

Health and Wellness Seminars

Move with Confidence: Parkinson's Disease Strategies for Enhanced Well-Being Seminar

Presentation

<https://bit.ly/parkinsons-seminar-presentation-2024>

Video

<https://youtu.be/5kP5yjvnXI4>



Parkinson's Disease and Exercise

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Learning Objectives



- What is Parkinson's Disease
- Symptoms of Parkinson's Disease
- How does exercise effect function
- What kind of exercise?
- Get Moving!
- Health & Wellness
- Local Resources
- Closing & Questions



Parkinson's Disease: The Details



Neurodegenerative disease affecting the substantia nigra and the dopamine producing neurons¹

Dopamine

Our "chemical messenger"²

Movement, memory, motivation, attention, mood, sleep, learning, & cognition

Symptoms can include:

Resting tremors

Stiffness / rigidity

Postural instability and balance issues

Slowness of movement



Motor

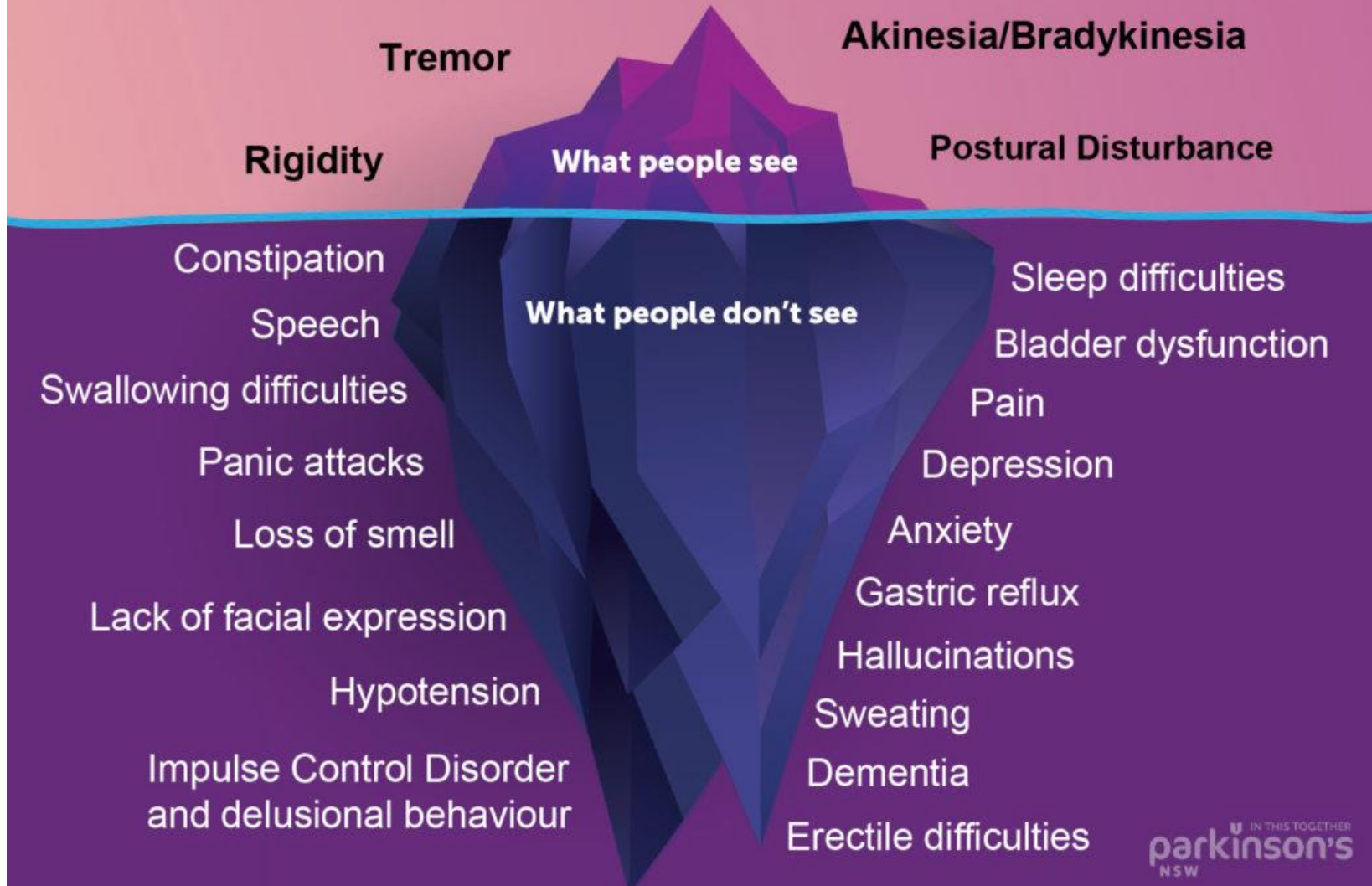
- Slowness of movement
- Rigidity in trunk and limbs
- Tremor
- Reduced arm swing
- Difficulty rolling over in bed
- Balance issues and falls
- Freezing & Shuffling steps
- Changes to speech & facial expression
- Handwriting

Non Motor

- Anxiety
- Apathy
- Depression
- Sleep changes / Fatigue
- Constipation & Urinary
- Weight Loss
- Vision & Smell
- Cognition



The Parkinson's Iceberg





- Early Intervention / Treatment
- Multi disciplinary approach
- Build your team, get your baselines!
 - Neurologist (Movement Disorder Specialist)
 - PT / OT / SLP / Personal Trainer
 - Nutritionist
 - Psychologist / Therapist / Social Worker



- High intensity exercise shows improvements in gait speed, step length, hip and ankle ROM, and sit to stand performance
- Effects of forced exercise and medications were similar in humans
- Regular exercise showed maintenance of motor and non motor function compared to sedentary population



Direct Benefits:

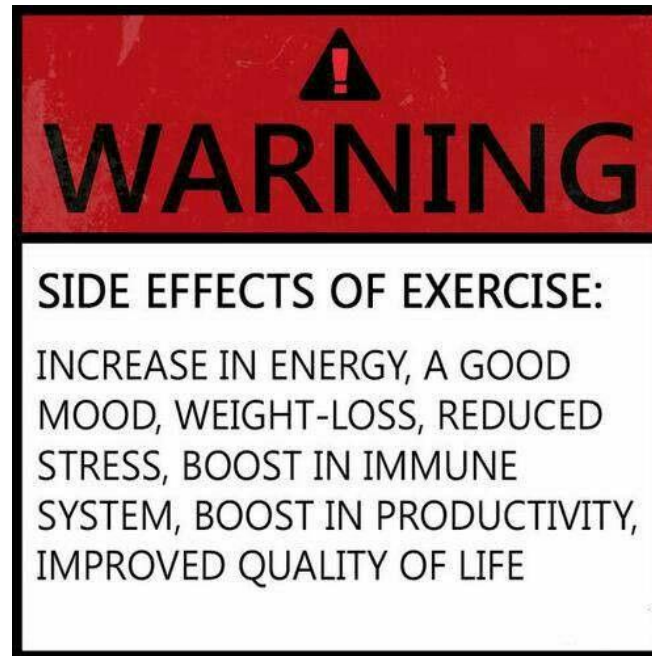
- Improve strength
- Improve mobility
- Improve walking
- Improve aerobic capacity
- Improve flexibility
- Improve balance

Indirect Benefits:

- Reduce depression
- Reduce anxiety
- Improved cognition
- Reduced fatigue
- Improved sleep
- Improved digestion / motility



There are no negative side effects
of exercise...



Exercise is Neuro Protective!

Parkinson's Disease: Exercise



Parkinson's Exercise Recommendations

Parkinson's is a progressive disease of the nervous system marked by tremor, stiffness, slow movement and balance problems.

Exercise and physical activity can improve many motor and non-motor Parkinson's symptoms:

| Aerobic Activity | Strength Training | Balance, Agility & Multitasking | Stretching |
|---|--|--|--|
| <p>3 days/week for at least 30 mins per session of continuous or intermittent at moderate to vigorous intensity</p> <p>TYPE: Continuous, rhythmic activities such as brisk walking, running, cycling, swimming, aerobics class</p> <p>CONSIDERATIONS: Safety concerns due to risks of freezing of gait, low blood pressure, blunted heart rate response. Supervision may be required.</p> | <p>2-3 non-consecutive days/week for at least 30 mins per session of 10-15 reps for major muscle groups; resistance, speed or power focus</p> <p>TYPE: Major muscle groups of upper/lower extremities such as using weight machines, resistance bands, light/moderate handheld weights or body weight</p> <p>CONSIDERATIONS: Muscle stiffness or postural instability may hinder full range of motion.</p> | <p>2-3 days/week with daily integration if possible</p> <p>TYPE: Multi-directional stepping, weight shifting, dynamic balance activities, large movements, multitasking such as yoga, tai chi, dance, boxing</p> <p>CONSIDERATIONS: Safety concerns with cognitive and balance problems. Hold on to something stable as needed. Supervision may be required.</p> | <p>>2-3 days/week with daily being most effective</p> <p>TYPE: Sustained stretching with deep breathing or dynamic stretching before exercise</p> <p>CONSIDERATIONS: May require adaptations for flexed posture, osteoporosis and pain.</p> |

See a physical therapist specializing in Parkinson's for full functional evaluation and recommendations.

Safety first: Exercise during on periods, when taking medication. If not safe to exercise on your own, have someone with you.

It's important to **modify and progress** your exercise routine over time.

Participate in **150 minutes** of moderate-to-vigorous exercise per week.

 **AMERICAN COLLEGE of SPORTS MEDICINE, LEADING THE WAY**

 **Parkinson's Foundation**

Helpline: 800.473.4636/Parkinson.org

- Varying types of exercise
- Essentials Include:
 - Physical effort
 - Emotional engagement
 - Cognitive challenge
 - Attentional focus
- Start as early as possible
 - Challenging??
- Whole body training and movements
- Recalibrating our movement system



Aerobic Activity

- 3 days per week
- At least 30 minutes per session

Strength Training

- 2-3 non consecutive days per week
- At least 30 minutes per session

Balance, Agility, Multitasking

- 2-3 days per week
- Challenge yourself daily!

Stretching / Flexibility

- >3 days per week, every day is best!



Types of exercise in the research

- Boxing
- Tai Chi
- Dance
- Nordic Walking
- Yoga
- Walking
- Biking
- **JUST MOVE!**





Cardio

- Walking, dancing, boxing, biking, rowing

Flexibility

- Yoga, stretching, tai chi

Strength

- Weight lifting, squats, sit to stand, boxing

Balance, Agility, Multitasking

- Counter balance, stairs, single leg balance, tai chi
- Bonus – sing the alphabet, count backwards



Breath Boosts

- Incorporate breathing and control

Voice Boosts

- Loud voice (breath control too!)

Hand Boosts

- Extending movement

Eye Boosts

- Incorporate facial exercise / expression

Exercise with vigor and gusto!

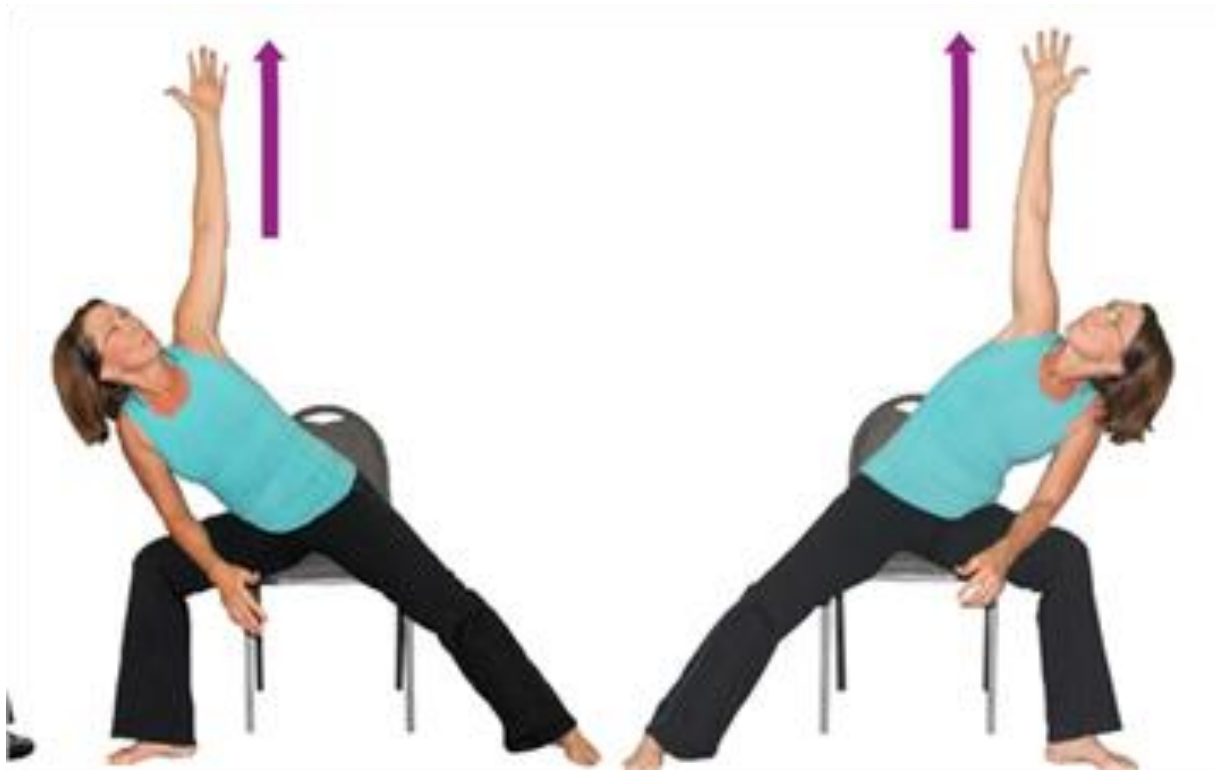


Let's Get
Moving!

PWR! Up



PWR! Rock



PWR! Twist



PWR! Step





Move daily



Participate in outdoor activities

Join social engagements



Eat mindfully





Find your "Why"

Family

Participation

Self



- PT, PTA, and Exercise Specialist all PWR!
Certified
- Skilled Physical Therapy Intervention
- Next Step Training
- Growing community classes for weekly exercise
- Speech Therapy Services
- Nutrition Services



Parkinson's Disease: The Community



Rock Steady Boxing Boston

- Bodyworks Martial Arts – Concord, NH

Movement and Song for Parkinson's

- Concord, NH

Pedaling for Parkinson's

- White River Junction, VT

YMCA of Greater Nashua Parkinson's Disease

Programming

- Nashua, NH

Dance for PD

- Keene, NH



PWR! Virtual Experience

www.ExerciseForBrainChange.org



Parkinson's Disease: Support Groups



Virtual Women's Only Support Group

- 4th Monday, Monthly, 7:30
- Tamara Barry
- Nashua (in person)
- 1st Wednesday, Monthly, 2:00
- Nashua YMCA, Carol Castle

Virtual APDA MA Support Group

- 1st Thursday, Monthly
- Sonja Vincola, LICSW

American Parkinsons Disease Association Support Group listing

- www.APDAParkinson.org/Community/Resources-Support-MA/Support-Groups/



Sacheli MA, Murray DK, Vafai N, et al. Habitual exercisers versus sedentary subjects with Parkinson's Disease: Multimodal PET and fMRI study. *Mov Disord.* 2018;33(12):1945-1950. doi:10.1002/mds.27498

Ahlskog JE. Aerobic Exercise: Evidence for a Direct Brain Effect to Slow Parkinson Disease Progression. *Mayo Clin Proc.* 2018;93(3):360-372. doi:10.1016/j.mayocp.2017.12.015

Cascaes da Silva F, Iop Rda R, Domingos dos Santos P, Aguiar Bezerra de Melo LM, Barbosa Gutierrez Filho PJ, da Silva R. Effects of Physical-exercise-based rehabilitation programs on the quality of life of patients with Parkinson's disease: A systematic review of randomized controlled trials. *J Aging Physical Activity* 2016;24(3):484-496.



The Parkinson's Foundation

www.Parkinson.org

American Parkinsons Disease Association
APDA

www.APDAParkinson.org

PWR! Parkinson's Wellness Recovery

www.PWR4Life.org



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