

Name _____
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Teacher _____

Positively Aging:® CHOICES AND CHANGES

UNIT 6 – CHALLENGES AND CHANGES – Hearing POST TEST

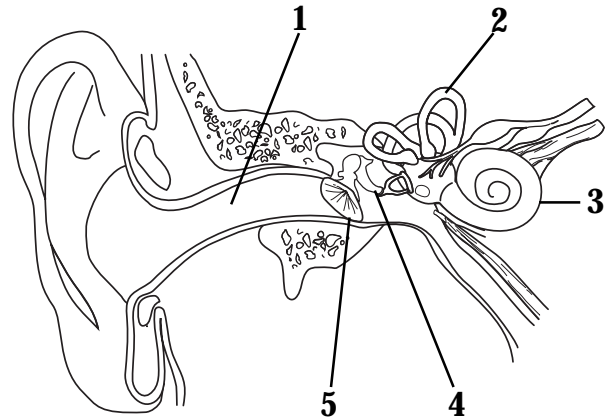
Look at the diagram of the human ear below to answer questions 1 and 2.

1. What is the name of the structure labeled 3?

- a. auditory ossicles
- b. cochlea
- c. semicircular canals
- d. tympanic membrane

2. What is the name of the structure labeled 4?

- a. auditory ossicles
- b. cochlea
- c. semicircular canals
- d. tympanic membrane



3. Which structure transmits sound waves from the external auditory meatus to the middle ear?

- a. auditory ossicles
- b. cochlea
- c. eustachian tube
- d. tympanic membrane

4. Which structure transmits sound waves from the inner ear to the brain?

- a. auditory nerve
- b. eustachian tube
- c. semicircular canals
- d. tympanic membrane

5. Which structure is part of the middle ear?

- a. auricle
- b. cochlea
- c. semicircular canals
- d. tympanic membrane

6. Which structure is part of the external ear?

- a. auditory ossicles
- b. auricle
- c. cochlea
- d. tympanic membrane

UNIT 6 – CHALLENGES AND CHANGES – **Hearing** POST TEST

7. In what part of the brain is sound perceived and interpreted?
 - a. cerebellum
 - b. medulla
 - c. occipital lobe
 - d. temporal lobe

8. Which structure does the disease otosclerosis affect?
 - a. auditory ossicles
 - b. cochlea
 - c. eustachian tube
 - d. tympanic membrane

9. Which common symptom occurs with the disease tinnitus?
 - a. deafness
 - b. muffled hearing
 - c. ringing in the ears
 - d. inability to hear high pitch sounds

10. When talking to a person with a hearing impairment, what should a caregiver do?
 - a. talk loudly into the “good ear”
 - b. talk clearly at a moderate rate
 - c. use short phrases
 - d. change voice volume in a sentence

11. Which kind of test is given to determine how an elderly person feels about their hearing?
 - a. audiometry
 - b. decibel exam
 - c. densiometry
 - d. inventory

12. At which noise level does sound become painful to humans?
 - a. 40 decibels
 - b. 70 decibels
 - c. 140 decibels
 - d. 170 decibels

UNIT 6 – CHALLENGES AND CHANGES – **Hearing** POST TEST

Look at the results of Tom’s audiogram below to answer questions 13-15.

AUDIOGRAM

| Decibels (dB) | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz |
|---------------|--------|--------|---------|---------|---------|
| 0 dB | | | | | |
| 5 dB | | | | | |
| 10 dB | ▲ | | ▲ | ▲ | ▲ |
| 15 dB | | ● | ▲ | | |
| 20 dB | | | | ● | |
| 25 dB | | | | | |
| 30 dB | | | | ● | ● |
| 35 dB | | | | | |
| 40 dB | | | | | |
| 45 dB | | | | | |
| 50 dB | | | | | |

Note: The shaded area indicates what would be considered normal hearing levels for most people.

Key: s Left ear | Right ear

13. What do the results of Tom’s audiogram indicate?
 - a. difficulty hearing in the right ear at higher decibel levels
 - b. difficulty hearing in the left ear at lower decibel levels
 - c. both ears show evidence of hearing loss
 - d. hearing ability is within normal range for both ears

14. What is the lowest decibel level Tom can hear with his right ear?
 - a. 10
 - b. 15
 - c. 30
 - d. 250

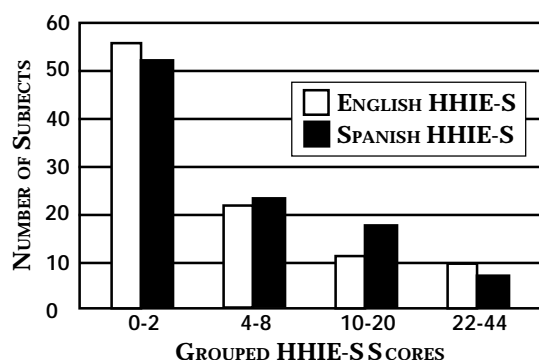
15. What is the lowest decibel level Tom can hear with his left ear?
 - a. 10
 - b. 15
 - c. 30
 - d. 250

UNIT 6 – CHALLENGES AND CHANGES – *Hearing* POST TEST

Use the graph and table below to answer questions 16 through 19.

This graph is made from the results of a survey conducted with **100** senior citizens who took the Hearing Handicap Inventory for the Elderly (HHIE-S) in both English and Spanish. The table shows how to interpret the scores from the HHIE-S.

FREQUENCY DISTRIBUTION OF HHIE-S SCORES



| Total HHIE-S Score | Interpretation |
|--------------------|--|
| 0-2 | Little evidence for hearing impairment |
| 4-8 | Slight evidence for hearing impairment |
| 10-20 | Moderate evidence for hearing impairment |
| 22-44 | Strong evidence for hearing impairment |

16. About how many subjects showed little evidence for hearing impairment?
 - a. between 0 and 2
 - b. between 5 and 10
 - c. between 50 and 55
 - d. between 100 and 110

17. What conclusion can be made from the data shown on the above graph?
 - a. The English version resulted in lower scores for hearing impairment than the Spanish version.
 - b. The English version of the hearing inventory was more difficult to read than the Spanish version.
 - c. The Spanish version resulted in stronger evidence for hearing impairment than the English version.
 - d. The English and Spanish versions showed that more than half of the subjects had little or no evidence of hearing impairment.

18. Mrs. Torres' score was 7 on the Spanish version of the HHIE-S. How much evidence for hearing impairment is there?
 - a. little
 - b. slight
 - c. moderate
 - d. strong

19. Mr. James took the English version of the HHIE-S. It indicated moderate evidence for hearing impairment. In what range did his scores fall?
 - a. 0 – 2
 - b. 4 – 8
 - c. 10 – 20
 - d. 22 – 40

UNIT 6 – CHALLENGES AND CHANGES – *Hearing* POST TEST

20. What happens when the amplitude of a sound wave increases?
- a. pitch is higher
 - b. pitch is lower
 - c. sound is louder
 - d. sound is quieter
21. What happens when the frequency of a sound wave increases?
- a. pitch is higher
 - b. pitch is lower
 - c. sound is louder
 - d. sound is quieter