U L' L' U P A I I U N A L T H F R A P V in Parkinson's Disease Created by: Ashley Adamczewski, S/OT, Cleveland State University Faculty Advisor: Beth Ekelman PhD, JD, OTR/L

What is Occupational Therapy?

Occupational therapy enables people of all ages to live life to the fullest by helping to promote health, well-being, and the ability to participate meaningful activities. in Occupational therapy interventions focus on adapting a task or the environment to help individuals participate in everyday occupations.

Top 5 Concerns Found Through Survey Results:

1. Write Legibly 2. Speak loudly and clearly 3. Open jars & containers 4. Adjust buttons/zippers/snaps 5. Put on/take off socks

Results came from a survey related to satisfaction with participation in daily occupations given to clients at InMotion[™]

How OT's Can Help Individuals with PD:



Activities of daily living can include dressing, bathing, grooming, toileting and toileting hygiene, eating²



Social participation can include community participation, family, and partner relationships²

Instrumental activities of daily living

can include the care of others, meal preparation, financial management, functional mobility, communication, driving and community mobility 2



Health management can include physical activity, nutrition, symptom management, and medication management²

Leisure can include participating in leisure activities like gardening, knitting, pickleball, painting, etc²



How To Find An OT Near You:

- Ask your neurologist or movement disorder specialist for a referral to an occupational therapist
- Use the Parkinson's Foundation hotline for referrals in your area 1-800-4PD-INFO (473-4636)³
- Find an occupational therapist who specializes in treating individuals with Parkinson's disease

Resources:

- 1. Giroux, M., & Farris, S. (2017). Every Victory Counts (5th ed.). Davis Phinney Foundation.
- 2. Occupational therapy practice framework: Domain and process-Fourth edition. (2020). The American Journal of Occupational
- Therapy, 74(Supplement_2). https://doi.org/10.5014/ajot.2020.74s2001
- 3.Parkinson's Foundation. (2023). Helpline. Retrieved March 20, 2023, from https://www.parkinson.org/resources-
- support/helpline#:~:text=The%20Parkinson's%20Foundation%20Helpline%20welcomes,800%2D473%2D4636).



BENEFITS OF LEISURE

Created by: Ashley Adamczewski, S/OT, Cleveland State University Faculty Advisor: Beth Ekelman PhD, JD, OTR/L

in Parkinson's Disease

What is Leisure?

Leisure participation is defined as engaging in an activity that is motivating to the person during their free-time, when not participating in occupations such as work, self-care, or sleep. Leisure participation is linked to positive health outcomes and areas of occupation.¹

Why is Leisure Important?

Leisure participation in Parkinson's disease is important to improving physical, mental, and social well-being as well as slowing disease progression. Participating in leisure can also enhance self-worth, identity and confidence.²



1. Reiling Ott, K., & Kolodziejczak, S. (2020). Interventions to improve and maintain the performance of and participation in leisure and social participation among adults with Parkinson's disease: Systematic review of related literature from January 2011–December 2018 [Critically Appraised Topic]. Bethesda, MD: American Occupational Therapy Association.

2. Suat Kee, T. (2021). Leisure activities for people with Parkinson's. HealthXchange. Retrieved March 14, 2023, from https://www.healthxchange.sg/head-neck/brain-nervous-system/managing-parkinsons-disease-safe-

 $activities \#: \sim: text = Focusing\%20 on\%20 participating\%20 in\%20 leisure, in\%20 or\%20 completing\%20 a\%20 task.$

3. Additional articles and studies discussing the benefits of leisure are shared through the QR code \mathbf{R}

MPROVING FINE MOTOR SKILLS in Parkinson's Disease Created by: Ashley Adamczewski, S/OT, Cleveland State University

Fine Motor Skills

Fine motor skills are defined as precision, dexterity, and coordination of the hands. These skills allow us to use our hands to manipulate objects like pencils, clothing fasteners, containers and more.² Individuals with PD may experience impaired fine motor dexterity and motor coordination. Rigidity may also cause loss of hand strength.¹ Listed below are exercises, complete 5-6 of these exercises daily to improve and/or maintain fine motor dexterity.

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Fine Motor Exercises



Preparatory Stretches

- Prayer pose: Push your palms together with your elbows facing out 10 times.²
- Finger link stretch: Link your fingers together, turn your hands so your palms are facing away from your body, and push your arms out.
- Finger flicks: Make a tight fist then flick your fingers out to extend all fingers.²
- Finger to thumb: Press each finger to your thumb with intention $5x^2$
- Finger spread: Spread your fingers as wide as you can, then bring them back together 10 times.

Dice or numbered block: use your fingers to hold the block and turn to each number without using your palm Use coins and a jar with a slot: pick up three coins at a time and put coins into slot one at a time while holding the other coins in your hand 3

Nuts and bolts: Practice screwing and unscrewing nuts onto bolts³

Shoes: Practice lacing and unlacing a pair of shoes, you can also practice shoe tying to improve fine motor skills Link chains: string together paper clips or larger link chains

Cards: shuffling, dealing, and holding cards as well as playing card games

Beads: Practice stringing large beads, use smaller beads for increased difficulty

Peg board: Practice picking up pegs and placing them into a pegboard, try smaller pegs for an extra challenge

Games: Play games with your family like Jenga, Connect 4, Uno, Guess Who, Mancala, Operation

Hand Strengthening Exercises

- **Clothespins:** Put clothespins around the edge of a coffee canister ³
- Tongs: Use tongs to pick up small items such as cotton balls or pom poms
- Stress ball: Squeeze a stress ball in your palm 10 times. You can also squeeze the stress ball with just your fingertips 10 times.¹
- Rubber bands: Place a rubber band around all your fingers and open your fingers as wide as you can 10 times.

Handwriting Tips:

- Try the 90-90-90 rule: Elbows bent at 90 degrees on your writing surface, hips at 90 degrees with your back against the chair, and knees at 90 degrees with feet flat on the floor
- Remember to take your time when writing
- Warm up your hands with preparatory exercises to decrease hand and wrist stiffness before writing
- Practice tracing and copying the alphabet and shapes

Resources

- 1.Gilbert, D. R., & Hill, A. (2022, May 12). Handwriting & Parkinson's disease. American Parkinson Disease Association. Retrieved March 16, 2023, from https://www.apdaparkinson.org/article/how-toimprove-handwriting-in-parkinsons-disease/
- 2.Ramaswamy, B. (n.d.). Dexterity and Parkinson's. Parkinson's UK. Retrieved March 16, 2023, from https://www.parkinsons.org.uk/information-and-support/your-magazine/experts/dexterity-andparkinsons

3.Simpson, H. (2012, October 26). Fine motor coordination activities for patients with Parkinson's. UFHealth. Retrieved March 16, 2023, from https://movementdisorders.ufhealth.org/2012/10/26/fine-motor coordination-activities-for-patients-with-parkinsons/

4. The OT's guide to fine motor skills. The OT Toolbox. (2022, June 20). Retrieved March 16, 2023, from https://www.theottoolbox.com/fine-motor-skills/

ADAPTIVE EQUIPMENT FOR EVERY DAY ROUTINES

Created by: Ashley Adamczewski, S/OT, Cleveland State University Faculty Advisor: Beth Ekelman PhD, JD, OTR/L

What is Adaptive Equipment and What Is The Benefit?

Adaptive equipment is a tool, device, or machine that is used to help someone complete a task in their daily life.² Adaptive equipment can help individuals with Parkinson's disease be bettered equipped to complete activities that are meaningful to them. Adaptive equipment can help individuals maintain participation, improve confidence and promote safety while participating.⁶

Tip:

in Parkinson's Disease

An occupational therapist can help to decide which adaptive equipment may be right for you.

Useful Aids for Every Day Routines

Dressing aids:

- Slip on sneakers³
- Elastic shoelaces ³
- Velcro/magnet/snap button up shirts³
- button hook/zipper pull³

Computer aids:

- XL keyboard ¹
- Large trackball mouse
- keyboard adaptation: turn on bounce key in settings to control extra keystrokes¹

 sock aide³ 	 mouse adaptation: adjust mouse speed to slow down
 front closing bra ³ 	for more precision ¹
 Kitchen aids: Electric can opener Jar and bottle opener ⁶ Dycem mat to keep kitchen items from sliding while cooking ⁶ 	Eating aids: • Weighted utensils may reduce tremor ⁶ • Swivel utensils ⁶ • rocker knife ⁶ • scissors for opening packages
 Cutting board with spikes to hold food in place and suction to hold board in place ⁶ Use flat pasta bowls as plate with raised edges 	 Bathroom aids: Raised toilet seat³ Long handled sponge for showering/bathing ³
 Miscellaneous aids: Pop out phone grip on back of phone to hold more easily Grips for door knobs Walking sticks for improved gait while participating in occupations⁴ 	 Electric razor for shaving is safer for individuals with tremor ³ Electric toothbrush Toothpaste tube squeezer Non-slip mat for shower ³ Grab bars near toilet and bathtub ³
 Cushion or lumbar support pillow for seated activities ⁴ Motion sensor lights for nighttime bathroom trips Remote-activated lamp/fan to decrease night time fall risk 	Handwriting aids: • Pencil grip ⁴ • Weighted pencil ⁴ • Built up utensils ⁴ • Slantboard ⁴

Resources

- 1.Bandl, D. (2020, June 22). Computer adaptations for people with Parkinson's disease. Retrieved March 30, 2023, from https://www.adaptivetechsolutions.com/adaptive-tech-solutions-ideas-information/computer-adaptations-for-people-with-parkinsons-disease/
- 2.BraunAbility. (2021, June 3). What is adaptive equipment? How adaptive equipment helps in your daily life. Retrieved March 30, 2023, from https://www.braunability.com/us/en/blog/accessible-living/what-is-adaptive-equipment.html#:~:text=Adaptive%20equipment%20is%20any%20tool,short%20or%20long%2Dterm%20disability.

5.Parkinson's Foundation. (2022, March 29). Pole walking for Parkinson's: How this nordic workout improves mobility. Retrieved March 30, 2023, from https://www.parkinson.org/blog/awareness/pole-walking



^{3.}Flinn, N. A., Mensen, G., Krohn, S., & Olsen, P. J. (2009). *Be independent*. Retrieved March 20, 2023, from https://www.apdaparkinson.org/uploads/files/Be-Independent-KtE.pdf

^{4.} Gilbert, D. R., & Hill, A. (2022, May 12). Handwriting & Parkinson's disease. American Parkinson Disease Association. Retrieved March 16, 2023, from https://www.apdaparkinson.org/article/how-to-improve-handwriting-in-parkinsons-disease/

^{6.}Pringle, K. (2022, December 20). In the kitchen: Assistive devices for people with Parkinson's. Retrieved March 30, 2023, from https://www.michaeljfox.org/news/kitchen-assistive-devices-people-parkinsons

POSTURAL AWARENESS

Created by: Ashley Adamczewski, S/OT, Cleveland State University Faculty Advisor: Beth Ekelman PhD, JD, OTR/L

in Parkinson's Disease

Posture and Parkinson's disease

Parkinson's disease can affect an individuals control of automatic activities, so postural changes may occur without the brain's automatic reminder to correct your posture.⁴ Postural instability can affect static and dynamic balance, as well as center of gravity. Stooped posture can reduce the ability to take deep breaths, reduce eye contact, and loss of flexibility which can affect range of motion.⁴

Posture and Fall Prevention

Posture changes may affect balance which can increase the risk of falls.³ Maintaining good posture is essential to prevent falls as well as maintain balance. Participating in exercise routines has been shown to decrease risk of falls, improve balance, and improve gait.³

Tips for Postural Awareness

- 1. Use a mirror to check your posture throughout the day.⁴
- 2. Remember to take movement breaks! ⁴ If you are completing an activity seated, take a 5 minute break every 30 minutes to stretch your neck, arms, legs, and back.
- 3. Set a reminder on your phone for a posture check every hour. Bring your chin up, roll your shoulders back, and stand up tall.
- 4. If you notice yourself hunched over to complete an activity, move the activity to eye-level to decrease the amount of time you spend looking down.
 5. Consider taking yoga or tai chi classes to improve postural stability.⁴

How Can Occupational Therapy Help?

An occupational therapist can help clients increase

postural awareness, improve static and dynamic balance, and help individuals self-correct posture, as well as assess the need for postural support while participating in daily occupations.¹

Exercises to Promote Good Posture:

1. **Chin tuck:** Sit up tall. Move your head and neck up and back to move them into alignment with your shoulders. Tuck your chin in towards your body. Repeat this 15-20 times daily.²

2. **Scapular retraction:** Sit up tall. Bend your elbows at your side. Pull your elbows back behind your body as if you are rowing backward. As you move your arms back, try to squeeze your shoulder blades together. Repeat this 15-20 times daily.²

3. Thoracic extension: To perform this exercise, sit in a chair with a low back. Clasp your hands behind your head and open your elbows out wide. Lean up and back over the chair. Tilt your head up towards the ceiling. Take a deep breath in. Repeat this 5-10 times daily.²

4. Arm circles: Bring your arms out to a T-position with your palms facing forward. Squeeze your shoulder blades together and move your arms forward in a circular motion. Make small, medium, then large arm circles. Repeat this 5-10 times daily.⁴

Resources



^{1.} Almeida, M. J. (2022, January 12). Occupational therapy for Parkinson's disease. Parkinson's News Today. Retrieved March 23, 2023, from https://parkinsonsnewstoday.com/occupational-therapy-for-parkinsons-disease/

^{2.}Defranco, M. (2012). Physical therapy tips for posture improvement in Parkinson's disease. UFHealth . Retrieved March 23, 2023, from https://movementdisorders.ufhealth.org/2012/03/01/physical-therapy-tips-for-posture-improvement-in-parkinsons-disease/

^{3.} Postural instability (Balance & Falls). Parkinson's Foundation. (2023). Retrieved March 23, 2023, from https://www.parkinson.org/understanding-parkinsons/movement-symptoms/postural-instability

^{4.} Posture and PD. Parkinson's Foundation. (2023). Retrieved March 23, 2023, from https://www.parkinson.org/library/fact-sheets/posture#:~:text=Posture%20Exercises,-

Posture%20check%3A%20Press&text=Tuck%20your%20chin%2C%20then%20slowly,try%20to%20maintain%20this%20position.

^{5.} Stooped posture. Parkinson's Foundation. (2023). Retrieved March 23, 2023, from https://www.parkinson.org/understanding-parkinsons/movement-symptoms/stooped-

posture#:~:text=Parkinson's%20disease%20(PD)%20affects%20control,making%20you%20look%20hunched%20over.