BE ACTIVE!



An Exercise Program
for
People with Parkinson's Disease



BE ACTIVE!

An Exercise Program for People with Parkinson's Disease

This booklet was written for the

American Parkinson Disease Association, Inc.

by

Terry Ellis, PT, PhD, NCS

Tami Rork, PT, MSPT

Diane Dalton, PT, DPT, OCS

The Center for Neurorehabilitation

Sargent College

Boston University, Boston MA.

© The American Parkinson Disease Association, 2008

FOREWORD

It is with great pleasure that I introduce you to this comprehensive exercise manual. The booklet is designed to provide important and timely information on exercises designed specifically for people with Parkinson's disease. In addition, it is intended to describe the tools that will get you started on a journey towards improved health and wellness.

As a Movement Disorder Specialist, I strongly encourage my patients to be as active as possible. There is a growing body of literature describing the benefits of exercise for people with PD. The American Parkinson Disease Association (APDA) has strongly supported these efforts. For example, at Boston University, there are ongoing collaborative studies being conducted at the Center for Neurorehabilitation at Sargent College of Health and Rehabilitation Sciences and at the Boston University Department of Neurology APDA Center for Advanced Research. These programs are exploring the effects of exercise on Parkinson's disease. Results from one small, focused study in Boston led to an NIH funded grant that investigated the benefits of exercise in a larger number of people with Parkinson's. Outcomes from this and other research have clearly shown a positive effect of exercise on quality of life and day to day function in people with PD.

On a grass-roots level, there is a strong support system for patients and families provided by the APDA through a network of Information and Referral Centers. The coordinators who staff these centers are professionals who disseminate a wealth of information about Parkinson's. As well, they refer people with PD to a wide variety of general community resources. Because of the positive effects of maintaining an active lifestyle on overall well being, coordinators offer valuable advice on locating exercise and rehabilitation programs in local communities. To find out about exercise programs in your area, feel free to call the American Parkinson Disease Association at 1-800-223-APDA or visit on the internet at www.apdaparkinson.org to locate an Information and Referral Center that can assist you.

As a physician, I feel this manual offers a great springboard for success. I applaud you for your interest in enhancing personal well being through exercise. And, I encourage you to "BE ACTIVE," keep moving and feel good through the Parkinson exercise program outlined in the following pages.

Marie Saint-Hilaire MD, FRCPC

Medical Director APDA Center for Advanced Research Department of Neurology Boston University Medical Center

TABLE OF CONTENTS

Introduction	Page 5
Benefits of Exercise	Page 6
	J
Getting Started	•
Overcoming Barriers to Exercise	_
Exercise Guidelines	Page 9
Part 1: Exercise Manual	Page 11
Motion Exercises	Page 13
Stretching Exercises	Page 17
Strengthening Exercises	Page 22
Part 2: Helpful Hints to Improve Mobility	Page 29
Walking	Page 30
Moving in Bed	Page 33
Standing Up From Chairs	_
Reducing the Risk of Falls	•
Conclusion	Page41
Staying on Track & Avoiding Setbacks	Page 41
Moving Forward	Page 42
Exercise Logs	Page 43
Acknowledgments	Page 45

INTRODUCTION

What is Parkinson's Disease?

Parkinson's disease (PD) is a neurological condition that causes both motor and non-motor symptoms. It occurs when dopamine-producing nerve cells in the brain are decreased. Dopamine is a chemical that allows for smooth and coordinated movement. When there is a lack of dopamine, movements may be slower and less coordinated.

The primary symptoms of PD are:

- Tremor (shaking)
- Slowness of movement
- Rigidity (stiffness)
- Difficulty with balance

How is Parkinson's Disease Treated?

While there is no cure for Parkinson's disease (PD), there are many medications that can be prescribed by your physician to help manage the symptoms of the disease. For some people with PD, there may be surgical options which can also reduce their symptoms associated with PD. It is important to speak with your doctor about your specific symptoms and how they impact your day-to-day life so that your doctor can determine the best medications for you.

What Do We Know about Exercise and Parkinson's Disease?

The research available suggests that exercise can help people with Parkinson's disease improve mobility and accomplish daily tasks with greater ease. Studies reveal that people with PD can improve their mobility, flexibility, strength and fitness level with exercise.

There is some evidence from animal studies that suggests a potential role of exercise in impacting the progression of the disease. More research is needed to understand the possible protective effects of exercise in Parkinson's disease.

Benefits of Exercise

Exercise can be fun and is good for you. It can give you more confidence and more energy. More importantly, exercise is something that you can do to help manage your disease and improve your quality of life.

Benefits of regular exercise include:

- Increased well-being
- Enhanced fitness level
- Improved muscle strength
- Stronger bones and healthier joints
- Improved blood circulation
- Better digestion
- More efficient breathing

Benefits of exercise specific for people with Parkinson's disease include:

- Enhanced quality of life
- Easier mobility with day-to-day tasks
- Increased flexibility of the muscles
- Improved motion of the joints
- Decreased stiffness
- Better posture
- Faster movements

Getting Started with Exercise

This program is designed to help you be active, keep moving and feel good! The exercises (Part I) and mobility hints (Part 2) in this booklet have been developed to target the strength, mobility and flexibility concerns that are common among people with Parkinson's disease. The information is designed to be easy to follow and safe. However, there may be some activities or exercises that aren't right for you. If you are unsure whether an exercise is right for you, a physical therapist might be able to help.

Overcoming Barriers to Exercise

Most of us realize that regular exercise is beneficial. However, many people encounter barriers or road blocks that make it difficult to take part in a regular fitness program. The following are reasons often voiced by those with Parkinson's disease as to why they do not participate in a fitness regimen:

- "I don't have enough time to exercise."
- "I can't fit exercise into my busy schedule."
- "I'm too tired to exercise."
- "I find it hard to get motivated."
- "I'm not sure which exercises to do."
- "I'm not sure that I am doing the exercises correctly."
- "I get bored when I exercise."

These may be some of the roadblocks that you face. It is important to identify the barriers that make it difficult for you to participate in a regular exercise program and then work to overcome these obstacles.

Helpful Hints to Overcome Barriers

Once you've identified what might prevent you from participating in regular exercise, it is important to find ways to overcome these barriers so that you can continue to enjoy the benefits of exercise such as feeling good and having more energy and confidence. Below are some suggestions to help you:

- Plan ahead: Set a regular schedule. Choose the same time of day to exercise.
- Get support: Tell family members and friends that you are starting an exercise program. They can provide encouragement and support.
- Use the buddy system: Exercise with a family member or a friend. This helps with motivation.
- Feel good: Exercise at a time of day when you feel good and it is easier to move.
- Get started: Try the exercises outlined on the following pages. This booklet contains pictures of exercises that are appropriate for most people with Parkinson's disease. The photos will show you how to perform the exercises correctly.
- Make it enjoyable: Choose exercises that you enjoy the most.
- Take breaks: Rest when you feel tired. Don't rush to finish. Take your time.
- Ask for help: Visit a physical therapist to help you get the maximum benefits from an exercise program.

Exercise Guidelines

Motion Exercises:

- Motion exercises can be done safely every day.
- If you are not able to do them every day, then do some exercises one day and others the next day.
- Move slowly through the full motion.
- Work toward performing each of these exercises for two minutes.

Stretching:

- Stretching exercises can also be done safely every day.
- If you are not able to do them every day, then do some exercises one day and others the next day.
- Move slowly until you feel a gentle stretch.
- Repeat 2-3 times and hold each stretch for 30 seconds.
- Do not hold your breath while stretching.
- Do not bounce while you stretch; simply hold the position.
- Do not stretch to the point of pain.

Strengthening:

- You can benefit from performing strengthening exercises
 3-4 times per week.
- The strengthening exercises should be moderately challenging; they should not be too easy or too hard to perform. You can vary the number of repetitions or sets to make it more or less challenging for you.



It is important to stop doing the exercises:

- If you feel pain
- If you feel unsafe
- If they seem too difficult

Exercise Guidelines

Fitness (Aerobic) Activities:

Aerobic exercise is an important part of any exercise program in addition to the other activities such as strengthening and stretching that are depicted in the following pages. Aerobic exercise may include walking, running, biking, climbing stairs, swimming, dancing and other activities that involve continuously moving. Activities that you do regularly like household chores and yard work can also be aerobic exercise. These exercises can improve your fitness level.

Below are some guidelines and suggestions to consider when incorporating aerobic activities into your exercise regimen:

- Participating in aerobic exercise 3-4 times per week for 30 minutes each time has been shown to improve fitness.
 People with Parkinson's disease can improve their fitness level by performing these types of exercises.
- Walking for exercise can be particularly beneficial for people with Parkinson's disease. While walking, you can practice taking bigger steps, swinging your arms and walking faster. This will help you to improve your walking ability. At the same time, walking faster helps improve fitness. Start by walking 3-4 times per week for 5-10 minutes at a time and work toward 20-30 minutes at a time. (See page 30.)
- Choose aerobic activities that are fun. For example, if you
 enjoy dancing or yard work then continue these activities.
 They can benefit your fitness level and heighten your overall
 sense of well-being.

PART 1

EXERCISE MANUAL

- Motion Exercises
- Stretching Exercises
- Strengthening Exercises



Before you begin this or any exercise program, you should talk to your doctor or physical therapist. He or she can determine if it is safe for you to participate in an exercise program.

Motion Exercises

These exercises will help you to:

- Increase motion and decrease stiffness in your neck and trunk.
- Improve movements in bed.
- Improve posture.

BEFORE YOU START

- 1. The exercises in this booklet can be done on the floor, on a firm mat, or on a bed. Choose the one that is best for you.
- 2. Place a rolled-up towel under your head for all exercises performed lying on your back. Make sure it is **not under your neck**.



- Chin tucked.
- Ear in line with shoulder

Common Mistake



- Do Not point chin toward ceiling.
- Do Not tilt head back

NECK ROTATION

 Lie on your back with knees bent.



- Turn your head to the left as far as you can.
- Hold 3-5 seconds.



- Then turn to the right as far as you can.
- Hold 3-5 seconds.
- Repeat up to two minutes.



TRUNK ROTATION WITH NECK ROTATION



- Lie on your back with knees bent.
- Place arms out (like a 'T') with palms facing up and elbows straight.



- Allow both legs to fall down to the left.
- Turn your head to the right (at the same time).
- Hold for 3-5 seconds.
- Then bring both legs down to the right.
- Turn your head to the left (at the same time).
- Hold for 3-5 seconds.
- Repeat up to two minutes.

ROLLING SIDE TO SIDE

- Lie on your back with knees bent.
- Place arms by your side.



- Bring right arm and both legs towards the left.
- Roll head and body to the left.



- Then roll from your left side all the way to your right side.
- Repeat up to two minutes.



Stretching Exercises

These exercises will help you to:

- Increase flexibility and decrease stiffness
- Improve posture and walking
- Reach overhead more easily.

TRUNK ROTATION



- Lie on your back with knees bent.
- Place arms out (like a 'T') with palms facing up and elbows straight.





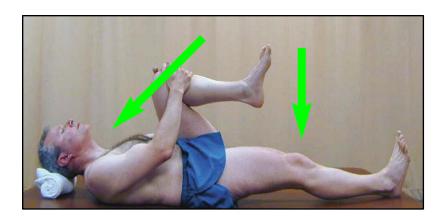
- Allow both legs to fall to the left.
- Do not move your head, neck or shoulders.
- Hold for 20-30 seconds.
- Repeat 2-3 times for each side.

HIP STRETCH

- Lie on your back.
- Pull knees toward chest with both arms.

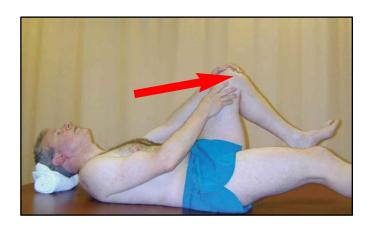


- While pulling your left leg toward your chest, push right knee down toward the floor.
- Hold for 20 seconds.
- Bring both knees back to chest and push left knee down toward the floor.

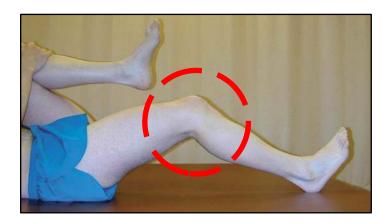


COMMON MISTAKES FOR HIP STRETCH

• Do not let knee slip away from chest.



• **Do not** allow knee to bend.



CALF STRETCH

- Place two hands on the wall for support.
- Place your right foot forward.
- Place your left foot back with the heel on the floor, your knee straight, and your toes pointing forward.
- Bend your front leg (like a lunge) until a stretch is felt in the calf of the back leg.
- Hold for 20-30 seconds.
- Repeat 2-3 times with each leg.



COMMON MISTAKE



- Do Not bend knee of back leg.
- Do Not let heel of back leg come off floor.

HAMSTRING STRETCH ON STAIR

(Back of Thigh)



- Place your left heel on the bottom step of a flight of stairs.
- Hold the railing for support.
- Straighten your left knee until you feel a stretch in the back of your left leg.
- Hold for 20-30 seconds.
- Repeat 2-3 times with each leg.



COMMON MISTAKE

Do not allow head or back to slump forward.



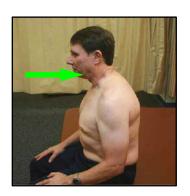
Strengthening Exercises

The exercises in this section will help you to:

- Improve posture.
- Increase upper and lower body strength.
- Improve walking and stair climbing.

POSTURE EXERCISES

- Sit at the side of your bed with your feet flat on the floor.
- Place your hands in your lap.
- Sit up as straight as possible and tuck chin.



- Squeeze shoulder blades down and together.
- Hold this position for 20-30 seconds.
- Return to the starting position and repeat 2-3 times.



CHAIR PUSH UPS



- Place a chair against the wall.
- Sit with feet flat on the floor and hands on the armrests.



- Straighten elbows to lift buttocks a few inches off the chair. Keep most of your body weight on your arms.
- Keep your feet on the floor.
- Return to starting position and repeat 8-12 times. Do 2-3 sets.

COMMON MISTAKE

Do not allow shoulders to shrug.



WALL PUSH-UP



 Place two hands on the wall for support with fingertips pointed toward the ceiling.



- Slowly lower your body toward the wall.
- Stop before your forehead touches the wall.
- Push to straighten elbows and return to starting position.
- Repeat 8-12 times. Do 2-3 sets.

Do not place hands too high up on wall.



COMMON MISTAKES





Do not point chin toward the wall.



HEEL RAISE



- Place both hands on the wall for balance.
- Keep your body weight on your legs, not on your arms.





- Lift your heels off the ground to raise your body straight up toward the ceiling.
- Repeat 8-12 times. Do 2-3 sets.

SINGLE LEGBALANCE

Always have a hand on the wall while doing this exercise.

- Stand with your right side closest to the wall.
- Place your right hand on the wall for balance.
 Do not lean.
- Lift **right foot**. Hold 20-30 seconds.
- Repeat 2-3 times.



- Turn around and place your left hand on the wall.
 Do not lean.
- Lift left foot. Hold 20-30 seconds.
- Repeat 2-3 times.



WALL SQUAT

- Stand with your back to the wall.
- Place your feet out away from the wall.





- Slide your back down the wall until your knees are halfway bent.
- Do not allow your knees to go beyond your toes. (You may have to move your feet farther away from the wall.)
- With your back touching the wall, return to standing.
- Repeat 8-12 times. Do 2-3 sets.





SQUAT



- Place a chair against the wall.
- Stand directly in front of the chair with your feet pointed forward.



- Slowly lower your buttocks toward the chair (as if to sit).
- Squat about halfway down and return to standing.
- Do not allow your knees to go beyond your toes.
- Repeat 8-12 times. Do 2-3 sets.

COMMON MISTAKE

 Do not look down or round your back.



PART 2 Helpful Hints to Improve Mobility

Part 2 of this booklet has recommendations to help you improve walking, moving in bed and standing up from a chair, and strategies to reduce your risk of falling.

Consider making changes to the following three areas to maximize your daily mobility.

- Change something about yourself.
 (i.e. flexibility or strength)
- Change something about the strategy you use to perform the task. (i.e. move to the edge of the chair before standing up)
- Change something about the environment.
 (i.e. chose chairs with armrests.)

You can begin to learn to overcome the mobility challenges in your day-to-day life by identifying what you can change about yourself, your strategy and your environment.

WALKING

When I am walking, I have noticed that my steps get smaller and my walking gets slower. What can I do to improve my walking?

Small steps can reduce your walking speed and make it difficult to keep up with other people. Decreased step length can also contribute to catching your foot and tripping as you walk.

Small steps are also less efficient and can lead to early fatigue. When you get fatigued quickly, your walking distance may become limited or you may require frequent rest breaks.

Try some of these hints to improve your walking.

Change something about yourself:

- Improve the muscle flexibility and joint motion of the trunk, hip, thigh and ankle to help you take bigger steps, swing your arms, and land on your heel when you take a step. (See pages 15, 17, 18, 20, and 21.)
- Strengthen your hip, knee and ankle muscles to help with balance; this can also improve walking speed and distance. (See pages 25-28.)

Change the strategy you use:

- Practice walking when you are feeling your best.
- Increase your walking speed and concentrate on landing on your heel and swinging your arms.
- Practice walking on various surfaces (e.g. floors, rugs, grass).
- If you have difficulty walking through doorways, focus on your destination and walk to it (e.g. avoid looking at the doorway you are walking through; rather, look beyond the doorway).

- If you get stuck when you start walking, try these hints:
 - March in place and then take a big step to begin walking.
 - Visualize stepping over an object to get started.
 - Drop a small object, like a coin, on the ground and step over it.
- Gradually increase the amount of time you spend walking each day.

Change something about the environment:

- Choose open spaces when possible and avoid cluttered areas.
- Look around your environment and plan ahead so that you can avoid objects in your path.
- Consider the type of shoes you wear. For example, rubber-soled shoes may work better on smooth surfaces to prevent slipping but may make it more difficult to walk on rugs.
- To help with turning, make wide arc turns ("U" turns).
- Use objects in the environment to assist you with taking bigger steps (e.g. stepping over the cracks in the sidewalk).
- If you seem to get stuck in specific locations in your home, try taping lines on the floor to step over, to help you turn, or to help you initiate walking in tight spaces.
- Walk to the beat of music. This can help you walk faster.
- Walk next to someone who moves more briskly than yourself; this will help you synchronize or match the person's step length and walking speed.

WALKING

Try to maintain a more upright posture to improve your walking ability. Notice the key differences in the pictures below:

This



- Longer step length
- Land on your heel
- Arm swing
- Erect posture

NOT This



- Shorter steps
- Flat foot landing
- No arm swing
- Slouched posture

MOVING IN BED

During the night, I have difficulty changing positions, adjusting the blankets and I can't get comfortable. How can I move better in bed?

Try some of these hints to make it easier for you to move in bed.

Change something about yourself:

- Improve the flexibility of your trunk to make movements easier.
 (See pages 15 and 17.)
- Discuss your medication regimen with your doctor to determine if some changes can help minimize your bedtime moving difficulties.

Change the strategy you use:

- Stretch before changing positions to loosen up your body.
- Use momentum or a rocking motion to get your body moving.
- Count to 3 before you start moving. (Say "1,2,3 and GO".)
- Break the activity down into parts. Think about each part and then go from one part to the next. For example, bend your knees first, look and reach in the direction you are rolling and then turn over. (See page 16.)

Change something about the environment:

- Use satin sheets or satin pajamas to improve your ability to slide in bed.
- Change your heavy comforter to a lighter bedspread or a down comforter to make it easier for you to take the covers on and off.
- Reduce the number of layers on the bed to avoid getting tangled in the blankets.
- Purchase a bed rail to help with rolling over in bed.

MOVING IN BED

Getting out of bed can also be difficult, especially if your medication has worn off while you were sleeping. Follow these steps to get out of bed more easily and safely.



Lie on your back.





- Bend your knees.
- Turn your head and look where you are going.
- Use your arms and legs to roll onto your side near the edge of the bed.



 Place your palm flat against the bed and begin to push your body upward.



- Push yourself to sitting by using both arms.
- Allow your legs to drop over the side of the bed at the same time.
- Come to a seated position.

STANDING UP FROM CHAIRS

I have difficulty standing up from certain chairs and sometimes I need several attempts to be successful. How can I stand up from chairs more easily?

Try some of these helpful hints to make it easier for you to stand up from chairs.

Change something about yourself:

- Strengthen your hip and thigh muscles. It will help you stand up with greater ease. (See pages 27 and 28.)
- Strengthen your upper arm muscles. It will help you
 push up when using the arms of a chair. (See pages 23 and 24.)
- Breathe! Take a deep breath and, as you blow out, imagine yourself standing up from the chair with ease. This may help you relax and reduce your stiffness.

Change the strategy you use:

- Use a four-step sequence to stand up:
 - 1. Scoot to the edge of the chair.
 - 2. Tuck your feet slightly underneath your chair.
 - 3. Lean forward as you stand up.
 - 4. Push up with your arms and legs.
- Use momentum or a rocking motion to get your body moving.
- Count to 3 before you start moving. (Say "1,2,3 and GO".)

STANDING UP FROM CHAIRS

Change something about the environment:

- Select a chair that will be easy to stand up from:
 - 1. Avoid sitting in chairs that are very low.
 - 2. Choose chairs with armrests when possible.
 - 3. Avoid sitting in chairs that are too squishy. Use a satin-type slipcover or a plastic bag on a chair, couch or car seat if you tend to get stuck.
- Raise the height of your toilet seat. (Ask an occupational therapist about the different devices that are available.)
- Plan ahead and speak up when you go out to public places. Look around at your seating options. If something looks like it will be difficult for you, don't be afraid to ask if there is another option. (For example, if you are in a restaurant and your are led to a low booth, ask if you can sit at a table.)

STANDING UP FROM CHAIRS

Follow these steps to get out of a chair more easily and more safely.



 When possible, it is best to use a sturdy chair with a firm seat and a firm back and armrests.



- Move to the edge of the chair.
- Bend your knees so that your feet are underneath you.
- Place your hands on the armrests.



- Bend forward at the waist.
- Push up with your arms and legs.



 Take a moment to gain your balance before you begin to walk.



SIMPLIFY IT!

- Scoot to the Edge
- Feet Back
- Lean Forward
- Push up

REDUCING THE RISK OF FALLS

I limit my activities because I have fallen or I am afraid of falling. How can I decrease my risk of falling?

If you are experiencing falls or if you are fearful that you may fall, these hints may assist you in reducing your risk of falling. It is important to minimize fall risk to avoid injuries that may result from these incidents.

Start by answering the following questions about your falls. You can use the fall on the next page to record the answers to these questions. This information may help you and your healthcare provider identify ways to decrease your risk of falling.

- Do you fall? If so, how often?
- When do your falls occur (i.e. what time of day)?
- In which direction do you fall (i.e. forward, backward or to the side)?
- Are you stiff, weak, unbalanced, shaky, dizzy, uncertain or fearful?
- Do you avoid certain activities because you have fallen or fear you may fall?
- What activities are you doing when you fall? Are you reaching, lifting, walking or carrying something?
- Is the environment stable, movable, level, uneven, wet, slippery, cluttered, dark or crowded?
- What time did you take your last dose of medication?

REDUCING THE RISK OF FALLS

FALL LOG

Date	Time	Direction	Me	Activity	Environment	Medications
		of Fall (Did you fall forward, backward or to the side?)	(Did you feel tired, weak or stiff?)	(Were you reaching, lifting, walking or carrying something?)	(Did you trip over something? Were the lights on? What shoes were you wearing?)	(What time did you take your last dose of medication?)
				_		

REDUCING THE RISK OF FALLS

Change something about yourself:

- Keep your arm and leg muscles strong. (See pages 23-28.)
- Keep your body flexible. (See pages 15, 17, 18, 20, and 21.)
- Be active or get involved in an activity that keeps you moving.
- Do not wear bifocals or reading glasses while walking or going up and down stairs.

Change the strategy you use:

- Ask for help. Avoid putting yourself in a dangerous or risky situation.
- Decide if it is necessary to carry an object. Could you push it or throw it? For example, push items along the counter instead of carrying them.
- When possible, carry items in a bag or backpack to keep your hands free.
- Use a more stable position. For example, sit instead of stand.
- Limit the distractions in your environment as you perform a challenging activity. Focus your full attention on the activity. This will help you perform it more safely.
- Avoid multi-tasking! Try to perform one task at a time.
- Keep a "Fall Log" (see page 39) and write down details about your falls to help find patterns and discuss solutions with your healthcare providers.

Change something about the environment:

- Make sure hallways and stairwells are always well lit.
- Create color contrasts in areas where there are ramps, steps or thresholds to avoid tripping.
- Remove clutter and throw rugs.
- Consider signing up for a 24-hour emergency response service. This may involve wearing a necklace or a bracelet with a button that can be easily activated to call for help.

CONCLUSION

This booklet contains exercises and helpful hints to improve your mobility, daily function and quality of life. You can benefit in many ways from exercise and this booklet can help guide and empower you to be active, keep moving and feel good!

STAYING ON TRACK

- Give it time and stay on course. It will become easier to exercise as it becomes a regular part of your life. It takes time to become comfortable with any life change.
- Practice makes perfect. Practice the strategies you have learned to help improve your daily mobility. This makes it easier to use the strategies when you need them the most.
- Post your progress. Keep an exercise log to show how much progress you've made over time. (See page 44)
- Get back on track. Don't get discouraged if you have stopped exercising for a period of time. Exercise should be a lifelong commitment.

AVOIDING SETBACKS

- Try to avoid doing too much at once.
- Plan ahead and schedule your activities and exercise during a time when you typically feel your best.
- Get plenty of sleep and rest between exercise sessions to allow your body to recover and participate at its best.
- Do not give up. If you have difficulty once with an activity or exercise, try again. Everyone experiences good days and bad days, and multiple attempts may be necessary to be successful.

MOVING FORWARD WITH ENJOYABLE LIFE ACTIVITIES

After participating in an exercise program, you should begin to notice improvements in your mobility and general well-being. This is a great time to increase your involvement in activities that you value and enjoy by doing the following:

- Resume an activity that you previously gave up.
- Participate in an enjoyable activity more frequently.
- Participate in an activity for a longer period of time.
- Try a new activity.

MOVING FORWARD WITH EXERCISE

Over time, it is expected that certain exercises will become easier to perform. At that point, it is necessary to advance the exercises in order to continue to see improvements. There are several ways to advance the exercises in this program:

- Increase the number of repetitions of an exercise.
- Increase the length of time you perform each exercise.
- Perform your exercise program more frequently (more days per week).

TRACKING YOUR PROGRESS

The following pages of the booklet contain a sample exercise log and a blank exercise log. The sample log is an example of a program that uses all of the exercises included in this booklet along with a space to write in aerobic activities. You can use the sample program as a guide in writing out your own regimen on the blank exercise log. You don't need to include all of the exercises in this booklet to have a regimen that is beneficial for you. Pick the exercises that you enjoy and make you feel good.

Sample Exercise Log

You can record which exercises you completed each day with check marks. Also record how you feel each time you exercise to keep track of your progress.

	Sunday																											Day Off	
	Saturday			1	-	^				-	^	18	-														15 minutes of		
	Friday	^	^				12		7					-	^			7		^			>						
progress.	Thursday			1	-	^				,	٨	1.	_													10 minutes on	the stationary		
rack or your	Wednesday	^	^				7		7					-	^	,	^				7			1.	-				
exercise to keep track or your progress.	Tuesday			٨	-	^				-	^	7	,														20 minutes of	Today I felt stiff I can move more when I started easily and I have	more energy today.
exer	Monday	7	7				7	-	7					_	~			7		7			>						but I feel better after stretching.
		Repeat up to 2 minutes	Repeat up to 2 minutes	Rolling Side to Side Repeat up to 2 minutes	20-30 seconds	2-3 times each side	20-30 seconds	2-3 times each side	2-3 times each side	20-30 seconds	2-3 times each side	20-30 seconds	2-3 times each side	20-30 seconds	2-3 times each side	Repeat 8-12 times	Do 2-3 Sets	Repeat 8-12 times	SIGN C-7 CO	Repeat 8-12 times Do 2-3 Sets	Repeat 8-12 times	Repeat 8-12 times	Do 2-3 Sets	Repeat 8-12 times	Do 2-3 Sets		Work up to 20-30		
		Neck Rotation	£	Rolling Side to Side		Trunk Rotation	defended will	The Stretch	ger Stretch		Calf Stretch	Hotord Conjuternoll	Hamstring Stretch		Posture Exercise		Chair Push Up	old dail Bush Un	do lien lina	Heel Raise	Single Leg Balance	000000000000000000000000000000000000000	Wall Squat		Squat		Cardiovascular	How do you feel	today?

Exercise Log

Sunday																					
Saturday	の一人の一人の一人の一人の一人の一人の一人の一人の一人の一人の一人の一人の一人の																	である。	79		
Friday																					
Thursday					The second second																
Wednesday					是一位表示 A													のでは ないない からい			
Tuesday																					
Monday																					
		Repeat up to 2 minutes	Repeat up to 2 minutes	Rolling Side to Side Repeat up to 2 minutes		20-30 seconds 2-3 times each side	Repeat 8-12 times Do 2-3 Sets	THE PARTY OF THE	Work up to 20-30 minutes												
		Neck Rotation F	Trunk Rotation with Rotation	Rolling Side to Side		Trunk Rotation	Hip Stretch	Elbow, Wrist, & Finger Stretch	Calf Stretch	Hamstring Stretch	Posture Exercise	Chair Push Up	Wall Push Up	Heel Raise	Single Leg Balance	Wall Squat	Squat		Cardiovascular Exercise	Distance of the second	How do you feel today?

ACKNOWLEDGEMENTS

Special thanks to these people who have contributed to the manual:

Paul Proulx
Joel Brown
Cathi Thomas, RN, MS, CNS
Katrina Griffith, DPT
Daniel White, ScD, PT
Linda Tickle-Degnen, PhD, OTR/L, FAOTA
Robert Wagenaar, PhD
Marie Saint-Hilaire, MD
Therese Higgins, MSPT
Maureen Bourque, MSPT
Donna Diaz, RN, MS

Thanks to those individuals who have assisted with thoughtful review and support:

Douglas Katz, Joy DePiero, Anna Hohler, Nancy Broderick, Susan Sabadini, Valerie Allen, Alissa Leonard, Cristen Clark, Kelly Kuzak, Kristin Sternowski, Carrie Besler, Daniel Parkinson, Brian McDonnell, Gerard St. Jacques, Kenneth Bernstein, Irvin Taube, Sue Ann Shepple, Irma Wagner.

Thank you to all the students in the physical therapy program at Boston University who contribute to helping people with Parkinson's disease. A special thanks to all the people with Parkinson's disease who have participated in the activities at The Center for Neurorehabilitation, Sargent College, Boston University.