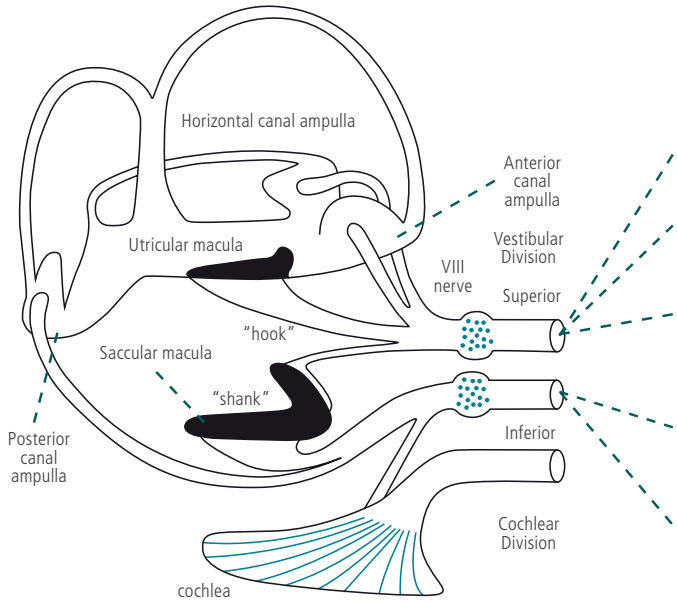
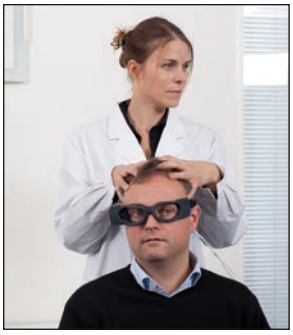
# The complete test of the vestibular peripheral system

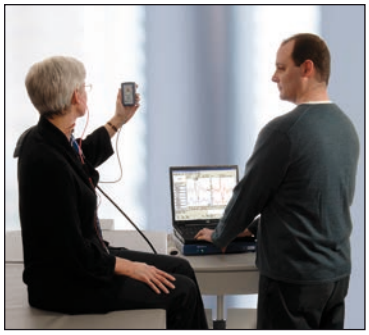
## Head Impulse / VEMP




| Clinical Test* | Healthy Subjects | Superior Vestibular Neuritis | Inferior Vestibular Neuritis | Unilateral Vestibular Loss |
|---|---|---|---|---|
| Horizontal head turn to ipsilateral horizontal canal | ✔ | ✘ | ✔ | ✘ |
| Pitch head impulse test in the plane of the ipsilateral anterior canal, head turn nose down – tests ipsilateral anterior canal | ✔ | ✘ | ✔ | ✘ |
| oVEMP n10 beneath the contralateral eye to bone conducted vibration at FZ, or air-conducted sound of one ear – tests utricular macula of the ear opposite to the eye | ✔ | ✘ | ✔ | ✘ |
| cVEMP p13-n23 over ipsilateral sternocleidomastoid (SCM) muscle to bone conducted vibration at Fz, or air-conducted sound of one ear -– tests saccular macula of the ear on the same side | ✔ | ✔ | ✘ | ✘ |
| Pitch head impulse in the plane of the ipsilateral posterior canal, head turn nose up – tests ipsilateral posterior canal | ✔ | ✔ | ✘ | ✘ |

✔ = Normal Response ✘ = Abnormal Response





*With Head Impulse and Vestibular Evoked Myogenic Potentials, you can test all 5 vestibular end organs for each ear: anterior, posterior, lateral semicircular canals, saccule and utricle.*

**Complete your test by assessing lateral, anterior and posterior semicircular canals in less than 20 minutes**

ICS Chartr EP 200 provides the ability to test dynamic otolith function by using vestibular-evoked myogenic potentials. The saccule is assessed through the use of cVEMP and the utricle is assessed through the use of oVEMP. The Chartr EP 200 measures the tonic EMG level during cVEMP data collection ensuring accurate data is obtained from both sternocleidomastoids and allowing for comparing the amplitude of the response with confidence.

When the results of oVEMP and cVEMP tests are combined with the results of Head Impulse, the clinician can obtain a full understanding about the state of the peripheral vestibular function for each end organ of the labyrinth, and will be better equipped to determine the type of abnormality present.

**) Ian S. Curthoys, PhD*
*The Interpretation of Clinical Tests of Peripheral Vestibular Function*
*The Laryngoscope: Volume 122, Issue 6, pages 1342–1352, June 2012*

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