

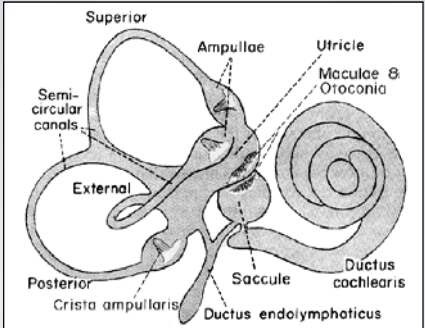



hfacs INC

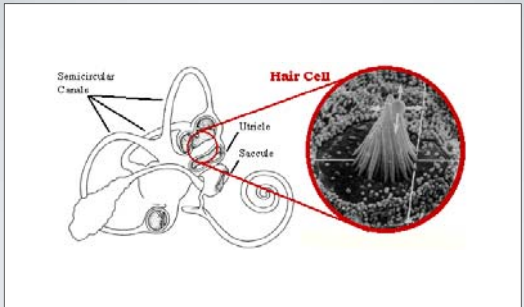

SPIN & PUKE



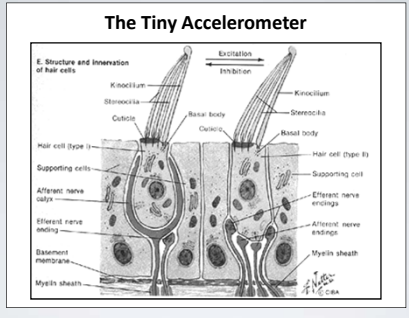
Vestibular Apparatus

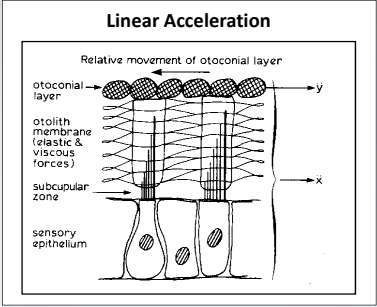
Hair Cells

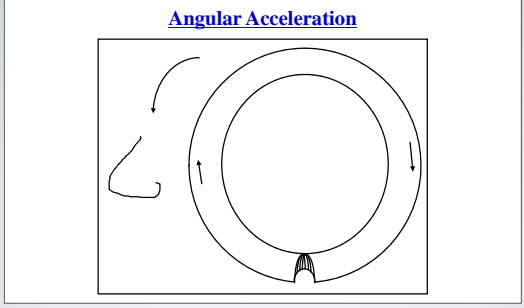
Hair cells

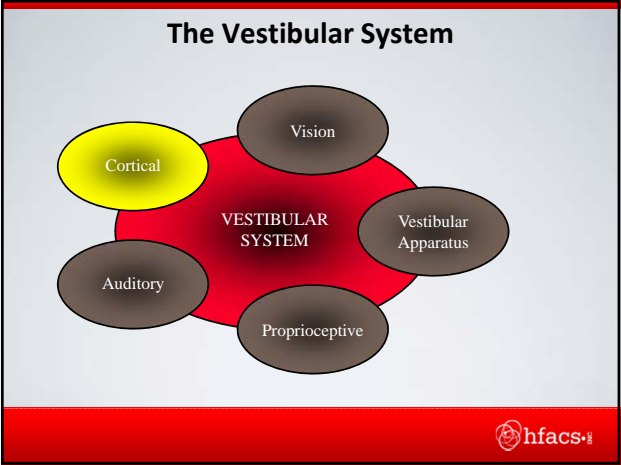


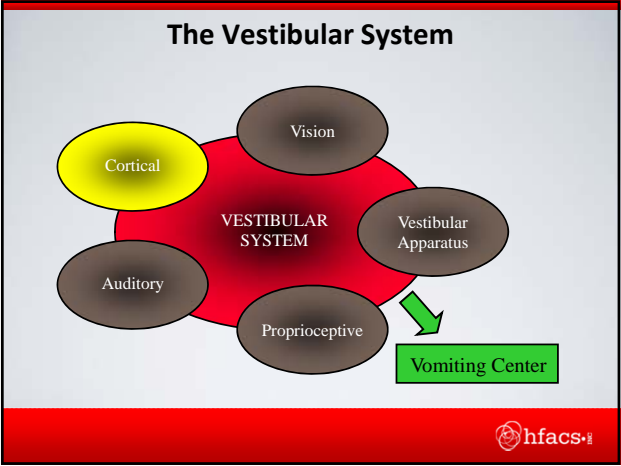
Otolith Organs



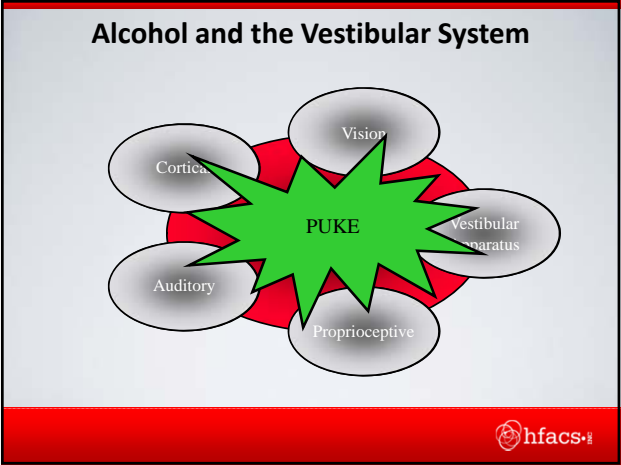
Semi-circular Canals

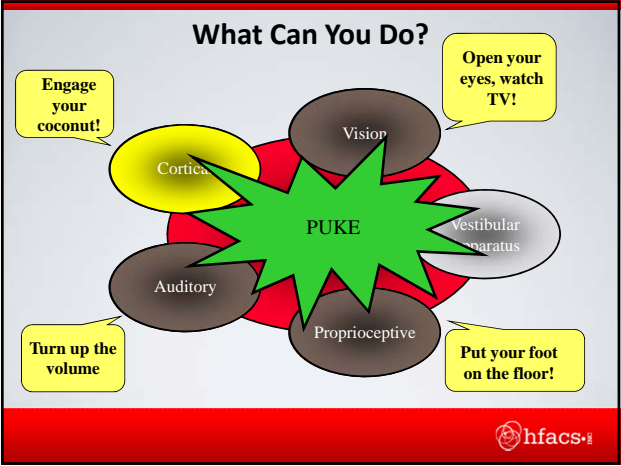














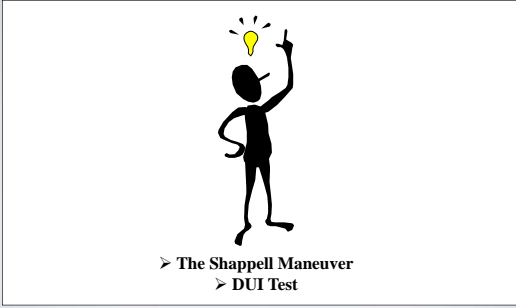
Practical Joke




HANGOVER STEW



How do you know if you are still suffering from the side-effects of alcohol?



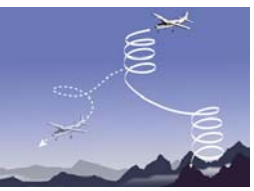

➤ The Shappell Maneuver
➤ DUI Test



Vestibular Illusions

Postrotatory Nystagmus/Graveyard Spin



- Occurs when a pilot is in a spin for more than 20 sec.; after the spin ceases the eyes will move repeatedly (nystagmus) in the opposite direction of the original spin.
- Pilots will misperceive this as a secondary spin and actually compensate by reentering a spin in the original direction.
- JFK Jr.

Vestibular Illusions

Cross-coupling/Coriolis illusion

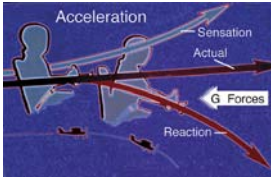

- Can occur when the head is tilted during a long-established turning or circling maneuver (i.e., the head is tilted in a different plane from the plane of rotation).
- The experience is an illusion of roll, often accompanied by dizziness.
- This can be demonstrated by closing your eyes, spinning around, then tipping your head forward.
- Spinning chair demonstration

Vestibular Illusions

Occulogravic illusion

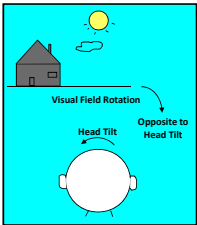
- During an aircraft carrier catapult launch forces of acceleration cause the false perception that the aircraft is "pitched up", when in fact, it is level.
- There have been a number of fatal mishaps that occurred because pilots nosed over following a catapult shot.

Motion Sickness

Sensory Conflict Theory James Reason

SENSORY MATCH



SENSORY MISMATCH

