

REF Cervicocephalic Relocation Test

CE Class I Medical Device

User manual

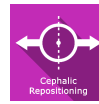
Distribution mode

Available for direct download at
<http://virtualisvr.com/espace-client/>

Use under licence

 **VIRTUALIS**

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DESCRIPTION

Cervicocephalic Relocation Test is an assessment software for neck muscle proprioception.

INDICATIONS

Assessment of neck muscle proprioception as part of an overall assessment of balance, postural repercussions, the cervical spine...

CONTRAINDICATIONS

Epileptic patients, children under 15 years of age, pregnant women

FOR USE BY

Healthcare professionals: Physiotherapists; Occupational therapists; Neuropsychologists; ENT doctors; Neurologists; PMR doctors (physical medicine and rehabilitation), etc.

Research Centers: CNRS, CHU, INSERM, etc.

WARNINGS AND CAUTIONS

During sessions, stay close to the patient in order to anticipate any loss of balance or discomfort caused by the use of virtual reality.

Define a working area of about 3m² to allow for risk-free movements.

Take a 10 to 15 minute break every 30 minutes of use.

Potential adverse effects are those due to the use of Virtual Reality, namely vomiting, malaise, dizziness, syncope.

The accessories required to use the software may emit radio waves that can interfere with the operation of nearby electronic devices. If you have a pacemaker or other implanted medical device, do not use the product until you have taken advice from your doctor or the manufacturer of your medical device.

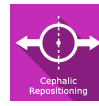


Any serious incident should be notified in writing to qualite@virtualisvr.com



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1. GENERAL

1.1. Advice for use

This type of re-education must be undertaken progressively, especially in Virtual Reality where the stimulation is much more "powerful" than the traditional optokinetic stimulators.

These stimulations have the potential to cause certain disorders: Vasovagal syncope, epileptic seizures, migraines, etc. (Despite a test phase on more than 2000 patients. Similarly to previous generation optokinetics, caution is required)

The contraindications are identical: Mainly epilepsy and migraines.

As postural reactions can be spectacular, it is VERY STRONGLY advised to place patients in a safe environment and to stay close to them throughout the session.

It is also recommended to increase the duration and intensity of the stimulation very gradually, after an initial short session to make sure of patients' tolerance to this type of stimulation.

Virtualis declines any liability for any disorders suffered by patients during or after use of its software.

1.2. Hardware and minimum configuration requirements

Hardware required to use the system:

- VR Ready PC
- VR System: HTC VIVE, HTC VIVE Pro or compatible system
- Lighthouse bases (HTC VIVE tracking)
- HTC VIVE Controller
- XBOX 360 Controllers
- USB HUB

In order to install and use our virtual reality applications, we recommend a configuration equal to or higher than the system requirements:

Technical Minimum Requirements

GPU

NVIDIA: Gen9 GTX 970 / Gen10 GTX 1060
AMD Radeon: R9 290 / RW 480 / Vega 56

CPU

Intel: I5 4590
AMD: FX 8350 / Ryzen 1400

Operating System

Windows 7 SP1

RAM

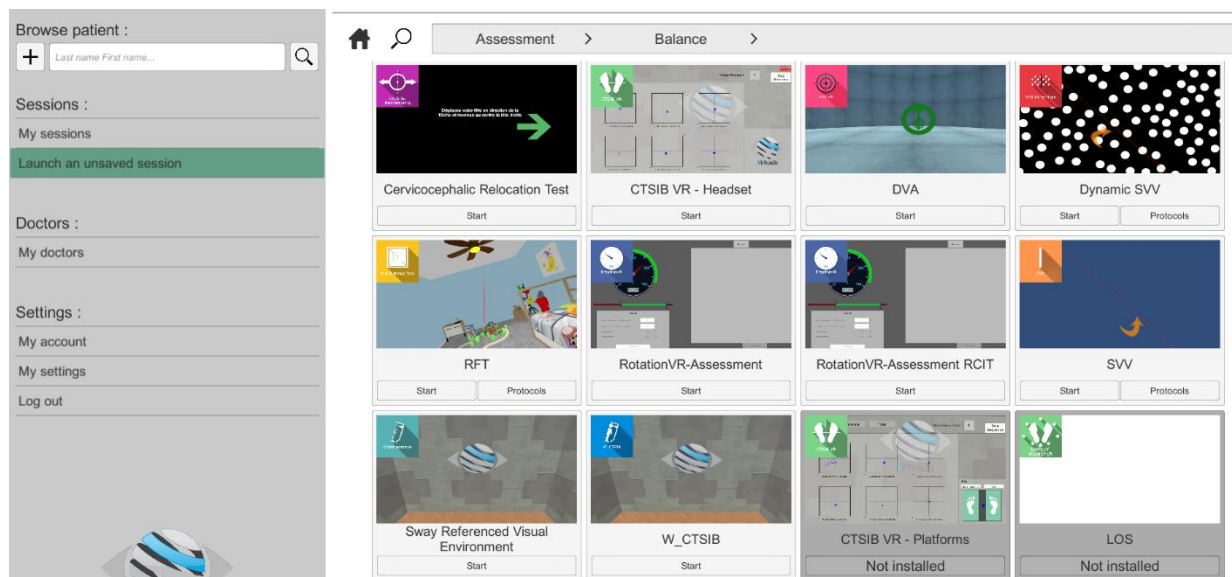
8 Go

2. USE OF PATIENT MANAGEMENT

Once connected to the Patient Management software, you arrive on the home page. It is from this home page that you will be able to start your VR software as well as the other Patient Management functions.

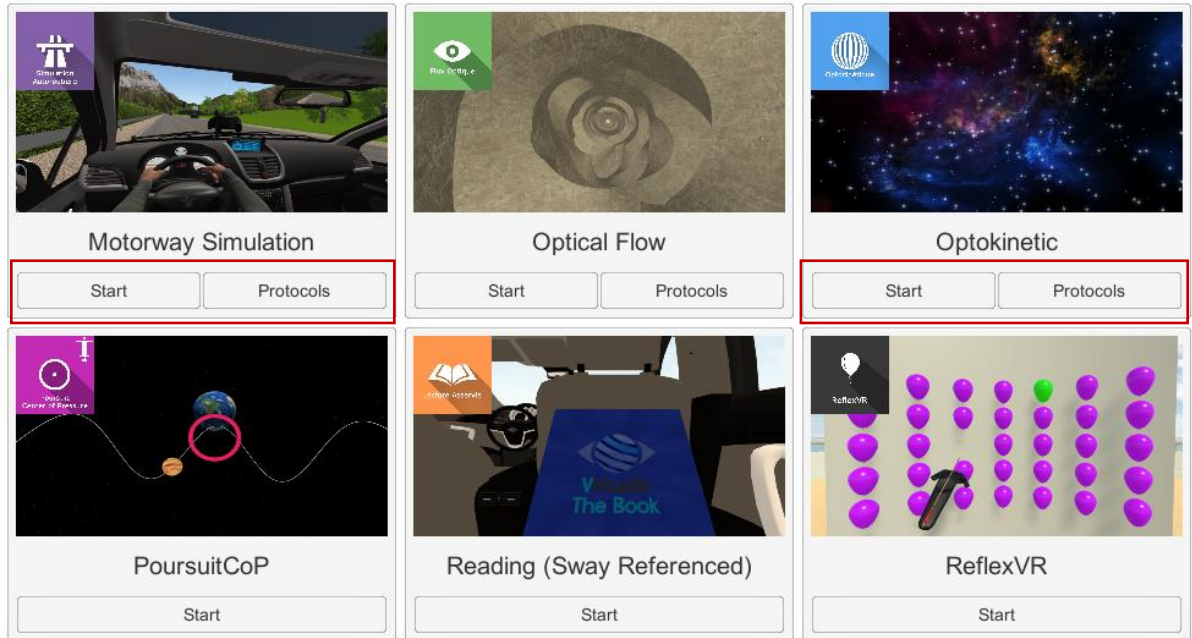
The software can be grouped according to criteria such as "Assessment" or "Re-education" and then by pathology type: Neurology, Balance, Functional or Travel sickness.

You can start or switch from one software to another from the home page by clicking the corresponding "Start" or "Protocols" button.

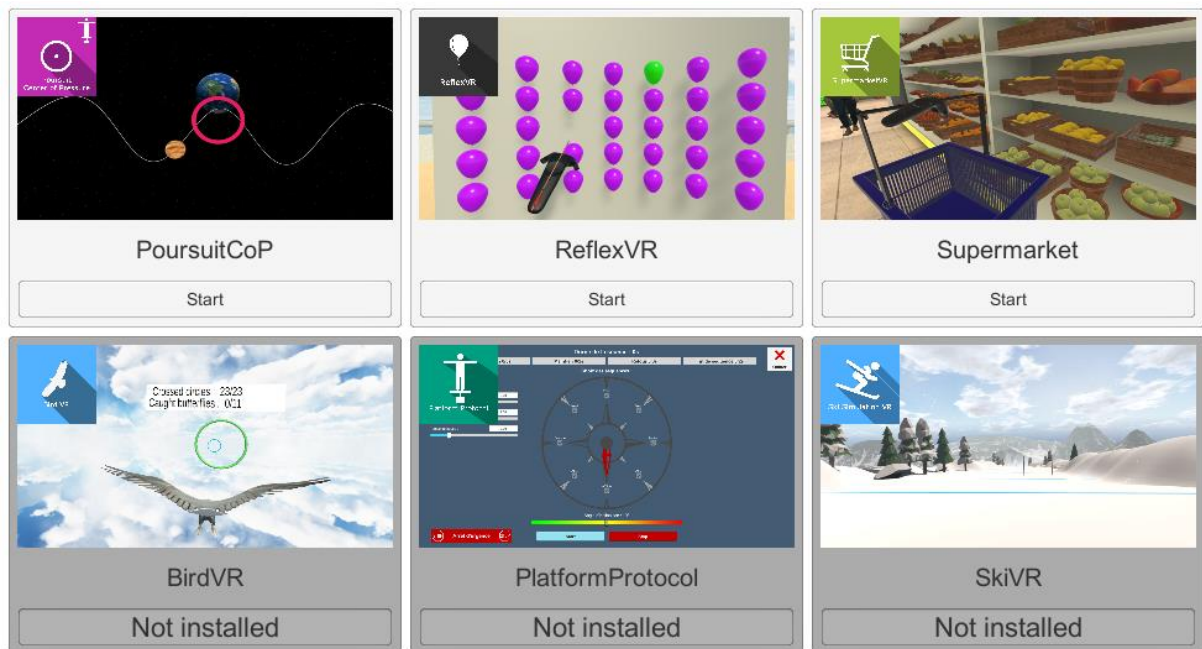


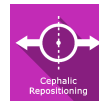
Some software can be started either in **manual mode**, by directly clicking the "Start" button, or in **protocol mode** by clicking the "Protocols" button.

The **manual mode** allows users to choose the settings for each environment. The **protocol mode** offers several sessions with different difficulty levels to test and gradually accustom patients to the VR environment.



Software that is not part of your subscription package is greyed out. If you want to use it, please contact our sales department.





3. CERVICOCEPHALIC RELOCATION TEST

3.1. Module field of application

This test measures cervical muscle proprioception effectiveness.

Ref : N. Pinsault et al. / Annales de réadaptation et de médecine physique 49 (2006) 647–651:
“Test de repositionnement céphalique : étude de la stabilité de performance Cervicocephalic relocation test : a study of performance stability”

3.2. Installing the patient

Use in the sitting or standing position.

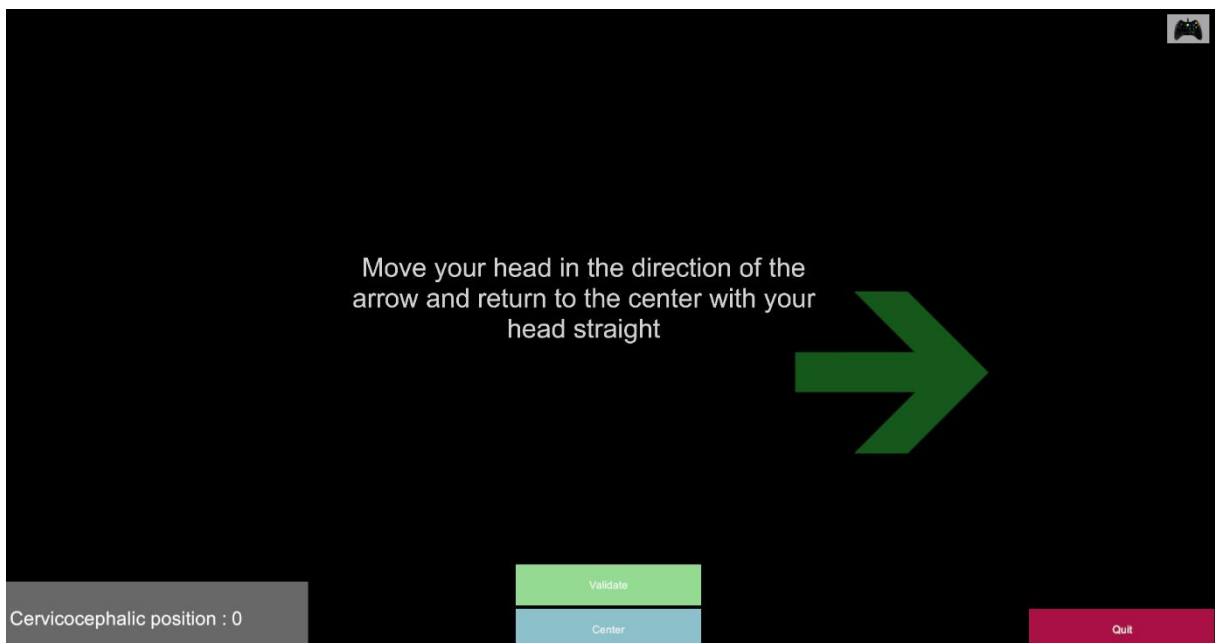
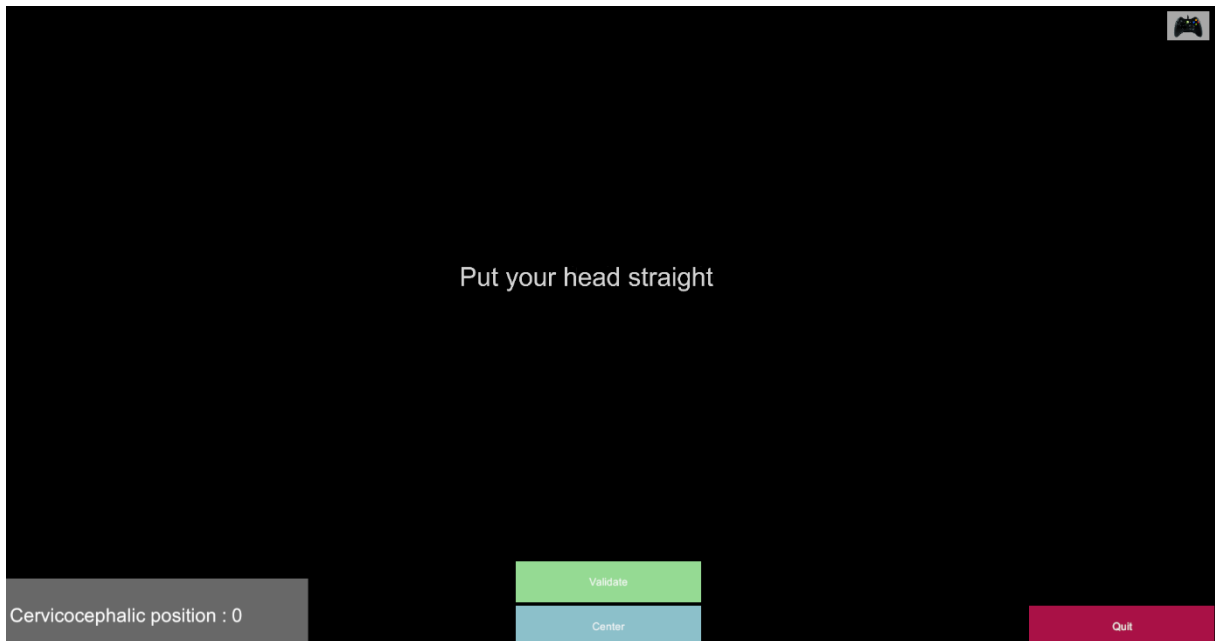
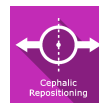
3.3. Session settings

Patients rotate to the right or left and return to the initial position, with their head straight. When patients believe they have returned to the initial position, with their head straight, they validate the position by pressing joystick key A. Practitioners can also validate the position indicated by patients using the mouse by simply clicking the "validate" button.

All the indications required for the exercise are written inside the mask, so that patients can carry out the test on their own.

The number of measurements (maximum 24) can be varied using the + / - buttons.

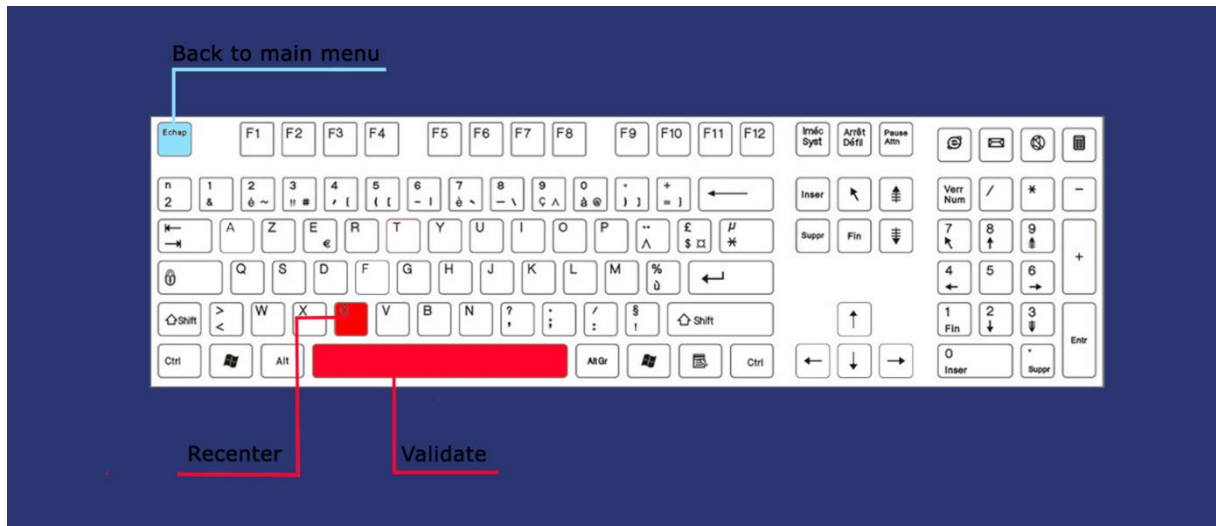
Start the 1st measurement, validate it (green button) and then move on to the next measurement.



3.4. Shortcuts

Keyboard or joystick shortcuts can be accessed in two ways:

- on the "Shortcuts" tab available at the start interface level
- within the module, by clicking on the joystick icon in the upper right corner of the screen



3.5. Data processing

Data retrieval and analysis uses the Patient Management software.