

# Parkinson's Disease

## Current Awareness Bulletin

**April 2012**

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**Jason Ovens  
Library & Knowledge Service Manager**

**Healthcare you can Trust**

**Title: Randomized Controlled Trial of Community-Based Dancing to Modify Disease Progression in Parkinson Disease.**

**Citation:** Neurorehabilitation & Neural Repair, 01 February 2012, vol./is. 26/2(132-143), 15459683

**Author(s):** Duncan, Ryan P., Earhart, Gammon M.

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**Title: Gait changes with walking devices in persons with Parkinson's disease.**

**Citation:** Disability & Rehabilitation: Assistive Technology, 01 March 2012, vol./is. 7/2(149-152), 17483107

**Author(s):** Bryant, Mon S., Pourmoghaddam, Amir, Thrasher, Adam

**Abstract:** Purpose: To study immediate gait changes in persons with PD when walking with different assistive walking devices. Methods: Ten individuals with idiopathic PD participated in the study. Gait parameters were recorded while walking with a cane and a wheeled walker, and were compared to a free walk without a walking device. Results: Persons with PD walked with slower gait speed when using a cane and a wheeled walker compared to walking without any device ( $p = 0.007$ ,  $p = 0.002$ , respectively). Stride length reduced significantly when walking with a wheeled walker ( $p = 0.001$ ). Walking with the assistive devices did not affect cadence, double support phase, heel to heel base of support, stride time, and stance period. Conclusion: Persons with PD immediately walked with slower gait speed when using either a cane or a wheeled walker, and with shorter stride length when walking with a wheeled walker. The results may lead to more cautious clinical practice in gait rehabilitation using ambulatory assisted devices.

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**Title: Anorectal dysfunctions in Parkinson's disease.**

**Citation:** Journal of the Neurological Sciences, November 2011, vol./is. 310/1-2(144-51), 0022-510X;1878-5883 (2011 Nov 15)

**Author(s):** Kim JS, Sung HY, Lee KS, Kim YI, Kim HT

**Abstract:** Anorectal symptoms are frequently found in patients with Parkinson's disease (PD), mainly manifested as diffuse lower abdominal discomfort, constipation, and fecal incontinence. Among these symptoms, constipation may precede by years the motor manifestations of PD. Research has focused for decades on selection of a measurement method for detection of abnormalities and support of clinometric instruments for anorectal symptoms. We review those manifestations and their contribution to evaluation of the anorectal symptoms in patients with PD. Copyright Copyright 2011 Elsevier B.V. All rights reserved.

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**Title: Improving sleep management in people with Parkinson's.**

**Citation:** British Journal of Community Nursing, January 2012, vol./is. 17/1(14-20), 1462-4753 (2012 January)

**Author(s):** Gregory\*, Pamela, Morgan, Kevin, Lynall, Anna

**Abstract:** Rationale, delivery and evaluation of a sleep management course developed for Parkinson disease nurse specialists. Course content and objectives for sessions including sleep assessment and the teaching of cognitive behavioural sleep management skills to patients are described, and patient and nurse evaluations of the training intervention are discussed. [ORIGINAL] 31 references

**Full Text:**

Available in *fulltext* at [EBSCOhost](#)

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**Title:** Care in the home.

**Citation:** Nursing Times, January 2012, vol./is. 108/4(26-27), 0954-7762 (2012 January)

**Author(s):** Entwistle, Fran

**Abstract:** Role Model series. Profile of Lynn Gill, a Parkinson's disease specialist nurse, and her community initiative at Northern Devon Healthcare NHS Trust. The service she has developed providing care and support for people at home is described and its success in reducing hospital admissions for people with Parkinson's disease is outlined. [ORIGINAL] 0 references

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**Title:** Apathy in Parkinson's disease: Diagnostic and etiological dilemmas

**Citation:** Movement Disorders, February 2012, vol./is. 27/2(174-178), 0885-3185;1531-8257 (February 2012)

**Author(s):** Starkstein S.E.

**Abstract:** About one-third of patients with Parkinson's disease (PD) are diagnosed with apathy in cross-sectional studies. However, once patients with concomitant depression and dementia are excluded, the frequency of apathy drops to 5% to 10%. Several scales have been recommended to rate apathy in PD, but specific psychiatric interviews have not been developed, and recently proposed standardized diagnostic criteria are still in the validation process. Most studies assessing the association between subthalamic deep brain stimulation (STN-DBS) and apathy have reported a relative increase in the frequency and severity of apathy, although discrepant findings have also been reported. Several mechanisms to explain apathy in PD have been proposed, from dopaminergic imbalances in frontal-basal ganglia circuits to dysfunction of nondopaminergic circuits and the cingulate gyrus. Future studies should provide reliable and valid instruments to diagnose apathy in PD, and should examine the mechanism of apathy accounting for relevant confounders, such as depression and cognitive deficits, and important contextual factors. Finally, treatment for apathy in PD should not be restricted to psychoactive drugs, but should also include nonpharmacological techniques such as psychotherapy and occupational therapy. 2012 Movement Disorder Society.

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**Title: An exercise intervention to prevent falls in people with Parkinson's disease: A pragmatic randomised controlled trial**

**Citation:** Journal of Neurology, Neurosurgery and Psychiatry, November 2011, vol./is. 82/11(1232-8), 1481-5532 (2011 Nov)

**Author(s):** Goodwin VA, Richards SH, Henley W, Ewings P, Taylor AH, Campbell JL

**Abstract:** Objectives: To compare the effectiveness of an exercise programme with usual care in people with Parkinson's disease (PD) who have a history of falls. Design: Pragmatic randomised controlled trial. Setting: Recruitment was from three primary and four secondary care organisations, and PD support groups in South West England. The intervention was delivered in community settings. Participants: People with PD, with a history of two or more falls in the previous year, who were able to mobilise independently. Intervention: 10 week, physiotherapy led, group delivered strength and balance training programme with supplementary home exercises (intervention) or usual care (control). Main outcome measure: Number of falls during the (a) 10 week intervention period and (b) the 10 week follow-up period. Results: 130 people were recruited and randomised (64 to the intervention; 66 to usual care). Seven participants (5.4%) did not complete the study. The incidence rate ratio for falls was 0.68 (95% CI 0.43 to 1.07,  $p=0.10$ ) during the intervention period and 0.74 (95% CI 0.41 to 1.33,  $p=0.31$ ) during the follow-up period. Statistically significant between group differences were observed in Berg balance, Falls Efficacy Scale-International scores and recreational physical activity levels. Conclusions: The study did not demonstrate a statistically significant between group difference in falls although the difference could be considered clinically significant. However, a type 2 error cannot be ruled out. The findings from this trial add to the evidence base for physiotherapy and exercise in the management of people with PD.

**Full Text:**

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**Title: Whole-body vibration training for patients with neurodegenerative disease.**

**Citation:** Cochrane Database of Systematic Reviews, 01 February 2012, vol./is. /2(0-), 1469493X

**Author(s):** Sitjà Rabert M, Rigau Comas D, Fort Vanmeerhaeghe A, Santoyo Medina C, Roqué i Figuls M, Romero-Rodríguez D, Bonfill Cosp X

**Abstract:** Background:, Whole-body vibration (WBV) may be a complementary training to standard physical rehabilitation programmes and appears to have potential benefits in the sensorimotor system performance of patients with neurodegenerative diseases., Objectives:, The aim of this review was to examine the efficacy of WBV to improve functional performance according to basic activities of daily living (ADL) in neurodegenerative diseases. Additionally, we wanted to assess the possible effect on signs and symptoms of the disease, body balance, gait, muscle performance, quality of life and adverse events., Search methods:, We searched the following electronic databases: the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library, 2011 Issue 4), MEDLINE (1964 to 6 May 2011; via PubMed), EMBASE (1980 to 6 May

2011; via Ovid), PeDro (1929 to May 2011; via website), CINAHL (to September 2011; via Ovid) and PsycINFO (1806 to 6 May 2011; via Ovid)., Selection criteria:, We included randomised controlled trials comparing single or multiple sessions of WBV to a passive intervention, any other active physical therapy or WBV with different vibration parameters., Data collection and analysis:, Two review authors independently selected trials for inclusion, assessed trial quality and extracted data. Disagreement was resolved by discussion or, if necessary, referred to a third review author., Main results:, We included 10 trials, of which six focused on Parkinson's disease and four on multiple sclerosis. None of the studies reported data on the primary outcome (functional performance). In Parkinson's disease, after pooling two studies, a single session of WBV caused a significant improvement of gait measured using the Timed Up and Go test (TUG) in comparison to standing exercises (mean difference -3.09, 95% confidence interval -5.60 to -0.59;  $P = 0.02$ ;  $I^2 = 0\%$ ). Nevertheless, longer duration of WBV did not show significant results in comparison with physical therapy in body balance or signs and symptoms measured with the Unified Parkinson's Disease Rating Scale (UPDRS). In multiple sclerosis there was no evidence of a short-term or long-term effect of WBV on body balance, gait, muscle performance or quality of life., Adverse events were reported in few trials. In those trials that reported them, the intervention appeared to be safe., Authors' conclusions:, There is insufficient evidence of the effect of WBV training on functional performance of neurodegenerative disease patients. Also, there is insufficient evidence regarding its beneficial effects on signs and symptoms of the disease, body balance, gait, muscle strength and quality of life compared to other active physical therapy or passive interventions in Parkinson's disease or multiple sclerosis. More studies assessing other functional tests and accurately assessing safety are needed before a definitive recommendation is established., [CINAHL Note: The Cochrane Collaboration systematic reviews contain interactive software that allows various calculations in the MetaView.]

**Full Text:**

Available in *fulltext* at [Wiley](#)

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**Title: A Training Program to Improve Gait While Dual Tasking in Patients With Parkinson's Disease: A Pilot Study.**

**Citation:** Archives of Physical Medicine & Rehabilitation, 01 January 2012, vol./is. 93/1(176-181), 00039993

**Author(s):** Yogev-Seligmann, Galit, Giladi, Nir, Brozgol, Marina, Hausdorff, Jeffrey M.

**Abstract:** Abstract: Yogev-Seligmann G, Giladi N, Brozgol M, Hausdorff JM. A training program to improve gait while dual tasking in patients with Parkinson's disease: a pilot study. Impairments in the ability to perform another task while walking (ie, dual tasking [DT]) are associated with an increased risk of falling. Here we describe a program we developed specifically to improve DT performance while walking based on motor learning principles and task-specific training. We examined feasibility, potential efficacy, retention, and transfer to the performance of untrained tasks in a pilot study among 7 patients with Parkinson's disease (PD). Seven patients (Hoehn and Yahr stage,  $2.1 \pm 0.2$ ) were evaluated before, after, and 1 month after 4 weeks of DT training. Gait speed and gait variability were measured during usual walking and during 4 DT conditions. The 4-week program of one-on-one training included walking while performing several distinct cognitive tasks. Gait speed and gait variability during DT significantly improved. Improvements were

also seen in the DT conditions that were not specifically trained and were retained 1 month after training. These initial findings support the feasibility of applying a task-specific DT gait training program for patients with PD and suggest that it positively affects DT gait, even in untrained tasks. The present results are also consistent with the possibility that DT gait training enhances divided attention abilities during walking.

### **Sources Used**

The following databases are searched on a regular basis in the development of this bulletin:

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