

K	W	L
<h3>What do you know?</h3>	<h3>What do you want to know?</h3>	<h3>What have you learned?</h3>
<ul style="list-style-type: none"> <li>• Vestibular systems are mirror-symmetric structures within the inner ear</li> <li>• Linear accelerations are detected by the utricle and saccule</li> <li>• Angular accelerations are measured by the semi-circular canals</li> <li>• Utricle and saccule are the simplest vestibular organs, each of which consists of an ovoidal sac about 3mm in the longest dimension</li> <li>• Human utricle contains around 30,000 hair cells while the saccule contains around 16,000</li> <li>• Pilots all need extended periods of training to get used to the new vestibular stimulation pattern in flying</li> </ul>	<ul style="list-style-type: none"> <li>• How does the transduction of linear accelerations occur?</li> <li>• Vertigo</li> </ul>	<ul style="list-style-type: none"> <li>• Movements deflects the hair bundles elicits an electrical response in the hair cells</li> <li>• Macula of each utricle is oriented to lie in the horizontal plane</li> <li>• Any substantial acceleration within the horizontal plane will deflect the utricle hair cells</li> <li>• Hair cells are organized so that their axes of greatest mechanosensitivity lie in all possible directions</li> <li>• We have two vestibular labyrinths so damage to either one can cause disorientation and vertigo</li> <li>• CNS associates a specific pattern of vestibular activity within our behavioural repertoire</li> <li>• Abnormal activation of the vestibular system leads to elicitation of inappropriate reflexes</li> </ul>