



Modern computer technology springs to mind, facilitating complex evaluations in vestibular analysis.

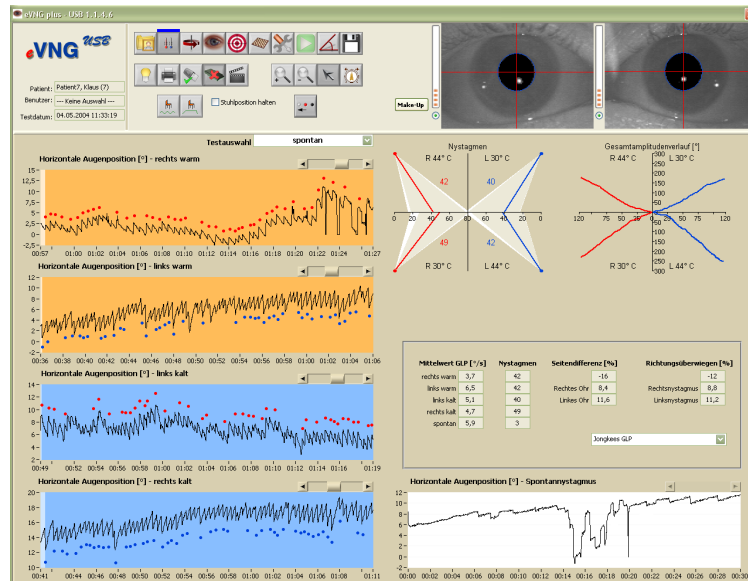
The eVNG is connected via USB 2.0 interface to a PC or notebook. The improved algorithm is able to extract the pupil from the video stream even if the patient wears make-up. The eye movement is automatically displayed and evaluated.

The application is based on a patient database, which contains all the related data. The database can be accessed via the local network.

All tests can be easily accessed through buttons. In the patient manager all tests are clearly displayed with date of examination and kind of test.

In the Basic Version of the program it provides tests for spontaneous nystagmus, caloric test and position/positioning tests.

An extension for optokinetic tests and rotational testing is possible at any time.



User friendly routine check with the nystagmography system eVNG

- » real time image of the eyes
- » improved image processing algorithm (even with make-up)
- » automatic nystagmus detection
- » calculation of all relevant parameters
- » improved automatic artefact rejection
- » sharpness adjustment
- » full automatic test sequences
- » stable binocularly video goggle with mask cover
- » hot mirror adjustable in 3 steps
- » Detailed results printout
- » soft cushion for optimal and comfortable fit
- » foot switch
- » no other computer hardware!

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Modular Video Nystagmography System eVNG

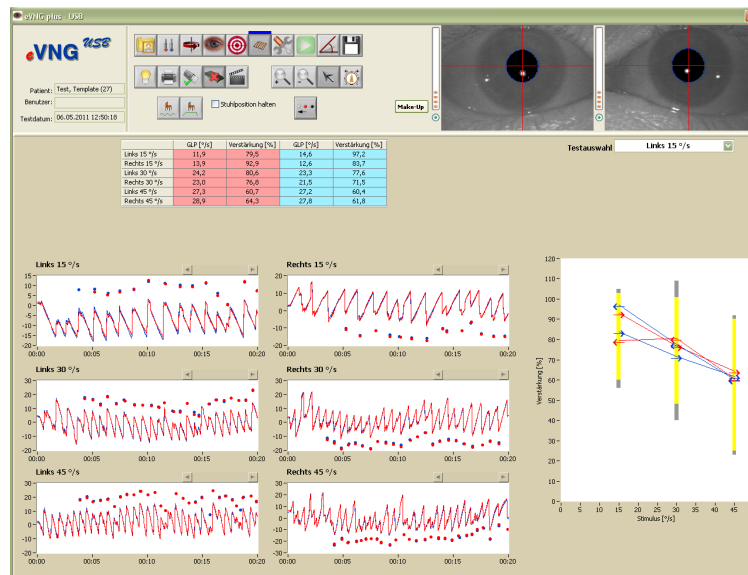


Combi video goggle

The combined video mask can be used either for investigations into darkness and for visual stimulation.

The video goggle is focusable and can be individually adjusted both horizontally and vertically on the eye of the patient.

The soft cushion guaranteed a pleasant and lightproof fitting to the face.



The user application

- » network ready
- » binocularly analysis at 100 Frames/s
- » manual nystagmus marking
- » kompatibel with Windows XP (32/64 Bit), Windows 7.0 (32/64 Bit)



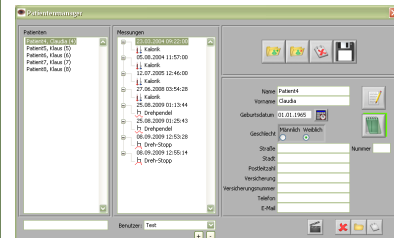
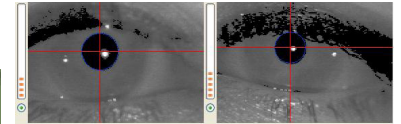
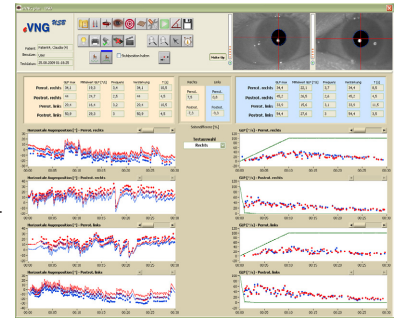
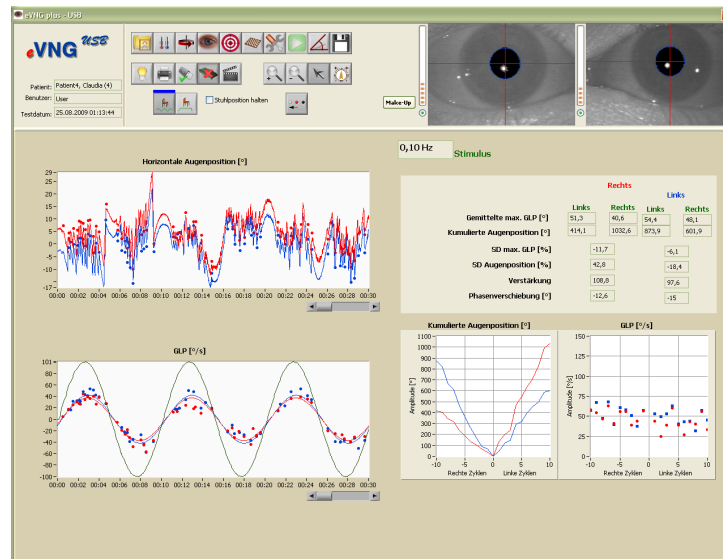
The temporal resolution of VNG systems

Cameras in conventional videonystagmographic systems work with the composite video signal. The time resolution of the composite standard is 25 frames/s. Each Frame contains 2 half images which doubles the timeresolution to 50 frames/s. For many examinations is a time resolution of 50 f/s to low.

The eVNG USB don't use this standard. So the video goggles can transfer 100 Frames/s binocularly and 200 frames/s monocularly.

Visualisation of the Data

The complete measurement data can be processed offline. The parameters of nystagmus detection can be changed to detect even very small eye movements. As a special Feature, be convinced by the animation of eye movements without additional memory usage.



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Optokinetic und rotatory chair

The eVNG System is ready for optokinetic tests, smooth pursuit tests, saccadic and antisaccadic tests. For rotational testing the eVNG can be connected to the rotatory chair Nydiag 200.

KALORistar Arctic - the cooler one the air irrigator with active cooling:

With the „Arctic KALORistar“ you have a powerful tool available to stimulate the vestibular organ. Due to the innovative concept of active cooling a cold stimulus is always guaranteed. Thus, this device can be used not only in practice but also in clinical research. The eVNG USB software is able to remote control the device, with this feature a „one button“ operation is possible.

- cold stimulus 7 Kelvin under ambient temperature
- air flow 5 liters/minute
- blue display, 4 button operation
- stable hand held



Technical Specifications

Sample rate: binocularly 100 Hz
Resolution: 0,1 °
Camera: 1280 (H) x 1024 (V)
Illumination: DIN EN 60825-1
Applied Standards: EN 60601-1 / 1-1 / 1-2 und MDD

Software:
Caloric, Position/Positioning, Spontaneous, Optokinetic, Rotational testing
Compatibel with Windows XP (32/64 Bit), Windows Vista (32/64 Bit), Windows 7.0 (32/64 Bit)