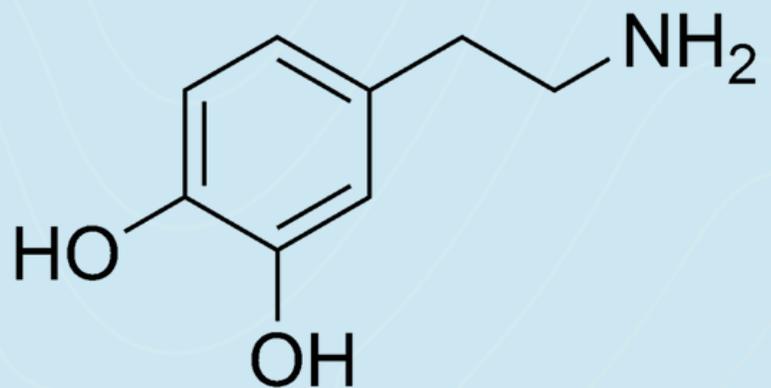
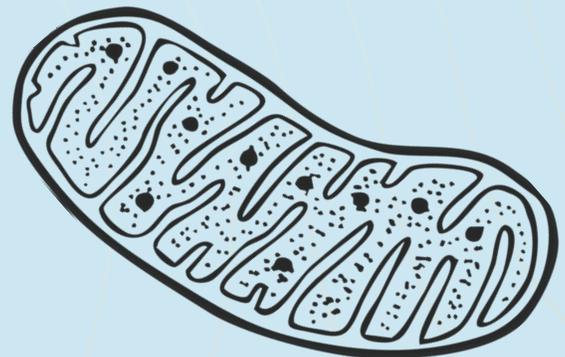
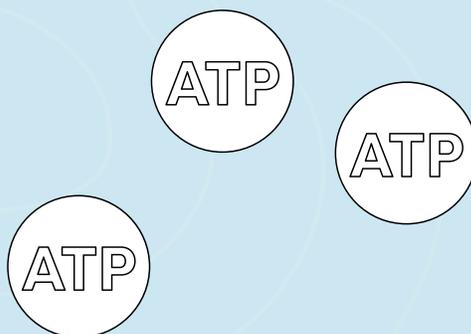


SUZANNAH WINSOR
The Biomedical Nutritionist

Parkinson's Disease: A Functional Medicine Perspective



DOPAMINE



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Parkinson's Disease: A Functional Medicine Perspective

Parkinson's is a neurological disorder that affects movement, mood, sleep, digestion, and energy. It is caused by the loss of dopamine-producing cells in the brain, but the story doesn't end there.

From a functional medicine lens, Parkinson's is influenced by genetics, environment, diet, stress, gut health, and cellular energy production. The good news? Nutrition and lifestyle can powerfully support brain health, medication efficacy, and quality of life.

Diagnostic Methods

What are the cardinal motor symptoms?

They can be one symptom alone or a combination of the following: tremor, slowness (bradykinesia), stiffness and spasm, speech difficulties and projection, chewing and swallowing, intestinal and urinary function, balance, uncoordinated arm swing with leg movement during walking, freezing up.

Diagnostic techniques:

- Clinical observation
- Rating scales
- Radiological observation with cerebral imaging including PET and DAT scans

The Dopamine Story: It Starts in Your Gut

A neurotransmitter called dopamine controls movements and it is made from the protein you eat.

Here's how it works:

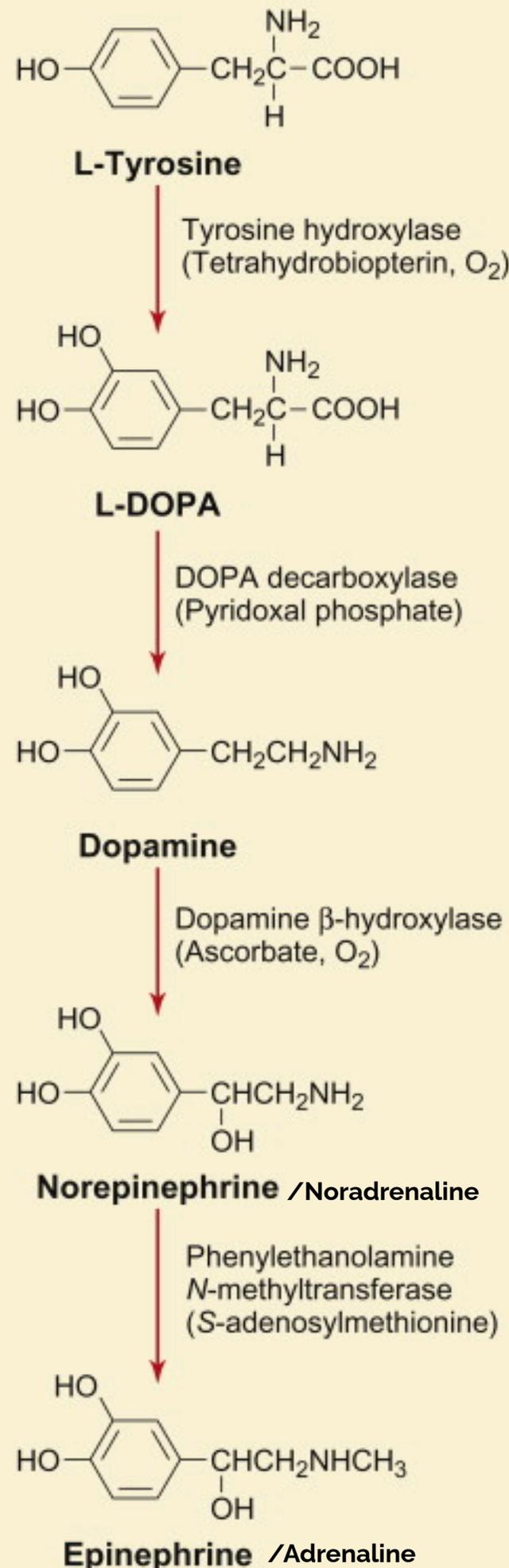
1. You eat **protein** (beef, pork, fish, poultry, eggs, beans, lentils, nuts and seeds).
2. Digestion breaks the protein down into amino acids, including **tyrosine**.
3. We are very very interested in tyrosine. **Tyrosine converts to L-DOPA**, and then to dopamine in the brain **with help from nutrients that act as coenzymes** (zinc, iron, folate, and vitamin B6).

If you're low in these nutrients, dopamine production slows. And if your gut isn't absorbing protein or nutrients properly, the building blocks of dopamine struggle to reach your brain.

Next, to convert dopamine to norepinephrine (noradrenaline), and subsequently to epinephrine (adrenaline), this requires specific enzymes and essential nutrients as cofactors.

5. Dopamine to Noradrenaline requires the enzyme dopamine beta-hydroxylase (DBH), alongside nutrients **copper (Cu²⁺)** and **vitamin C (ascorbate)** as cofactors for its activity.
6. Norepinephrine to Adrenaline requires the enzyme phenylethanolamine N-methyltransferase (PNMT) alongside the methyl donor S-adenosylmethionine (SAME), which is derived from the **amino acid methionine found in dietary protein**.

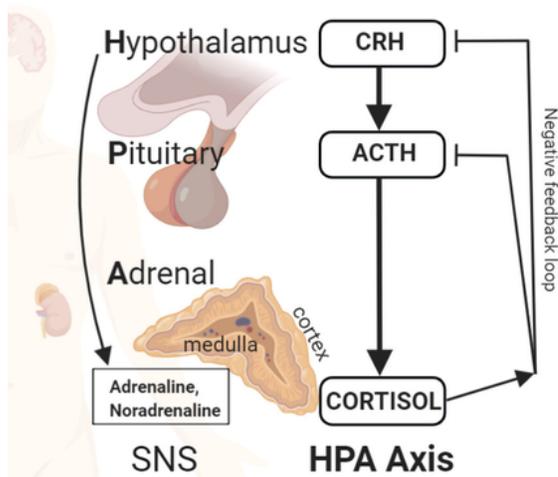
This shows how what you eat is crucial for the production and function of the body's neurotransmitters and hormones!



The Stress–Dopamine Connection

When you're stressed, your brain sounds the emergency alarm ("fight or flight"). To handle the emergency, your brain needs **adrenaline** (also called epinephrine).

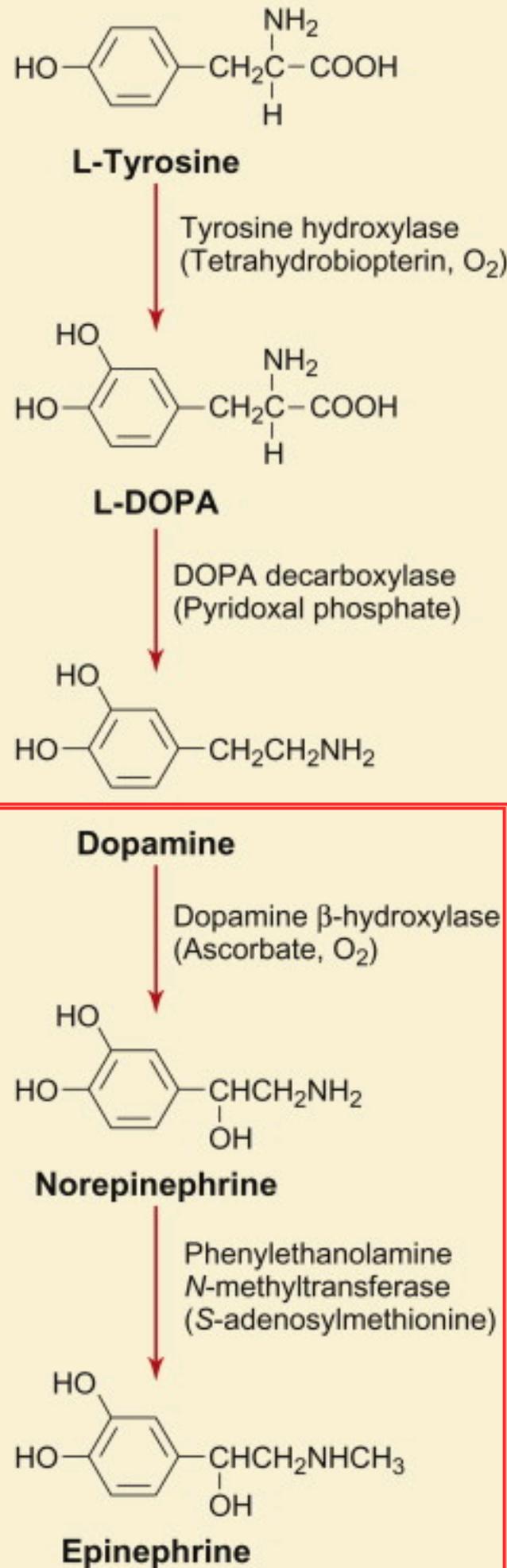
However, **the body uses dopamine to make adrenaline**. This means that stress robs the brain of dopamine, the neurotransmitter that is already low in Parkinson's. This makes movement symptoms harder to control.

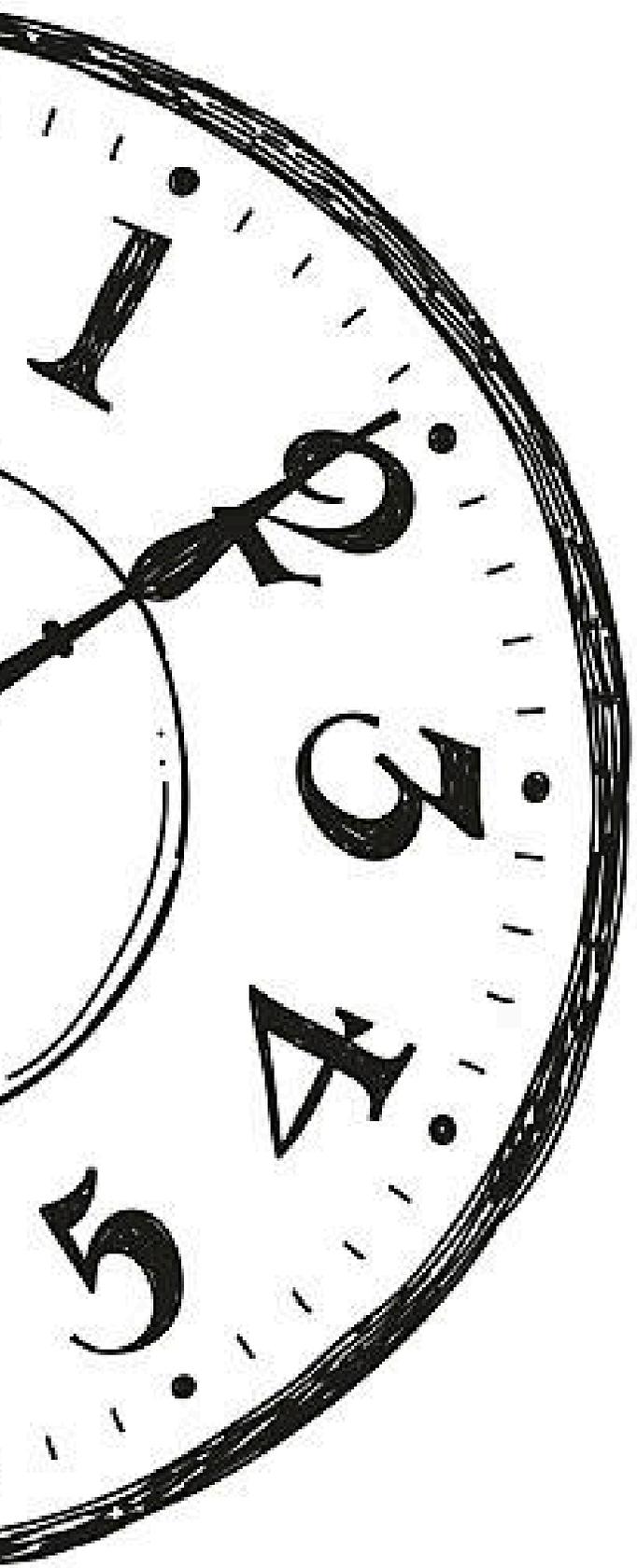


Stress isn't just emotional—it's also physical:

- Poor sleep
- Blood sugar swings
- Digestive issues
- Infections
- Medication side effects

Managing stress is as important as any supplement or drug.





How to Get the Most From Your Medication

If you're taking L-DOPA medication, what time you eat protein can make or break your symptom control.

Why? Because **L-DOPA and protein breakdown products (amino acids) compete for the same "carriers" to get from your gut into your bloodstream.** If they're both present, food interferes with the absorption of your medication can't reach your brain effectively.

This results in unpredictable "off periods", and the medication will not seem to work as well. But - this is entirely manageable with smart timing!

The L-DOPA & Protein Timing Guide

1. **WAIT 2 HOURS** after eating a high-protein meal before taking your L-DOPA dose.
2. **WAIT 1 HOUR** after eating a low-protein meal or snack before taking your L-DOPA dose.
3. **EAT WITHIN 30 MINUTES** after your L-DOPA kicks in—to support energy and absorption.

"So, when should I take my L-DOPA medication?"

To personalise your timing for minimal L-DOPA and food interference, try this:

1. Wake up, note time that symptoms (tremor, stiffness) begin.
2. Next, take L-DOPA on an empty stomach with a full glass of water.
3. Wait and note the time when medication kicks in (symptoms ease).
4. Eat immediately (breakfast).
5. Note the time when symptoms begin to return (not fully "off," just starting).
6. Calculate your "on" window and dose frequency.

Example: If it takes 30 minutes to kick in and lasts 4 hours, take your next dose 3.5 hours later—so you never dip into an "off" period.

The Bristol Stool Form Scale

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces ENTIRELY LIQUID

Why Bowel Health is Non-Negotiable in Parkinson's

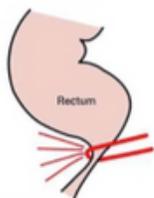
Dopamine begins in the gut. The amino acid tyrosine from dietary protein must be absorbed through the intestinal walls to reach the brain.

Medication absorption depends on gut motility (gastrointestinal muscle contractions). A congested bowel impairs L-DOPA uptake e.g. constipation.

The Daily Bowel Support Plan – Step by Step

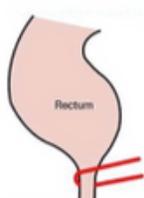
- Hydration** - Drink 1 large glass of water or pure coconut water upon waking. Aim for 8-10 cups throughout the day (herbal teas count! But coffee dehydrates)
- Magnesium** - On an empty stomach take x1 Magnesium oxide (gentle, buffered) and x1 Magnesium bisglycinate with a full glass of water or coconut water per day. Why magnesium? It draws water into the colon, softens stool, and supports neuromuscular relaxation.
- Self Abdominal Massage** - lie down with your knees bent, apply a gentle pressure with your palm:
 - Start at the lower right abdomen (above the hip bone).
 - Move upward toward the ribs (ascending colon).
 - Move across the upper abdomen (transverse colon).
 - Move down the left side (descending colon).
 - Finish at the lower left (sigmoid colon). Repeat x3-5.
- Toilet Posture** - Use a Squatty Potty or footstool to raise knees above hips; this aligns the colon for easier passage. Sit and relax. Don't strain! NEVER strain. Breathe diaphragmatically. Establish a schedule: Try sitting on the loo after breakfast or dinner, when the gastrocolic reflex is strongest.
- Fibre** - x6 soaked prunes per day, 2 with each meal. 1 tbsp flaxseed per day. Vegetables! A light evening meal, try to avoid heavy starches and large quantities of meal at night.
- Avoid frequent intake of Bowel Blockers** - Dairy (constipating for many), red meat (slow to digest, ideally breakfast or lunch only), gluten (slows gut motility), dehydration.

Intestine is pinched and Blocked



SITTING: Puborectalis muscle choked the Rectum

The healthier way to sit in the toilet



SQUATTING: Puborectalis muscle is relaxed and the Rectum is straight



Key Nutritional Strategies for Parkinson's

1. Eat for Steady Energy

Try to eat something every 3–4 hours: small meals or snacks with protein, healthy fats, and fiber. Include coconut oil (MCTs) for brain energy—especially if glucose metabolism is impaired. Balance blood sugar to support mood, energy, and medication response.

2. Time Protein Around L-DOPA Medication

Protein and L-DOPA are not enemies—they just need space.

3. Support Your Mitochondria

Your brain's energy factories need:
B vitamins (B1, B2, B3, B5, B6)
CoQ10
Magnesium
Alpha-lipoic acid
Carnitine

These are found in colorful vegetables, nuts, seeds, and quality animal foods—or in professional-grade supplements if needed.

4. Protect Dopamine with Antioxidants

Dopamine is vulnerable to oxidation. Support with:
Vitamin C
Vitamin E
Glutathione (or its precursor NAC)
Alpha-lipoic acid

These are found in colorful vegetables, nuts, seeds, and quality animal foods—or in professional-grade supplements if needed.

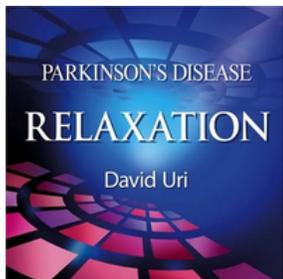
5. Heal Your Gut–Brain Connection

Prioritise daily bowel movements with hydration, fiber, and gentle magnesium. Consider probiotics—especially during antibiotics. Avoid inflammatory foods: gluten, dairy, and artificial additives for many.

Lifestyle Essentials Beyond the Plate

Stress Relief Techniques

- Autogenic training is an essential mind-body, deep relaxation technique, which is very, very helpful to people with Parkinson's as well as their supporters
- CD called *Parkinson's Disease Relaxation* by David Urey. Play it at night to sleep more restfully (no commission).
- Mindfulness, gentle yoga
- Breathing exercises to support oxygenation (check levels with a pulse oximeter)
- Sleep hygiene: dark room, consistent routine, away from screens



Safe Movement

- One-to-one exercise tailored to your mobility
- Tai Chi, Qigong, hydrotherapy for balance and relaxation
- Facial and voice exercises to maintain muscle tone and communication

Home Safety

- Fall prevention: remove trip hazards, install grab bars
- Kitchen safety: fire blanket, easy-grip utensils, electric stove preferred
- Emergency pendant for peace of mind



Working with Your Healthcare Team

Parkinson's management is multidisciplinary. Your team may include:

- Neurologist
- Nutritional Therapist
- Physiotherapist
- Speech & Language Therapist
- Osteopath (for TMJ and alignment)
- Occupational Therapist
- Psychologist or Coach

Always communicate side effects, skin changes, swallowing issues, or weight changes to your doctor.



**“Now is the time to
understand more, so
that we may fear
less.”
—Marie Curie**

A Final Note: You Are More Than a Diagnosis

Parkinson’s is a part of your story, but it doesn’t define you. With the right nutritional support, stress tools, and professional guidance, you can support your brain, energy, and joy in living.

For personalized guidance and support with Nutritional Therapy for Parkinson’s Disease, consult a Registered Nutritional Therapist and/or Functional Medicine Practitioner (such as myself!)

Resources:



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