# **ROVEMENT REVOLUTION** NEURO INTENSIVE EXERCISE

#### Comprehensive Exercise for Parkinson's Disease

Eric Johnson, CSCS, CIFT, RSB Coach, PWR! Instructor, DTD Certified

Movement Revolution: Founder & Neuro Exercise Specialist **Patrick Barron, PT, RSB Coach** Fastback Physical Therapy: Founder



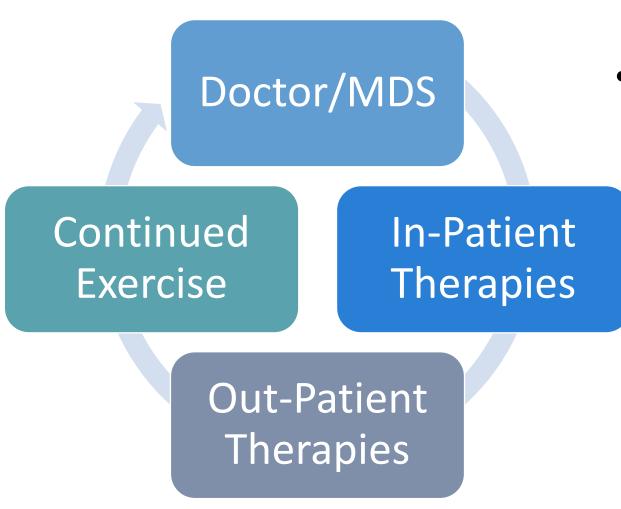
# Today's Agenda

- Total PD Wellness
- Establishing a Care Team
- Why Exercise Works
- Barriers and Motivators
- What Types of Exercise Work
- How to Effectively Engage

# REVOLUTION **Neuro Intensive Client Centered Total Wellness** Model



# The Comprehensive Care Continuum



- Where do we fit in?
  - In conjunction with OP therapies
    - Increase volume and consistency to improve outcomes
      - Possibly extend insurance benefits
    - Communication and collaboration w/ lead clinicians
  - Upon discharge
    - Transition patient to client as discharge is nearing
  - All community-based exercise needs



# Let's Do an Experiment:

# On a scale from 1-10, how AWAKE are you right now?



# Let's Do an Experiment:On a scale from 1-10, how AWAKE are you now?

• What's different? How did that little bout of exercise change you?

# Let's Take a Poll

## **Question #1**

# What type of exercise do you participate in?

# Let's Take a Poll

## **Question #2**

# How many hours of exercise do you get per week?

# **Benefits of Exercise for PD**

#### **Everything you just experienced**

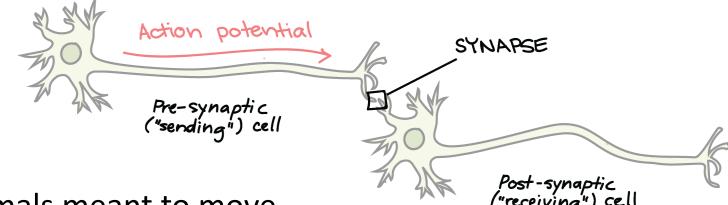
#### ╋

It can **EMPOWER** YOU to:

- Improve mood and reduce depression
- Improve sleep
- Improve memory and cognition
- Reduce the risk of falls
- Improve balance + strength
- Reduce fatigue
- Make everyday activities easier
- Reduce pain
- Reduces risk of heart attack or diabetes
- It truly makes your BRAIN healthier!

# WHY Exercise Works!

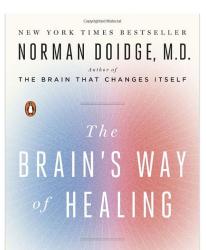
- When you body moves, it signals (excites) neurons in your brain
  - Creates a chemical reaction that stimulates more neurons
  - A stronger the signal (stimulus)= more (and stronger) neuronal excitement



- We are animals meant to move
  - PD may try and rob you of this movement
  - When you move less, or smaller, the brain(neurons) are not excited as strongly
  - But you can FIGHT it!
- This is WHY BIG, LOUD, INTENSE exercise works to combat the symptoms of PD

# NEUROPLASTICITY

- Your brain's ability to change and adapt!
  - Reorganizes and forms new neuronal connections
  - Reacts to changes in stimulus(exercise or learning a new skill/activity), environment
- Enhanced through regular, intense exercise, stress reduction, sleep, and new skill acquisition
- Can enhance memory, prevent/slow cognitive decline
- On-going research enhancing the understanding of the effects for people with PD.



REMARKABLE DISCOVERIES and RECOVERIES FROM the FRONTIERS of NEUROPLASTICITY



# The Universal Prescription for Parkinson's Disease: Exercise

Jay L. Alberts<sup>a,b,\*</sup> and Anson B. Rosenfeldt<sup>a</sup> <sup>a</sup>Cleveland Clinic, Department of Biomedical Engineering, Cleveland, OH, USA <sup>b</sup>Cleveland Clinic, Center for Neurological Restoration, Cleveland, OH, USA

Accepted 27 July 2020

**Abstract**. Over the past two decades, aerobic exercise has emerged as a mainstream recommendation to aid in treating Parkinson's disease (PD). Despite the acknowledgement of the benefits of exercise for people with PD (PwPD), frequently, exercise recommendations lack specificity in terms of frequency, intensity and duration. Additionally, conflating physical activity with exercise has contributed to providing vague exercise recommendations to PwPD. Therefore, the beneficial effects of exercise may not be fully realized in PwPD. Data provided by animal studies and select human trials indicate aerobic exercise may facilitate structural and functional changes in the brain. Recently, several large human clinical trials have been completed and collectively support the use of aerobic exercise, specifically high-intensity aerobic exercise, in improving PD

Exercise is Medicine for Parkinson's Disease!

# REVOLUTION **Neuro Intensive** Exercise Principles

"IF IT DOESN'T CHALLENGE YOU, IT DOESN'T CHANGE YOU!"

–Fred DeVito

Specificity

INTENSITY

Consistency

# Let's Take a Poll

### **Question #3**

# What are some of the barriers that prevent you from exercising?

Journal of Parkinson's Disease 7 (2017) 703–711 DOI 10.3233/JPD-171173 IOS Press

Research Report

# Motivators and Barriers to Exercise in Parkinson's Disease

Mitra Afshari<sup>a,b,\*</sup>, Amy Yang<sup>c</sup> and Danny Bega<sup>a</sup> <sup>a</sup>Department of Neurology, Northwestern University Feinberg School of Medicine, Chicago, IL, USA <sup>b</sup>Department of Neurology, University of California, San Francisco, CA, USA <sup>c</sup>Biostatics Collaboration Center, Northwestern University Feinberg School of Medicine, Chicago, IL, USA

Accepted 5 October 2017

#### **Barriers to Exercise**

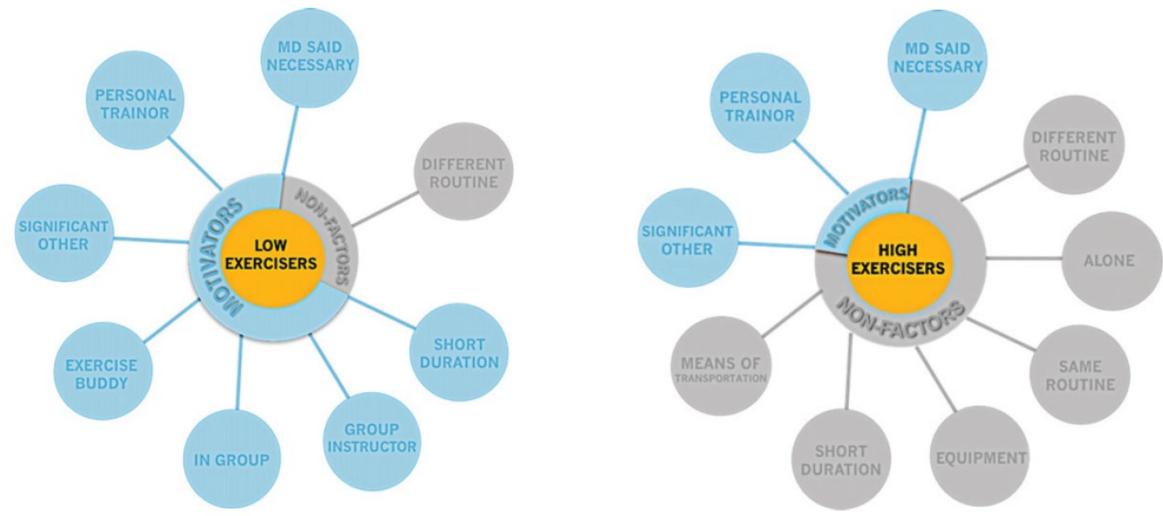
	Low-exercisers	High-exercisers	<i>p</i> -value
Median number [interquartile range] of barriers reported:	2 [1, 4]	1 [0, 3]	0.001
Individual barriers:			
I am scared I would fall.	29 (30.2%)	20 (19.0%)	0.094
I have fallen in the past.	27 (28.1%)	25 (23.8%)	0.592
There is no one to exercise with or motivate me.	32 (33.3%)	11 (10.5%)	< 0.001
I am afraid of "slowing" down others in a class.	10 (10.4%)	13 (12.4%)	0.830
My Parkinson's symptoms really get in the way.	27 (28.1%)	19 (18.1%)	0.128
I do not have easy access to an exercise facility.	21 (21.9%)	14 (13.3%)	0.159
I do not have enough time during my day.	10 (10.4%)	9 (8.6%)	0.837
I am so tired during the day.	34 (35.4%)	18 (17.1%)	0.005
I am so sleepy during the day.	20 (20.8%)	16 (15.2%)	0.396
I feel depressed.	16 (16.7%)	7 (6.7%)	0.045
I never really exercised before.	8 (8.3%)	8 (7.6%)	>0.999
I do not enjoy exercising.	13 (13.5%)	15 (14.3%)	>0.999
My neurologic disease will progress no matter what I do, so I do not see a need.	6 (6.2%)	2 (1.9%)	0.225
My neurologic medications already help me enough physically, so I do not see a need.	3 (3.1%)	2 (1.9%)	0.671
My other medical conditions prevent me from it.	11 (11.5%)	7 (6.7%)	0.347

Table 4 Barriers to exercise

Afshari, Mitra, et al. "Motivators and Barriers to Exercise in Parkinson's Disease." Journal of Parkinson's Disease, vol. 7, 2017, pp. 703-11.



### **Motivators to Exercise**



Afshari, Mitra, et al. "Motivators and Barriers to Exercise in Parkinson's Disease." Journal of Parkinson's Disease, vol. 7, 2017, pp. 703-11.

# What is **REVOLUTION**

#### **Our Team: Neuro Exercise Specialists**

- Expert staff all holding advanced degrees, experience, and certifications.
  - B.S. or M.S. in Exercise Physiology
  - ACSM- Certified Inclusive Fitness Trainers
  - Hold multiple Parkinson's disease exercise certifications
    Rock Steady Boxing, PWR!, Delay the Disease

#### **Our Programs**

 Neuro is our specialty and every program we offer is specifically designed to address the goals, symptoms, and physical abilities of our clients with regard for their diagnosis

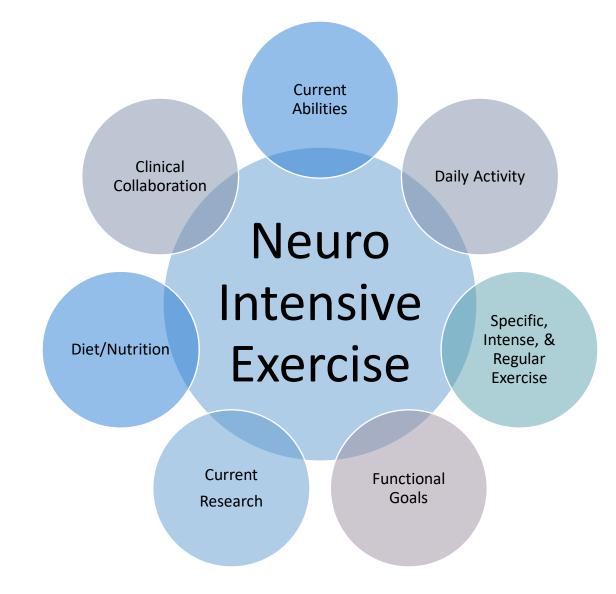
#### **Our Community**

• Our facilities, programs, clients, and coaches form a unique community that fosters empowerment and positivity through exercise.

# Our Method:

Blends the latest research with innovative adaptations of traditional exercise to build the most effective, impactful, customized wellness programs for our clients.

It's a stimulating practice that engages the mind and body to think bigger and move stronger to help you perform better in life, sport, and **enhance your quality of life.** 





# PD Kick Starter Initiative!

- One month program with new exercise initiatives sent to you each week.
  - Online exercise videos
  - Weekly objectives and milestones
  - Initial virtual or in-person assessments
- It's Free!
- How to get started
  - •

#### **Neuro Intensive Exercise Programs**

Neuro Intensive Assessment

• 12 Step assessment

- Your roadmap to a stronger tomorrow
- Balance, Posture, Gait, Strength, Mobility, Goals

#### 1:1 Performance Training

- Ability & symptom specific
- Addressing your needs and goals to help you perform better in life every day

#### Classes

- In-Person: Rock Steady Boxing Windy City
- Virtual

#### Neuro Intensive Wellness Evaluation

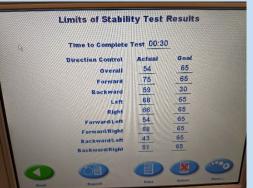
#### 12- Step Evaluation

- 1. Quality of life evaluation
- 2. Physical Assessment:
  - 1. Postural Analysis
  - 2. Gait Assessment
  - 3. Balance Screening
  - 4. UE/LE Strength
  - 5. Functional Mobility and Ambulation
  - 6. Mobility/Flexibility
- 3. Goal Setting
- 4. Needs Analysis- based upon goals, questionnaires, and physical assessment.
- 5. Customized program design



Name tom n Date 12/10/2020 12:26 Ph				
Time 3:00 Steps 237	Avg Speed 1.3 MPH	Distance	105 mete	
Average Walking Speed	0.58 (meters/sec)	0.21	1.81	
Average Step Cycle Time	0.67 (cycles/sec)	63	75	
Average Step Length	Left 43 cm Right 49 cm		15 20 25	
Coefficient of Variation	Left8 % Right7 %			
Time on Each Foot	Left44 % Right56 %	meralita ta beta ta beta	W A	
Goal	User Results & Lett A	Right	Constanting Constanting	
		Right A		









### Virtual Exercise Programs

- Comprehensive Remote Evaluation for all new clients
- One-on-One Training
- Group Classes
  - Monthly All-Access for \$105
- On-Demand Videos



#### Virtual Classes

#### Start moving stronger every day!



#### Specialized Classes for People with:

- Parkinson's disease
- Stroke
- Multiple Sclerosis
- Brain Injury
- Alzheimer's/Dementia
- Balance Conditions



#### **BaM: Balance and Mobility**

#### Mondays @ 3pm(CST) Seated /3:35pm Standard Class

This 30-minute active stretch and mobility class is designed specifically for those with neurological conditions to better manage rigidity, tone, and the muscular imbalances that impact the way we move every day. This class is built to improve posture & balance, enhance mind-body awareness, and help you breathe and relax.

#### <u>Neuro Fight Club/Rock Steady Boxing</u> Tue/Thurs @12pm (CST)

This 45-minute virtual class will challenge and build your strength, balance, posture, and empower you to move stronger everyday. Each class will incorporate aspects of strength, agility, mobility, and non-contact boxing. Seated and standing exercise modifications are made in-class so all ability levels are welcome. No equipment is necessary to participate but we encourage you to find household items to add resistance to your workout.

#### <u>Essentials: Core Stability, Strength & Balance</u> Saturdays @ 9:15am (CST)

There's no better way to start your weekend! This 35-minute class is designed to help you feel stronger and more stable every day with exercises that improve your mobility, core stability, and strength. These are essential components to help you manage your abilities and symptoms and an important adjunct to your weekly routine.

# **Contact Information:**

Phone: (312) 465-3921 (ext. 2) Email: Eric@movement-revolution.com Web: www.movement-revolution.com