

The Vestibulo-Ocular Reflex

The semicircular canals in the inner ear sense the rotation of the head in three-dimensional space. The brain uses this information to direct our eye muscles to compensate for body movements. This automatic system keeps our vision clear even when our bodies are moving. It happens even when our eyes are closed!

Instructions

Work in groups of four: One test subject, two spinners, and one observer.

1. Have the test subject sit in a chair that spins 360 degrees with their hands down and eyes closed.
2. Spin the test subject 5-10 times then have them open their eyes IMMEDIATELY.
3. Observe the test subject's eye movements.
4. This time, spin the test subject in the opposite direction. Are the eye movements the same or different?
5. Switch roles. Repeat steps 1-4 with a new test subject. How do the eye movements of the new person compare to the first one?

Action	Observation
Person 1 Clockwise	
Person 1 Counter-clockwise	
Person 2 Clockwise	
Person 2 Counter-clockwise	

Question:

What do you learn from this experiment?