

PD EXERCISE & MOVEMENT IDEAS

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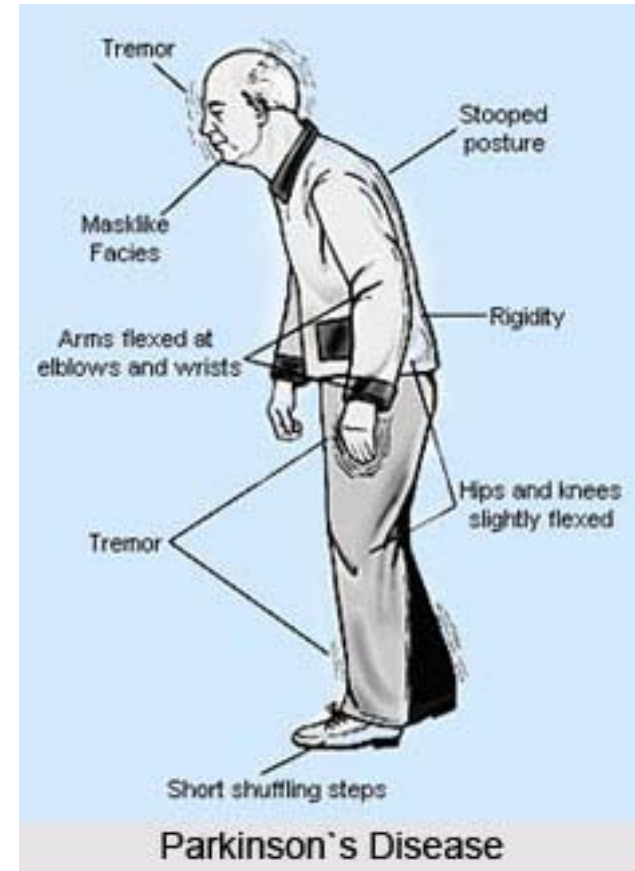
Cardinal Signs of PD

- Bradykinesia (slowness of movement)
- Muscle Rigidity (stiffness)
- Resting Tremor
- Gait Disorder and Postural Instability



Characteristics of PD Gait

- Small, shuffling steps
- Festinating gait
- Reduced arm swing
- Stooped posture
- Freezing episodes
- Backwards falling





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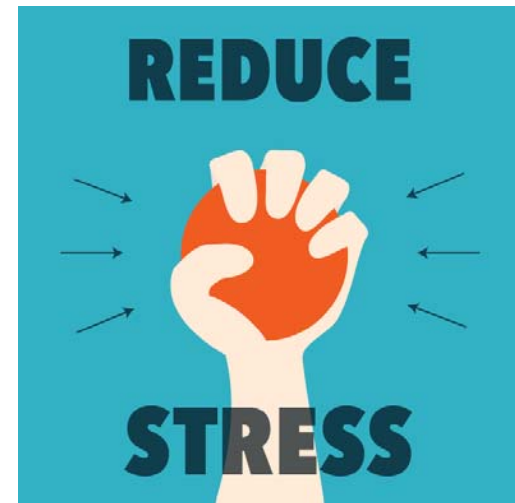
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Things that may worsen symptoms of PD

- Stress or Anxiety
- Being hurried
- Fatigue
- Illness

- Medications not given on time or missing a dose of medication

- Missing your daily exercise





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Treatment Options for PD

- Medication
- Deep Brain Stimulation (DBS)
- Exercise
- Physical Therapy
- Occupational Therapy
- Speech Therapy





Benefits of Exercise

- Exercise for PD
 - Protects remaining dopamine neurons
 - Restores and improves connections and signal pathways in the brain
 - Strengthens use of undamaged pathways
 - Slows motor deterioration

Intervene before pathways are lost!

Treatment most effective in the early stages

Need **INTENSE, REPETITIVE** activities and exercise



Benefits of Exercise

- Improve ease of motion (combats stiffness/slowness)
- Increase speed and step length with walking
- Improve ability to complete activities of daily living
- Decrease risk of FALLS
- Decrease freezing episodes (mental and physical practice)
- Improve upright posture
- Decreased depression and anxiety
- Improve sleep
- Decreased caregiver burden
- Decreased cognitive decline, improved attention and working memory



Components of Exercise Program

- **Stretching**
- **Strengthening**
- **Aerobic conditioning**



Benefits of Stretching

- **Increases range of motion**
- **Helps maintain good posture**
- **Protects against muscle strains and sprains**
- **Improves circulation**
- **Releases muscle tension**



Benefits of Strengthening

- Can help you stand up straighter
- Can help make tasks such as getting up out of a chair easier
- Helps make bones stronger
- Helps fight the overall effects of aging
- Makes overall movement easier



Benefits of Aerobic Conditioning

- Strengthen heart and lungs
- Improve stamina and endurance
- Reduce stress
- Improve mood and help combat depression
- Help control blood pressure, high cholesterol and diabetes
- Makes doing household chores easier



Physical Therapy Goals

PT Goals:

- Move easier
- Increase gait speed
- Decrease falls risk
- Improve physical fitness
- Improve secondary symptoms (musculoskeletal, cardio respiratory, deconditioning)



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Tips to Prevent or Reduce Freezing

- Visual cues – laser line on certain walkers/canes
- Auditory cues – metronome, music
- Hum, sing, or count
- Mental rehearsal or visualize stepping over a line, stepping towards a particular distance
- Weight shift side to side
- Try a different movement – raise arms, marching in place

What's the BIG Idea?

Lee Silverman Voice Treatment

Originated in the early to mid 1980s
At that time only 4% of PD patients had
speech therapy but over 90% had deficits



Developed into protocol 4 times per week
x 4 weeks for 60 minutes

Added BIG program years later

LSVT BIG™

Intensity

Complexity

Saliency

Use it or lose it

Use it and improve it





DANCE *for* PD®



FIT Program

Functional Individualized Training – Physical Therapy

Combines movements and activities influenced by multiple approaches – BIG, PWR, Yoga, etc.

Specific to individual needs

Basis for our twice weekly exercise class taught by physical therapy staff – 45 minutes per session





Other Ideas



Aerobic walking (walking sticks)

1 lb hand weights for assisted arm swing

Treadmill high intensity walking (30 minutes at 70-80% max heart rate) – works best when combined with resistance training

Tandem/Forced Cycling – 80-90 RPM x 60 minutes 3 times per week improved motor function by 35%

Whole Body Vibration – limited research but may be useful

Tai Chi – Yang Style more effective than Sun Style

Yoga



Movement Demonstrations

Hand flicks

Clock Turning

Sit to stand

Step and reach forward / lateral / backward

Calf Stretching



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TAKE HOME POINTS

MOVE!!!

VARIETY OF
ACTIVITIES

COMMUNICATE
WITH PROVIDERS

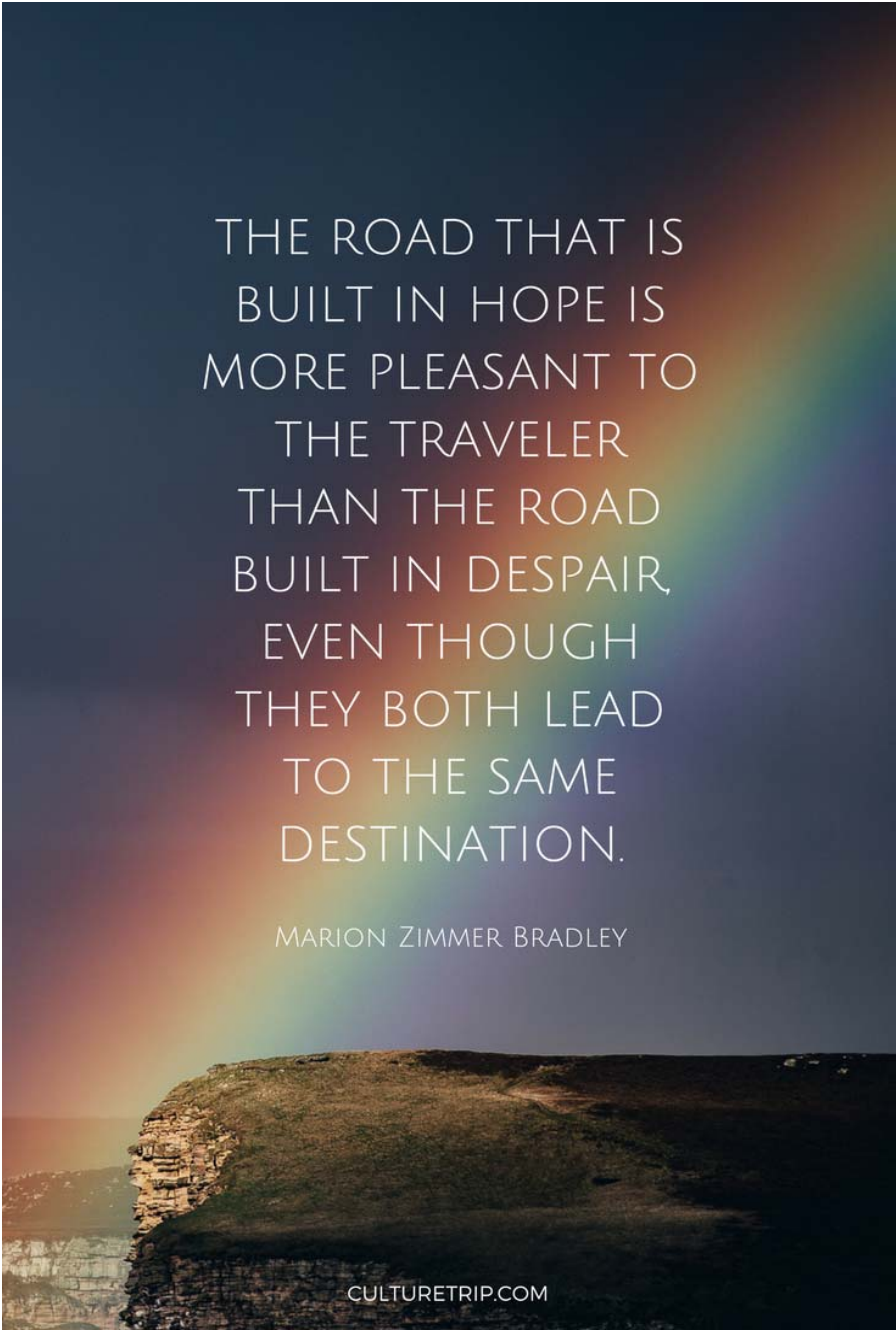
It's not about perfect.
It's about effort. And when
you bring that effort every
single day, that's where
transformation happens.
That's how change occurs.

—JILLIAN MICHAELS



Questions?

Comments?



THE ROAD THAT IS
BUILT IN HOPE IS
MORE PLEASANT TO
THE TRAVELER
THAN THE ROAD
BUILT IN DESPAIR,
EVEN THOUGH
THEY BOTH LEAD
TO THE SAME
DESTINATION.

MARION ZIMMER BRADLEY



**THANK
YOU!**



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