



## Patients' perceptions of functional electrical stimulation (FES) for drop foot

J McAdam, LPJ Kenney and C Nester Centre for Rehabilitation and Human Performance Research, University of Salford, A Bowen HCD, School of Psychological Sciences, University of Manchester and PN Taylor Department of Medical Physics and Biomedical Engineering, Salisbury District Hospital, Salisbury

**Background:** Functional electrical stimulation (FES) has been shown to improve walking speed in drop foot stroke subjects by 0.13 m/s. The primary reason for its use has been reported as a 'reduction in effort', which may extend beyond the physical domain to include concentration. This study explored the effects of FES and the users' perceptions of their relative importance. Method: A questionnaire was sent to 75 adults with hemiplegic gait resultant from stroke. Non-respondents were followed up.

**Results:** Fifty-eight people responded, of whom 30 were current FES users. FES users identified, from a list of 13 statements, the positive effects upon gait and the single most important reason for using FES. Twenty-two respondents walked faster with FES; only one ranked this effect first. Users rated, on a three point scale, concentration needed during walking with / without FES. A significant reduction in the perceived level of concentration required with FES was observed (McNemar\_2\_ 13.06, df\_ 1, PB 0.001, 2-tailed). FES users rated the impact of walking with FES in relation to dual-task conditions, represented by 10 statements. Forty per cent ranked avoiding a trip first. Discussion: Consistent with the literature, increase in walking speed was not of primary importance. The significant perceived reduction in concentration during walking requires further investigation. The dual-task question supports the importance of fall-avoidance following stroke.

**Conclusion:** Moderate increases in walking speed appear to be of less importance to users than other effects. Further investigation of the impact of FES on attention and falls is supported.

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