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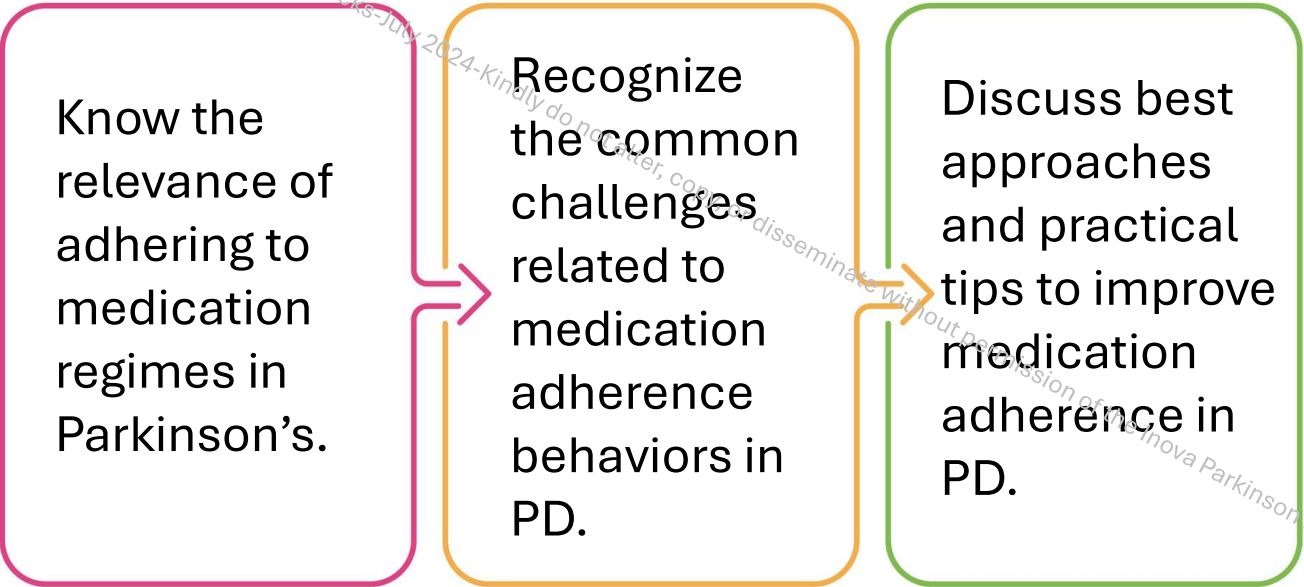
# Getting the most out of **Medications:** adherence strategies and intake tips

Care Partner Tip and Tricks Series  
July 9, 2024, 2:30 PM EST

In partnership with Inova Parkinson's and Movement Disorders Center  
[www.ipmdc.org](http://www.ipmdc.org)



# OUR GOALS



Know the relevance of adhering to medication regimes in Parkinson's.

Recognize the common challenges related to medication adherence behaviors in PD.

Discuss best approaches and practical tips to improve medication adherence in PD.

# OUR GOALS



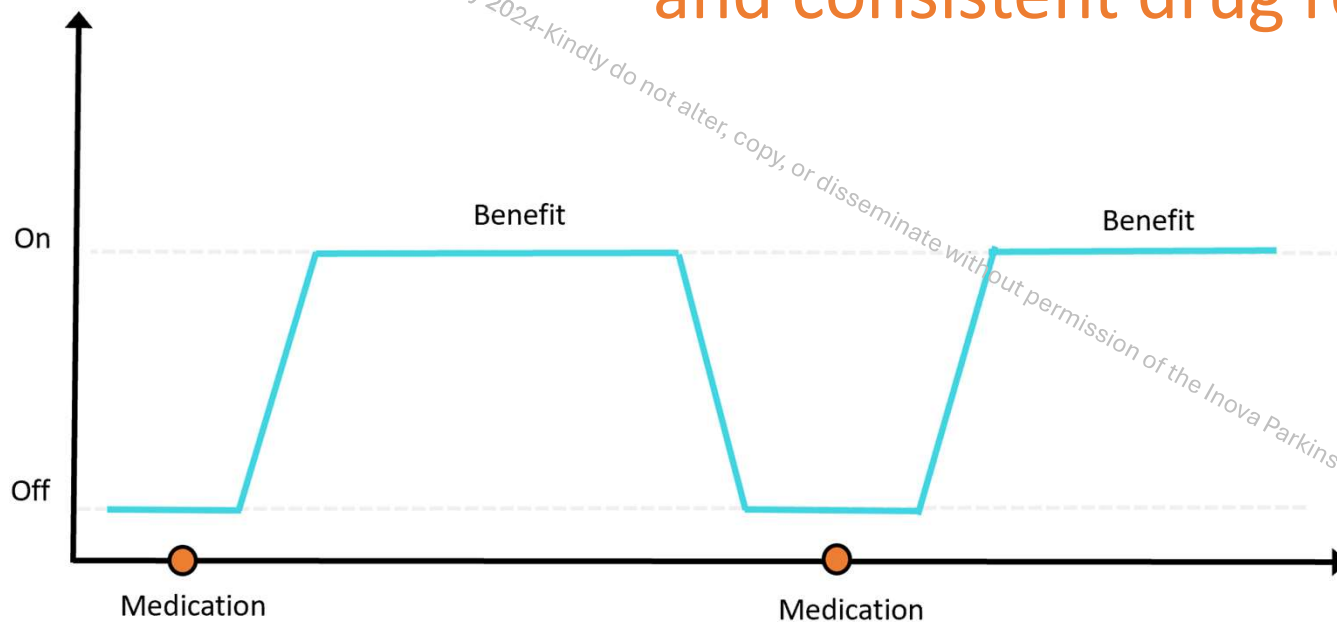
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# Relevance

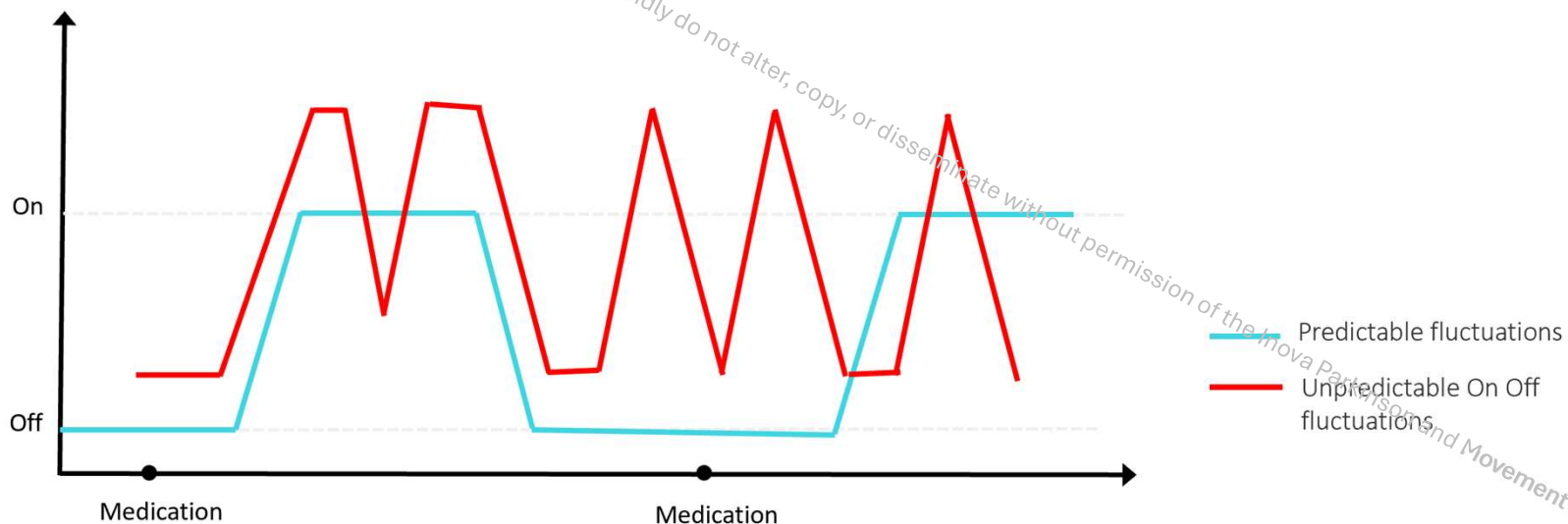
Achieving adequate symptom control depends on a **stable and consistent drug regime.**



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# Relevance

Irregular medication intake may contribute to long-term **motor** or **non-motor complications**.



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## Adherence

“The extent to which a person’s behavior for taking medication corresponds with agreed recommendations from a health care provider.”

- World Health Organization (WHO)



## Non Adherence

Any deviation from the recommended timing and dosages from a health care provider.

Often hidden by patients.

## Insufficient dosing

**Minor:**  
Forgot to take tablets or muddled doses with partial omissions = non-improvement in clinical symptoms.

**Major:**  
Total cessation of therapy can lead to PD “hyperpyrexia” syndrome.

## Extra or Overdosing

**Minor:**  
Muddled doses, taking too much or taking occasional extra tablets for better symptom control especially for demanding situations.

**Major:**  
Dyskinesias and/or psychiatric manifestations such as hallucinations or psychosis can occasionally happen due to overdosing.



Increases  
healthcare  
service **utilization**  
and overall  
healthcare **costs.**



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# Challenges that lead to non-adherence of meds in PD

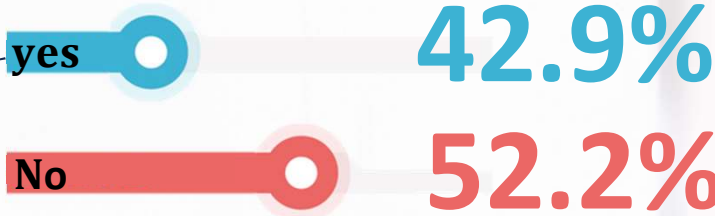
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## Complex medication regimens in PD

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Do you forget to take your Parkinson's medicine?



++ evening



polypharmacy, errors, forgetfulness

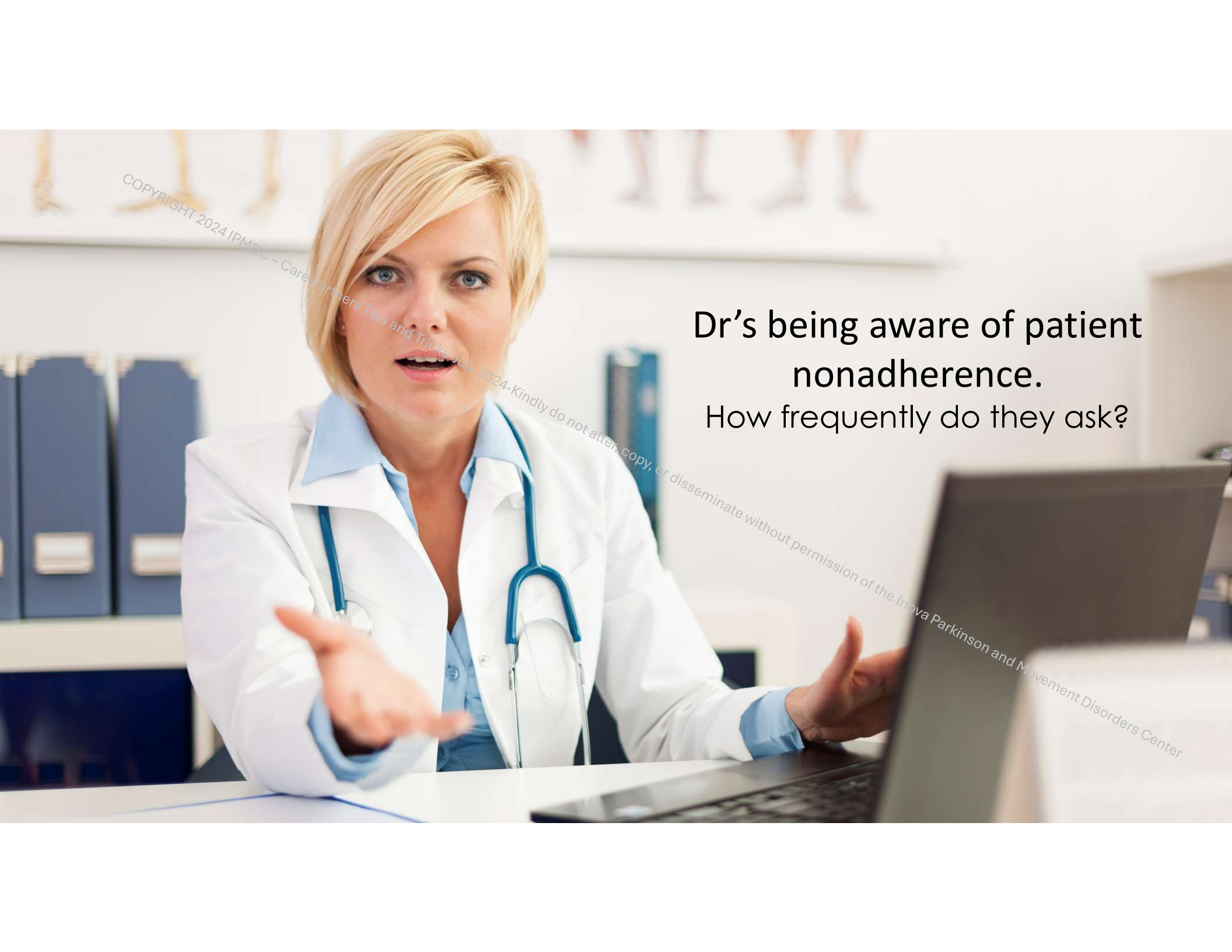
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**Complex  
medication  
regimens in  
PD**



**Ineffective  
patient-Dr.  
communication**



Dr's being aware of patient nonadherence.  
How frequently do they ask?

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**Complex medication regimens in PD**



**Ineffective patient-Dr. communication**



**Socio-economics barriers**

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# Costs

- Copayment inflation
  - especially for non-generic medications that are still “on-patent”
- Drug unavailability
  - Formulary restrictions
  - Production issues





**Complex medication regimens in PD**



**Ineffective patient-Dr. communication**



**Socio-economics barriers**



**Patient-specific behavior**

Fear of side effects  
Cognitive impairment  
Depression  
Difficulties in swallowing  
Patients' beliefs and preferences (present vs future expectations)  
Low health literacy (inability to read instructions)  
Mistrust in physician or health system

# Patient behavior



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# What is your **biggest challenge** with dealing with medication intake?

Not wanting to take meds.

Timing it and balancing Parkinson's requirements with diabetes requirements.

Side effects of meds. and timing of meals.

Frequency during the day.

Remembering if I took it or not.  
Confusion.  
General forgetting.  
Remembering to take it on time. Remembering to take some in my purse. ( I now have a small pill box I keep in my purse). Distraction; busy doing something; unaware of time.

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# Challenge: complex medication regimens in PD



# What can we do?



Ask the neurologist to simplify the person's medication regimen as appropriate (e.g. less frequent, modified formulation and/or dosage, tailored to individual need)



Ongoing re-assessment to stop medication(s) that the person with PD no longer needs or wants.



Promote a team approach and the sharing of information on non-adherence.

**Simplifying the medication regimen** by reducing the number of doses per day and using “combination pills” can significantly improve adherence.


(Izeogu et al., 2020), (Tsai, 2006).



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### Facilitating intake of complex regimes: learning names, colors & dosages of meds

8h



o/s MODOPAR  
o/s ROPINIROL  
o/s SELEGILINE

13h 14h



o/s MODOPAR  
o/s ROPINIROL

17h




o/s MODOPAR  
o/s ROPINIROL

20h 21h



o/s XANTHO  
1/2 MODOPAR

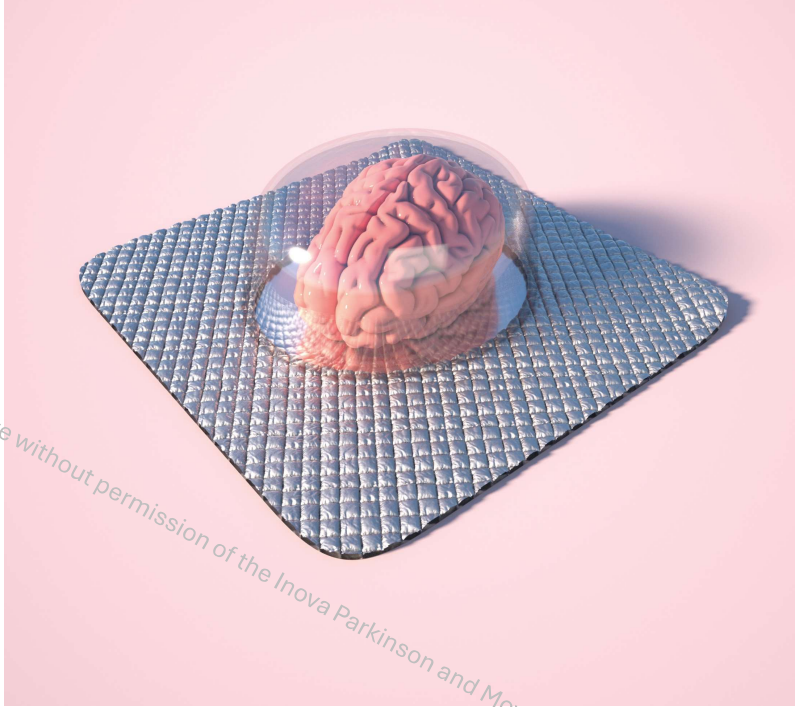
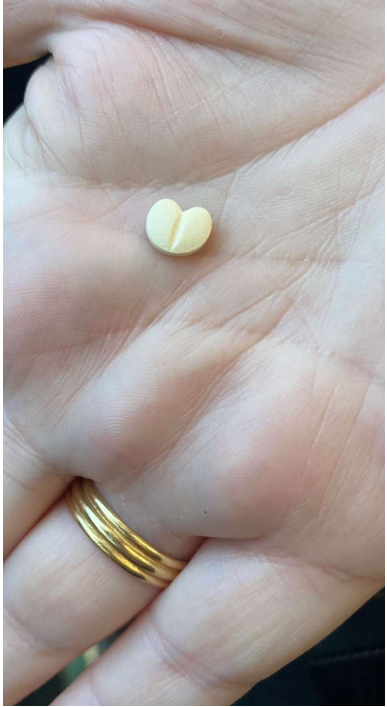
24h 1h



o/s OLANOLAM  
o/s MODOPAR 100mg

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If only...



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# Challenge: Ineffective patient-Dr. communication





Enhancing communication between patients and healthcare provider includes discussing treatment plans, addressing patient concerns, and adjusting to daily habits (Zullig et al., 2017, Maki & Harris, 2021).

If the person thinks they have side effects due to the medications (such as tremors, nausea, etc.), do they ....?

- 63.2%**  Do Nothing until I talk to the doctor
- 10.5%**  Reduce the dose without consulting a doctor
- 5.3%**  Not take the medication for a while (i.e. take a break)
- 21.1%**  Ask other people with PD about it
- 15.9%**  Other...

Consider asking what you can expect from new meds, in how much time and what to do if any side effects should happen.

Ask & learn what  
meds are for and  
relevance of taking  
them.

Educating patients about  
their medications, including  
their purpose, benefits, and  
potential side effects, is  
essential to provide clear and  
understandable information  
that can empower them to  
adhere to their medication  
regimen. ([Seng et al., 2015](#)), ([Morello  
et al., 2011](#)).



What should a person with PD do with a doctor that “gaslights” a patient?  
What is the best way to get another movement disorder specialist?

Things to say:

- 1- “I understand you disagree with me...”
- 2- “I see things differently... “

Getting a new dr:

- MDS Directory
- Recs from others with PD



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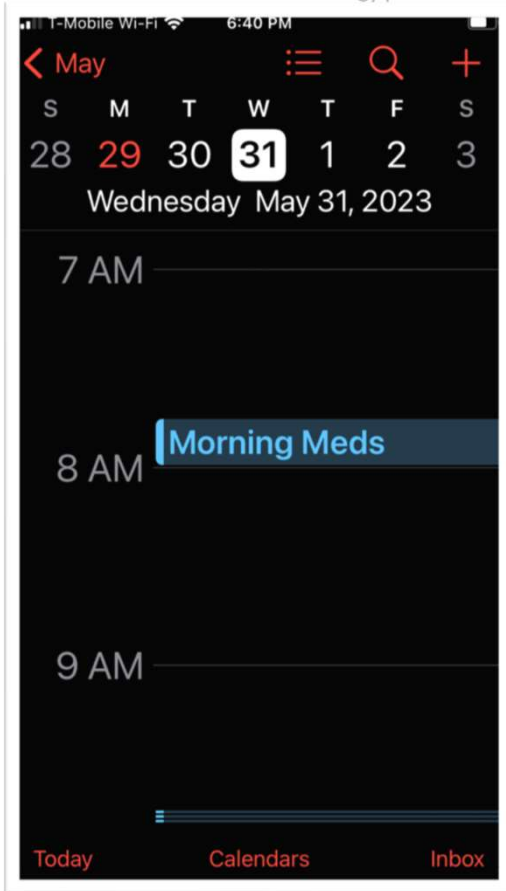
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# Challenge: Dealing with forgetfulness

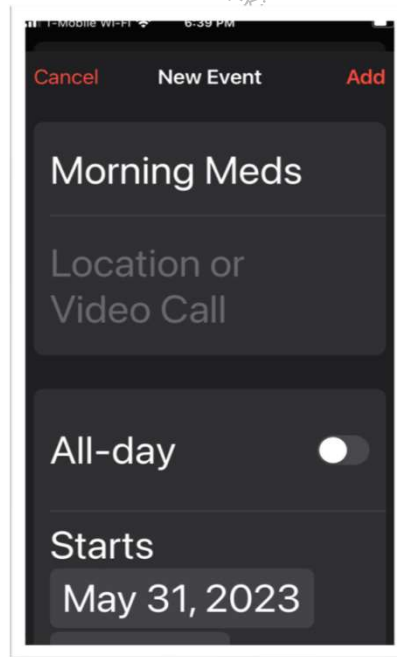
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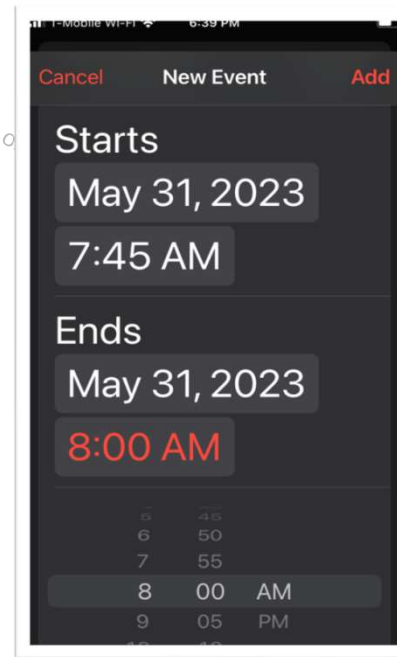
# Using simple med tracking on your phone



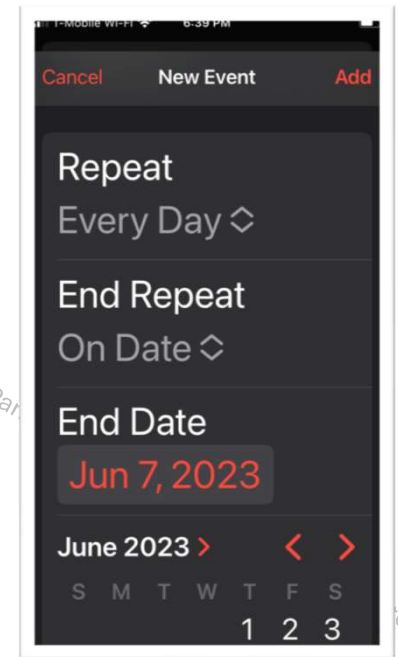
1. Schedule appt



2. Keep it short (15m)



3. Set to repeat



CAVEAT: No other features

# Many app-based medication reminders available

**CAVEAT: Not PD-Specific**



**MyTherapy: Medication Reminder** <sup>4+</sup>

Pill Tracker & Med Alarm

smartpatient GmbH

★★★★★ 4.8 • 1.4K Ratings

Free · Offers In-App Purchases

My Therapy App (iOS and Android)

<https://www.mytherapyapp.com>

 Medisafe

Medisafe (iOS and Android)

<https://www.medisafe.com>

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Consider an app dedicated to Parkinson's

## Free to the public:

### StrivePD by Rune Labs

<https://www.strive.group>  
iOS only (pairs with Apple Watch)

### My Moves Matter

<https://www.mymovesmatter.com>  
iOS only

### Soturi\*

<https://www.soturi.health>  
iOS and Android (pairs with FitBit)

## Prescription only:

### Parky

<https://www.parkynow.com>  
iOS only (pairs with Apple Watch)

### Kinesia U by Great Lakes NeuroTech

<https://www.glneurotech.com/products/kinesiau/>  
iOS and Android

### Neptune by Orbit Health (coming to the US soon)

[https:// orbit.health/neptune](https://orbit.health/neptune)  
Android

*\*Conflict of interest – John Dean was involved in this project*

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# My Moves Matter app

Medication, activity, and symptom tracking app geared towards women living with PD

<https://www.mymovesmatter.com>  
iOS only



**Gain Power Over Parkinson's**

**My Moves Matter gives you the power to**

-   
**Remember your tablets** (Icon: Alarm clock)
-   
**See your patterns**
-   
**Track hormonal impact**
-   
**Find your tribe**
-   
**Make positive changes**
-   
**Gain Knowledge**

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## Smart speaker reminders\*

\*Be sure to turn on app reminders on your phone to receive notifications outside of your home



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A support system through family involvement, peer support groups, and professional counseling can help patients adhere to their medication regimens

(Ingerski et al., 2011, Ehret & Wang, 2013).

“I have my partner give them to me.” - pwp



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# Cognitive behavioral therapy (CBT) can help to improve adherence.

(Haynes et al., 2005), (Zygmunt et al., 2002).

Do you have any specific routines or strategies that help manage with medication intake challenges?

I have noticed **numbness in my feet** that **reminds me** I might be a little late in taking my med.

I use a **7-day pill box** which shows me if I have or haven't taken meds.

Sort pills on a weekly basis and have **alarms** set on my phone.

We **review** what she is about to take before she takes it. 4x per day.

Fitbit alarms. **Timers and alarms.** Reminders in my phone, printed schedule in bag that holds the smaller bags containing individual doses. We have set up recurring alarms (**vibration**) on her Fitbit watch as a reminder for the PD medication. Set alarms each morning for meds, taking all conditions into consideration to set schedule. Try to take meds at same time every day. I use pill cases so I know if I've missed a dose.

- What should I do if I miss a dose of my medication?
- When to take make-up dose if you sleep through?



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# Challenge: Difficulties swallowing medications



## How much difficulty is the person with PD having in swallowing your pills?

- 42.9% ● No difficulty
- 33.4% ● A little difficulty
- 4.8% ● Some difficulty
- 4.8% ● A lot of difficulty

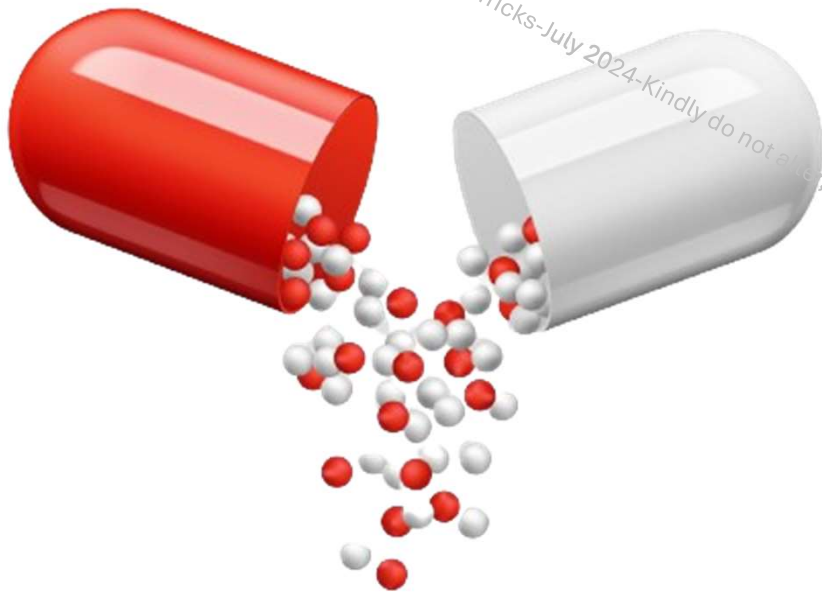


## Advice for Pill swallowing

- Pills with water can be a challenging “mixed consistency” (i.e. solid + liquid)
- Consider taking whole pills in a spoonful of a “puree” like applesauce.
  - Bananas are a nice alternative
  - Avoid protein-rich purees like cottage cheese and yogurt



## OTHER Advice for Pills



- Many meds can be crushed and mixed with applesauce or other purée\*
- Some meds are available in a dissolvable format
- Consider a patch, pump, or other non-oral option

\*This does NOT apply for most controlled-release formulations

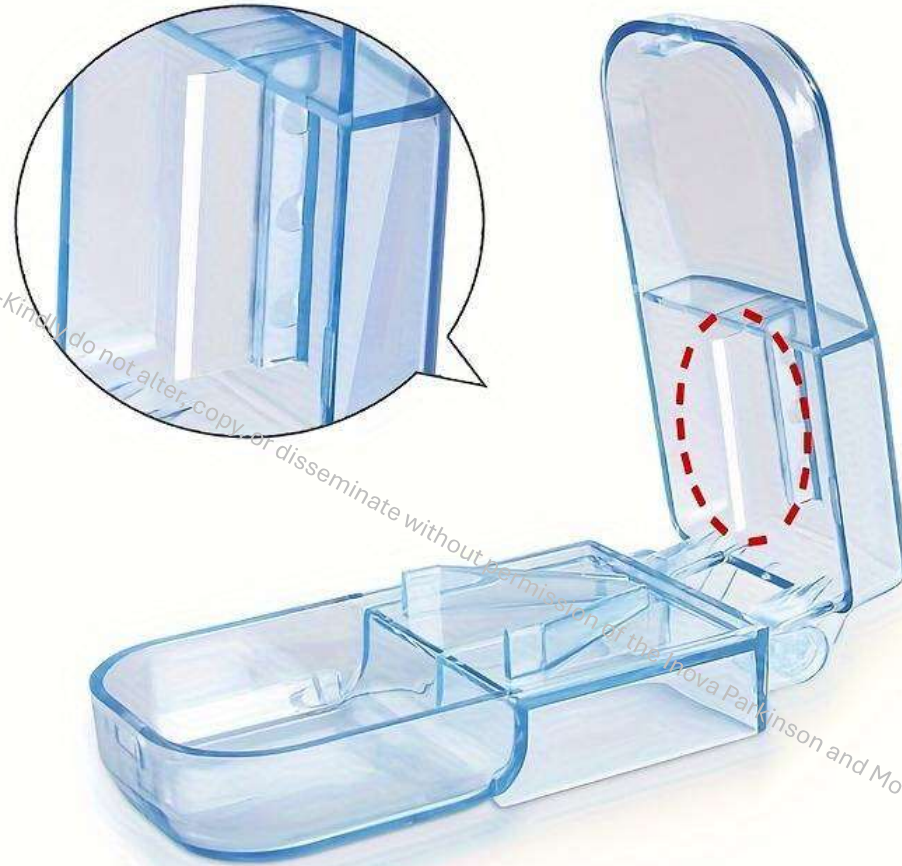
Can I crush or  
split my  
medication if I  
have difficulty  
swallowing pills?



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# Partial dose

Consider a pill cutter



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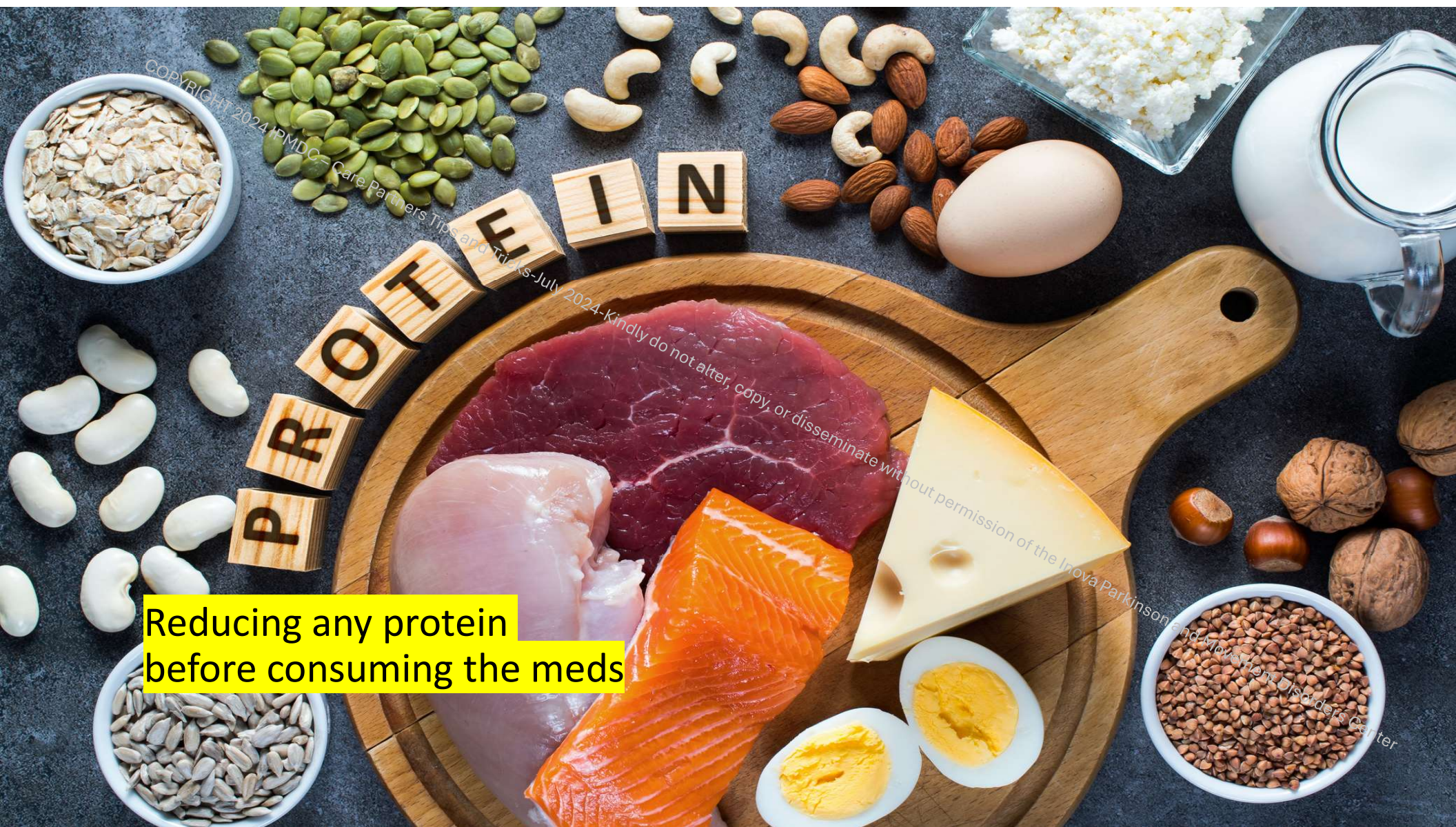
# Challenge: Interference with diet



## How much difficulty is the person with PD having in handling pills?

- 55% ● No difficulty
- 15% ● A little difficulty
- 15% ● Some difficulty
- 15% ● A lot of difficulty

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Reducing any protein before consuming the meds

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Maximizing benefits by increasing **water intake** and **reducing constipation**

- Should I take my medication with food or on an empty stomach?
- Can I drink alcohol while taking my medication?
- Can I take other medications or supplements with my medication?



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# Challenge: Difficulties in handling meds





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“Moving meds from Rx bottle to small plastic bags for individual doses to be easily portable for use throughout the day when away from home”.

- Pwp from questionnaires



## Pillpack (by Amazon)



Prescriptions are sorted and individually packed with the date and time

**CAVEAT:** Even minor changes in medications can result in significant waste and excess cost

# Automated pill dispensers



MedaCube

<https://medacube.com>



Med Minder

<https://medminder.com>



Philips

<https://www.usa.philips.com>



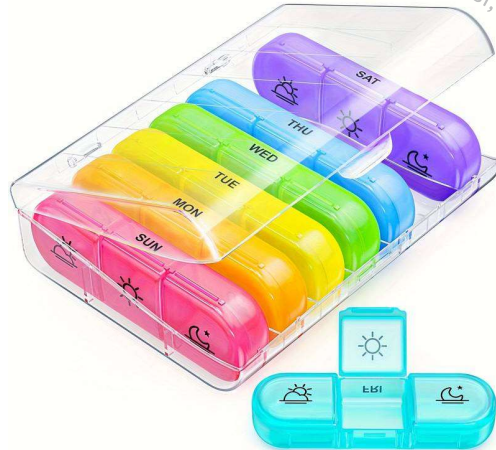
MedaCube

<https://medacube.com>

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# Small/ portable pill containers

Breakaway small containers  
(part of a larger container)



Large, common compartment  
pill containers





## SUMMARY

- Taking meds several times daily can be a real challenge.
- The effectiveness of any medication treatment depends on the person's commitment and ability to adhere to it.
- Improving medication adherence: patient education, simplified regimens, behavioral interventions, enhanced patient-dr communication, support systems, and technological aids.

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