

'Smart glasses' can improve gait of Parkinson's patients

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A new app for intelligent glasses, such as Google Glass, will soon make it possible to improve the gait of patients suffering from Parkinson's disease and to decrease their risk of falling. Researchers at the University of Twente's MIRA Institute have received a grant from the NutsOhra fund for the development of the app.

The gait of Parkinson's [patients](#) is often disturbed: sometimes this presents as a shuffling movement with the patient taking [small steps](#), or it may result in the patient constantly looking for additional support. Gait disturbance also increases the chance of a fall, despite the progress made in terms of medication. Researchers have established that the [gait](#) of patients improves when they regularly see or hear a pattern. Examples might include stripes on the floor, or the regular ticking of a metronome.

The researchers, working under the leadership of Prof. Richard van Wezel, who is professor of Neurophysiology at the UT and is also attached to the Donders Institute in Nijmegen, are now looking at exploring the possibility of using the intelligent glasses, such as Google Glass, that are now coming on to the consumer market.

Intelligent glasses would be able to provide patients with the regular visual or audible patterns required. These patterns may take the form of moving stripes or shapes which the patient sees through the glasses, flashing shapes, or music with varying tempos. The latest intelligent glasses already have inbuilt cameras and accelerometers. By using these, it will be possible to determine which approach works best for each

individual patient.

Provided by University of Twente

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