**Hearing and Equilibrium Data Sheet**

**Test 1 – Static Equilibrium**

*This test determines if the subject’s static equilibrium receptors are functioning. During the test, the subject may move slightly but if the receptors are functioning properly, their posture should always be corrected. If the receptors are not functioning properly, the subject will not be able to maintain posture and will exhibit large swaying movements or will fall.*

1. Was there significant movement (circle one)?

Yes No

1. Based on your results, are your static equilibrium receptors functioning?

 Yes No

 **Test 2 – Locating Sound**

*Humans locate the direction of sound according to how fast it is detected by either or both ears. A difference in the hearing ability of the two ears can lead to a mistaken judgment about the direction of sound.*

|  |  |
| --- | --- |
| **Location of Tuning Fork** | **Subject’s Perception of Location** |
| Directly below and behind the head |  |
| Directly behind the head |  |
| Directly above the head |  |
| Directly in front of the face |  |
| To the side of the face  |  |

**Test 3 – Unilateral Deafness – Weber Test**

*This test determines if the subject is has hearing deficits in one ear. Normal response would be that the sound is heard equally loud in both ears. If the sound is louder in one ear, then the subject may have unilateral deafness in that ear.

Part 2 mimics what it would be like to have deafness in one ear by “plugging” one ear using cotton (or your hand).*

1. For Part 1, is the sound equally loud in both ears (circle one)?

Yes No

1. If you circled no, in which ear was the sound louder?

Left Right N/A

1. For Part 2, which ear did you plug?

Left Right

1. For Part 2, in which ear was the sound louder?

Left Right

**Test 4 – Static Equilibrium**

|  |  |
| --- | --- |
| **Vision** | **Time (seconds)** |
| Left leg, eyes open |  |
| Right leg, eyes open |  |
| Left leg, eyes closed |  |
| Right leg, eyes closed |  |

**Test 4 – Static Equilibrium cont’d**

1. Was there a difference between any of your data? Summarize your observations below.
2. Does vision have an effect on balance? Why or why not?

**Test 5 – Dynamic Equilibrium**

*This test provides information for which semicircular canal is being stimulated as a result of head position during full- body rotation.*

 ***Lateral movement*** – stimulation of receptors in the lateral semicircular canals

***Vertical movement*** – stimulation of receptors in the anterior semicircular canals

***Rotational movement*** – stimulation of receptors in the posterior semicircular canals

|  |  |  |
| --- | --- | --- |
| **Head Position** | **Eye Movement** | **Which canal is stimulated** |
| Head slightly forward |  |  |
| Head toward one shoulder |  |  |
| Head slightly backward |  |  |