leuk/o, white; cor/o, pupil
   
   Suffix and definition: -ia: condition
10. Otitis media
   Definition: Inflammation of the middle ear, commonly due to bacterial infection
   Combining form and definition: ot/o, ear; medi/o, middle
   Suffix and definition: -itis, inflammation

11. Presbyopia
   Definition: Degenerative vision due to age
   Combining form and definition: presby/o, age
   Suffix and definition: -opia, vision

12. Diplopia
   Definition: Double vision
   Combining form and definition: dipl/o, double
   Suffix and definition: -opia, vision

13. Hyperacusis
   Definition: Hearing that is overly sensitive to noise or loud sounds
   Prefix and definition: hyper-, excessive
   Suffix and definition: -acusis, condition of hearing

14. Keratosclerotic
   Definition: Hardening of the lens
   Combining form and definition: kerat/o, hard, cornea
   Suffix and definition: -sclerosis, condition of hard

15. Optometry
   Definition: The measurement of the eye or of vision
   Combining form and definition: opt/o, eye
   Suffix and definition: -metry, measure
Case Study

1. otitis externa
2. otoscope
3. vertigo
4. tinnitus
5. otorhinolaryngologist
6. audiologist
CHAPTER 14
The Special Senses of Sight and Hearing

Worksheet 5 Answers

Medical Report Analysis

A. Visually examining the ears
B. Middle ear infection
C. Incision in the eardrum
D. Specialist who evaluates problems associated with hearing
E. A measure of the sense of hearing
Which Term Does Not Belong?

1. C  Sclera is the outer layer of the eyeball rather than a sign or symptom.
2. A  Blepharoplasty is the surgical restructuring of the eyelid and is not a disorder related to the eye or to vision.
3. C  Myringotomy is a surgical incision into the eardrum rather than a disease or condition related to the ears or hearing.
4. B  Blepharoptosis is a condition of a drooping eyelid rather than a treatment or condition.
5. A  Adenoma is a tumor in a gland and does not relate to any of the special senses.
CHAPTER 14
The Special Senses of Sight and Hearing

Worksheet 7 Answers

Labeling
Key Terms Double Check

1. weakness
2. total
3. ear
4. hearing
5. eyelid
6. drooping
7. lens
8. donor
9. inflammation
10. cornea
11. lacrimal
12. nasal (or nose)
13. rocky (or rocklike)
14. eye
15. double
16. pressure
17. infection
18. sensitive
19. inflammation
20. cornea
21. inner ear
22. vision
23. white
24. deterioration
25. process
26. mastoid
27. incision
28. dizziness
29. eardrum
30. incision
31. pain
32. eyes
33. softening
34. paralysis
35. abnormal discharge
36. eyes
37. pain
38. ear
39. middle
40. ear
41. disease
42. discharge
43. fluid
44. bone
45. visual
46. age
47. disease
48. ringing
49. elasticity
50. eardrum
51. dizziness
52. reduction
Crossword Puzzle

Solution:

DIPLOPIA
D H S

OTOLOGY T
T I

OTOSCLEROSIS G
M

OTOSCLEROSIS G
A

GLAUCOMA T
I

APIS M

BLEPHARITIS M

AO

CR

TS