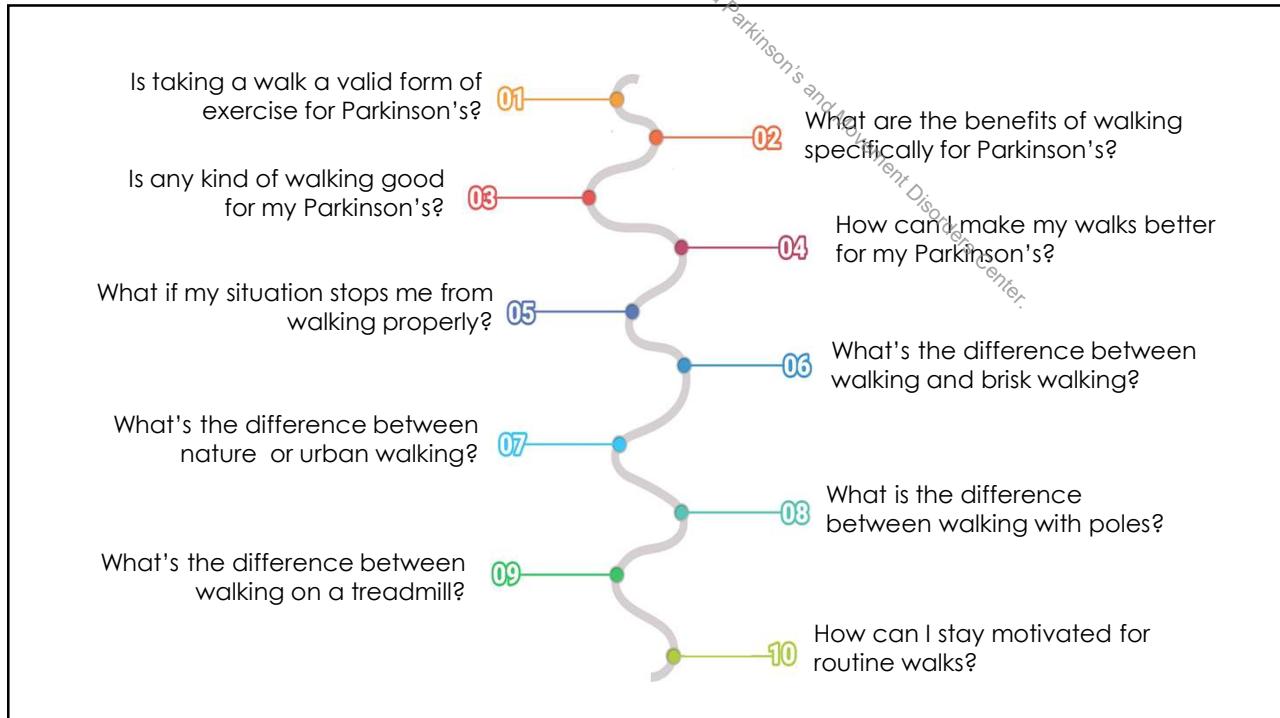


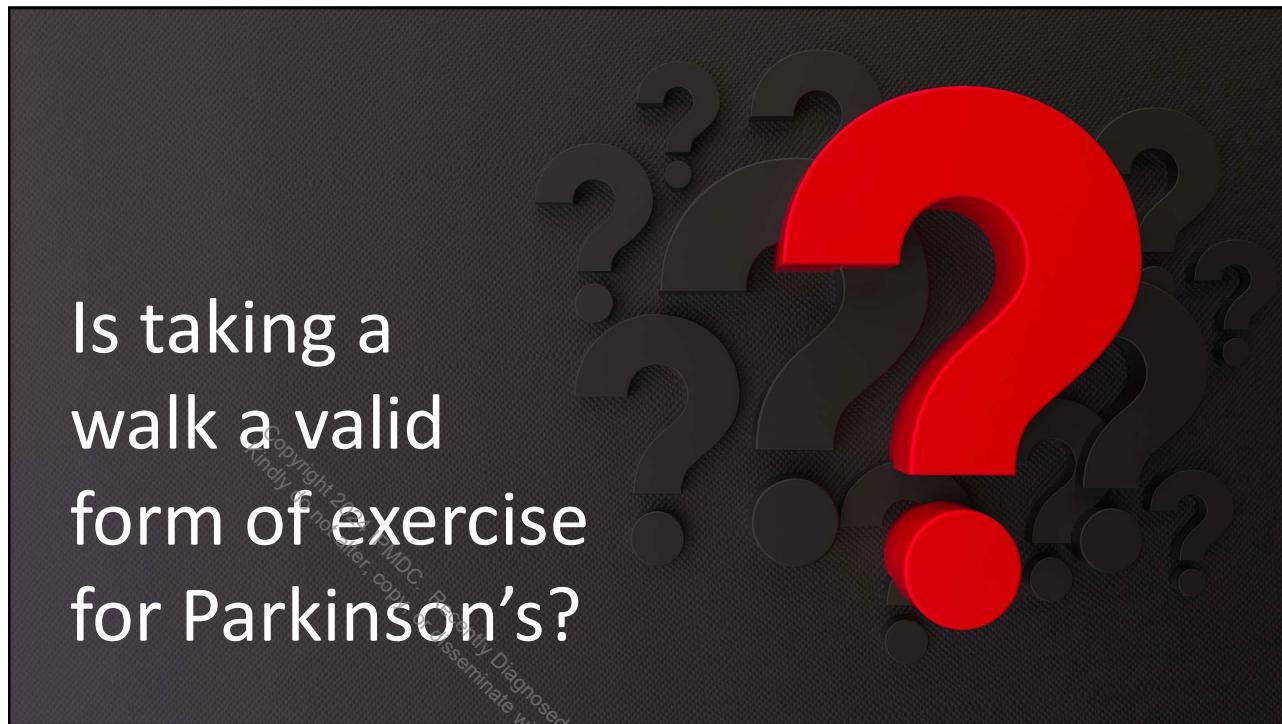


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1



2



3



4



yopd_upside_down_

yopd_upside_down_ I tried difference exercises and I realized that the one thing that I can do 99% of the days (even if I have some kind of mild pain) is walking at a fast speed for at least 30minutes, specially if I am surrounded by Nature, an element that is very important to make me feel good.

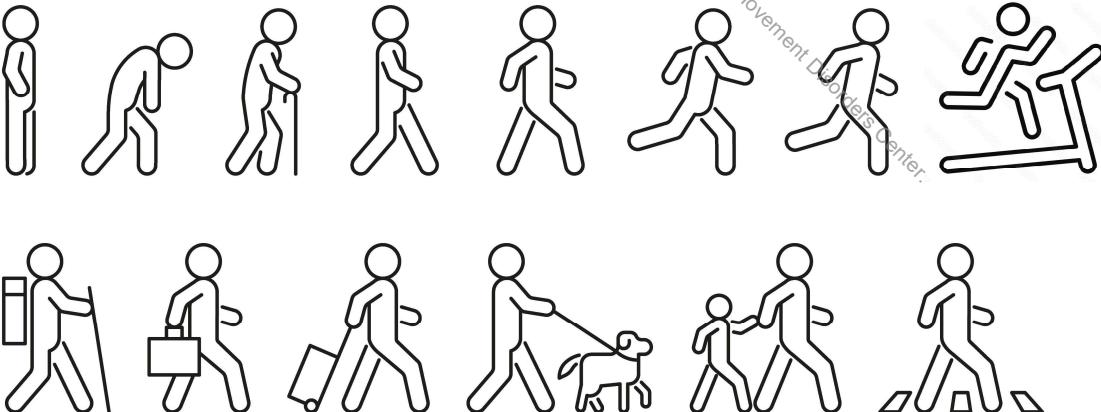
You can walk around your house, you can walk to the supermarket instead of taking the car, if it rain you take an umbrella...no excuses really!! 😊

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Rita Botelho, 40 years
Diagnoses 10 months ago

5



Walking | Brisk walking | Nordic walking | Treadmill walking | Urban walking | Nature walking | Leisurely walking | Mall walking | Hiking | Trekking | Beach walking

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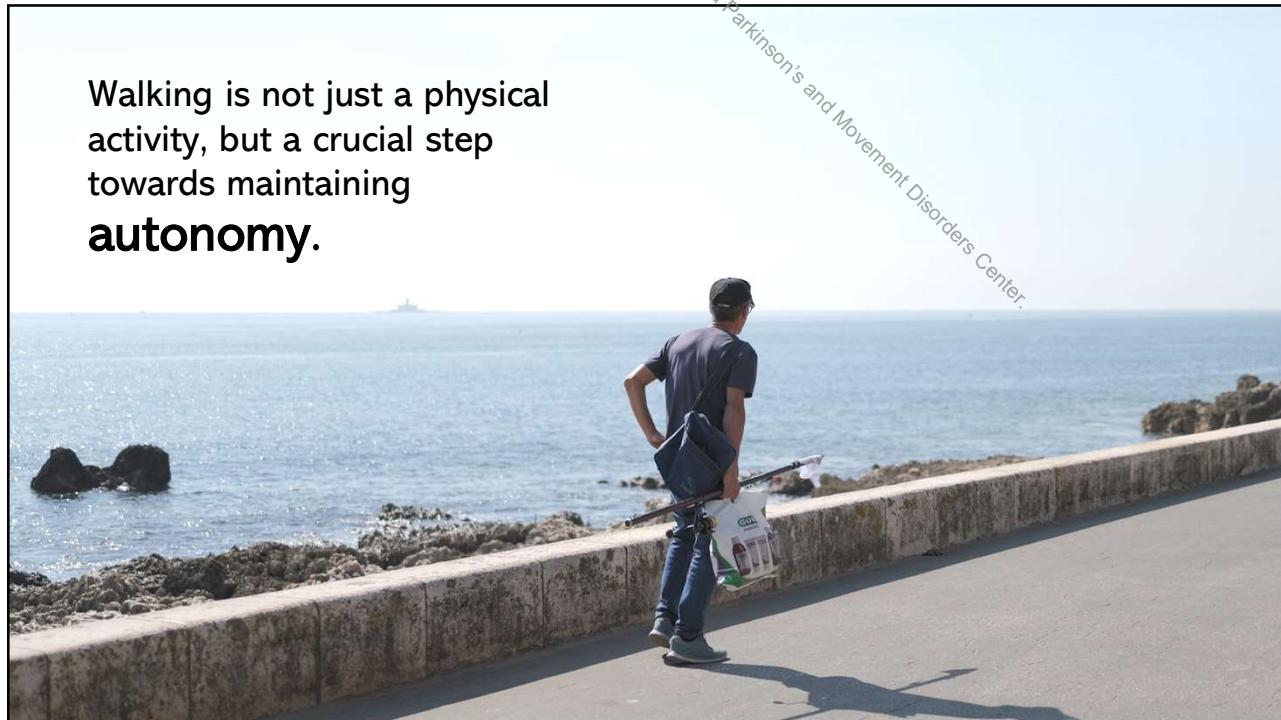
"Please explain all the benefits of walking" – person with PD

What are the benefits of walking specifically for Parkinson's?



7

Walking is not just a physical activity, but a crucial step towards maintaining autonomy.



8

Common problems in walking in Parkinson's

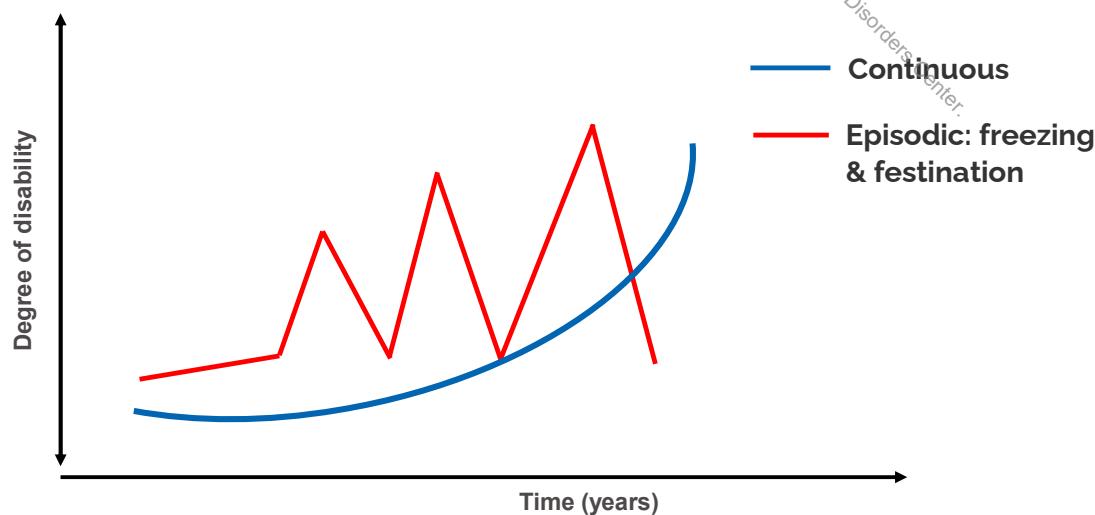
Hypokinesia
Rigidity
Decreased gait speed
Short stride length
Increasing gait variability
Increased double-support time
Reduced & asymmetrical arm swing



Hesitations in walking
Difficulty initiating walking
Difficulty turning
Stooped posture
Reduced trunk rotation
Reduced joint mobility
Weakness in the lower extremity
Difficulty dual task

9

Changes in gait throughout the disease process

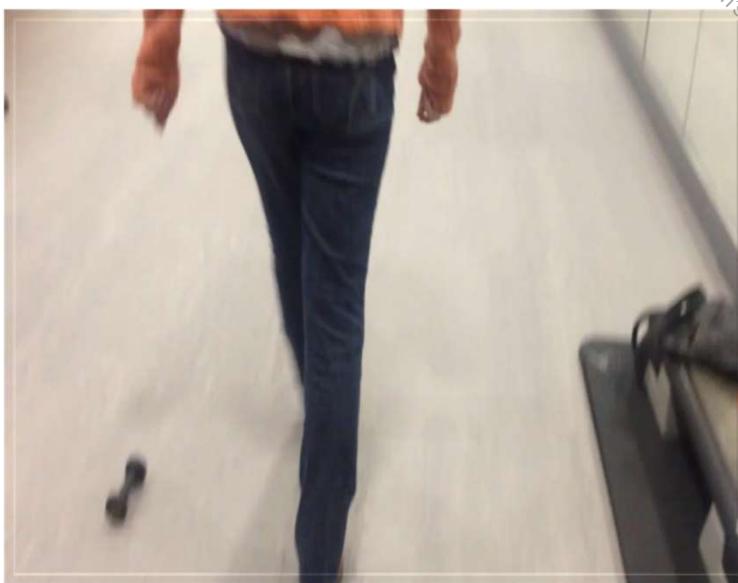


10



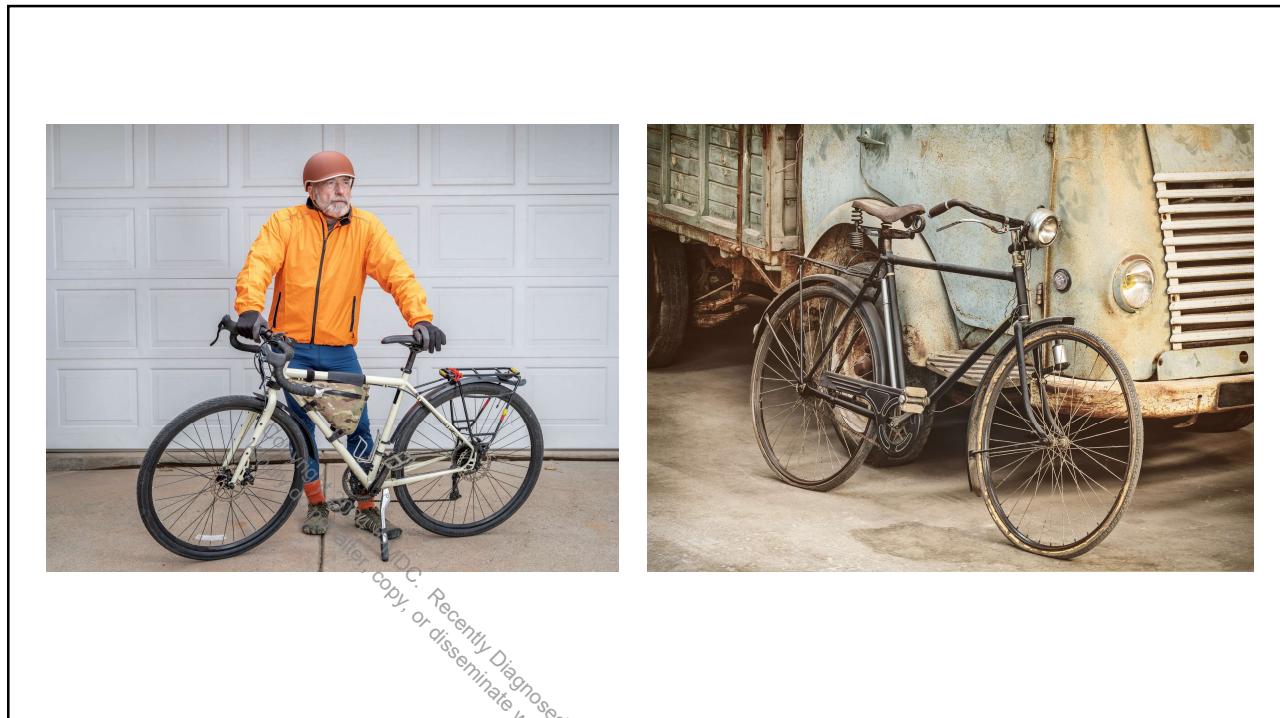
Continuous changes in gait throughout the disease process

11

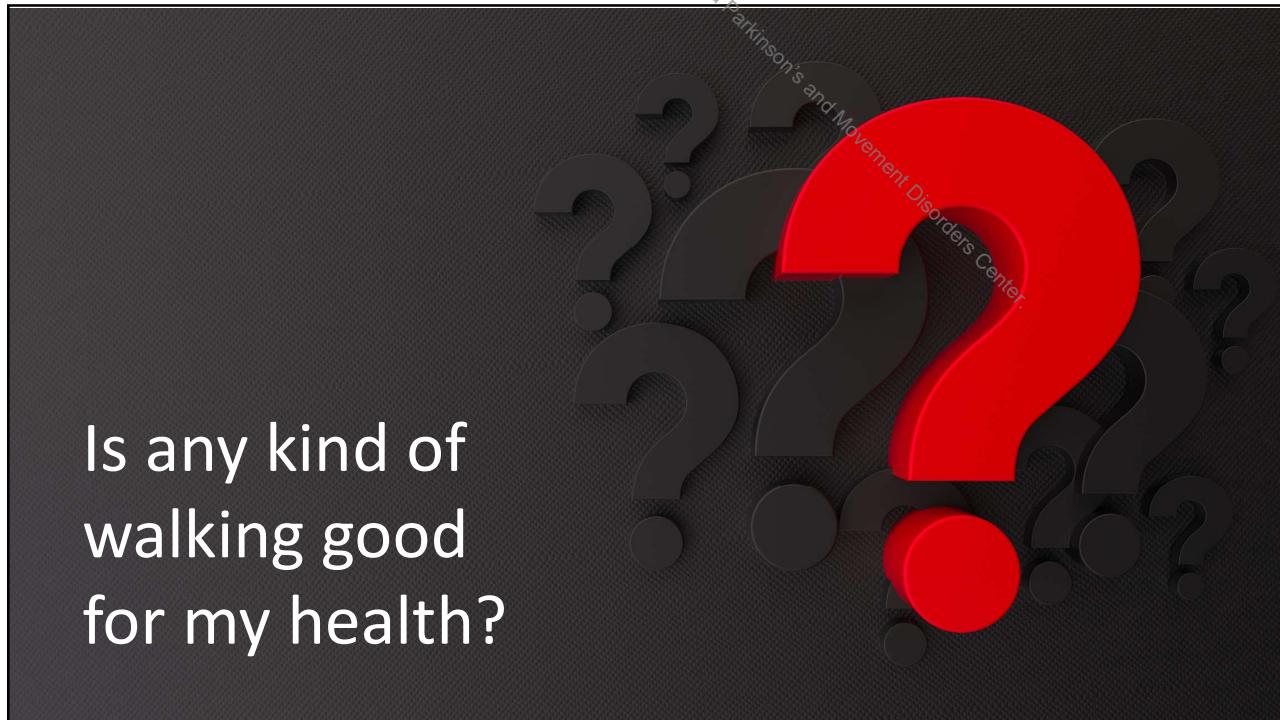


Episodic changes in gait (freezing & festination)

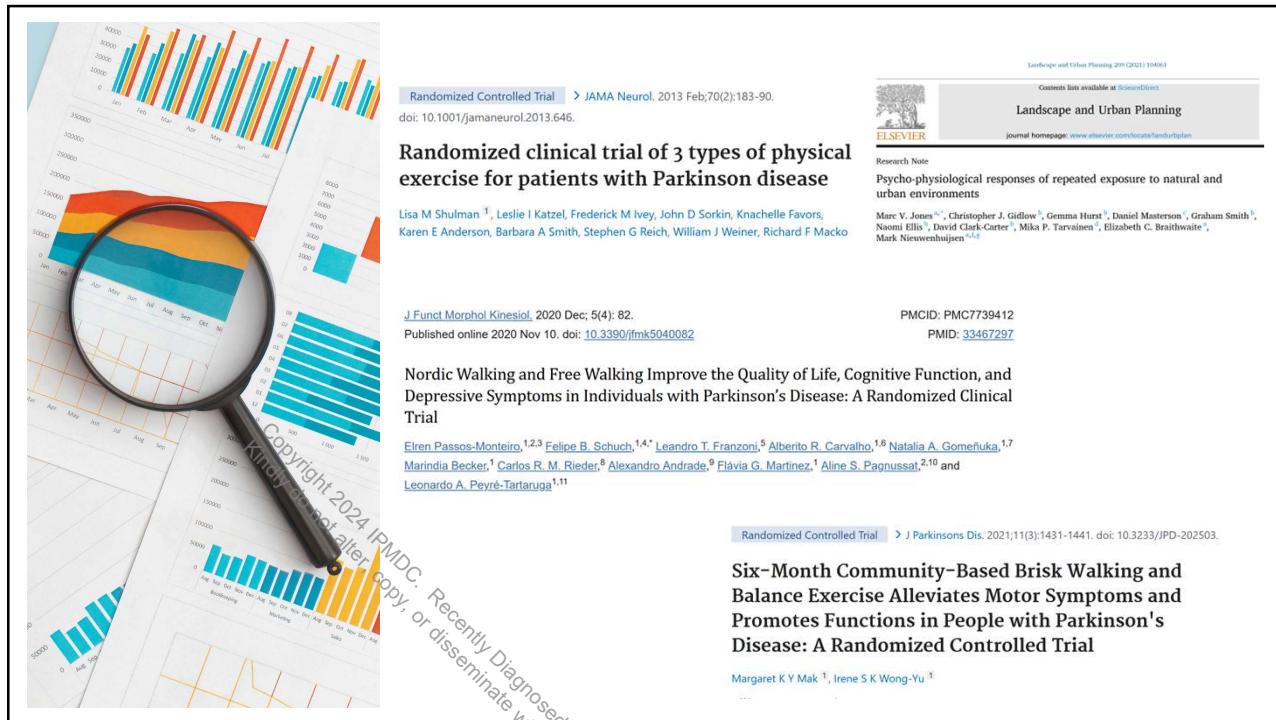
12



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How can I make my walks better for my Parkinson's?

The effect of walking with reduced trunk motion on dynamic stability in healthy adults

Tom J.W. Buurke ^{a,b,*}, Lotte van de Venis ^c, Noël Keijsers ^{c,d,e}, Jorik Nonnekes ^{c,d}

^a University of Groningen, University Medical Center Groningen, Department of Human Movement Sciences, Groningen, the Netherlands

^b KU Leuven, Department of Movement Sciences, Leuven, Belgium

^c Radboud University Medical Centre, Donders Institute for Brain, Cognition and Behaviour, Center of Expertise for Parkinson & Movement Disorders, Department of Rehabilitation, Nijmegen, The Netherlands

^d Sint Maartenskliniek, Department of Research, Nijmegen, the Netherlands

^e Radboud University, Donders Institute for Brain, Cognition and Behaviour, Department of Sensorimotor Neuroscience, Nijmegen, The Netherlands

Gait & Posture 103 (2023) 113–118

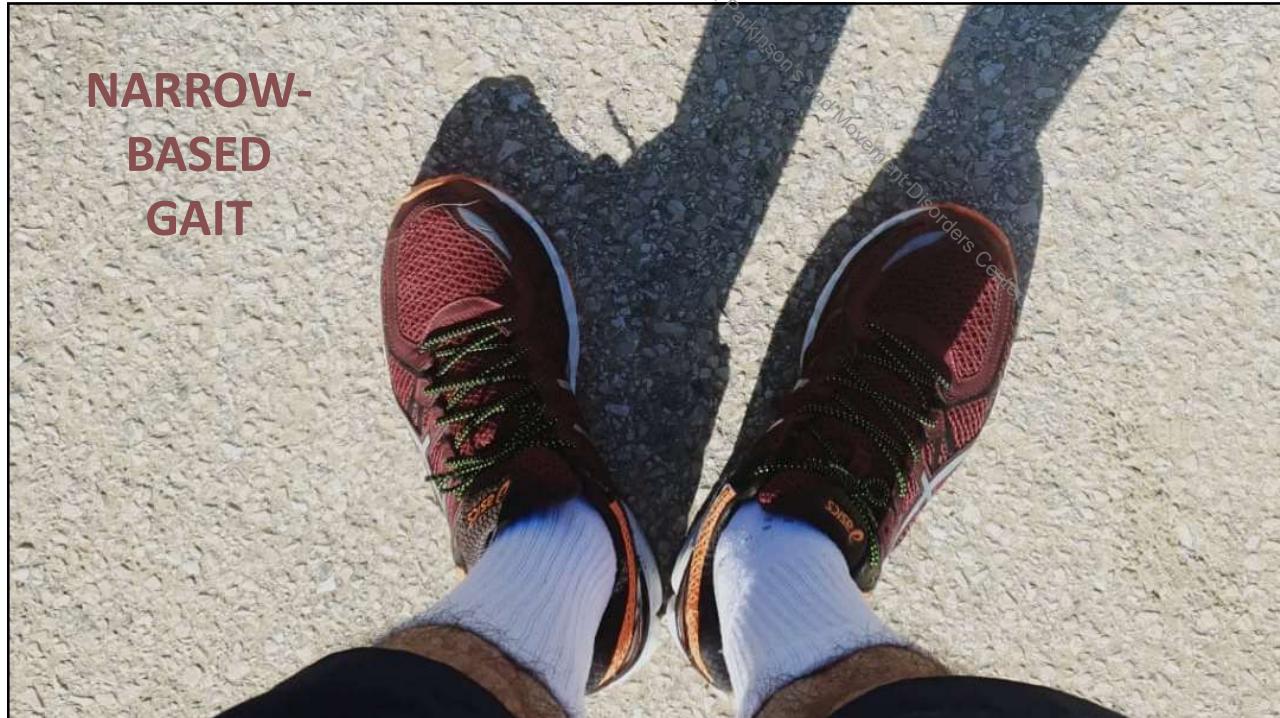
Reduced trunk motion

Narrow
based gait

Walking with reduced trunk motion resulted in decreases in **step width.**

17

NARROW-
BASED
GAIT



18

The effect of walking with reduced trunk motion on dynamic stability in healthy adults

Tom J.W. Buurke ^{a,b,*}, Lotte van de Venis ^c, Noël Keijsers ^{c,d,e}, Jorik Nonnекes ^{c,d}

^a University of Groningen, University Medical Center Groningen, Department of Human Movement Sciences, Groningen, the Netherlands.

^a Radboud University Medical Centre, Donders Institute for Brain, Cognition and Behaviour, Center of Expertise for Parkinson & Movement Disorders, Department of Psychology, Nijmegen, The Netherlands

^d Sint Maartenskliniek, Department of Research, Nijmegen, the Netherlands

^c Radboud University, Donders Institute for Brain, Cognition and Behaviour, Department of Sensorimotor Neuroscience, Nijmegen, The Netherlands

Sci. It. S. B. 1999, 169 (2000) 113-116

Gait & Posture 103 (2023) 113–118

Reduced trunk motion

Narrow-based gait

Balance

Walking with reduced trunk motion resulted in decreases in **step width**.

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Absent arm swing

Reduced trunk motion

narrow-based gait

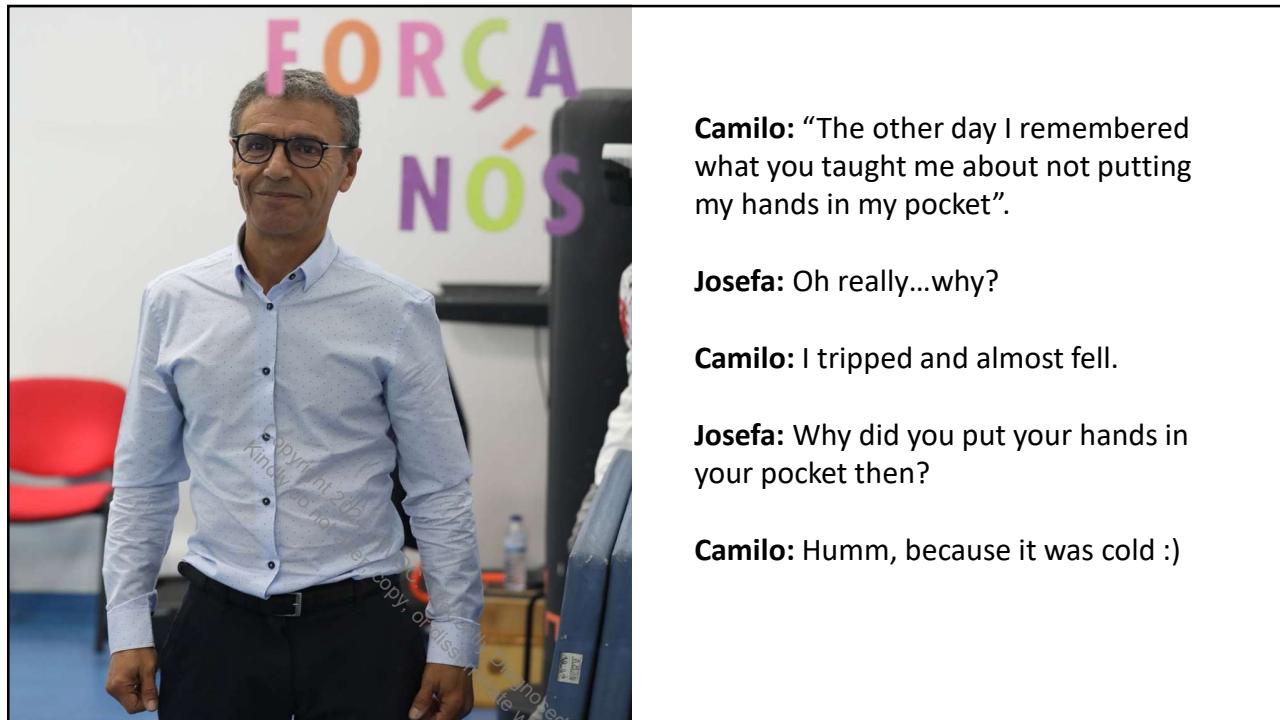
Balance

Front Neurol. 2020 Apr 17:11:213. doi: 10.3389/fneur.2020.00213. eCollection 2020

Absent Arm Swing and Dual Tasking Decreases Trunk Postural Control and Dynamic Balance in People With Parkinson's Disease

Tarique Siragy¹, Julie Nantel¹

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Camilo: "The other day I remembered what you taught me about not putting my hands in my pocket".

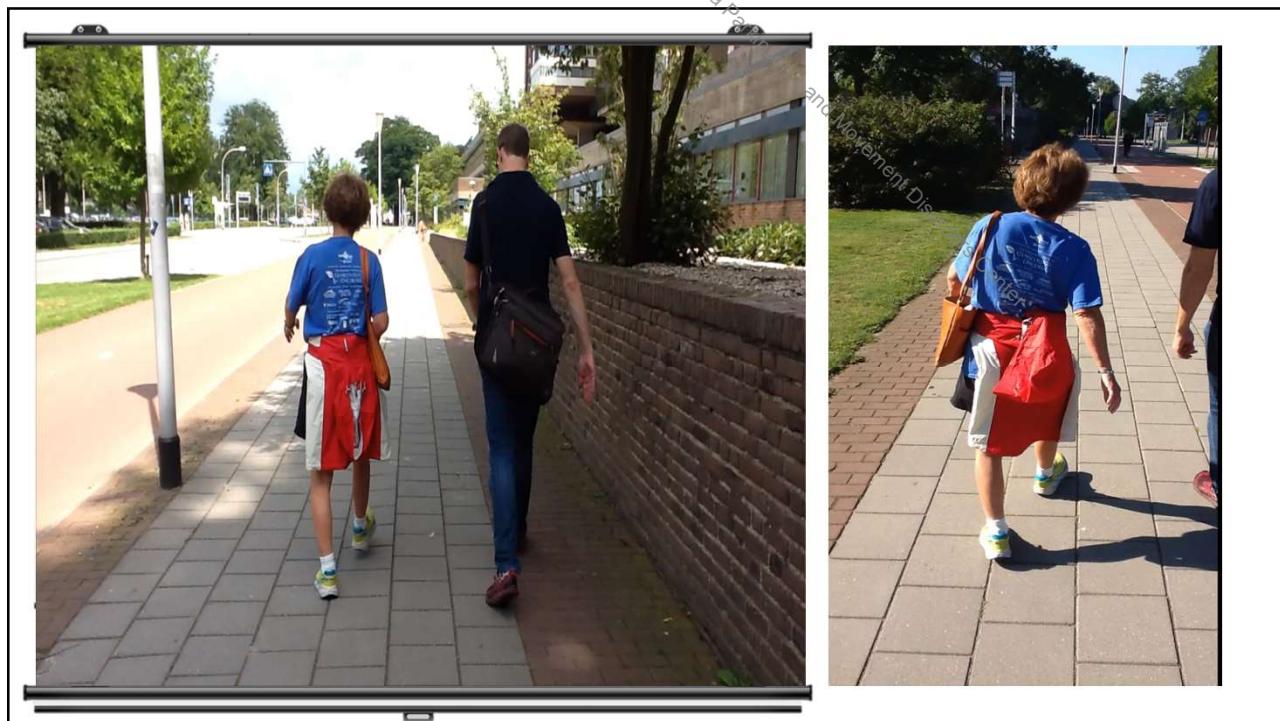
Josefa: Oh really...why?

Camilo: I tripped and almost fell.

Josefa: Why did you put your hands in your pocket then?

Camilo: Humm, because it was cold :)

21



22

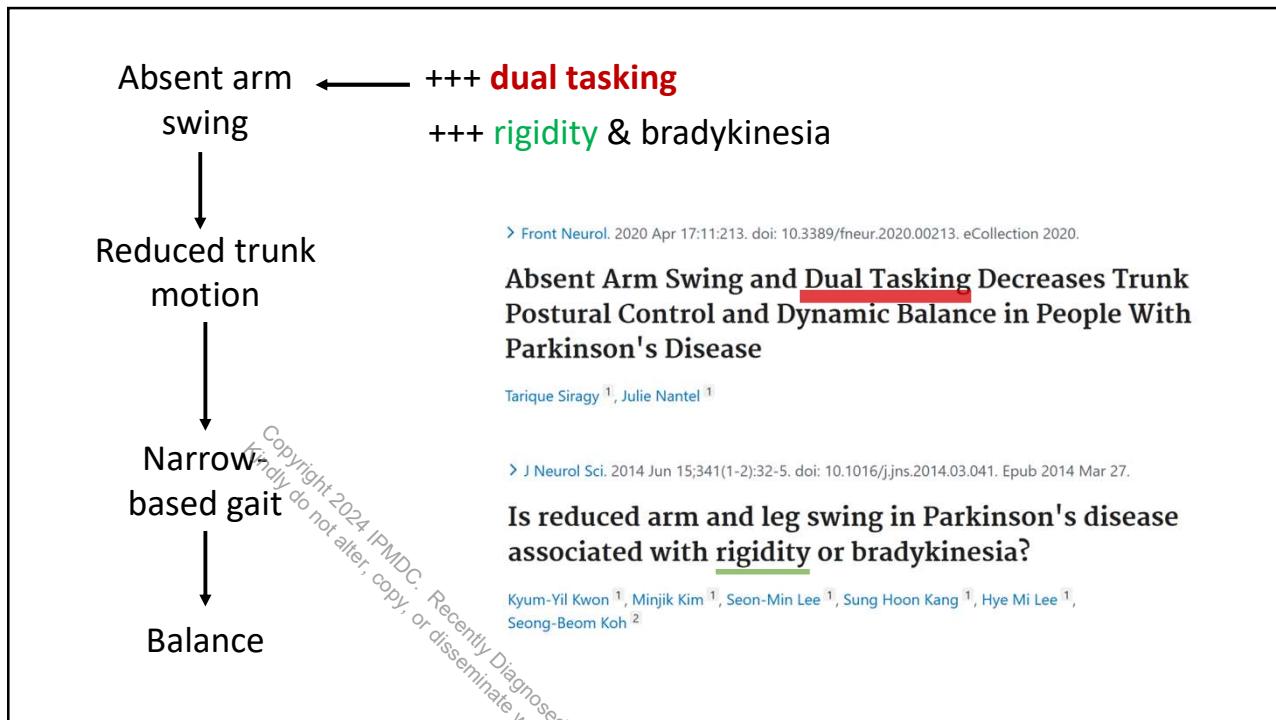


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EFFECT OF TALKING & WALKING **What to watch out for?**



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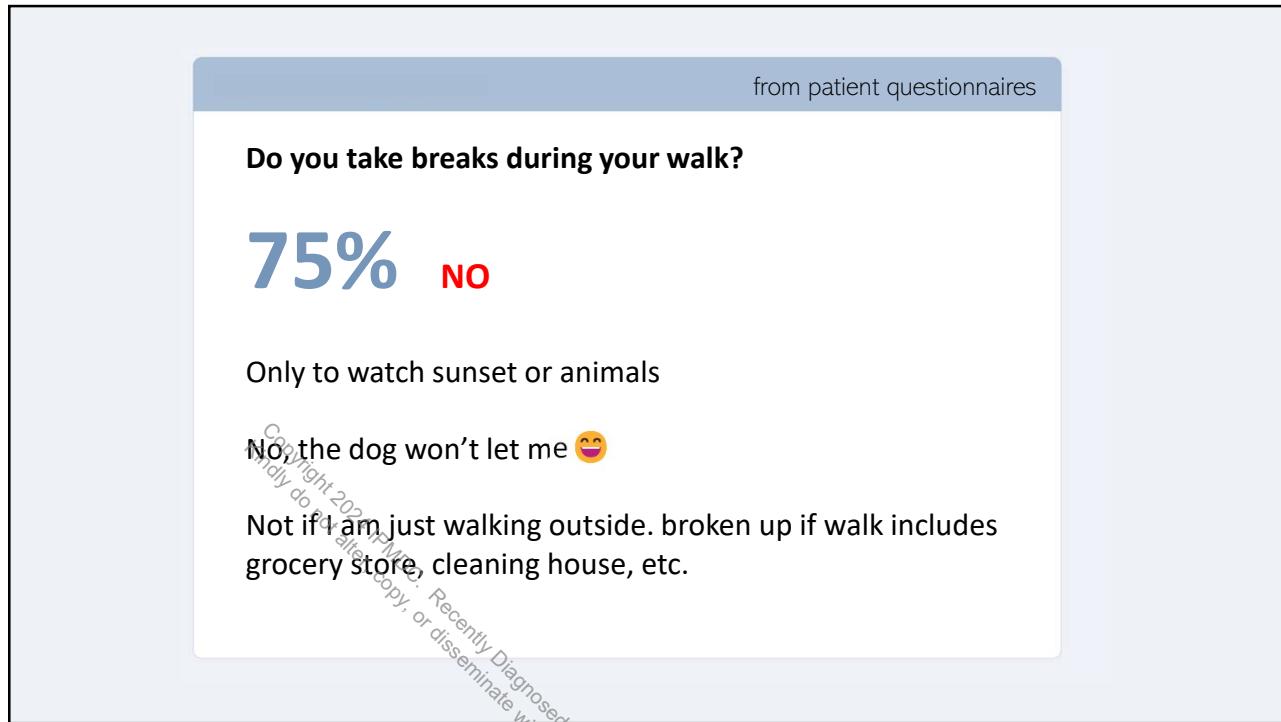
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from patient questionnaires

How long does your average walk take?

- 20 minutes if I take a walk
- 45 minutes, longer if broken into smaller distances ie some at home, some at mall
- 60 minutes
- 30-40 minutes
- outdoors about 1h-90min/indoors I do it as intervals incorporating LSVT exercises/strength training/core conditioning
- 40 minutes
- 30-40 mins
- One hour

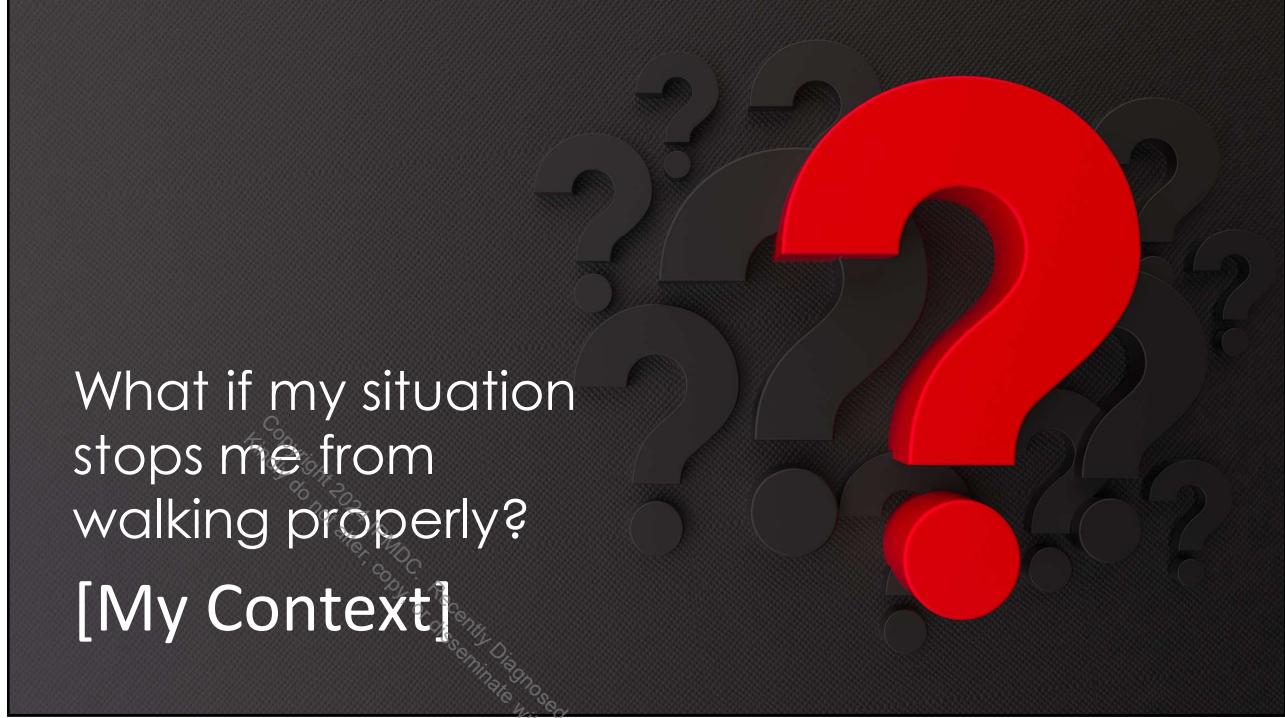
28



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What if my situation
stops me from
walking properly?

[My Context]

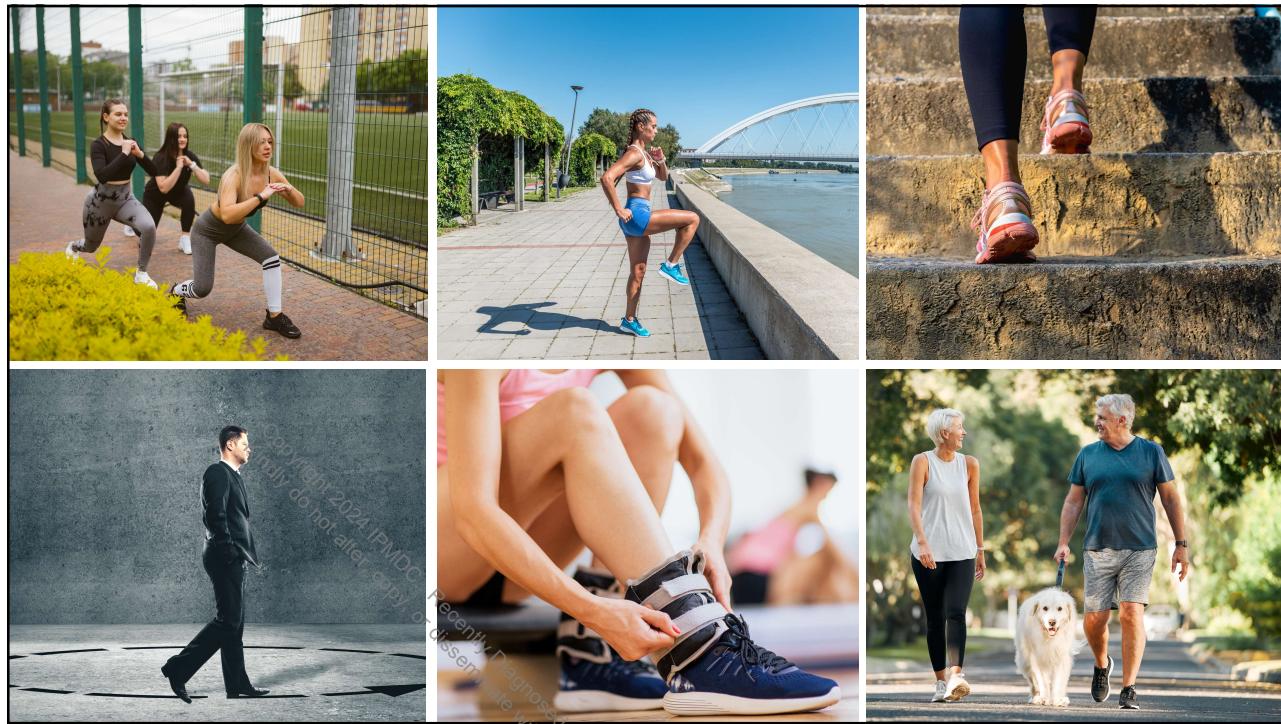
31

“I like to walk with my wife,
but she's short and can't keep
up with me if I'm walking
briskly. How to get the most
benefit from walking when I
have to slow my pace? “

from patient questionnaires

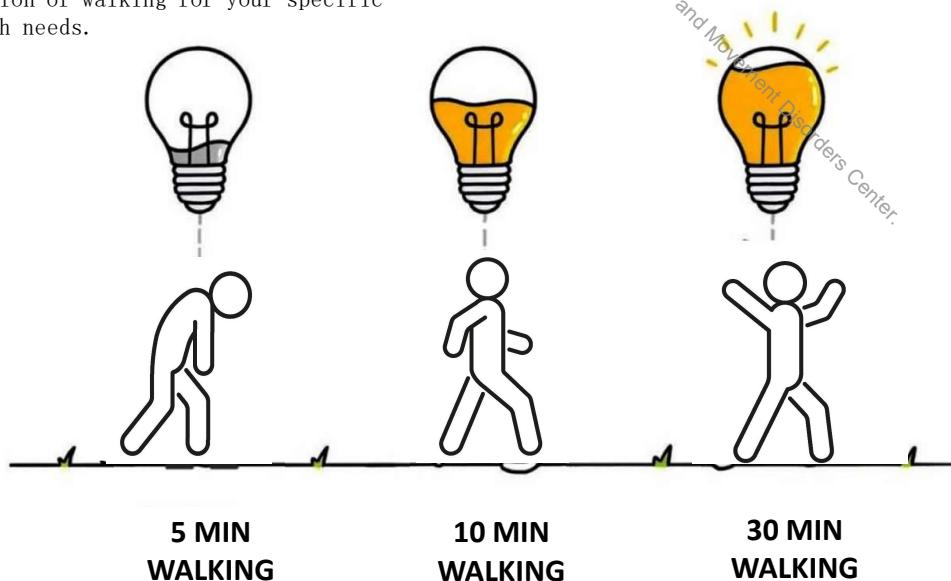
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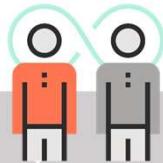


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Defining what is the ideal intensity and duration of walking for your specific health needs.

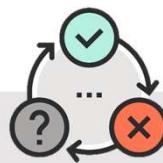


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- A 'dose' of nature recommended is of interest for health **benefits** (Shanahan et al., 2016; Shanahan, Fuller, Bush, Lin, & Gaston, 2015).

environment



- Consider what's best and safest for you: walking alone or in group settings.
- Define when it is important to vary your walking routine or to stick to the same one.

context

35



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- Safe environments
- Facilitate good performance



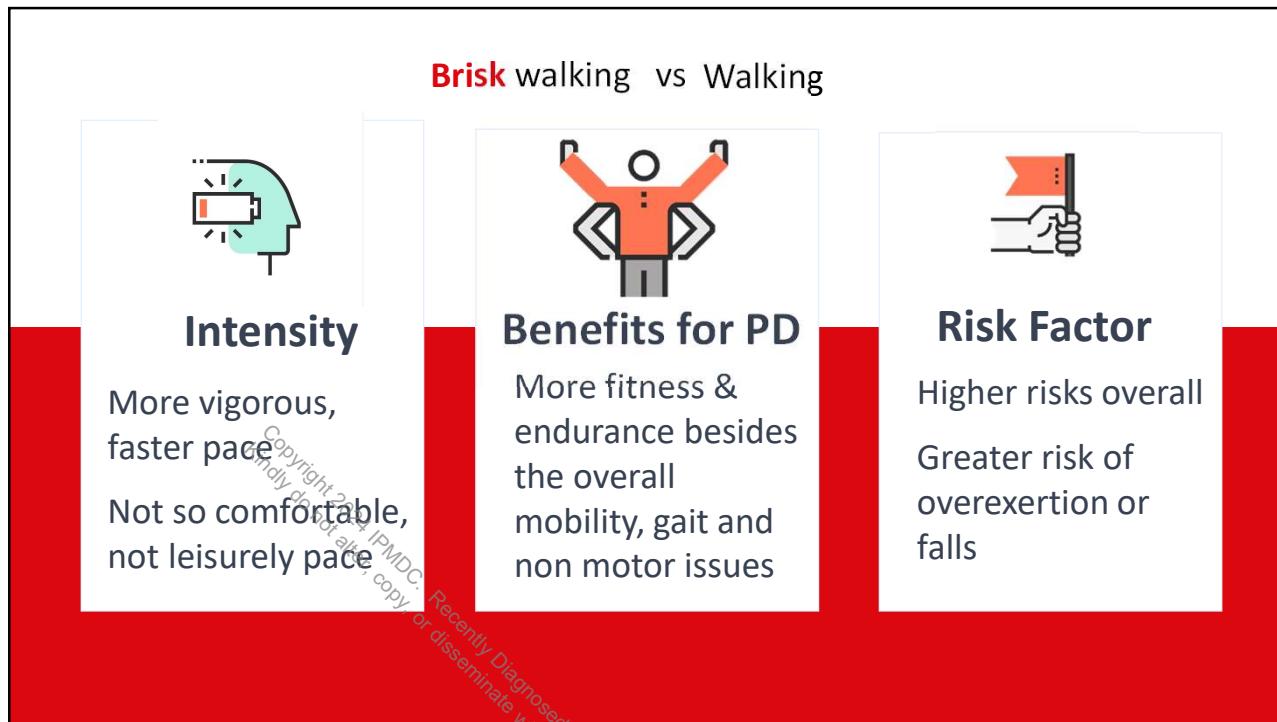
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What's the
difference
between walking
and brisk walking?

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Research Report

Six-Month Community-Based Brisk Walking and Balance Exercise Alleviates Motor Symptoms and Promotes Functions in People with Parkinson's Disease: A Randomized Controlled Trial

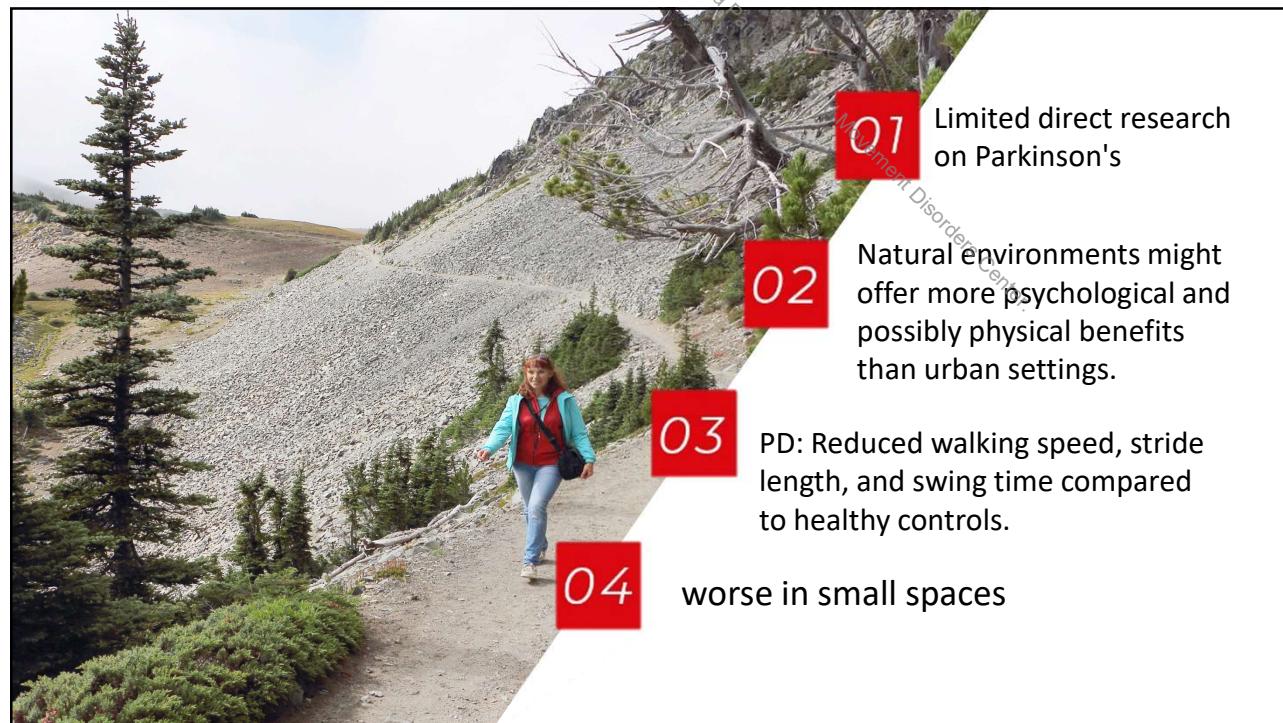
Margaret K.Y. Mak* and Irene S.K. Wong-Yu
Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Hong Kong SAR, China

- Brisk walking is a moderate intensity aerobic training.
- Six-month brisk walking and balance program alleviates motor symptoms, and promotes functional and gait performance, walking capacity, and dynamic balance in people with mild to moderate PD.

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What's the difference between nature or urban walking?

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Landscape and Urban Planning 209 (2021) 104061

Contents lists available at [ScienceDirect](#)

Landscape and Urban Planning

journal homepage: www.elsevier.com/locate/landurbplan

Research Note

Psycho-physiological responses of repeated exposure to natural and urban environments

Marc V. Jones ^{a,*}, Christopher J. Gidlow ^b, Gemma Hurst ^b, Daniel Masterson ^c, Graham Smith ^b, Naomi Ellis ^b, David Clark-Carter ^b, Mika P. Tarvainen ^d, Elizabeth C. Braithwaite ^a, Mark Nieuwenhuijsen ^{e,f,g}

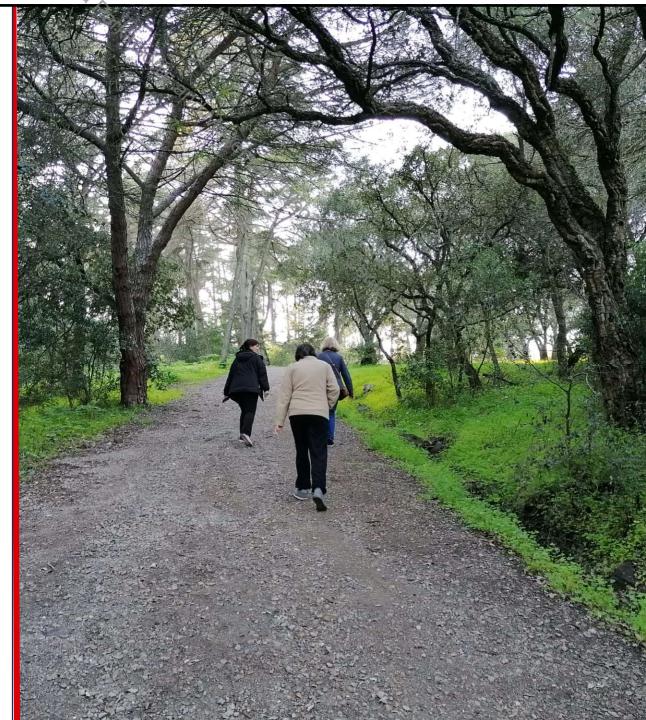
A) Does walking in a natural environment lead to better psycho-physiological outcomes than a pleasant urban environment?
 B) Do effects of walking repeatedly in the same environment change over time?
 C) Do any effects persist to the following day?

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Things we know...

- At least 30 min in a natural environment is associated with **lower depression and blood pressure** (Shanahan et al., 2016)
- Increased frequency of nature exposure is associated with **greater social cohesion and physical activity** (Shanahan et al., 2016).
- Improvements in **cognitive function** after 50 min in a natural environment (Berman, Jonides, & Kaplan, 2008; Hartig, Evans, Jamner, Davis, & G'arling, 2003).
- No difference in the effects of walking in natural and urban environments on **mood** (Gidlow et al., 2016; Johansson, Hartig, & Staats, 2011; Kinnafick & Thøgersen-Ntoumani, 2014).
- No effects persisted over a 24-hour period, suggesting that **regular nature exposure is required** to maintain health benefits (Shanahan et al., 2016).



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What is the
difference
between walking
with poles?

50

Using poles allows for:

- Better arm swing, trunk rotation, large stride, walking faster pace
- Potential for more moderate or vigorous exercise intensity
- Better inter-limb coordination



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What's the difference between walking on a treadmill?

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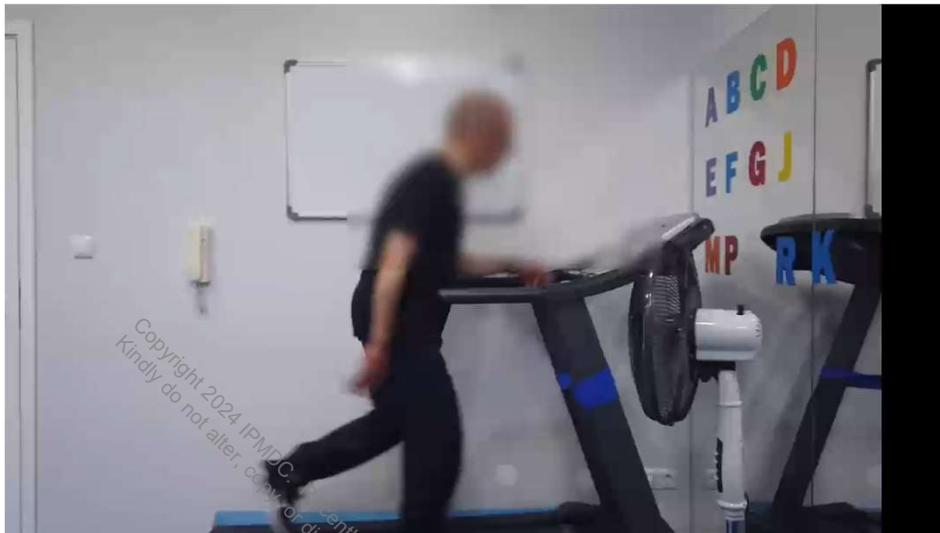


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Treadmill training for patients with PD results in sustained gains in **gait speed & stride length** (Class II).

The combination of **4 weeks of treadmill training and cueing** induces even greater benefits for freezing of gait than cueing alone (Class II).

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Special attention to compensations



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How can I stay
motivated for
routine walks?



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Changes in humor may affect **motivation**

Stay alert for changes in mood (depression, apathy & anxiety)

- depression may lead to decreased physical activity.



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