

# Medications for Movement Symptoms

There is no standard treatment for Parkinson's disease (PD). Instead, treatment is individualized to each person's specific symptoms. There are many medications available to manage PD movement symptoms and it is common for people with Parkinson's to take a variety of these at different doses and at different times of day. Medication is only part of the overall treatment plan for PD. Exercise, physical and occupational therapy, as well as lifestyle changes are also key to living well with Parkinson's.

This table is designed to accompany the book *Medications: A Treatment Guide to Parkinson's*. Though comprehensive, it is not an all-inclusive list of prescription medications for movement symptoms and does not include supplements.

#### Levodopa

<b>Medication</b> (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Carbidopa/ levodopa immediate-release tablets (Sinemet)	10/100, 25/100 or 25/250 mg tablets	150-2,000 mg of levodopa/day in separate doses	Low blood pressure, dizziness, nausea, constipation and behavioral changes	For symptoms of Parkinson's (slowness, stiffness, tremor, etc.)
Carbidopa/levodopa immediate-release tablets (Dhivy)	25/100 mg tablets	Up to 8 tablets per day	Same as above	Same as above (may be appropriate for people with difficulty cutting pills)
Carbidopa/levodopa immediate-release orally disintegrating (Parcopa)	10/100, 25/100 or 25/250 mg tablets	150-2,000 mg of levodopa/day in separate doses	Same as above	Same as above (may be appropriate for people with difficulty swallowing)
Carbidopa/levodopa controlled release [formerly Sinemet CR]	25/100 or 50/200 mg tablets	200-2,400 mg of levodopa/day in separate doses	Same as above	Same as above
Carbidopa/levodopa extended-release capsules (Rytary)	23.75/95, 36.25/145, 48.75/195 or 61.25/245 mg capsules	855-2,340 mg of levodopa/day	Same as above	Same as above

## Levodopa

<b>Medication</b> (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Carbidopa/ levodopa/ entacapone tablets (Stalevo) [see: entacapone in COMT Inhibitors section]	12.5/50/200, 18.75/75/200, 25/100/200, 31.25/125/200, 37.5/150/200 or 50/200/200 mg tablets	150-1,200 mg of levodopa/day	Low blood pressure, dizziness, nausea, constipation and behavioral changes, diarrhea and discolored urine	Replacement for immediate-release carbidopa/levodopa for "on/off" fluctuations
Carbidopa/ levodopa enteral suspension (Duopa) via surgically implanted tube in small intestine	4.86/20 per mL	Up to 2,000 mg of levodopa over 16 daytime hours	Low blood pressure, dizziness, nausea and constipation	For treatment of "on/off" fluctuations in advanced Parkinson's
Levodopa inhalation powder (Inbrija)	42 mg capsule	84 mg inhaled by mouth up to 5 times/day as needed	Same as above plus cough	Used with carbidopa/ levodopa for intermittent, sudden "off" episodes

## **Dopamine Agonists**

<b>Medication</b> (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Ropinirole [formerly Requip]  Ropinirole extended release [formerly Requip XL]	0.25, 0.5, 1, 2, 3, 4 or 5 mg tablets XL: 4, 6, 8 or 12 mg tablets	9-24 mg total/ day in 3 separate doses  XL: 8-24 mg once/ day	Dizziness, leg swelling, nausea, sleep attacks, confusion and behavioral changes, including impulsive behaviors	For Parkinson's movement symptoms and restless legs syndrome (RLS)
Pramipexole (Mirapex)  Pramipexole extened- release (Mirapex ER)	0.125, 0.25, 0.5, 0.75, 1 or 1.5 mg tablets ER: 0.375, 0.75, 1.5, 2.25, 3, 3.75 or 4.5 mg	1.5-4.5 mg total/ day in 3 doses ER: 1.5-4.5 mg once/day	Same as above	Same as above
Rotigotine (Neupro)	tablets  2, 4, 6 or 8 mg patches	4-8 mg once/day	Same as above, plus skin irritation	Same as above



## **Dopamine Agonists**

<b>Medication</b> (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Apomorphine subcutaneous injection (Apokyn)	0.1-0.6 mL	Used as needed, up to 5 times per day	Leg swelling, confusion, excessive daytime sleepiness, impulsive behaviors and hallucinations	"Rescue" or on-demand medication for wearing-off episodes

#### **MAO-B Inhibitors**

<b>Medication</b> (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Selegiline Orally disintigrating	5 mg capsules or tablets  1.5 or 2.5 mg	5 mg twice/day at breakfast and lunch 1.5-2.5 mg once/	Mild nausea, dry mouth, dizziness, constipation and interactions with other	For Parkinson's movement symptoms or to reduce "off" time when added to
tablet (Zelapar)	tablets	day	medications	levodopa
Rasagiline (Azilect)	0.5 or 1 mg tablets	Up to 1 mg once daily	Same as above	Same as above
Safinamide (Xadago)	50 or 100 mg tablets	Up to 100 mg once daily	Same as above	Used to increase benefits of levodopa or to decrease "off" time

#### **COMT Inhibitors**

Medication (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Entacapone (Comtan)	200 mg tablets	200 mg tablet with each dose of levodopa/ carbidopa	Confusion, dizziness, low blood pressure, hallucinations, red-brown urine, diarrhea and may intensify dyskinesia	Increase levodopa benefits and reduce "off" periods
Tolcapone (Tasmar)	100 mg tablets	100 mg tablet 3 times per day	Same as above, plus liver damage	Same as above

## **Amantadine**

<b>Medication</b> (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Amantadine	100 mg capsules	200 mg capulses daily	Nausea, insomnia, drymouth, lightheadedness, confusion, swollen feet, and hallucinations	For levodopa- induced dyskinesia and symptoms of Parkinson's
Extended-release amantadine tablets (Osmolex ER)	129, 193 or 258 mg tablets	129–322 mg once/ day upon waking	Same as above	Same as above
Extended-release amantadine capsules (Gocovri)	68.5 or 137 mg capsules	137–274 mg once/ day at bedtime	Same as above	Same as above

## **Anticholinergics**

Medication (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Trihexyphenidyl [formerly Artane]	2 or 5 mg tablets 2 mg/5 mL elixir	1–2 mg 2–3 times/ day	Confusion, drowsiness, forgetfulness, hallucinations, lightheadedness, dry mouth, increased heart rate, urinary retention, falls	For tremor and dystonia, especially in Young Onset PD; should be avoided in older adults
Benztropine (Cogentin)	0.5 mg capsule or 1 or 2 mg tablets	Up to 6 mg tablets taken at bedtime or divided into 2–3 doses per day	Same as above	Same as above

# Adenosine A2a Antagonists

<b>Medication</b> (brand name in parentheses)	Dosages	Typical Treatment	Common Side Effects	Usage in Parkinson's
Istradefylline (Nourianz)	20 or 40 mg tablets	20–40 mg tablets once/day	Dyskinesia, insomnia, hallucinations and dizziness	Used with carbidopa/ levodopa to manage "off" time

