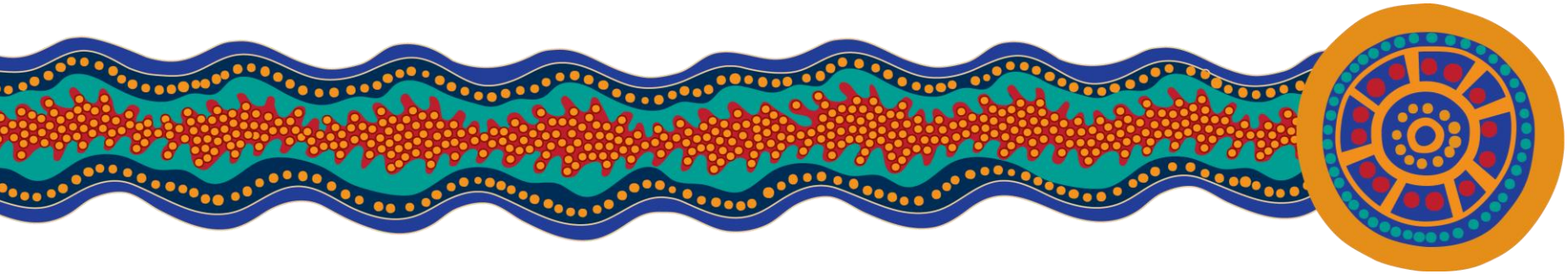
Assistive Technology Prescription for People with Parkinson's Disease and Parkinsonian Conditions

Medical Aids Subsidy Scheme

4 November 2026

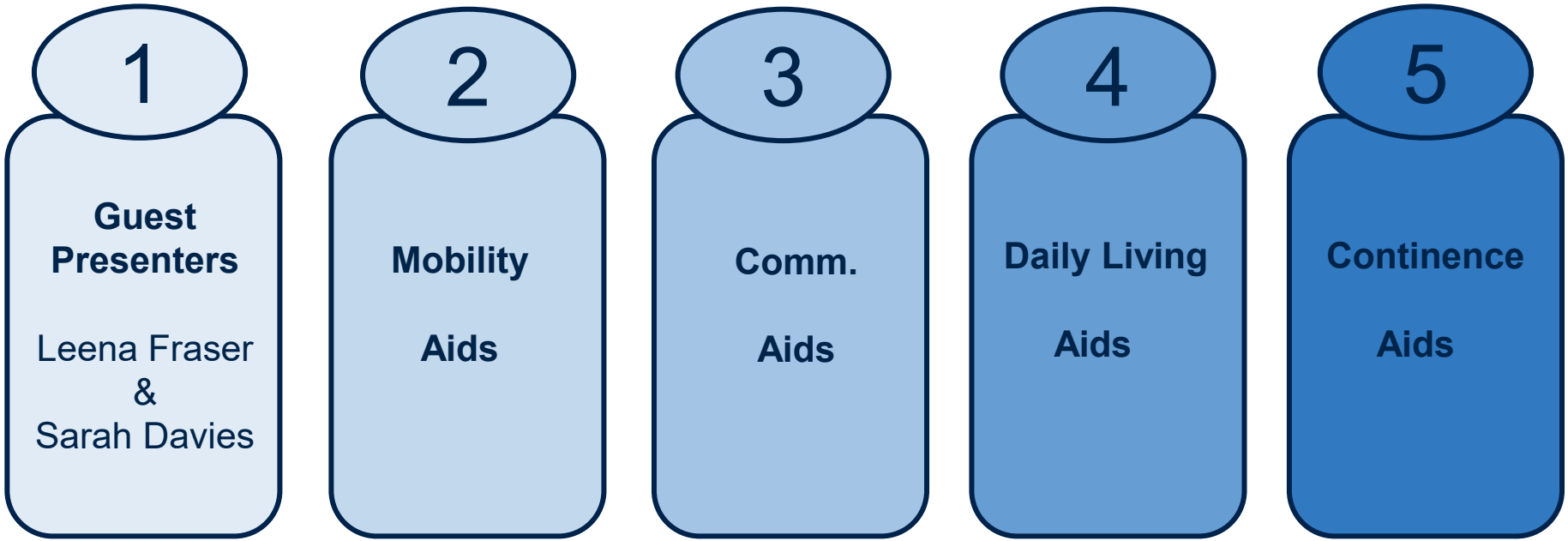
DELIVERING FOR QUEENSLAND

Queensland Government

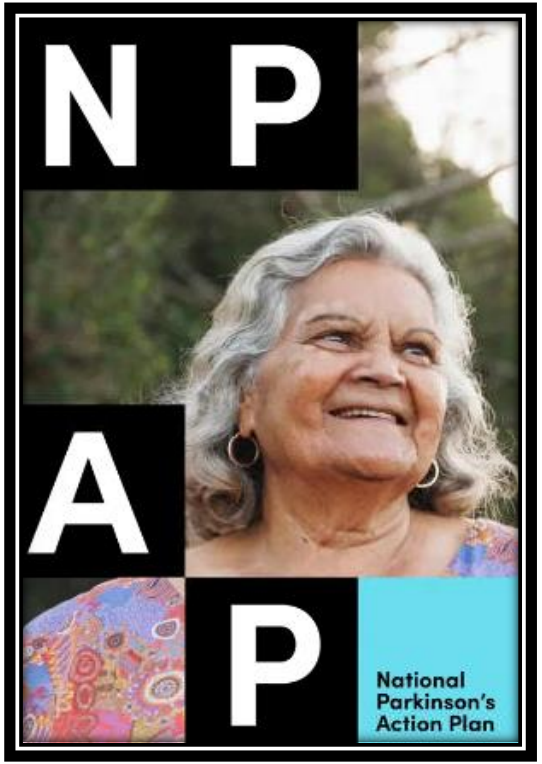


The Queensland Government respectfully acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional and Cultural Custodians of the lands on which we live and work to deliver healthcare to all Queenslanders and recognises the continuation of First Nations peoples' cultures and connection to the lands, waters and communities across Queensland.

Session Outline



- ‘Parkinson's is a complex and progressive neurodegenerative condition commonly associated with challenges in controlling movement. These movement symptoms are caused by the death of cells in the brain that produce dopamine’.
- ‘The speed at which Parkinson's develops differs from person to person, with many experiencing non-motor symptoms (e.g., constipation, chronic pain, sleep disturbances, or a decreased sense of smell) long before the more commonly recognised motor symptoms become noticeable’.



‘While Parkinson's is the most common type of parkinsonism, there are other related conditions such as:

- Progressive Supranuclear Palsy (PSP)
- Multiple System Atrophy (MSA)
- Corticobasal syndrome (CBS)
- Dementia with Lewy bodies (DLB)
- Drug-induced parkinsonism
- Vascular parkinsonism’

[National Parkinson's Action Plan | Australian Government Department of Health, Disability and Ageing]

1

Leena Fraser
MASS Clinical Advisor
Equipment Services

Daily Living Aids

PD Warrior Plus 'Insight Summit' April 2026

- Genes
- Neurotransmitters
- Gut-brain axis
- The environment



PD Warrior Plus ‘Insight Summit’ April 2026

- Genes
- Neurotransmitters
- Gut-brain axis
- The environment





PD Warrior Plus ‘Insight Summit’ April 2026

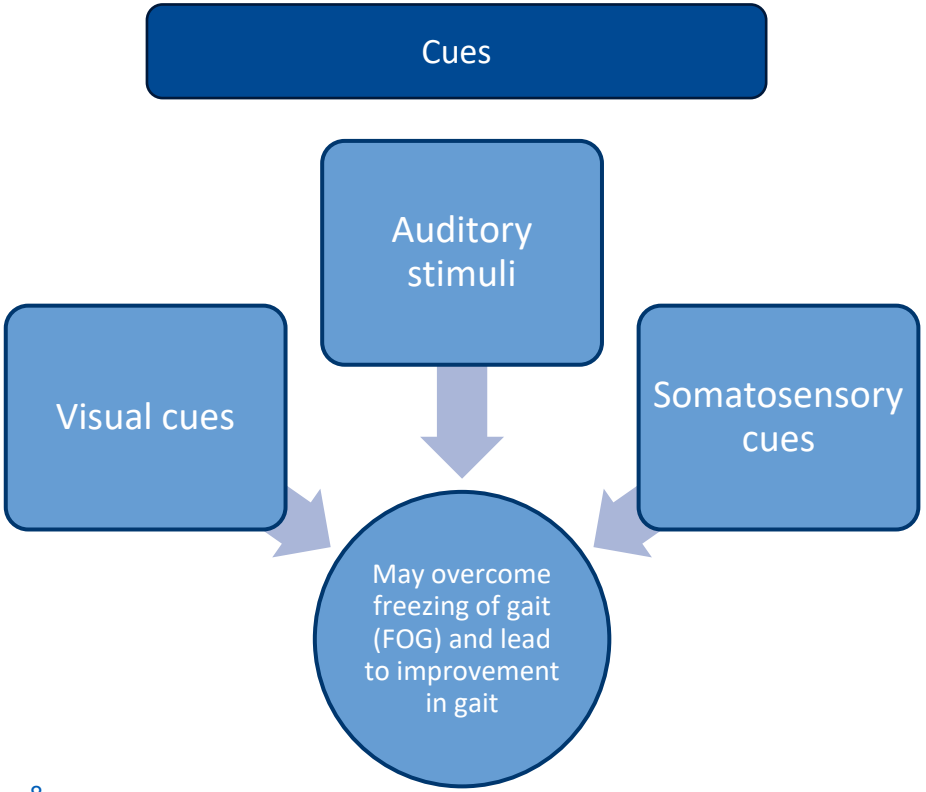
- Medications
- Nutrition
- Sleep
- The environment
- Assistive equipment



Image generated by Canva AI

Image generated by Canva AI

Strategies to Assist with Mobility in PwPD



Assistive Equipment

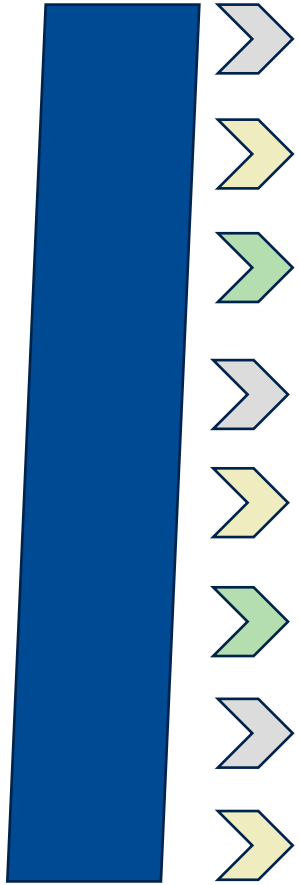
Pathfinder: A shoe-mounted laser that projects a visual cue to aid step initiation

U-Step Walker & Laser Cane: Visual and auditory cueing devices

CUE1: Vibrotactile stimulation device to improve step initiation

NUSHU X: a smart shoe equipped with advanced sensors and AI algorithms. It can help users with walking difficulties to move better and more confidently.

Resources



- https://www.fightparkinsons.org.au
- https://www.parkinsons.org.au
- https://www.parkinson.org
- PD Warrior Plus - PD Warrior
- About Parkinson’s - Shake It Up
- Step Up for Parkinson's
- Parkinson's Tasmania | Parkinson's Support
- Dance for Parkinson's Australia

References

- alpha-Synuclein-based Model for Studying Parkinsons Disease P =athology | R&D Systems R&D Systems products Published: 02/01/15
- Billingsley, K.J., Bandres-Ciga, S., Saez-Atienzar, S., & Singleton, A.B. (2018). Genetic risk factors in Parkinson's disease. *Cell and Tissue Research 373*(1),9-20. https:doi: 10.1007/s00441-018-2817-y
- Frost, B., Diamond, M.I. (2010). Prion-like mechanisms in neurodegenerative diseases. *Nature Reviews Neuroscience*, *11*(3),155-9. http://doi: 10.1038/nrn2786
- John Hopkins Medicine - The Genetic Link to Parkinson's Disease: The Genetic Link to Parkinson's Disease | Johns Hopkins Medicine
- Michael J Fox Foundation for Parkinson Research: The Michael J. Fox Foundation for Parkinson's Research | Parkinson's Disease
- Sadnicka., A., Meppelink, A., Kalinowski, A., Oakeshott, P., van den Dool, J., (2022). Dystonia. *British Medical Journal 377*. https://doi.org/10.1136/bmj-2020-062659
- Wang, C., Zhou, C., Guo, T., Huang, P., Xu, X., & Zhang, M. (2022). Association between cigarette smoking and Parkinson's disease: a neuroimaging study. *Therapeutic Advances in Neurological Disorders, 15*. http://doi: 10.1177/17562864221092566
- Zeng, J., Wang X., Pan, F., and Mao, Z. (2022). The relationship between Parkinson’s disease and gastrointestinal diseases. *Frontiers in Aging Neuroscience,14*. http://doi: 10.3389/fnagi.2022.955919

1

Dr Sarah Davies
Lecturer in Occupational Therapy
University of Queensland

Assistive Technology Prescription for People with Parkinson's and Parkinsonian Conditions

Dr Sarah Davies

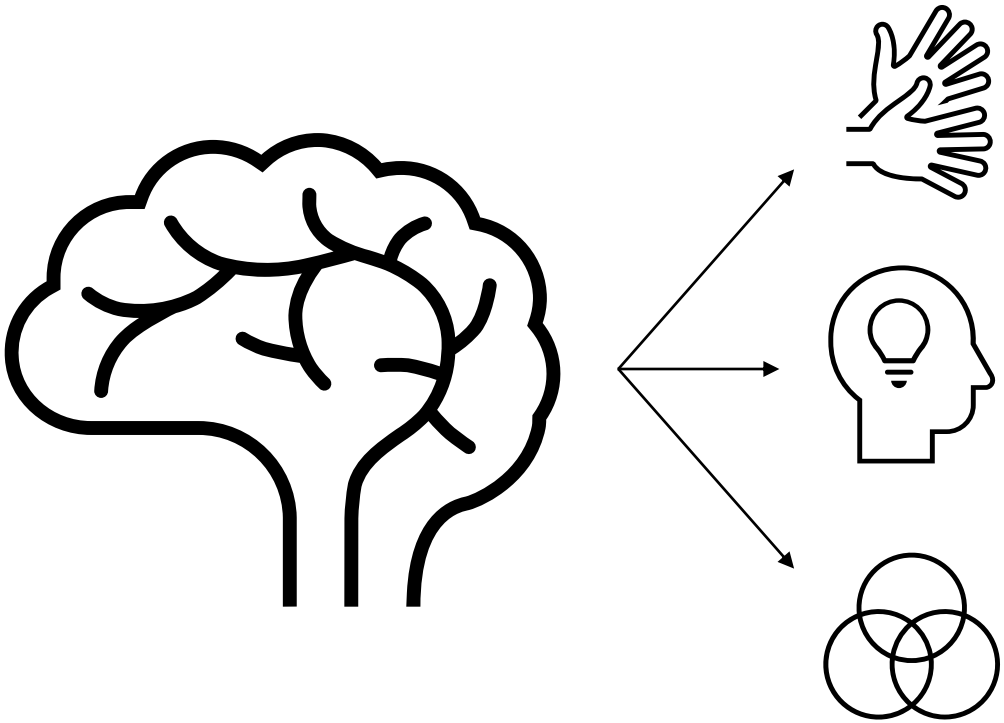
Lecturer in Occupational Therapy

sdavies4@usc.edu.au

Knowledge is Sacred | Lyndon Davis

University of the Sunshine Coast | CRICOS: 01595D | TEQSA PRV12082

Parkinson's Presentation



tremor
rigidity
bradykinesia
postural instability

45+ non-motor symptoms including fatigue, pain, cognitive and emotional changes

ADLs
participation
self-efficacy
quality of life

[The Conversation Article on Parkinson's NMS]

Parkinson’s Challenges in Daily Life

Dopamine Depletion

Parkinson's alters the brain's internal calculation of "cost of effort”.

"ON / OFF" Rollercoaster

Fluctuating symptoms make planning feel like aiming at a moving target.

Apathy

Low motivation and initiation, starting a task is a physiological barrier.

Depression

Affects the perceived value of health outcomes.

Executive Function

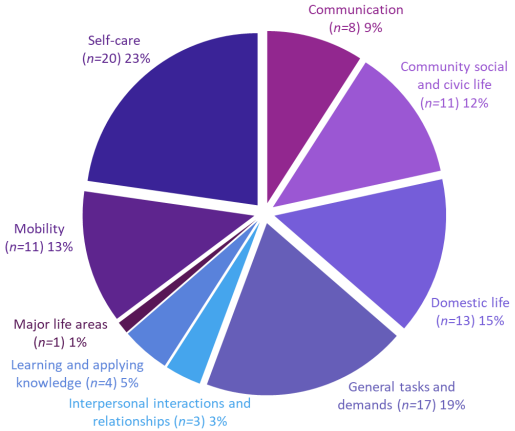
Organising, sequencing, and juggling multi-step tasks takes more conscious effort

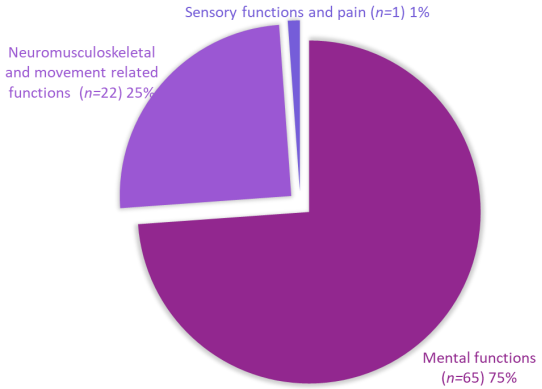
Anxiety

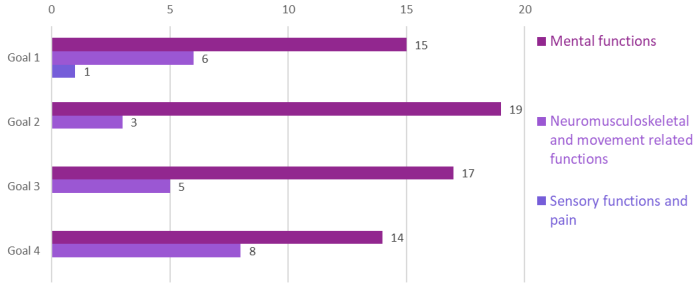
The fear of "failing" can make not trying feel emotionally safer.

Parkinson's Goals: Research highlights

- Mapping the priority goals of people with PD and the underlying impairments that contribute to their goals for rehabilitation

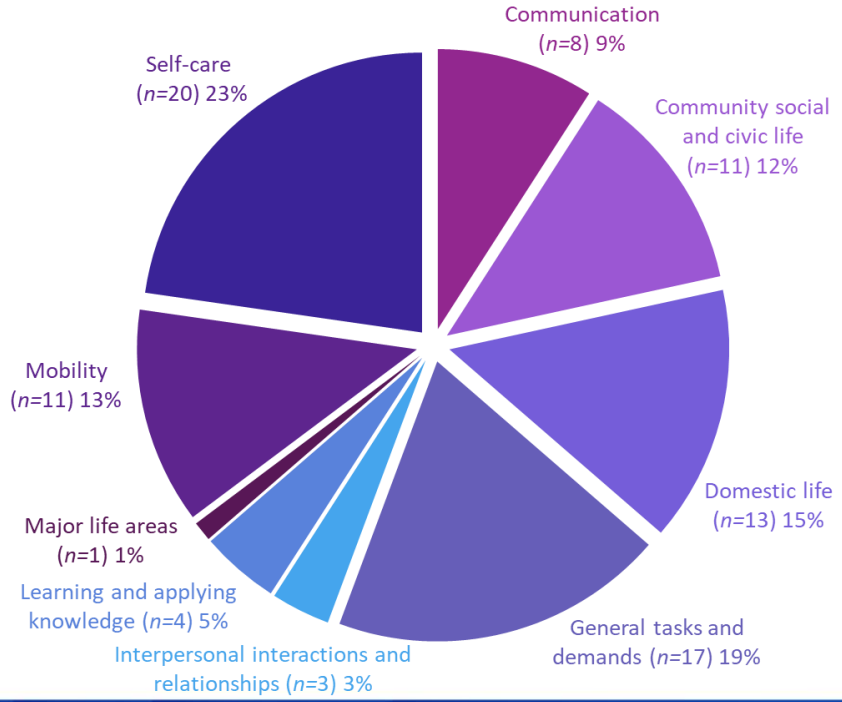


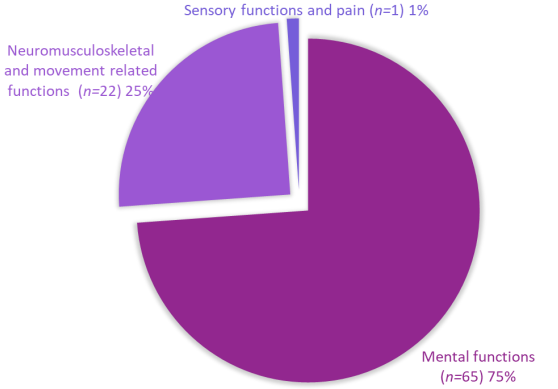


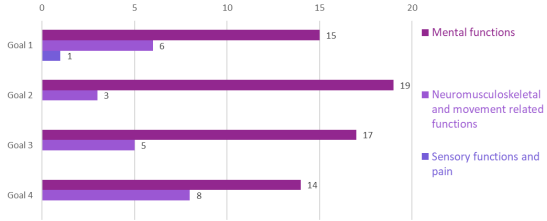


Goals of People with Parkinson's

- Nature of Goals

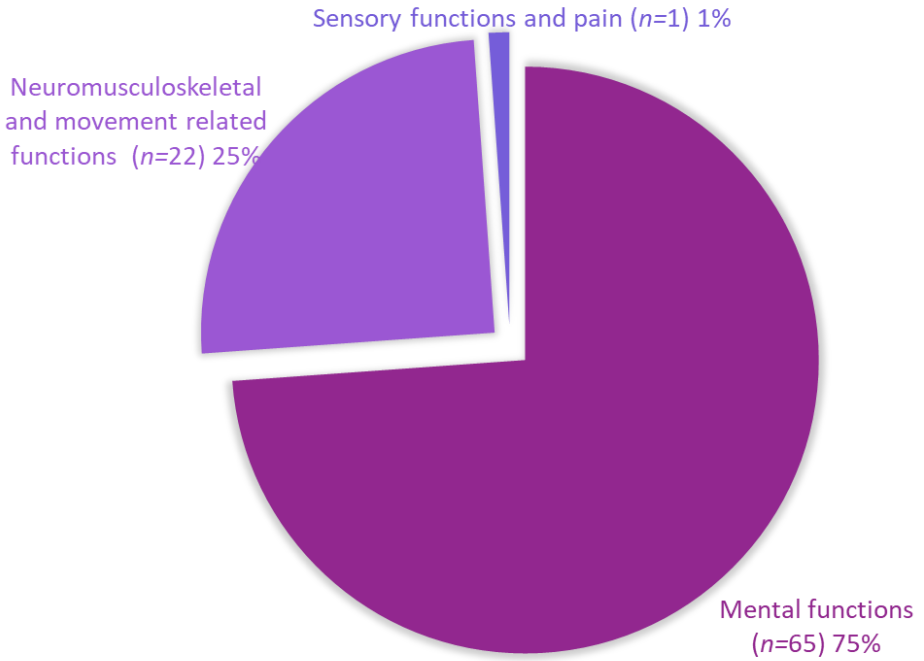


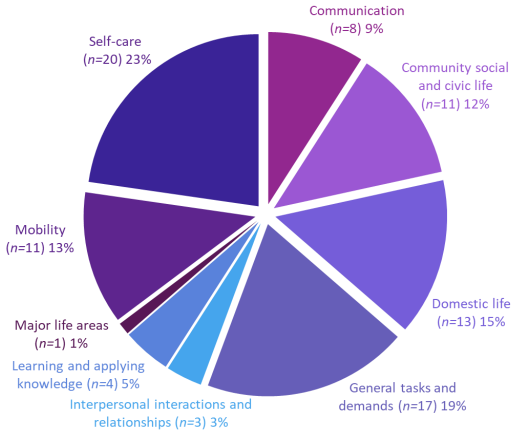




Goals of People with Parkinson's

- Primary Underlying Impairment

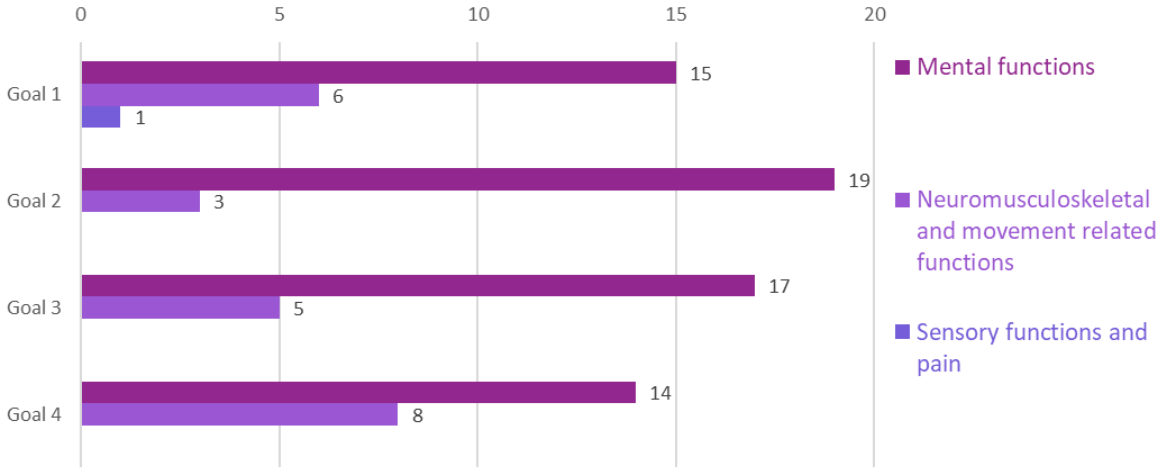


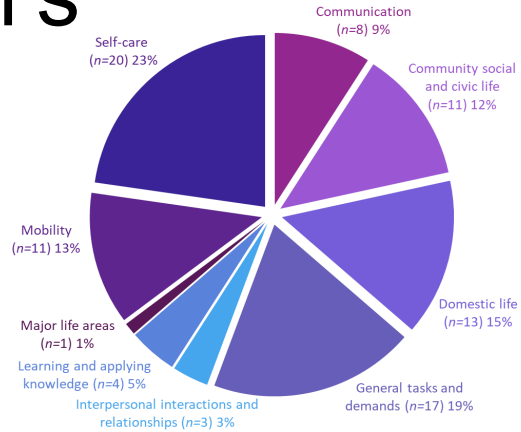


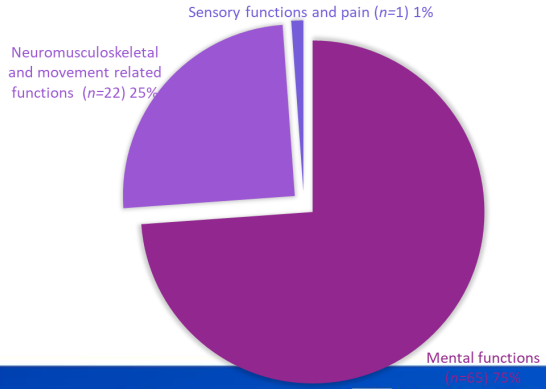


Goals of People with Parkinson's

- Primary Underlying Impairment by Goal Priority Ranking







Implications for AT Prescription

Avoid prescriptions that target observable motor symptoms without considering cognitive barriers.

⚠ High Cognitive Hazard

Complex Multistep Menus: Exceeds executive capacity.

Dual-Task Operation: Impairs real-time gait stability.

High Calibration Demands: Accelerates device abandonment.

✓ Cognitively Protective AT

Passive Sensory Cues: Bypasses damaged basal ganglia.

Environmental Automation: Removes working memory load.

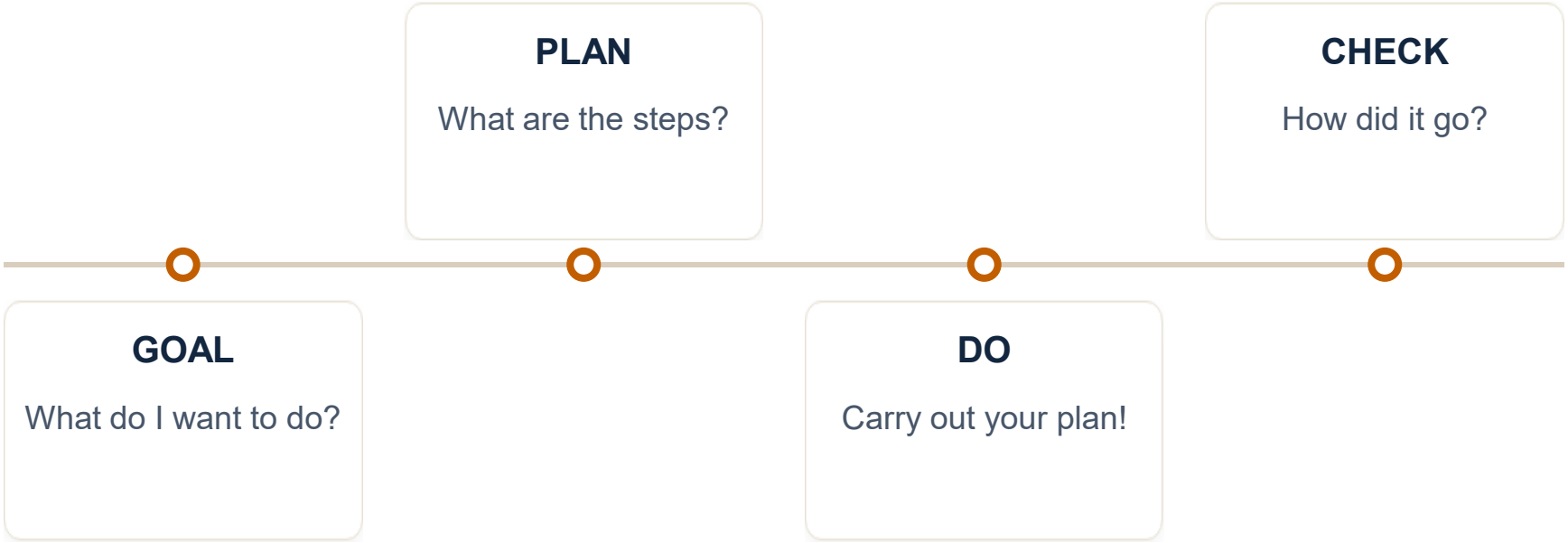
One-Touch Interfaces: Preserves procedural flow.

Beneficial AT:

- Simplifying ADL sequences and smart home ergonomics.
- Consider AT integrated with problem solving to reduce abandonment.
- Measure outcomes, including ADL self-efficacy

Introducing the CO-OP Approach:

Cognitive Orientation to daily Occupational Performance.



Implementation Fidelity Strategies

Ride "ON" Waves
Do important activities when motor and cognitive performance are at their peak

Habit Pairing (Anchors)
Piggyback new actions onto established routines

"If-Then" Contingencies
Pre-plan for unpredictable days with implementation intentions

Outsmart Motivation
Shrink the goal or behaviour so it’s impossible to fail, even in off states.

Optimise Environment
Make cues obvious. Curate your environment to provide the prompts

Celebrate Success
Manually trigger dopamine by celebrating every small victory

2 Mobility Aids


PHYSIOTHERAPY
Queensland
Government

MAIS data: mobility aids & PD

Category	Number	Percent
Wheeled walking aids	1,653	84%
Manual wheelchairs	237	12%
Power wheelchairs	67	3%
Tilt-in-space manual wheelchairs	3	0%



Most common style (e.g., Ellipse 8).
Image from: BalanceMobility



U-Step Walker (off-SOA)
Avg = 2.3 apps/yr
Image from: ILS

Source: MAIS data Oct 2016-Oct 2026



Walking poles / “Nordic walking”



Images generated using AI

- Improve walking for people with PD[1,7]
  - Improve postural stability[2]
  - Improve gait length[3]
  - Does not increase energy consumption (in contrast to healthy controls)[3]
  - Improve knee power[4]
- Persons with less disability achieve better response[1]
- Rehabilitate mobility, sleep, pain and constipation[5,6]

1. Bombieri, F., Schena, F., Pellegrini, B., et al. (2017). Walking on four limbs: a systematic review of Nordic walking in Parkinson disease. *Parkinsonism & Related Disorders, 38*, 8-12.
2. Geougeon, M-A., Zhou, L., & Nantel, J. (2017). Nordic walking improves trunk stability and gait spatial-temporal characteristics in people with Parkinson disease. *NeuroRehabilitation, 41*(1), 205-210.
3. Nardello, F., Bombieri, F., Tinazzi, M. et al. (2017). Metabolic and kinematic parameters during walking with poles in Parkinson’s disease. *Journal of Neurology, 264*, 1785-1790.
4. Zhou, L., Gougeon, M-A., & Nantel, J. (2017). Nordic walking improves gait power profiles at the knee joint in Parkinson’s disease. *Journal of Aging & Physical Actvitiy, 26*(1), 84-88.
5. Dennison, K., & Taylor, J. (2020). Effects of pole walking on adults with Parkinson’s disease following 6 weeks of training. *Physical Therapy Scholarly Projects, 690*, https://commons.und.edu/pt-grad/690
6. McCracken, S., Logan, P., Anthrony, K., & Parr, J. (2021). Exploring the benefits and barriers to Nordic walking in people with Parkinson’s disease: a feasibility study. *British Journal of Neuroscience Nursing, 17*(5), https://doi.org/10.12968/bjnn.2021.17.5.19
7. Vecchio, F.B.D., & Peyré-Tartaruga, L.A. (2026). Nordic walking in people with Parkinson’s disease: benefits and practical recommendations. *Strength & Conditioning Journal, 48*(5), 606-619.

Nordic walking trained instructors[1]

Low cost[1]

Trainers with background in PD[1]

Self-conscious[2]

Group programs[1]

"…don't look like a walking aid…"[1]



Images generated using AI

1. McCracken, S., Logan, P., Allen, F., et al. (2025). Nordic walking groups for people with Parkinson's disease in community rehabilitation settings: what is needed? *British Journal of Neuroscience Nursing, 21*(1), 30-38.
2. McCracken, S., Logan, P., Anthony, K., & Parr, J. (2021). Exploring the benefits and barriers to Nordic walking in people with Parkinson's disease: a feasibility study. *British Journal of Neuroscience Nursing, 17*(5), 193-202.

Comparison of mobility devices for Parkinson's

Within-subject case control study (n=27)[1]

Faster

Better gait



No device



Single point stick

Safer

Faster

Better gait



2-wheeled walker



4-wheeled walker

Safer



U-Step

1. Kegelmeyer, D.A., Parthasarathy, S., Kostyk, S.K., et al. (2013). Assistive devices alter gait patterns in Parkinson disease: advantages of the four-wheel walker. *Gait & Posture, 38*, 20-24.

Reverse braking walkers (off-SOA)



Rolls Rhythm Walker
Price: ~ $3,200
Image from: ActiveMobility
Specs: Optional reverse brake, Cueing system (laser + metronome + vibration)
Weight: 11.6kg
SWL: 125kg



Topro Neuro Walker
Price: ~ $,1000
Image from: MobilityCare
Specs: Optional slowdown system / one-handed brake
Weight: 7.4kg (S), 7.8kg (M)
SWL: 125kg (S) / 150kg (M)



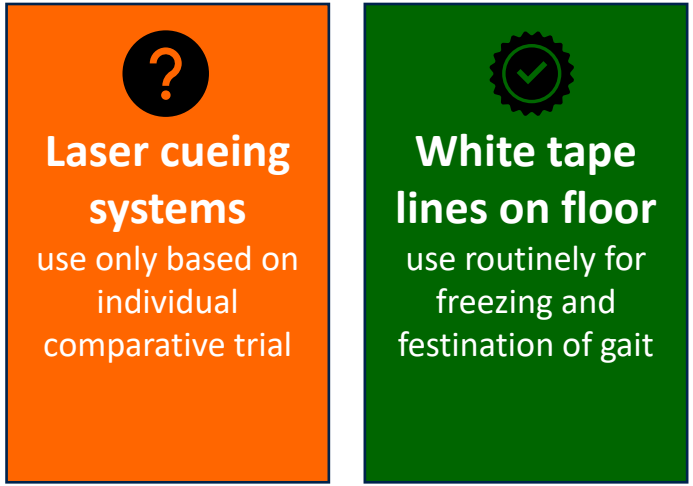
Gemini 30 Parkinson Walker
Price: ~ $,1000-$1,500
Image from: Linds Rehab
Specs: Optional slowdown system / reverse brake / one-handed brake, laser cueing
Weight: 7.5kg
SWL: 130kg



U-Step Walker
Price: ~ $1,600
Image from: ILS
Specs: 7-wheel design (anti-tip wheels), optional auditory & laser cueing
Weight: 10kg
SWL: 170kg

Laser cueing should not be routinely used[1]

- Within-subject case/control trial
- 22 persons with freezing of gait
- Walking/turning tasks with U-Step walker
- Findings: No significant difference in freezing of gait, number of steps, or completion time



1. Bunting-Perry, L., Spindler, M., Robinson, K.M., et al. (2013). Laser light visual cueing for freezing of gait in Parkinson disease: a pilot study with male participants. *Journal of Rehabilitation Research & Development, 50*(2), 223-30.

3 Communication Aids

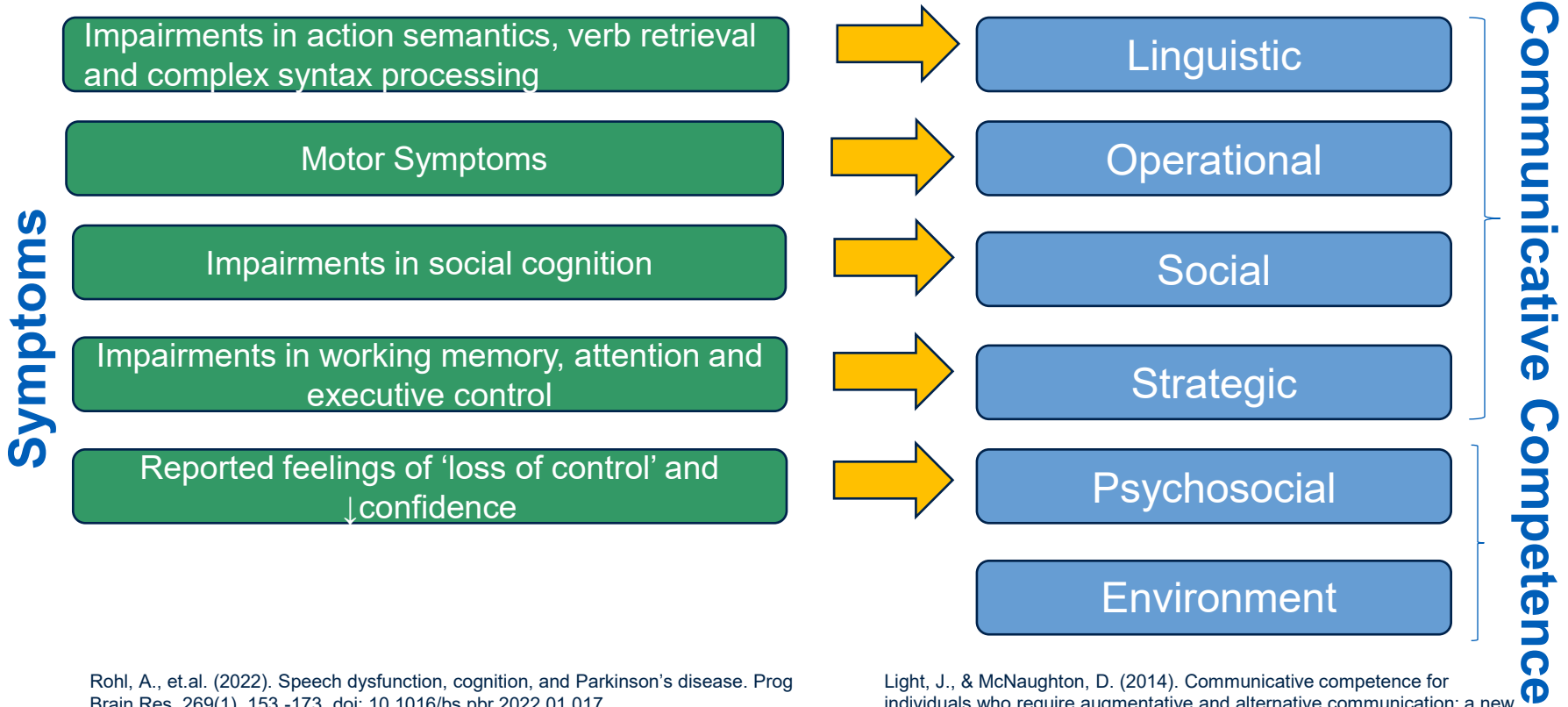
Communication Challenges Experienced by People with Parkinson's Disease

'Up to 90% of people with Parkinson's disease (PwPD) will develop changes in their speech production characterised by: reduced vocal volume, monotonous intonation, imprecision of articulatory movement and placement, and alterations in speech rate.'

'cognitive changes underlie deficits demonstrated in higher level language in PD including difficulties in comprehension of complex sentence structures, figurative and implied information; as well as decreased verbal fluency, information content and complexity of language production'

Swales, M., Theodoros, D., Hill, A.J., & Russell, T. (2021).Communication and swallowing changes, everyday impacts and access to speech-language pathology services for people with Parkinsons's disease: An Australian survey. *International Journal of Speech-Language Pathology,* 23, 70 – 82.

Impact of Parkinson's Symptoms on Potential Uptake of AAC



Rohl, A., et.al. (2022). Speech dysfunction, cognition, and Parkinson's disease. Prog Brain Res, 269(1), 153 -173. doi: 10.1016/bs.pbr.2022.01.017

Light, J., & McNaughton, D. (2014). Communicative competence for individuals who require augmentative and alternative communication: a new definition for a new era of communication? Augmentative and Alternative Communication, 30(1), 1 – 18. doi: 10.3109/07434618.2014.885080

Five Speech Stage Model for AAC Intervention

AAC may be used alongside traditional therapy

1. No detectable speech disorder. The topic of AAC intervention may be raised as a possibility for the future

2. Obvious speech disorder. AAC intervention is more likely and may consist of voice amplification devices.

3. Reduction in speech intelligibility. Heavier reliance on AAC intervention is more likely.

4 .Natural speech is not functional. There may be more emphasis on an AAC system. would be necessary such as a pacing board, alphabet boards, portable typing system such as Lightwriter.

5. Loss of useful speech. Very difficult to introduce AAC at this stage. More emphasis on communication environment and communication partners

Armstrong, L., Jans, D., & MacDonald, A. (2000). Parkinson's disease and aided AAC: some evidence from practice. *Int. J. Lang. Comm. Dis. (35)*, 3, 377 – 389.

Strategies to Aid Communication

General

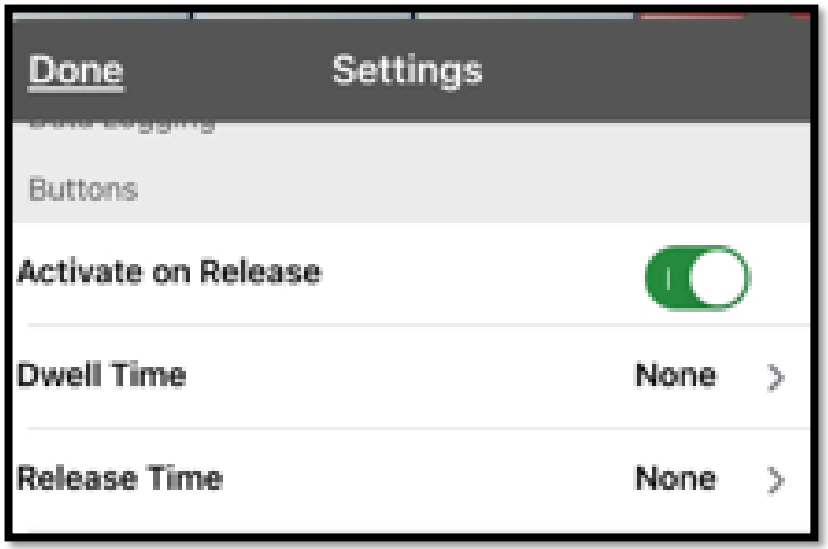
- Reduce background noise
- Reduce distractions
- Give extra time
- Face to face interactions
- Encouraging specific strategies to ↑ speech intelligibility
- Communication partner to reduce complexity of information, provide choices

Specific

- Plan key communicative interactions around medication, when limb movement and access to aids may be easier
- Visual supports
- Alternative access: voice activation, touch accommodation, partner-assisted scanning

Touch Accommodations within AAC Software and Apps

Many comprehensive AAC software and apps will offer touch access options e.g. dwell time, hold duration, repeat delay and select/activate on release.



Partner Assisted Communication

Person	Place	Thing	Something Else
• Family	• Home	• Looks like	• Important
• Friend	• School	• Used for	• Not Important
• Someone else	• Somewhere else	• Something else	• I don't know.
Feeling	**Time**	**Medical**	**Problem**
• Good	• Now	• Pain	• Health
• Bad	• Later	• Medicine	• Appointment
• Something else	• Past	• Something else	• Something else

Topic Board

Image from:: Speech Supplementation Strategies : PrAACtical AAC

A	B	C	G	H	I
D	E	F	J	K	L
M	N	O	S	T	U
P	Q	R	V	W	X
space	end	oops	Y	Z	

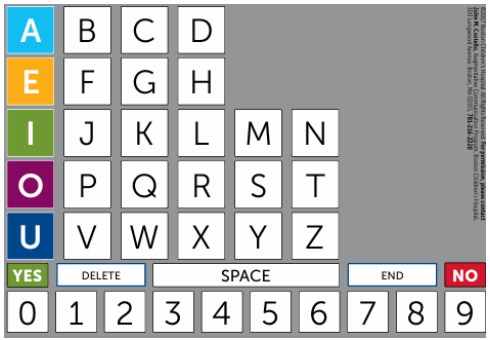
Quadrant Alphabet Board Access

Image from:: Patient-Provider Communication Network



Talking Mats

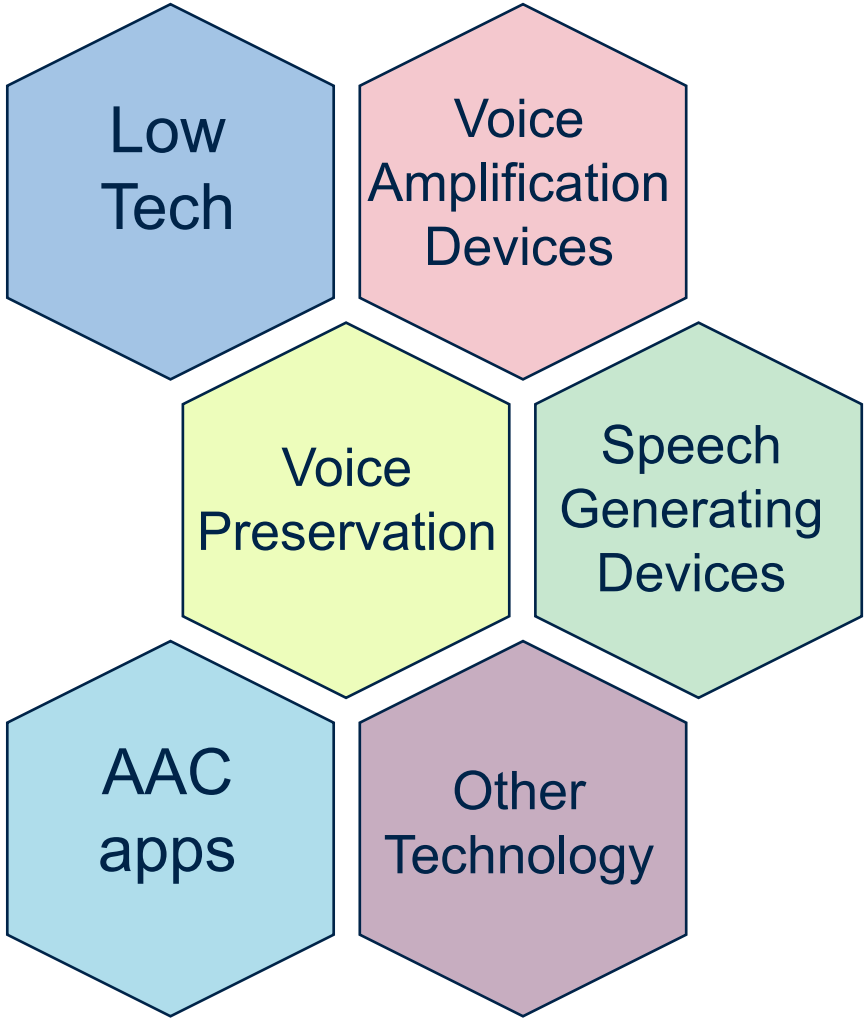
Image from::https://talkingmatsaustralia.com.au/



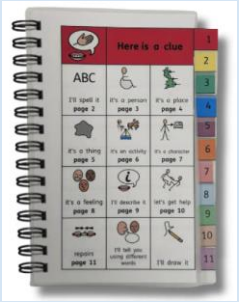
Vowels First

Image from:: Boston Children's Hospital Partner assisted scanning

AAC Options for People with Parkinson's Disease and Related Conditions



Low Tech Communication Aids

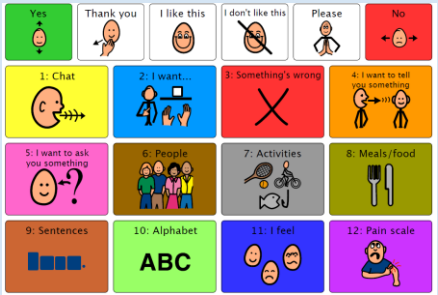


Cues Book

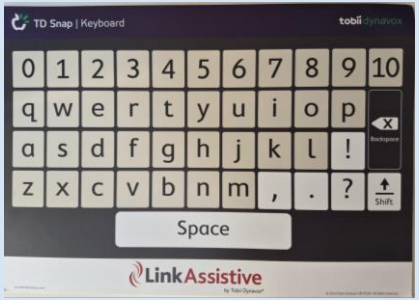
Image from ACE Centre, UK



Symbol based



Pragmatic based



Text based



Pacing Board

Lots of great ideas can be found at: Resources | Ace Centre

A. Main Needs	B. Positioning	C. Social
A-1 I need suctioning	B-1 Elevate Head of Bed	D-1 Hi, How Are You?
A-2 I am in pain	B-2 Lower Head of Bed	D-2 What's New?
A-3 I need to pee	B-3 Adjust Head Pillow	D-3 How's the Family?
A-4 I need the bedpan	B-4 Adjust Other Pillows	D-4 Please Be Patient
A-5 I am cold/hot	B-5 Pull Me Up	D-5
A-6 I need to be cleaned	B-6 Elevate Foot of Bed	D-6
A-7	B-7 Lower Foot of Bed	D-7 Tell Me More About it
A-8	B-8 Reposition me	D-6
A-9	B-9	D-9 It's So Good 2 C U

Could Encoded Language be incorporated?

Image from:: Amy and Pals

Voice Amplifiers

- Voice amplifiers are a potential treatment option for people with Parkinson's disease with hyophonia[1,2,3]
- Devices improved SNR, speech intensity and transcribed intelligibility of speech compared to unamplified speech[1,2,3]
- Discrepancy between speech performance-based measures and experience-based preference ratings[1,2,3]
- Device selection depends on individual needs and preferences[4]

Watch the recorded webinar
Voice amplification devices explored



1.Andreetta, M.D. et.al. (2016). Evaluation of Speech Amplification Devices in Parkinson's Disease. *American Journal of Speech-Language Pathology*, 25, 29- 45.

2. Knowles, T. et. al. (2020). A Comparison of Speech Amplification and Personal Communication Devices for Hypophonia. *Journal of Speech, Language and Hearing Research*, 63, 2695 – 2712.

3.Page, A. et. al. (2023). A Comparison of Voice Amplifiers and Personal Communication Systems for Hypophonia: An Exploration of Communicative Participation. *American Journal of Speech-Language Pathology,* 32, 1850 -1865.

4.Gates, K. et. al. (2023). Clinical Insights Into the Use of Speech Amplification Devices for Managing Hypophonia: Interviews with Speech-Language Pathologists. *American Journal of Speech-Language Pathology*, 33, 1639 – 1661.

Digital Voice Preservation Options

Watch the recorded webinar
Voice Cloning and Message/ Voice Banking



Message Banking the process of recording meaningful phrases and expressions (e.g., "I love you, sweetheart") that can be played back later. This ensures such expressions are said in a person's original voice

Voice Banking creates a custom synthesized voice for you based on samples of your speech. There are a variety of services available for people who are interested in banking their voice

Voice Cloning is an AI technology that creates a highly accurate digital replica of a person's voice

ALS Association FYI voice preservation

Speech Generating Devices



Physical keyboard style



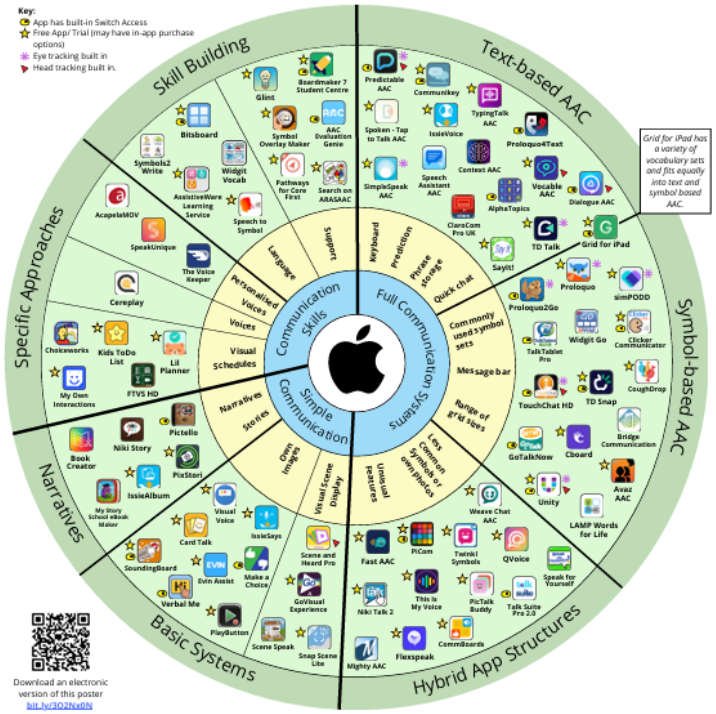
Touchscreen with text based AAC software



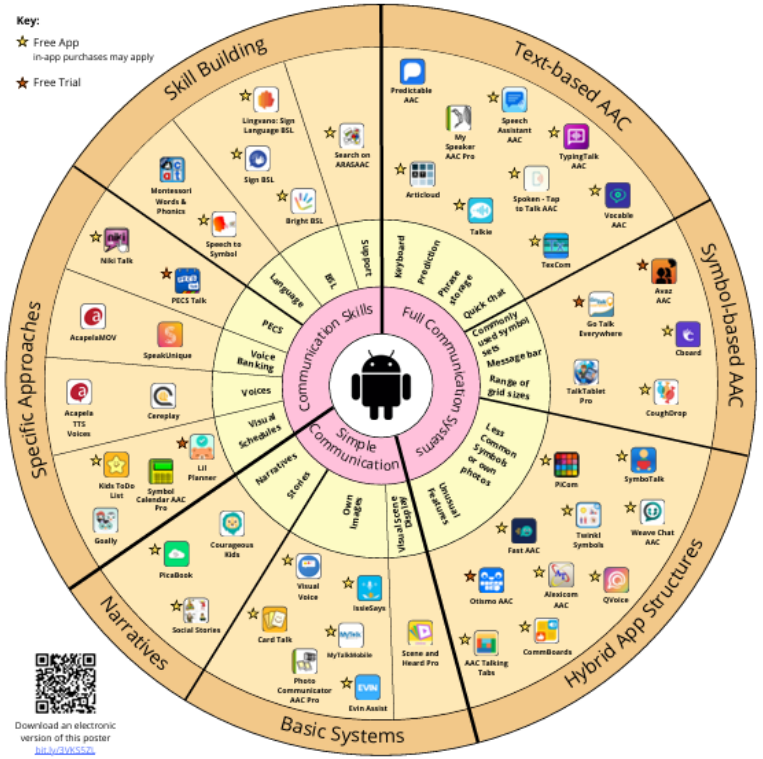
Touchscreen with symbol based AAC software

Potential AAC apps

Top recommendations for text-based apps are Predictable and Proloquo4Text.



AAC iPad App Wheel 2026



AAC Android App Wheel 2025

Newer or Emerging Technological Options

Project Relate -
a free Beta App from Google

voiceitt

Stand alone Web app

Speech Recognition solutions for people with non-standard speech



SpeechVive

Image from::Medix21

Use of the SpeechVive in PD.pdf

The SpeechVive: In conversation with Inventor, Jessica Huber | ENT & Audiology News



SpeechEasy

Image from::
https://www.speecheasy.com/



Personal Assistants

Voice-assisted tech giving voice to people living with Parkinson's disease -

Speech generating devices





Voice amplification devices





iPad with AAC and Communication Software





MASS Communication Aids Service



Artificial larynges





4 Daily Living Aids

MAIS data: Daily living aids

Top 5 categories	Number	Percent
Shower chair / stool / bath transfer bench	510	30.05%
Bedside commode	317	18.68%
Pressure mattress	212	12.49%
Over toilet aid	153	9.02%
Pressure cushion	107	6.31%

Source: MAIS data Oct 2016-Oct 2026

Table 2 AT for ADL and IADL Management

Low Tech	Mid Tech	High Tech
• Floor-to-ceiling grab bar • Multicolored tape for contrast sensitivity • Elevated commodes • Shower chairs/benches • Weighted cuffs • Foam built up handle for self-care items • Scoop plate/Plate guard • Swivel silverware • Magnetic buttons • Fasteners for clothing • Compression stockings (for orthostatic hypotension) • Sock aid • Long handled reacher • Long handled shoes horn	• Sit-to-stand aid • Bidet attachments • Medication dispensers • Electronic calendars • Medical alert system • Motion sensor lights • Semi-electric hospital bed	• Phonemic pumps • Suction Urination System • Mobile applications for symptom medication management. • Voice command system • Video surveillance system • Location tracking system • Bed/chair absence sensors • Fully electric hospital bed

Munzesheimer, S., Siu, T.W.T., Yacinthe, D., et al. (2025). An interdisciplinary approach to assistive technology for Parkinson's disease dementia. Clinical Interventions in Aging, 20, 1253-1265.

Make it stable



Reachers, shoehorns



Shower stool / chair



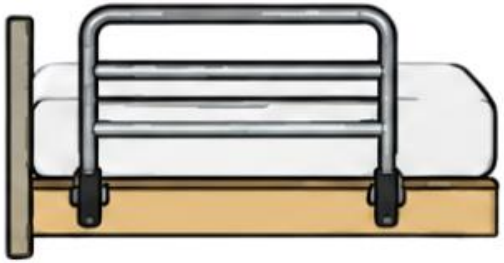
Card holder



Recumbent tricycle



Bath transfer bench



Bed rails / transfer aids



Pill splitter

Imaged generated with AI

Reduce task demands



Bedside commode



Bidet



Magnetic buttons



Robotic vacuum cleaner

Imaged generated with AI

Dampen the tremor



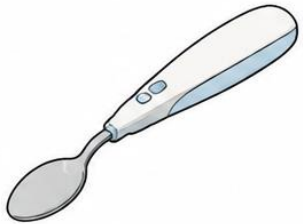
Weighted cutlery / pens



Two-handed mug, gyroscopic mugs



Cuffs weights



Self-levelling or gyroscopic spoons

Imaged generated with AI

Improve safety



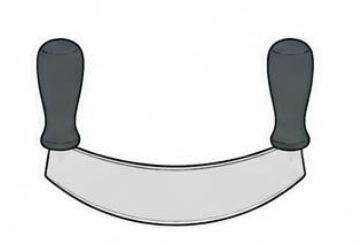
Falls pendant, falls monitoring systems



Plate, bowls or spoon guards



Sipping mugs, kettle tippers



Rocker knife



Electric razor

Imaged generated with AI



Increase visual information



Contrast items



Motion sensor lighting / enhanced lighting, pathway lighting[1,2]



Contrast strips

1. Figuerio, M.G., Plitnick, B., Rea, M.S., et al. (2011). Lighting and perceptual cues: effects on gait measures of older adults at high and low risk for falls. *BMC Geriatrics, 11*(49), 1-2.
2. Kesler, A., Leibovich, G., Herman, T., et al. (2005). Shedding light on walking in the dark: the effects of reduced lighting on the gait of older adults with a higher-level gait disorder and controls. *Journal of NeuroEngineering & Rehabilitation, 2*(27), 1-8.

Imaged generated with AI

Lower cognitive demand



Medication dispensor



Smart speaker



Smart home technologies, IoT[1]

1. Acharya, S., & Paudel, S. (2025). Literature review on assistive technologies for people with Parkinson's disease. *arXiv, 18862*.

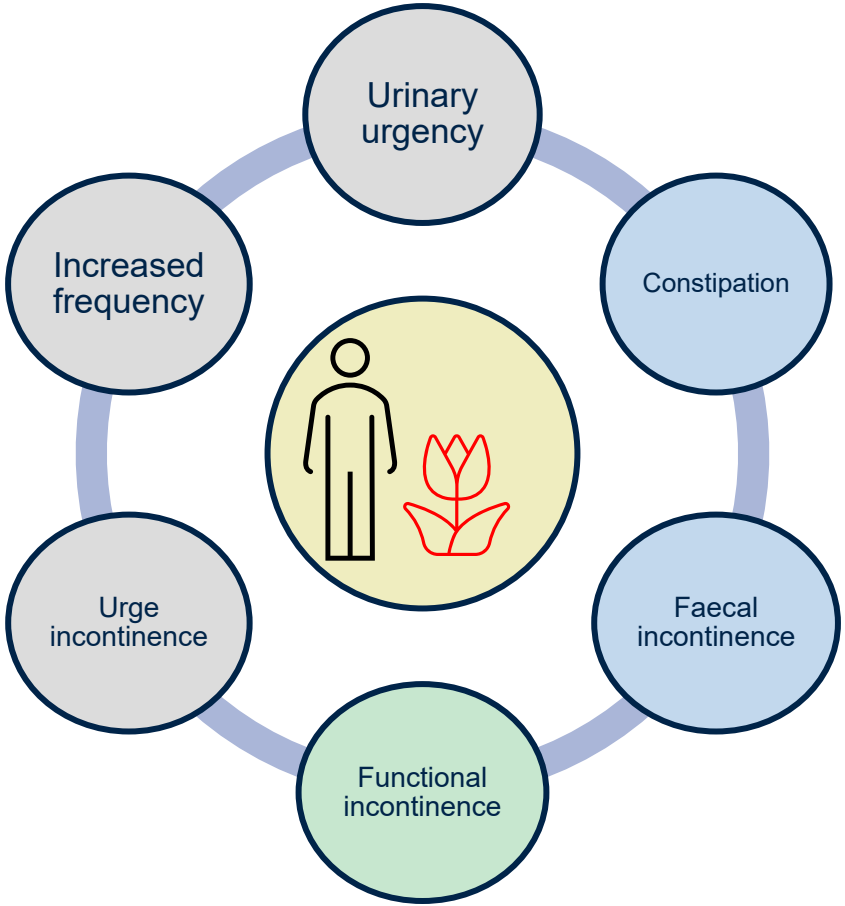
Imaged generated with AI

5 Continence Aids

Common Continence Issues in People with Parkinson's Disease

Bladder

Bowel



Bladder issues may be a sign of 'wearing off' – timed toileting may help

Related Recorded Webinars on the Assessment and Management of Continence

Watch these webinar recording for further information:

Continence Assessment and Commonly Requested Continence Aids



Continence Management Strategies



What's Involved in a Bowel Motion and Strategies to Improve Bowel Dysfunction



Sheaths



Constipation in People with Parkinson's Disease (PwPD) and Related Conditions

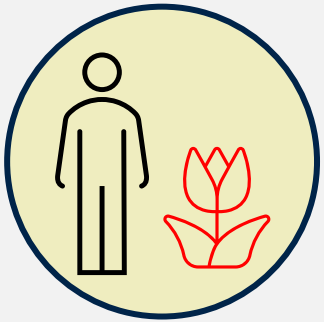
- Constipation is prevalent in PwPD and has a substantial impact on QoL[1,2,4]
- Constipation portends a worse prognosis in PD[4]
- Straining during defecation is the most common feature in PD; incomplete evacuation is also reported[4]
- Constipation is also common in MSA[3]
- Dementia with Lewy bodies also experience constipation which are more severe than PD[5]
- Swallowing difficulties - so may not be getting enough fluids or fibre
- Management of constipation in PD and other movement disorders can follow that of general constipation[5]



(Ness and Addison, n.d.)

1. Pellegrini, C.; Antonioli, L.; Colucci, R.; Ballabeni, V.; Barocelli, E.; Bernardini, N.; Blandizzi, C.; Fornai, M. Gastric motor dysfunctions in Parkinson's disease: Current pre-clinical evidence. Parkinsonism Relat. Disord. 2015, 21, 1407–1414.
2. Mozaffari, S.; Nikfar, S.; Daniali, M.; Abdollahi, M. The pharmacological management of constipation in patients with Parkinson's disease: A much-needed relief. Expert Opin. Pharmacother. 2020, 21, 701–707.
3. Mishima, T.; Fukae, J.; Fujioka, S.; Inoue, K.; Tsuboi, Y. The Prevalence of Constipation and Irritable Bowel Syndrome in Parkinson's Disease Patients According to Rome III Diagnostic Criteria. J. Parkinsons Dis. 2017, 7, 353–357.
4. Bharucha, A.e. et.al. (2025). Constipation in a large online cohort of persons with Parkinson's disease. *Movement Disorders Clinical Practice,(12)*12, 2232-2246. doi: 10.1002/mdc3.70168
5. Sakakibara, R. (2021). Neurological Sciences. *Gastrointestinal dysfunction in movement disorders*, 41. 1355-1365. https://doi.org/10.1007/s10072-021-05041-4

Considerations for Selecting Continence Aids for PwPD



- Urgency
- Type of Loss
- Quantity of Loss
- Mobility
- Dexterity
- Cognition
- Medication
- Carer Support

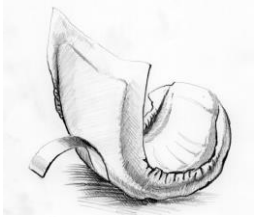
MAIS data: Continence

Top 5 categories	Number	Percent
Pull-ups	4,917	48.96%
Disposable pads	1,879	18.71%
Bed pads	1,118	11.13%
Chair pads	705	7.02%
Men’s pads	448	4.46%

Source: MAIS data Oct 2016-Oct 2026



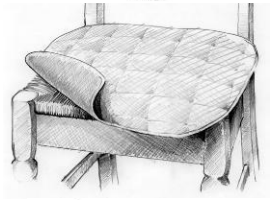
Pull-ups



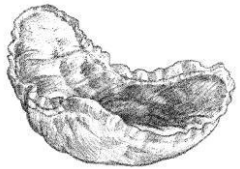
Disposable pads



Bed pads



Chair pads



Men’s disposable pads



Fight Parkinson's
Together we can

Continence and Parkinson's

For many people with Parkinson's, continence challenges are a common symptom affecting the muscles responsible for bladder and bowel function. While continence issues can negatively impact a person's quality of life, effective management can alleviate symptoms to support a full and active life.

Bladder control

Parkinson's can impact bladder control in several ways, including:

- **Frequency**: The need to urinate frequently, often with only small amounts passed each time.
- **Urgency**: Experiencing sudden and strong urges to urinate, often with little warning.
- **Retention**: Having difficulty fully emptying your bladder, with over 100ml of urine remaining after you have voided.
- **Nocturia**: The frequent need to empty the bladder, often during the first few hours after going to bed. This symptom may be related to reduced Blood pressure caused by Parkinson's

Causes of bladder difficulties in Parkinson's

Bladder symptoms in Parkinson's can be attributed to various factors, including:

- **Nerve pathway disruptions**: Issues in the nerve pathway connecting the bladder and the part of the brain responsible for bladder function can be disrupted, causing frequency and urgency. These symptoms may fluctuate with medication (Dopamine) levels.
- **Underlying conditions**: Conditions like weak pelvic floor muscles or an enlarged prostate can exacerbate bladder symptoms in Parkinson's.
- **Constipation**: Constipation can put pressure on the bladder, making its bladder symptoms more pronounced.

Note that bladder difficulties can be a sign of 'wearing off'. Wearing off refers to when certain Parkinson's symptoms either emerge or intensify in the period between medication doses due to medication levels dropping too low. This sensation commonly occurs shortly before your next scheduled medication dose.

Managing bladder control

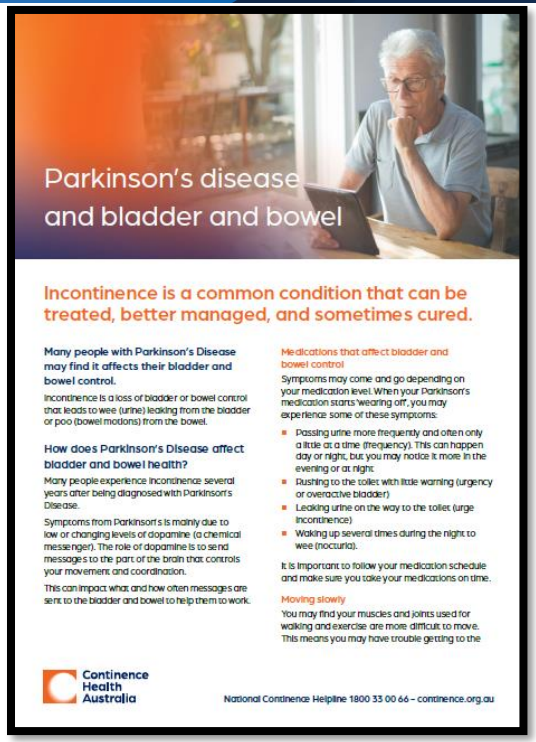
It is best to discuss bladder concerns with your treating doctor, who may run tests or refer you to a bladder specialist (Urologist. Some targeted pelvic floor exercises can reduce the impact of symptoms. Pelvic floor exercises improve the strength of the muscles surrounding the bladder, increasing bladder control. Consult a Physiotherapist or continence nurse for personalised exercise guidance.

Note that different bladder issues require specific strategies. For example, to manage frequency, establish consistent medication routines and try pelvic floor exercises. For Nocturia, elevate your feet in the afternoon, reduce evening fluid intake, avoid caffeine after 5 pm, elevating the top of the bed may reduce

For more information | Freecall 1800 931 031 | fightparkinsons.org.au

Page 1 of 3

[Fight Parkinson's Continence and Parkinsons.pdf]



Parkinson's disease and bladder and bowel

Incontinence is a common condition that can be treated, better managed, and sometimes cured.

Many people with Parkinson's Disease may find it affects their bladder and bowel control.

Incontinence is a loss of bladder or bowel control that leads to wee (urine) leaking from the bladder or poo (bowel motions) from the bowel.

How does Parkinson's Disease affect bladder and bowel health?

Many people experience incontinence several years after being diagnosed with Parkinson's Disease.

Symptoms from Parkinson's is mainly due to low or changing levels of dopamine (a chemical messenger). The role of dopamine is to send messages to the part of the brain that controls your movement and coordination.

This can impact what and how often messages are sent to the bladder and bowel to help them to work.

Medications that affect bladder and bowel control

Symptoms may come and go depending on your medication level. When your Parkinson's medication starts 'wearing off', you may experience some of these symptoms:

- Passing urine more frequently and often only a little at a time (frequency). This can happen day or night, but you may notice it more in the evening or at night
- Rushing to the toilet with little warning (urgency or overactive bladder)
- Leaking urine on the way to the toilet (urge incontinence)
- Waking up several times during the night to wee (nocturia).

It is important to follow your medication schedule and make sure you take your medications on time.

Moving slowly

You may find your muscles and joints used for walking and exercise are more difficult to move. This means you may have trouble getting to the

Continence Health Australia

National Continence Helpline 1800 33 00 66 – continence.org.au

[Fact sheets and information – Continence Health Australia]



UNDERSTANDING PARKINSON'S

Urinary Dysfunction and Parkinson's

Parkinson's disease (PD) has many features that have little or nothing to do with movement. Among these non-motor symptoms are problems with the autonomic nervous system — the part of the nervous system that controls "automatic" bodily functions, such as heart rate, blood pressure, sweating, sexual function and both gastrointestinal and urinary function. These symptoms are often among the most serious and complex issues faced by people with PD.

Unlike bowel dysfunction (e.g., constipation), which often occurs before Parkinson's movement symptoms, urinary dysfunction is not typically a problem until the later stages of the disease.

Bladder Problems in Parkinson's

The primary function of the bladder is twofold — to store urine as it is made and then to empty the urine. With Parkinson's, problems can emerge in both areas.

Recent studies suggest that 30-40% of people with Parkinson's have urinary difficulties. Despite the frequency of urinary dysfunction, actual urinary incontinence is relatively uncommon. Troublesome incontinence develops in only about 15% of people with Parkinson's.

The most common urinary symptoms experienced by people with Parkinson's are:

- The need to urinate frequently
- Trouble delaying urination once the need is perceived, creating a sense of urinary urgency

These symptoms usually mean you have an irritable or overactive bladder. Your bladder is signaling the brain that it is full and needs to empty when, in fact, it is not. This can happen at any time, so you might have to get up multiple times during the night to go to the bathroom.

Impairment of bladder emptying is a less frequent but still troublesome feature of urinary dysfunction in Parkinson's. This may be caused by delay or difficulty in relaxation of the urethral sphincter muscles. These muscles must relax for the bladder to empty. This can result in hesitancy in initiating urination, difficulty in generating a stream and incomplete emptying of the bladder. Dystonia – involuntary muscle contractions – of the urethral sphincter has also been described.

Treatment

Medications that work to block or reduce bladder overactivity can be useful in treating urinary frequency and urgency. These include oxybutynin, tolterodine, solifenacin and darifenacin.

These medications are not helpful for problems emptying the bladder and may actually aggravate the difficulty. Medications such as bethanechol can help, but intermittent self-catheterization is sometimes necessary. Before initiating these, a doctor must make sure that some unrelated process, such as an enlarged prostate, is not responsible for the problem.

You may benefit from seeing a bladder specialist (urologist) for help with medication and lifestyle adjustments.

Conclusion

Being aware that urinary problems, such as urinary tract infections, can be a symptom of Parkinson's is the first step toward management. Do not hesitate to bring these problems to the attention of your healthcare team. Effective treatment is often available. To learn more, visit www.parkinson.org.

[Parkinson's Foundation Urinary Dysfunction.pdf]

Client Education

Certificate of Attendance

Thank you!



Complete the webinar feedback form to receive a certificate of attendance.

MASS-Education@health.qld.gov.au