Exercise and Parkinson’s Disease

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Physical Effects of Parkinson’s

- **Primary Motor Symptoms**
  - Resting Tremor
  - Bradykinesia
  - Rigidity
  - Postural Instability

- **Secondary Motor Symptoms**
  - Freezing
  - Micrographia
  - Mask-like expressions
  - Unwanted accelerations
Benefits of Exercise

- Low intensity exercise performed for 50 minutes, 3 times per week may be beneficial in improving mobility issues associated with Parkinson’s²
- Low intensity exercise
  - Walking
  - Stretching
  - Strengthening
- Exercise may postpone symptoms and assist with retaining independence, improve mobility and quality of life
Benefits of Exercise

- Inhibition of joint malformation
- Enhanced coordination and balance
- Improved posture
- Increased cardiovascular fitness
- Enhanced joint mobility
Benefits of Exercise

- Improved muscle strength and flexibility
- Less muscle cramping
- Decreased stress levels
- Improved control over gross motor skills, such as walking
- Increased confidence in carrying out daily activities
Physical Therapy Interventions

- Gait Training
  - Body Weight Support Treadmill Training
  - AlterG Anti-Gravity Treadmill
- Balance Training
  - Static and dynamic
- Postural Re-education
- Strengthening
- Stretching
Alter-G Treadmill

Effects of Body Weight Support Treadmill Training on Parkinson’s Disease

- Long lasting effects on gait disturbances, specifically short-step gait³
- Induces motor learning through enhancement of alternative brain networks
- Improvements in activities of daily living, motor performance, and walking speed⁴
- Improvements in balance⁵
Effects of Whole Body Vibration on Parkinson’s

- Improved equilibrium and gait\textsuperscript{6}
- Improved postural stability\textsuperscript{7}
- Improvements in tremors
- Improvements in rigidity
Questions
References

- www.pdf.org