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## Neurology

Miller School of Medicine

### How to Select the Right Walking Device

Gait disorders affect 8 to 19 percent of non-institutionalized adults in the United States, requiring these persons to obtain the assistance of another person or to use special walking devices to walk (2). Walking devices (e.g., canes, crutches, walkers) are usually simple mechanical structures designed to provide support by bearing some of the user's body weight and to increase stability and balance by adding an additional point (or points) of ground contact (3). A walking device, used by individuals who require additional support while walking, can prevent many potential falls and improve balance and mobility for adults with gait problems from neurological disorders such as Parkinson's disease (PD), injuries, or other musculoskeletal impairments. Such devices also improve the quality of life for residents by helping them participate in physical or social activities that their physical limitations might otherwise prevent them from engaging in. However, if the walking devices themselves are unsafe or if individuals are not trained to use the devices safely, serious injury can result from their use.

Professional assessment of an individual's ability to safely and appropriately use a walking device is an important consideration for walking device prescriptions. A physician and a physical therapist should work collaboratively with the individual to select the most appropriate device, and providers should ensure that walking devices are properly evaluated for safety (3). Many factors are involved in determining whether an individual is an appropriate candidate for a walking device. These factors include the individual's cognitive function, judgment, upper body strength, vision, balance, physical endurance, and living environment (2). Significant deficits in any such functions may limit an individual's ability to safely use a device. If it is determined that an individual is an appropriate candidate for a walking device, the physician and the physical therapist should work together to select the appropriate device for the individual. The individual should use the selected device while in the presence of the physician or therapist to assess his or her safe use of the device. Inappropriate selection of a device can

result in a poor gait pattern, which increases energy expenditure and the risk of falls (2).

When choosing a walking device one should determine if the individual has the cognitive ability to perform the coordination of lifting or pushing a device with ongoing body movement (1). The individual should be evaluated to determine whether one or both arms are required to maintain balance or bear weight. Individuals requiring only one arm can usually use a cane, while patients requiring both arms usually use a walker (2). The best way to determine what the individual needs to function adequately in a day-to-day life is by observing the person in his or her normal living environment and assessing his or her specific needs. Walking devices, which may prove useful in some situations, may actually be unsafe in others (1). Also consider whether the individual must use steps. The individual should consider a walking device that allows the person to walk at a speed required for safety.

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NATIONAL PARKINSON FOUNDATION

## How to Pick the Right Walking Device: Continued

The most commonly prescribed walking devices include the cane and the walker. Canes widen a person's base of support thereby providing increased balance. A cane is typically used when only one arm is required for balance or bearing weight. The gait pattern of a person using a cane usually involves placing the cane in the opposite hand from the leg with the most severe deficit. The cane is then advanced with the opposite (deficient) leg, consistent with normal gait (2). A walker is typically used when both arms are required for balance or bearing weight. Walkers improve balance by increasing the person's base of support, enhancing lateral stability, and supporting the person's weight. The typical gait pattern of individuals with Parkinson's disease is usually characterized by small shuffling gait, hesitation, festinating gait, propulsion, retropulsion, en bloc turns, and absent arm swing. For this reason the most commonly suggested walking device for individuals with PD include the front-wheeled and four wheeled walkers. Wheels on the walker permit the person to maintain a more normal gait pattern than compared to a standard walker without wheels. The front-wheeled walker is better suited for individuals with moderate to severe PD and the four-wheeled walker is better suited for individuals with mild to moderate PD (2). When needed, these walkers can be modified to provide sturdier construction, larger wheels, hand braking system, or a seat.

Whether a person requires a walking device because of gait problems related to pain, weakness or decreased balance due to a neurological disorder like PD, the goal is to help the person maintain independence. The key is to select the least restrictive walking device that offers the most help. However, assistance with walking is not the only thing to be considered, several other factors need to be taken into account when selecting a practical but safe walking device.

Additionally, changes in the individual's walking needs over time should be regularly assessed. Safety should always be the first consideration, as improper use of walking devices is a common cause of falls and injuries (1).

Written by: Sabrina Joseph, PT, DPT



St. Catherine's Rehabilitation  
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### Work Cited

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### Message from Dr. Singer

Our clinical practice has continued being very busy and we have had to make some changes. We are currently servicing the PAC Clinic, Plantation Clinic, the Boca Raton facility and Kendall office. For the time being we have had to close our Hialeah Clinic. As we get new personnel on board we should be able to made additional adjustments. We continue to pay attention to our accessibility.



Dear 2012 Moving Day Participants:

**Moving Day Miami 2013**  
**Sunday, October 6**  
**Bayfront Park**

Plans are underway for **Moving Day Miami 2013** and we hope that you'll join us once again with Team UM in the fight against Parkinson's disease!

## Carlos Singer, MD in Miami Location



Dr. Carlos Singer sees patients Monday thru Thursdays at our UHealth offices in the Professional Art Center, 1150 NW 14 Street, Room 609, Miami, FL, 33136  
For appointments or additional information: (305) 243-3100 or (305) 243-6732

## Fatta Nahab, MD in Kendall and Miami Location



Dr. Fatta Nahab sees patients at our UHealth Miami location every Monday  
Address: Professional Arts Center, 1150 NW 14 St., Suite 609, Miami, FL 33136  
Kendall location every other Tuesday  
Address: 8932 SW 97 Ave., Miami, FL 33176  
For appointments or additional information: (305) 243-3100 or (305) 243-6732

## Henry P. Moore, MD in Boca Raton and Miami Location



Dr. Henry P. Moore sees patients at our UHealth Boca Raton location every Monday and Thursday  
Address: 3848 FAU Blvd., Suite 305, Boca Raton, FL 33431  
Miami location every Tuesday and Wednesday  
Address: Professional Arts Center, 1150 NW 14 St., Suite 609, Miami, FL 33136  
For appointments or additional information: (305) 243-3100 or (305) 243-6732

## Corneliu C. Luca, M.D., Ph.D. in Plantation and Miami Location



Dr. Luca sees patients at our UHealth Plantation location every Tuesday afternoon.  
Address: Plantation Crossroads Business Park, 8100 SW 10th St., Bldg. 3, Plantation, FL  
Miami location every Thursday  
Address: Professional Arts Center, 1150 NW 14 St., Suite 609, Miami, FL 33136  
For appointments or additional information: (305) 243-3100 or (305) 243-6732

## Angela Russell, ARNP, Ph.D. in Miami Location



Dr. Angela Russell, Ph.D., ARNP-BC sees follow-up patients as scheduled at our UHealth and St. Catherine's Rehabilitation Hospital in North Miami, FL  
Miami location on Thursdays  
Our offices in the Professional Art Center, 1150 NW 14 Street, Room 609, Miami, FL, 33136  
For appointments or additional information: (305) 243-3100 or (305) 243-6732

## George Dumenigo, LCSW, MSW in Miami Location



George Dumenigo, LCSW sees patients at our UHealth Miami Location every Monday thru Friday  
Address: Profession Arts Center, 1150 NW 14 St., Suite 604, Miami, FL, 33136  
For appointment call George directly at (305) 243-1865 or E-mail: [gdumenigo@med.miami.edu](mailto:gdumenigo@med.miami.edu)

# PARKINSON INSIDER

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Please remember that the material presented in this newsletter is for informational purposes only. It should not be used for treatment purposes. Consult with your physician for further information and discussion, if needed.

The Parkinson Insider is published three times a year for patients and their caregivers with Parkinson's disease and other movement disorders.



*Mark Your Calendar!*

## *Parkinson's Disease 101 (In Spanish)*

Tuesday April, 23 and 30, 2013

(This event is a free two day educational series that includes lunch)

Time: 10:00AM—12:30PM

**Presenters** Henry P. Moore, MD & George Dumenigo, LCSW, Licensed Clinical Social Worker

**Location:** The Palace Suites, 11377 SW 84<sup>th</sup> Street, Miami, FL 33173

## *Parkinson's Disease 101 (In English)*

Tuesday October, 15 and 22, 2013

(This event is a free two day educational series that includes lunch)

Time: 10:00AM—12:30PM

**Presenters** Angela Russell, Ph.D., ARNP-BC & George Dumenigo, LCSW, Licensed Clinical Social Worker

**New Location:** The Palace at Coral Gables, 1 Andalusia Avenue, Coral Gables, FL

## *Parkinson's Disease Support Group/Exercise Class*

Group meets the first Wednesday of each month at 1:30pm

**Location:** St. Catherine's West Rehabilitation Hospital, 8850 NW 122 St., Hialeah Gardens, FL

\*Exercise Class will be for 30 minutes prior to Support Group. *Exercise Class starts at 1pm.*

*\*Refreshments Provided and Free Parking is Available.*

We are grateful to the NPF for their support of the Parkinson Insider.