

Auditory Walker

In addition to the Audio-Visual Walker, GaitAid Medical has developed the Auditory Walker as a separate device, which employs the auditory channel for providing the patient with sensory gait feedback. The apparatus produces a ticking sound in response to the patient's steps, one tick per step. The patient hears the auditory cue produced by the steps through earphones, and can modify the auditory cue by modifying gait. A steady balanced gait will produce a pleasant auditory cue, synchronized with the patient's own steps, "rewarding" the patient for making the effort. The Auditory walker has been clinically tested and found to significantly improve gait in PD and MS patients. This product can be particularly helpful as a low cost alternative to the Audio-Visual Walker, and as a solution for patients with vision impairment.



Clinical Trials

Preliminary clinical trials included 20 randomly selected patients with Parkinson's disease (PD) and 16 patients with multiple sclerosis (MS), predominantly affected by cerebellar ataxia, on their regular medications. Both on-line effects and short-term residual effects (measured 15 min after removing the device) were tested. The percentage of patients who improved either walking speed or stride length or both by more than 10% are reported below:

PD patients:

Auditory Walker – on line: 45%

Auditory Walker – residual: 50%

MS patients:

Auditory Walker – on line: 57%

Auditory Walker – residual: 86%