Patient Information

Cervical vestibular evoked myogenic potential testing (cVEMP)

Audiology Department

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For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.
This leaflet is for patients who have been referred for cervical vestibular evoked myogenic potential testing (cVEMP). It aims to explain what cVEMP testing involves along with benefits, risks, and alternatives to the testing.

**What is cVEMP testing?**
Scientists have found that a particular part of the balance organ in your ear called the saccule can be stimulated by loud sounds, as well as by movements of your head or body. When the saccule is stimulated, one of the muscles in the neck is relaxed. cVEMP testing can be used to record activity in the neck in response to loud sounds and to assess whether the saccule is responding normally. Certain conditions can lead to the response to loud sounds from your inner ear being either too sensitive or not sensitive enough.

**What does cVEMP testing involve?**
You will be seen by a clinical audiologist for up to one hour. These clinicians are not medical doctors; they are audiologists who specialise in the assessment and management of hearing and balance problems. You will be asked questions about your symptoms and general health. To carry out cVEMP testing, some recording leads will be placed on your forehead, neck, and the top of the sternum (breastbone). These leads are attached to your skin with sticky pads. To help these make a good contact, the appropriate area will be cleaned first with a slightly abrasive gel and an alcohol wipe. The test requires your neck muscles to be tense. To do this in a controlled way the audiologist will ask you to lie down on the couch and raise your head for a short time, whilst listening to loud clicks through earphones. After testing, the audiologist is usually able to explain the results to you and will write a full report back to your referring consultant.

**Benefits**
cVEMP testing can help evaluate the function of the balance organ in each ear.

The response of the balance organs during the test is usually very subtle. Most people will not be aware of any sensation beyond hearing the clicking sounds.

**Risks**
cVEMP testing involves listening to repeated short click sounds that are played at loud levels, but as they are of very short duration they will not damage your hearing. If you are very sensitive to loud sounds or are troubled by tinnitus (ringing in the ears), please let the audiologist know so that they can try to maintain the sounds at a comfortable level for you. cVEMP testing can place a strain on the neck and can be difficult for some patients with neck or back problems. There will be a chance for rest between recordings but again, inform the audiologist of any problems so that they may try to maximise your comfort. Testing may not be possible in some patients.

**Alternatives**
cVEMP is the only clinical test currently available to evaluate the function of the saccule in the balance organ. Other clinical tests mostly evaluate another part of the balance organ called the horizontal canal.

**Before you come for your cVEMP appointment:**
- Please refrain from wearing any skin-covering make-up, such as foundation, as this will prevent the recording leads from sticking to your skin and the make-up may have to be removed in clinic.
- Try to wear clothes that give suitable access to the top of the breastbone, for example a button shirt is preferable to a roll-neck top.

**Contacts/ further information**
For further information please telephone 01223 217797 to speak to a vestibular audiologist.