

ACTIVITIES OF DAILY LIVING AND SELF CARE WITH PARKINSON'S DISEASE

Andrea Serdar, P.T.

Daily tasks and physical mobility can become challenges for the person with Parkinson's disease. Medications, education and appropriate exercises help to overcome these obstacles. Awareness and consistent exercise are important factors in preventing loss of joint flexibility, shortening of muscles, and the postural changes which can accompany PD. It is certain that maintaining physical abilities creates confidence and a positive outlook for a person living with Parkinson's disease.

Physical and Occupational Therapists are useful for evaluating individual abilities, for educating people with PD in the management of daily tasks, and for designing individualized exercise programs. Below are some common tasks or symptoms which may present problems for a person with PD, as well as some strategies for coping with tremor.

TURNING IN BED

Turning in or arising from bed can require concentrated effort when significant rigidity and slowness are present.

- Turning should be accomplished by rotating the head in the desired direction and then reaching in the same direction with the arm and then the leg. This maintains rotation throughout the trunk and is much better than rolling like a log.
- If turning continues to be difficult, try satin sheets (to reduce the friction when turning), silk pajamas, a rope tied to the footboard, or a side rail (for grasping).

STANDING UP FROM A CHAIR

Coming to standing from a sitting position can be difficult due to trouble in initiating movement, insufficient muscle force, loss of pelvic mobility, or a combination of the above.

- Former automatic movements may require more conscious effort. Bring motor activity to a level by thinking about the specific movement.

- Use chairs which have armrests and provide firm support. Avoid low chairs.
- Scoot to the edge of the chair; move your feet under your hips; lean forward, bringing your nose over your knees; and push up and forward.
- If this continues to be difficult, try rocking back and forth, counting "1,2,3 GO", or touch the floor and try again.
- Raised toilet seats, armrails, and well-placed grab bars in the bathroom can provide assistance.

WALKING

Walking for a person with Parkinson's disease is impaired because of slowness and shortened stride. Balance may also be affected because of impaired postural reflexes. Several problems encountered by people with PD are: "freezing," a sudden inability to continue walking; festination, a tendency toward rapid forward movement of small short steps; and, start-hesitation, a hesitation on initiation of movement such as starting to walk.

- Improper shoes or heel height can affect gait. Choose shoes with a low heel and avoid crepe soles, which can catch on carpet or uneven surfaces.
- Maintaining good posture. Upright posture improves step length.
- Practice long strides with arms swinging and heels striking the ground first.
- Devices such as canes and walkers can increase stability. These need to be properly adjusted.
- If freezing occurs while walking, it may be helpful to step to the side rather than forward, to imagine kicking a ball, or to use an external cue such as following a pattern on the floor.
- Other external sensory cues, such as sound or touch, can also help initiate motion.
- People affected by postural instability can benefit from balance exercises, training in fall prevention, and modifications in the home to increase safety.

SAFETY/FALLING

Balance reactions are among the automatic movements which can be affected by PD.

- It may be important to "fall proof" your home by removing throw rugs, adding handrails, improving lighting, and removing furniture with sharp edges from commonly used pathways.

- Avoid high-risk activities such as using a step-stool, rushing to answer the telephone, or trying to do two things at the same time.
- Be alert to medication side effects such as drowsiness or drops in blood pressure and bring these to the attention of your health care provider.
- Practice getting up and down from the floor daily to maintain your confidence.

POSTURAL CHANGES

In PD, the tendency for flexor muscles to exert more force than extensor muscles results in postural changes with a tendency toward stooped posture. Such changes can be minimized with attention to body awareness and following an exercise program.

- Proper positioning in sitting, standing, and sleeping positions can prevent postural changes.
- Develop a habit of placing a small cloth roll at your lower back while sitting in the car or at home to help maintain normal low back posture.
- Use as few pillows as possible while sleeping.
- Increase awareness of posture by periodically standing against a wall with head, shoulders, hips, and heels in contact with the wall.
- Maintain your ability to lie flat on your back -- and your stomach -- without pillows.
- Follow an exercise program which focuses on stretching flexor muscles and strengthening extensor muscles (see EXERCISE module).

DEXTERITY

Fine motor coordination can be affected by tremor, loss of hand mobility, or alterations in muscle tone.

- Occupational Therapists work with individuals to improve fine motor skills such as writing. They are often involved in performing work site evaluations for persons interested in modifying their environment to make tasks flow more smoothly.
- Built-up pen grips, large based or weighted eating utensils, and other adaptive equipment can be helpful for routine tasks such as writing, eating, and dressing.

Energy conservation is important for optimum performance of daily activities. See FATIGUE module for suggestions.

Any of the above symptoms may affect a person with PD. Knowledge is the key to managing the changes that confront those who live with Parkinson's disease. There are many resources available: local Parkinson's organizations, support group networks, Parkinson's literature and a spectrum of health care providers. Physical and Occupational Therapists can teach new skills and techniques.

GAIT FREEZING IN PARKINSON'S DISEASE

Samuel A. Elias, M.D., Ph.D.

Gait freezing is the sudden inability to take a step. It sometimes develops during the course of Parkinson's disease. Gait freezing may indicate that a person is under-medicated or over-medicated; however, it is often not related to medication dosage at all. It is for this reason that adjustments in medications may not help alleviate gait freezing.

Freezing tends to occur more frequently and for longer periods during certain activities. For instance, it may only be elicited when walking through doorways, in small or cluttered areas, or at the beginning of a turn. It can start when one begins other actions while in the midst of walking -- for example, walking and reaching for an object at the same time. It frequently increases when one becomes momentarily anxious, excited or even mildly hurried.

Over the years both patients and health care providers have discovered tricks which may decrease the duration of freezing. That is, tricks that help one to take the next step (become unstuck) more quickly. Here is a list of some tricks that have helped many patients.

VISUAL TRICKS

- Watch a companion walk beside you
- Look through, not directly at doorways
- Look straight ahead, not down
- Pick a definite target to walk towards
- Look at a nearby mark on the floor

MOVEMENT TRICKS

- When turning: walk a circle instead of pivoting
- Step over a mark or spot on the floor
- Step over a companion's foot
- Drop a small piece of paper and step over it
- Begin another movement:
 - practice blinking before each normal step
 - if stuck, blink consciously
 - tap cane on the floor

- If your balance is good:
 - lift one knee or kick with one foot
 - walk sideways first
 - step backwards first, then step forward
 - rock side to side
 - lift your cane directly in front of you
 - lift both arms in front of you
 - lean forward

MENTAL TRICKS

- If you feel hurried - mentally slow down, do not think about the next step, instead visualize or think about:
 - kicking or lifting one foot
 - climbing upstairs or climbing a tree
 - dancing
 - count from one to four
 - ask yourself a question like "how many wheels on a car?"

AUDITORY AND TACTILE TRICKS

- Have a companion touch arm or elbow
- Walk arm in arm with a companion
- Have companion say "walk!, march!, lift your leg!"
- Hum a tune or sing
- Listen to marching music

EXERCISE

Julie H. Carter, R.N., M.S., A.N.P.

Exercise is a realistic and practical way to fight Parkinson's disease. Exercise maximizes strengths and helps people resist weakness. It is not uncommon for people with Parkinson's disease to become sedentary and deconditioned. This tendency compounds the problems of stiffness and slowness by reducing flexibility, strength and endurance.

There are three different kinds of exercise: stretching, strengthening and aerobic. One type cannot replace another. A daily exercise program should include all three. Until this can be achieved comfortably, all three types of exercise can be included at different times during the week.

STRETCHING EXERCISES

Why should one stretch? Stretching exercises promote flexibility and counteract the rigidity and stiffness of Parkinson's disease. Flexibility is of major importance in all functional activities. Limited range of motion can result in difficulty walking, reaching, dressing, or shifting the center of balance.

Stretching exercises should include every joint in the body. A physical therapist or exercise trainer can also be helpful in teaching you a set of stretching exercises tailored to your special needs. Here are some general guidelines.

1. Stretch only when muscles are warm; example -- after an aerobic workout or warm shower.
2. Move a joint gently to a point in the range of motion where there is a stretch but no pain.
3. Hold for 20 seconds. (Most people quit early.)
4. Take deep breaths. It helps work with the stretch.
5. Repeat 3-5 times.
6. Daily stretching should take 15-20 minutes.

STRENGTHENING EXERCISES

Strengthening exercises are often forgotten in Parkinson's disease, yet they play an important role. Although strengthening all muscles is helpful in improving function, concentrated strengthening of extensor muscles can counteract the flexion tendency seen in PD.

Normally an upright posture is a balance of forces between muscles that close joints (flexors) and muscles that open joints (extensors). In PD this balance is disrupted and the flexors have a tendency to overpower the extensors. This is seen as a stooped back, short steps, and bent arms and knees.

Extensor muscles are calf, thigh, buttock, back, upper arm and back of the neck. Ideally, one should visit a Physical Therapist or trainer to obtain individualized instruction on strengthening exercises. The goal is to use light weights with high-repetition, low-resistance exercises. If heavy weights are used, the potential for injury is greater in the already rigid muscles of a person with PD.

AEROBIC EXERCISES

Aerobic exercise increases heart rate and thereby increases cardiopulmonary endurance. This can be walking, running, swimming or cycling. Aerobic exercise has been shown to reduce stress, improve mood, decrease fatigue, and improve physical function. Here are some general guidelines for getting started:

1. Choose a form of exercise that **you** find enjoyable. If you don't like to swim, then swimming is not the exercise for you.
2. Prior to starting your exercise program, check with your doctor to make sure there are no medical limitations that preclude exercising.
3. Start gradually. Start with 5 minutes and increase every 2 weeks by 5-minute intervals until you reach a maximum of 20 minutes per exercise period. The most important test of your exercise intensity is how you feel. You should not feel exhausted at the end of an exercise period. If you have had a stress test and know your maximum heart rate, you can exercise at 70-80% of this heart rate.
4. Exercise 3-5 times per week depending on duration and intensity.

MOTIVATION

Staying motivated can be the most challenging part of exercise. If the commitment lags, here are some tricks to keep motivated:

1. Put your exercise time on your calendar. Make it just as important as your other engagements.
2. Make it a habit. Try to do it at the same time each day.

3. Lay out your exercise clothes the night before so all you have to do is put them on.
4. Make it a social commitment. Following through with a friend is easier than following through alone.
5. Set a timer for the length of time you want to exercise. That way you won't quit early.