Fitness “Fab Four” for PwP

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“Fab Four” Fitness Targets for People w/PD

- Many types of fitness activities are beneficial for PwP
  - Ex. Cario, boxing, tango, tai chi, yoga, HIIT
- There is no “perfect” exercise for PwP
  - The “BEST” exercise is one you will stick with over the long term

- There are four fitness targets that you may want to try to hit to ensure you have a well-rounded fitness program. I call these the “Fab Four”
FITNESS PLAN BENCHMARKS:

Here are the fitness "FAB FOUR" for people with Parkinson's!

**CARDIO**
30-60 min
5 times/week
Moderate (5-6) to Vigorous (7-8)

**EXAMPLES:**
Brisk walk, run, bike, rowing, treadmill, elliptical, boxing, HIIT

**BALANCE**
20-30 minutes
3x/week

**EXAMPLES:**
Tai Chi, dance, yoga, boxing, agility training

**STRENGTH**
2-3 times/week
10-15 reps/set
2-3 sets

**EXAMPLES:**
Free weights, kettlebells, circuit, push/pull, dynamic

**FLEXIBILITY**
10 min daily (at end of exercise)
10-30 sec/stretch

**EXAMPLES:**
Stretching, yoga
Intensive Exercise Changes the Brain

Does NOT change amount of dopamine in brain

↑ release of dopamine

↓ re-uptake of dopamine

↑ dopamine receptors

↑ dendritic spines

↓ excitability of GluR2

MAXIMAL EFFORT
I am completely exhausted and I can’t keep going.

VERY HARD INTENSITY
I can barely breathe or speak a single word. I should slow down.

VIGOROUS INTENSITY
If you ask me a question, I can say 1-2 words or grunt in response. I can only keep this pace up for a short time.

VIGOROUS INTENSITY
I can still talk - but I don’t really want to! I’m sweating a lot now.

MODERATE INTENSITY
I can still talk but I’m a little breathless. I’m definitely sweating.

MODERATE INTENSITY
I’m a little above comfortable. I can still talk easily but I am sweating more.

LIGHT MODERATE INTENSITY
I’m sweating a little. I feel good and I can chat with others comfortably.

LIGHT INTENSITY
I’m still comfortable, but am breathing a little bit harder.

LIGHT INTENSITY
I’m comfortable and can keep up this pace all day long.

LIGHT INTENSITY
I am lounging on the couch and eating bon bons.

(Based on the Modified Borg Rating of Perceived Exertion Scale)
Cardiovascular Training for PwP

- VO2 Max = max rate of oxygen consumption during incremental exercise (↑ intensity)
  - Measure used to establish aerobic endurance

- VO2 Max is similar between people with PD and age-matched peers, BUT...
  - PwP reach their Max VO2 faster with less power output
  - PwP have lower walking economy (less efficient use of energy while walking)

- EVEN SO... People with PD have potential to reach near normal exercise capacities with cardiovascular training

Christiansen C. et al, 2009; Stanley RK. et al, 1999
Cardiovascular Training for PwP

- Endurance training is **well tolerated**
- No serious adverse events reported
  - Non-serious adverse events = soreness, pain, orthostatic hypotension
- Recommended intensity:
  - 60 - 80% Peak HR
  - Moderate to Vigorous on the RPE scale
- Get a pre-screening by a fitness coach or physical therapist for exercise tolerance
- Monitor vitals during exercise

Other Fitness Considerations: Bradykinesia

- BIG + SLOW → BRADYKINESIA
- FAST + SMALL → Speed-Amplitude Dysregulation
Other Fitness Considerations: Bradykinesia

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Other Fitness Considerations:

- Long Term Engagement!!!

BARRIERS TO EXERCISE

Time

Fear of Falling

Low Outcome Expectation

(Ellis et al 2013)
Other Fitness Considerations:

- Psychological & Emotional States
- Mastery experiences
- Vicarious Experiences
- Social Persuasion

Self-Efficacy

Behavior
In Summary:

- Try to fit in your “Fab Four” each week
- Think about exercise intensity, especially during cardio
  - Aim for Moderate to Vigorous (Use RPE Scale)
- Intense exercise literally changes the brain
- Do a self-audit on your own barriers to exercise
- What are ways you can stay engaged in exercise long term?
Thank you!!!