



Nourishing the Mind and Body Optimizing Nutrition Parkinson's

Kelly Morrow, MS, RDN, FAND

Registered Dietitian

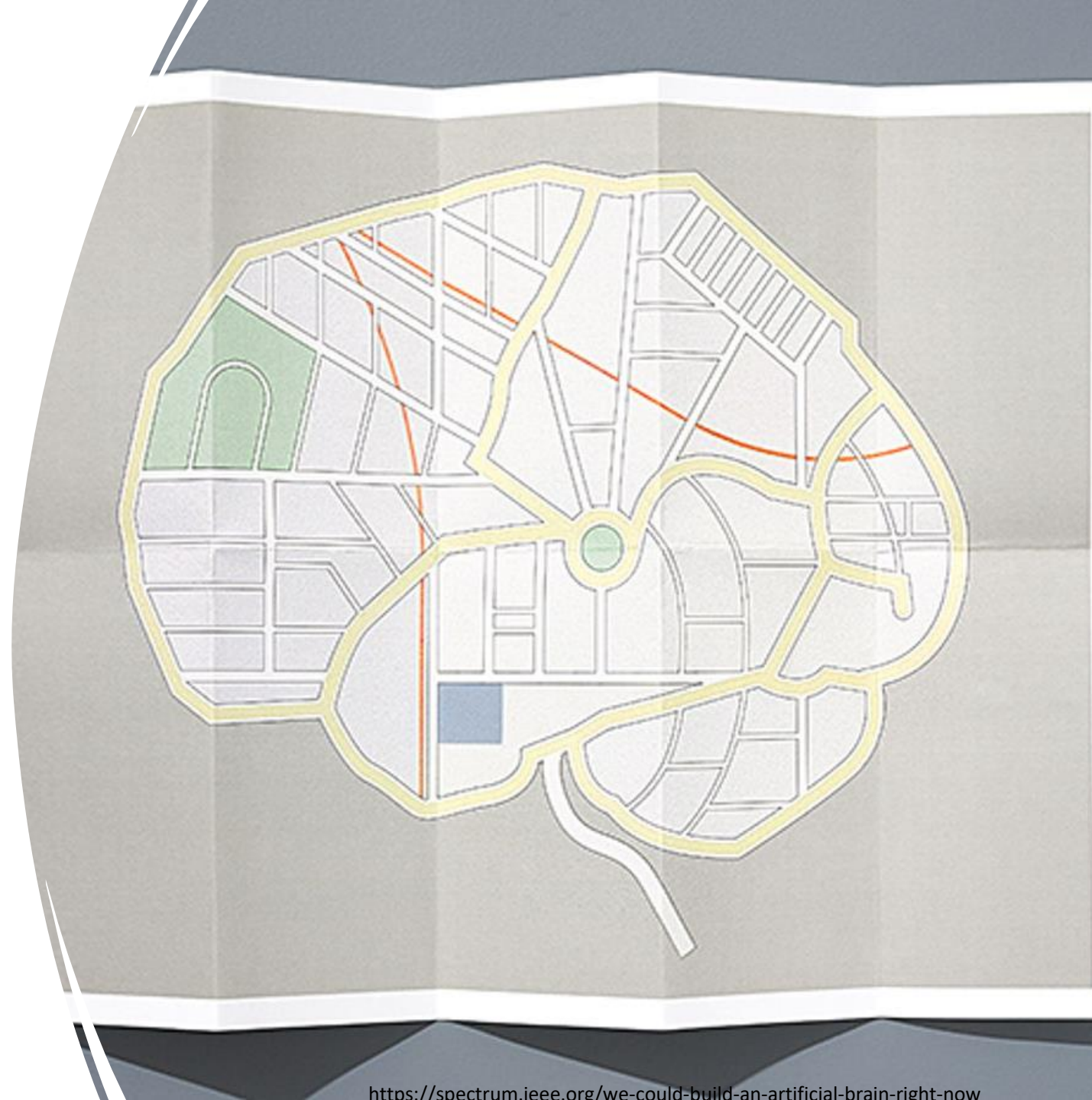
Seattle Integrative Medicine

www.seattleintegrativemedicine.com

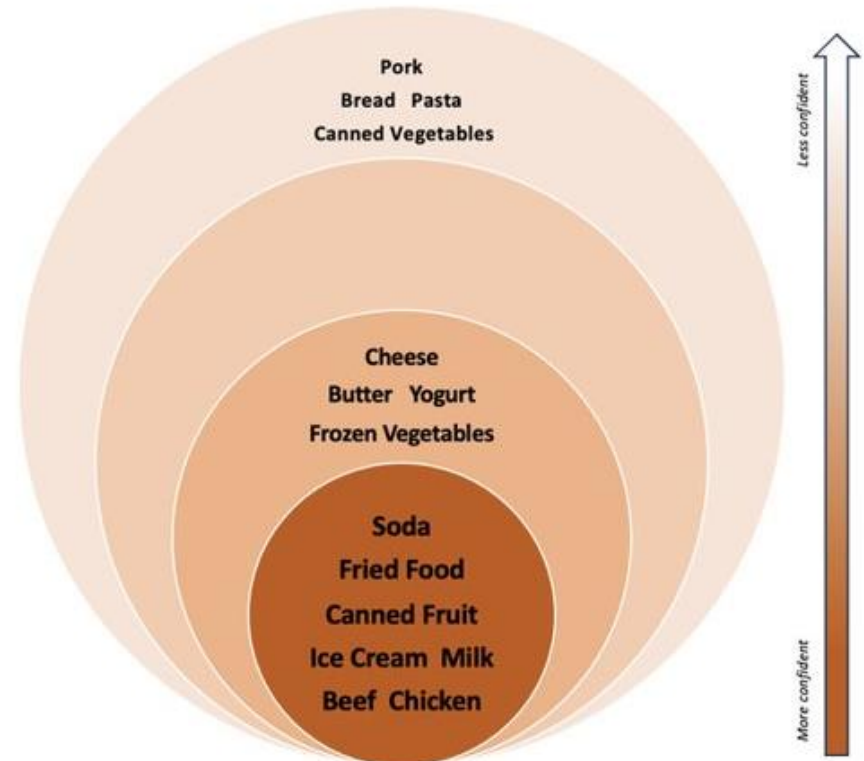
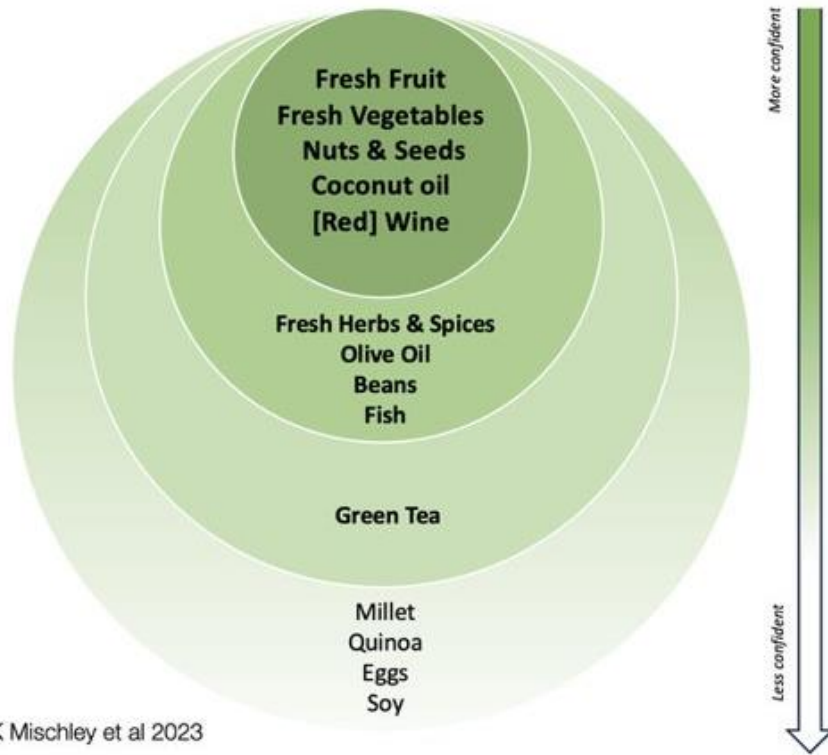
206-525-8012

Roadmap for Today

- Identify key foods associated with brain protection and slower Parkinson's progression
- Review nutritional strategies for managing side effects of Parkinson's disease and medications
- Utilize practical meal planning and preparation techniques to integrate brain-protective foods into your daily diet



Degrees of Confidence in the Relationship Between Diet & Parkinson Severity

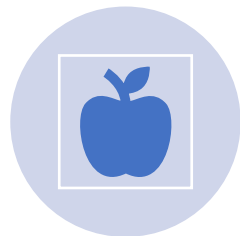


What else appears to be important?

- ✓ Cooking your own food
- ✓ A mostly plant based diet
- ✓ Buying organic as much as possible
- ✓ Eating minimally processed foods
- ✓ Having meals with others



Making the case for cooking



RECOGNIZING THE HEALTH
VALUE OF MAKING YOUR
OWN FRESH FOOD



IMPROVING YOUR SKILLS



USING ADAPTIVE
EQUIPMENT



SHIFTING YOUR MINDSET



KEEP IT SIMPLE



Equipment that makes cooking easier

- Crock pot or instapot
- Air frier
- Panini press (PFAS/PFOA Free)
- Blender
- Vegetable chopper
- Garlic press



Avoiding Pesticides

Environmental Working Group – Dirty Dozen

<https://www.ewg.org/foodnews/dirty-dozen.php>



1. Strawberries



2. Spinach



3. Kale, collard & mustard greens



4. Nectarines



5. Apples



6. Grapes



7. Bell & hot Peppers



8. Cherries



9. Peaches



10. Pears



11. Celery



12. Tomatoes

13: Potatoes

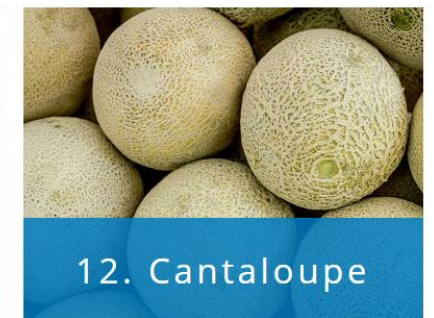
14: Blueberries

15: Cherry Tomato

Fewest Pesticides

Environmental Working Group Clean 15

<https://www.ewg.org/foodnews/clean-fifteen.php>



13. Mango

14: Watermelon

15. Sweet Potato



Phytonutrient Spectrum Foods

RED

Foods Apples Beans (<i>adzuki, kidney, red</i>) Beets Bell peppers Blood oranges	Cranberries Cherries Grapefruit (<i>pink</i>) Goji berries Grapes Onions Plums	Pomegranate Potatoes Radichio Radishes Raspberries Strawberries Sweet red peppers	Rhubarb Rooibos tea Tomato Watermelon	Benefits Anti-cancer Anti-inflammatory Cell protection	Gastrointestinal health Heart health Hormone health Liver health
--	--	---	--	--	---

ORANGE

Foods Apricots Bell peppers Cantaloupe Carrots	Mango Nectarine Orange Papaya Persimmons	Pumpkin Squash (<i>acorn, buttercup, butternut, winter</i>) Sweet potato	Tangerines Turmeric root Yams	Benefits Anti-cancer Anti-bacterial Immune health Cell protection	Reduced mortality Reproductive health Skin health Source of vitamin A
---	--	--	-------------------------------------	--	--

YELLOW

Foods Apple Asian pears Banana	Bell peppers Corn Corn-on-the-cob Ginger root	Lemon Millet Pineapple	Starfruit Succotash Summer squash	Benefits Anti-cancer Anti-inflammatory Cell protection Cognition	Eye health Heart health Skin health Vascular health
--	--	------------------------------	---	---	--

GREEN

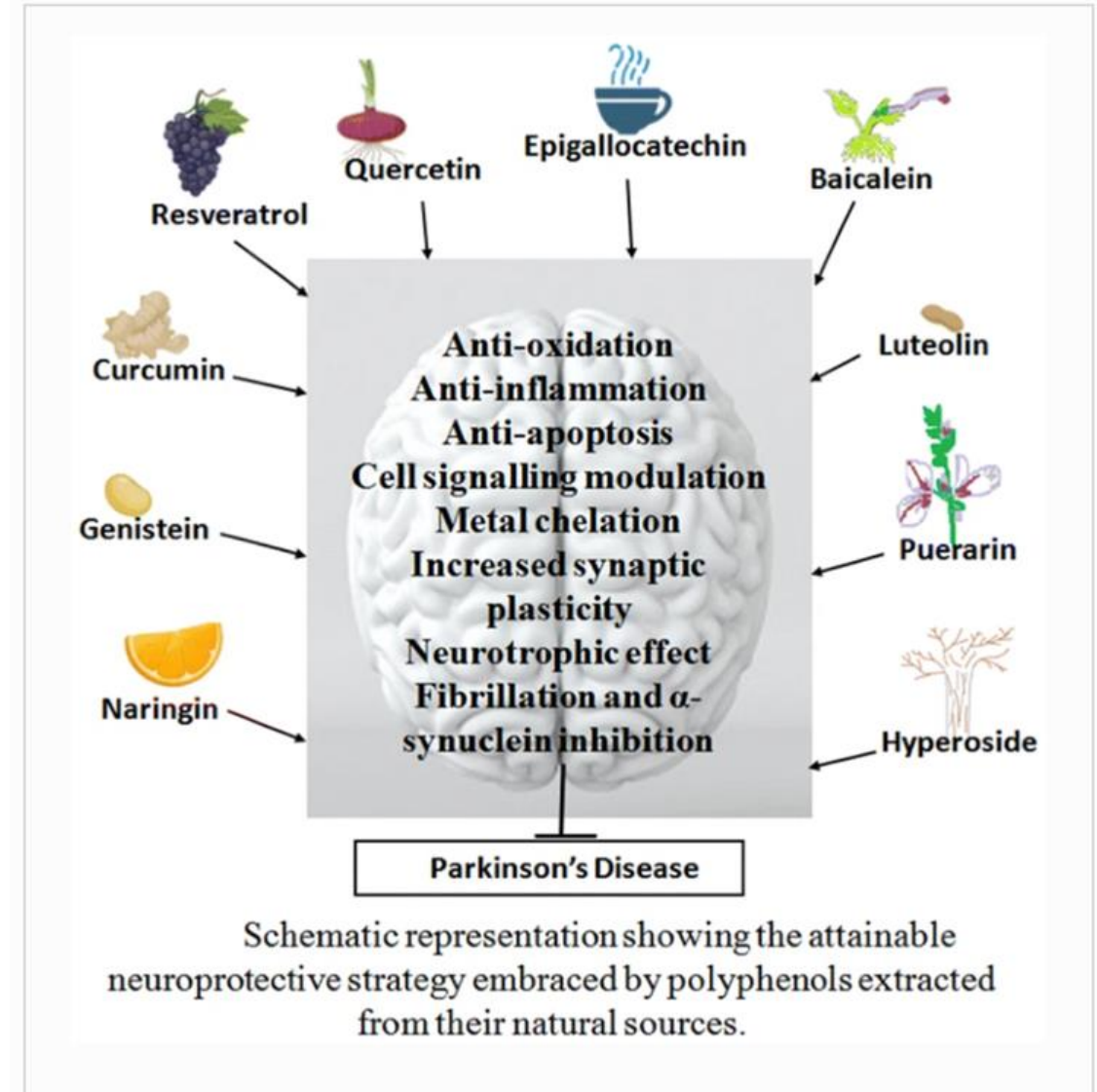
Foods Apples Artichoke Asparagus Avocado Bamboo sprouts Bean sprouts Bell peppers Bitter melon	Bok choy Broccoli Broccolini Brussels sprouts Cabbage Celery Cucumbers Edamame/Soy beans Green beans	Green peas Green tea Greens (<i>arugula, beet, chard/swiss chard, collard, dandelion, kale, lettuce, mustard, spinach, turnip</i>) Limes	Okra Olives Pears Snow peas Watercress Zucchini	Benefits Anti-cancer Anti-inflammatory Brain health Cell protection	Skin health Hormone balance Heart health Liver health
---	--	---	--	--	--

BLUE/PURPLE/BLACK

Foods Bell peppers Berries (<i>blue, black, boysenberries, huckleberries, marionberries</i>)	Cabbage Carrots Cauliflower Eggplant Figs	Grapes Kale Olives Plums Potatoes	Prunes Raisins Rice (<i>black or purple</i>)	Benefits Anti-cancer Anti-inflammatory Cell protection	Cognitive health Heart health Liver health
---	---	---	--	--	--

WHITE/TAN/BROWN

Foods Apples Applesauce Bean dips Cauliflower Cocoa Coconut Coffee	Dates Garlic Ginger Jicama Legumes (<i>chickpeas, dried beans or peas, hummus, lentils, peanuts, refried beans/low-fat</i>)	Mushrooms Nuts (<i>almonds, cashews, pecans, walnuts</i>) Onions Pears Sauerkraut Seeds (<i>flax, hemp, pumpkin, sesame, sunflower</i>)	Shallots Soy Tahini Tea (<i>black, white</i>) Whole grains (<i>barley, brown, rice, oat, quinoa, rye, spelt, wheat</i>)	Benefits Anti-cancer Anti-microbial Cell protection Gastrointestinal health	Heart health Hormone health Liver health
--	---	--	---	--	--



<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5986521/>

<https://link.springer.com/article/10.1007/s11064-020-03058-3>

Defining Processed Foods

Minimally processed

Highly processed

Ultra processed

Nutrition Facts
About 4.5 servings per container
Serving size 2 oz (56g)

Amount Per Serving	per 2oz (56g)	per 3.5oz (100g)
Calories	180	330
	% Daily Value*	% Daily Value*
Total Fat	1.5g 2%	2.5g 3%
Saturated Fat	0g 0%	0.5g 3%
Trans Fat	0g	0g
Cholesterol	0mg 0%	0mg 0%
Sodium	0mg 0%	0mg 0%
Total Carbohydrate	34g 12%	61g 22%
Dietary Fiber	6g 21%	11g 39%
Soluble Fiber	3g	6g
Insoluble Fiber	3g	5g
Total Sugars	1g	2g
Protein	13g 14%	23g 25%
Vitamin D	0mcg 0%	0mcg 0%
Calcium	17mg 2%	31mg 2%
Iron	3mg 15%	6mg 35%
Potassium	518mg 10%	925mg 20%

Not a significant source of added sugars.

* The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

INGREDIENTS:
RED LENTIL FLOUR.

PRODUCED IN A DEDICATED GLUTEN FREE PLANT.

INGREDIENTS: UNBLEACHED ENRICHED WHEAT FLOUR [FLOUR, MALTED BARLEY FLOUR, REDUCED IRON, NIACIN, THIAMIN MONONITRATE (VITAMIN B1), RIBOFLAVIN (VITAMIN B2), FOLIC ACID], WATER, WHOLE GRAINS (WHOLE WHEAT FLOUR, CRACKED WHEAT, RYE, GROUND CORN, BROWN RICE, OATS, TRITICALE, BARLEY, MILLET), HONEY, WHEAT GLUTEN, YEAST, RAISIN JUICE CONCENTRATE, MOLASSES, SOYBEAN OIL, SALT, SUNFLOWER SEEDS, WALNUTS, FLAXSEED, PRESERVATIVES (CALCIUM PROPIONATE, SORBIC ACID), DATEM, MONOGLYCERIDES, GRAIN VINEGAR, MONOCALCIUM PHOSPHATE, NUTS [ALMONDS, HAZELNUTS (FILBERTS)], SOY, SOY LECITHIN, WHEY, CALCIUM SULFATE.

R17-208-201788

CONTAINS WHEAT, SOY, MILK, WALNUTS, ALMONDS, HAZELNUTS (FILBERTS).
MADE IN A BAKERY THAT MAY ALSO USE EGG.

Nutrition Facts
Serving Size 1 Package (61.5g)
Servings Per Container 36

Amount Per Serving	% Daily Value*	
Calories 250	Calories from fat	25
	% Daily Value*	
Total Fat 2.5g		4%
Saturated Fat 2.5g		13%
Trans Fat 0g		
Cholesterol 0mg		0%
Sodium 20mg		1%
Total Carbohydrate 56g		19%
Dietary Fiber 0g		0%
Sugars 45g		
Protein 0g		
Vitamin A 0%	Vitamin C 0%	
Calcium 0%	Iron 0%	

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:
Calories: 2,000 2,000

Total Fat	Less than	65g	80g
Sat. Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

MADE OF: SUGAR, CORN SYRUP, HYDROGENATED PALM KERNEL OIL; LESS THAN 2% OF: CITRIC ACID, TAPIOCA DEXTRIN, MODIFIED CORN STARCH, NATURAL AND ARTIFICIAL FLAVORS, COLORS (TITANIUM DIOXIDE, RED 40 LAKE, RED 40, YELLOW 5 LAKE, BLUE 1 LAKE, YELLOW 5, BLUE 1, YELLOW 6, BLUE 2 LAKE), SODIUM CITRATE, CARNAUBA WAX. Gluten-Free, Gelatin-Free

PRODUCED WITH GENETIC ENGINEERING



<https://www.freepik.com/free-photos-vectors/personal-computer>

Your Body is a Sophisticated Computer

What software / programs are you running?

Are you downloading garbled information?

Defining minimally processed foods

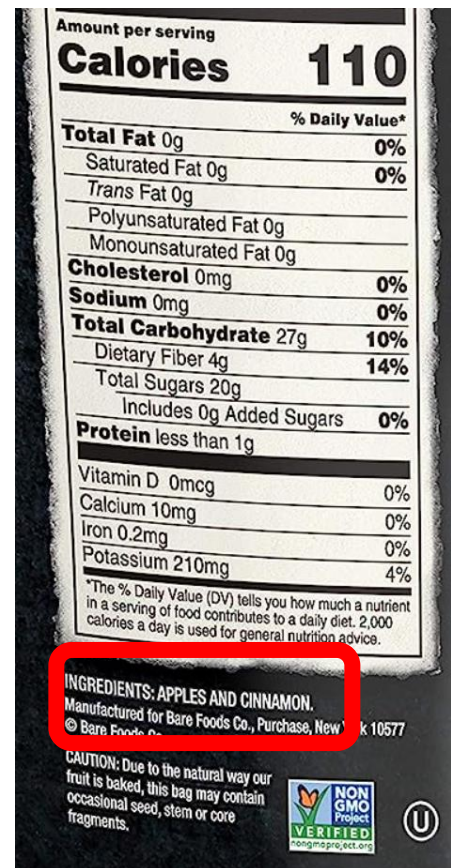
Can you identify each ingredient as a food?

Does this food have all of its original parts or has anything been removed?

Does each ingredient have an identity (tied to region, season, culture)?

Does it have the capacity to spoil / break down?

Would your ancestors recognize it as food?



Parkinson's Pro Convenience Pantry Items

- Salad Dressings and Marinades
- Heat and eat meals including veggie burgers
- Grain products and cereals
- Legumes (beans) in a jar or pouch
- Dairy alternatives
- Snacks
- Sweets



What to look for on the label

- Quality of carbohydrates
 - 100% whole grain? Fiber?
 - How much sugar? 4g = 1 teaspoon
- Quality of Fats
 - Use olive oil avocado oil?
- Added ingredients
 - Does it look like a science project?
 - Can you pronounce everything?
 - How much salt?



INGREDIENTS: AVOCADO OIL, WATER, ORGANIC APPLE CIDER VINEGAR, ORGANIC DIJON MUSTARD (ORGANIC APPLE CIDER VINEGAR, WATER, ORGANIC MUSTARD SEED, SEA SALT, ORGANIC SPICES), ORGANIC COCONUT AMINOS (ORGANIC COCONUT SAP, SEA SALT), ORGANIC DISTILLED VINEGAR, ORGANIC GUM ACACIA, ORGANIC GUAR GUM, SEA SALT, ORGANIC EGGS, ORGANIC LEMON JUICE CONCENTRATE*, ORGANIC BLACK PEPPER, ORGANIC GARLIC, ORGANIC CHIVES, TARRAGON, ORGANIC PARSLEY, ORGANIC SAVORY, ORGANIC ROSEMARY EXTRACT
*ADDS A NEGLIGIBLE AMOUNT OF SUGAR.
CONTAINS: EGGS, COCONUT

Nutrition Facts	
8 servings per container	
Serving size 2/3 cup (55g)	
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Foods Associated with Faster Progression of Parkinson's	Eat this instead
Milk	Dairy free milks: Coconut, Oat, Almond, Cashew, Flax. Soy is also DF but is high in protein. (Califa and Elmhurst brands have the least processed ingredients)
Cheese	Dairy free cheese: Follow your Heart, Miyokos (excellent DF butter), Daiya, Violife, Chao
Yogurt	Dairy Free Yogurt: Silk, SoDelicious, Oui, Kite Hill (some are higher protein), Sigis (some are higher protein), Forager, Nancy's, Coco Jun
Frozen Vegetables and Canned Vegetables and Fruits	Fresh vegetables: ones that last longer: cabbage, carrots, celery, root vegetables (sweet potato, red, yellow and purple potatoes), winter squash. Put a paper towel in your prewashed greens. Bagged salads.
Pork, Chicken, Beef	Fish, shellfish, legumes (beans), tofu, tempeh, eggs
Foods / beverages stored in plastic especially water	Glass containers are best
Soda / Diet Soda	Splash juice in sparkling water, cinnamon tea made strong and poured over ice (Bengal Spice, Pukka), kombucha, kefir water (Kevita)
White Pasta	Quinoa, farro, sorghum, gluten free pasta (legume, rice and quinoa based), zoodles (zucchini noodles), spaghetti squash, soba noodles (buckwheat)
Ice Cream	Dairy Free Ice Cream: Coconut, Oat, Soy (may have more protein) Sorbet – make a smoothie, frozen fruit (bananas, mango, berries with DF whip cream)
Fried Foods	Baked, Air Frier, use spices to protect the food from high heat, dehydrated (apples, bananas, peppers, coconut...) Craving something crispy? Nori (dried seaweed), kale chips, snap peas, baby carrots...
Artificial sweeteners, colors and flavors (aspartame depletes dopamine)	Natural ingredients, check labels, fruit and vegetable colors

Parkinson's **Healthy Plate**

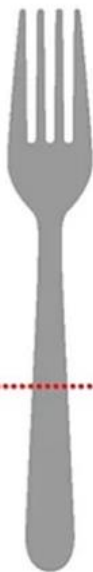


FRUITS

Consume a variety of fruits each day with meals, snacks or as a healthy dessert choice.

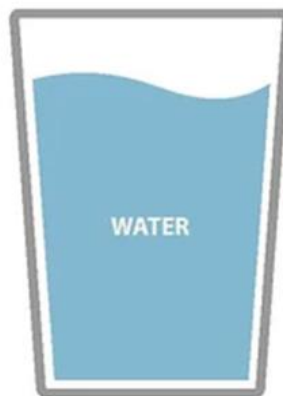
VEGETABLES

Fill your plate with a variety of raw and cooked vegetables. Include at least one green vegetable and one other color of vegetable with every meal.



WHOLE GRAINS & STARCHES

Include high-fiber whole grains such as brown rice, quinoa, oats, whole grain breads and pastas or starchy vegetables like sweet potatoes and squash. Limit refined grains: white rice, white breads and pastas.



DIGESTIVES

Fermented foods such as sauerkraut, yogurt, miso, tempeh, kimchi, apple cider vinegar, kombucha, kefir and lacto fermented vegetables can aid in immune function, digestion and support the normal flora of the digestive tract.

HEALTHY FAT

Include fats from whole foods such as avocado, nuts, seeds and fatty fish. Use cold pressed oils such as olive and avocado oil for dressings and marinades and olive oil and coconut oil for cooking and baking.

PROTEINS

Include a variety of pro PD proteins such as legumes, nuts and seeds, fish and eggs. Grains such as quinoa, teff, and amaranth also contain protein. Select organic proteins when possible.

BASTYR CENTER
FOR NATURAL HEALTH

*the teaching clinic
of Bastyr University*

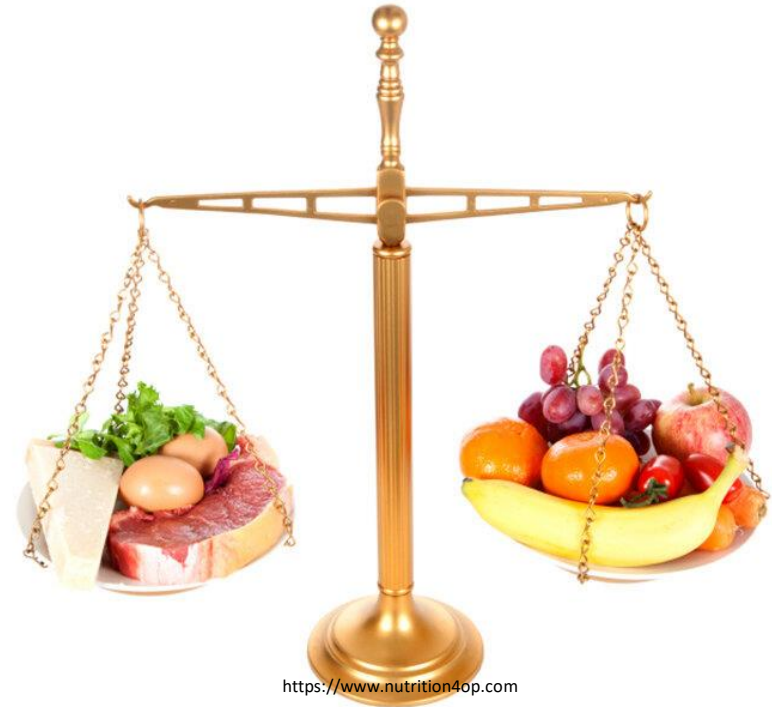
www.BastyrCenter.org



Parkinson's Specific Dietary Considerations

Protein and Levodopa

- Protein can interfere with your levodopa medication and reduce effectiveness
- Take your Levodopa medication:
 - On an empty stomach 30 minutes before or 60 minutes after a meal that contains protein
 - Wait until you are on to eat protein
 - To prevent nausea, take with a low protein food like crackers, rice, toast or fruit
 - To aid absorption, take with some lemon juice (1-2 Tbs) or vitamin C (200 mg)



What foods have protein?



- **Highest levels / most concentrated:**
 - Beef, pork, poultry and fish, shellfish
 - Eggs
 - Tofu (esp firm and extra firm)
 - Milk, yogurt and cheese
 - Protein powders, bars and drinks
- **Less concentrated:**
 - Legumes
 - Nuts and seeds and nut butters
 - Pseudograins like quinoa, teff and amaranth
- **Least concentrated**
 - Whole grains and starches
 - Vegetables
 - Fruit

Protein Distribution



- Protein is an essential nutrient and helps with muscle strength, balance, immunity and healing
- Make sure you are “on” before eating protein rich foods
- Some people need to eat less protein during the day and eat their largest protein meal at night
 - How much less? Between 5-10 grams protein per serving
- What counts for 5 – 10 grams of protein?
 - 1 egg = 7 grams
 - ½ cup beans (legumes) = 8 grams
 - ½ cup cooked quinoa, farro, sorghum or teff = 4 grams
 - ¼ cup most nuts = 4 - 9 grams
 - 2 Tablespoons peanut butter = 8 grams
 - 1 cup cooked brown rice or oatmeal = 5 grams
 - 1 medium sweet potato = 4 grams
 - 2 slices bread (including gluten free) = 4 - 6 grams

Nutrient Lists from Standard Reference Legacy (2018)



View nutrient lists from the USDA National Nutrient Database for Standard Reference (SR) Legacy, which was released in 2018 and is no longer being updated. Lists are available in the following static formats: portable document format (PDF) and Excel spreadsheet (XLSX).

- The USDA has extensive nutrient composition lists

Lists by Nutrient Type

Macronutrients -

Carbohydrate

- [Download the Carbohydrate nutrient list \[PDF, 21 pages\]](#)
- [Download the Carbohydrate spreadsheet \[XLSX, 55.6KB\]](#)

Polyunsaturated Fat

- [Download the Polyunsaturated Fat nutrient list \[PDF, 21 pages\]](#)
- [Download the Polyunsaturated Fat spreadsheet \[XLSX, 55.6KB\]](#)

Protein

- [Download the Protein nutrient list \[PDF, 20 pages\]](#)
- [Download the Protein spreadsheet \[XLSX, 61.2KB\]](#)

Saturated Fat

- [Download the Saturated fat nutrient list \[PDF, 23 pages\]](#)
- [Download the Saturated fat spreadsheet \[XLSX, 59KB\]](#)

Vitamins +

Minerals +

What this looks like for many people

(although everyone is individual).....

- Breakfast: ~5-10 grams protein
- Snack: ~ 5 grams protein
- Lunch: ~5-10 grams protein
- Snack: ~5 grams protein
- Dinner: ~30 grams protein
- Snack: ~10 – 20 grams protein



Parkinson's Pro Meal Pattern Example

Daytime (less protein)

Salad greens, ¼ cup garbanzo beans, cut up veggies, roasted sweet potato, dairy free feta cheese, avocado and whole grain crackers



https://www.forkinthekitchen.com/wprm_print/5327

Evening (more protein)

Fish tacos with avocado and lime, black beans and salad



<https://kristineskitchenblog.com/fish-tacos/>

Constipation

- **The 4 F's**

- Fiber – oats, flax, chia, fruits, vegetables, beans, whole grains, nuts and seeds
- Fluid – stay hydrated
- Flora – fermented foods and fiber
- Physical Activity

Easy Chia Pudding:

2 tablespoons chia seeds

1 cup dairy free milk

½ tablespoon maple syrup

Toppings of choice: combine all ingredients in a small bowl or jar and let sit overnight in the fridge



Constipation

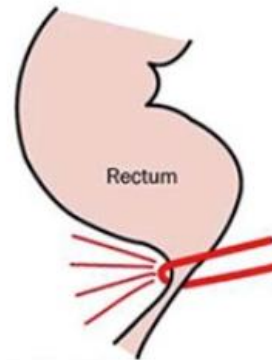
- Squatty Potty
- Abdominal massage
- Heating pad

- Magnesium
- Psyllium
- Polyethylene glycol (MiraLAX)

Intestine is pinched and Blocked



SITTING

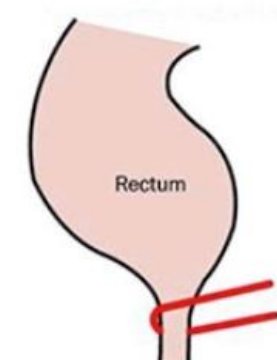


SITTING: Puborectalis muscle choked the Rectum

The healthier way to sit in the toilet



SQUATTING



SQUATTING: Puborectalis muscle is relaxed and the Rectum is straight

Gut Motility Activators

- **Ginger** – in all forms
 - Tea, powder, candy, pickled ginger
- **Bitter flavors**
 - Green vegetables, green tea, chamomile, ginger, roasted dandelion root, citrus fruits and zest, coffee, dark chocolate, turmeric
- **Probiotics**- fermented foods and dietary supplements
 - Dairy free yogurt and kefir, pickles, fermented vegetables, miso, apple cider vinegar, kvass, kombucha
- **Hydration** – drink / sip plenty of water - ½ body weight in ounces (ie 150 lbs = 75 ounces)



<https://www.instagram.com/jilliangreavesrd/>



Making dietary changes....

- How is your current eating pattern similar to the Parkinson's Pro diet?
- How is it different?
- What can you modify?
- What can you add in?

Finding your Motivation

- What really matters to you?
 - What are the benefits?
 - What are the barriers?
-
- Often, motivation grows when you take action



Motivation

Loading...

<https://theprofessorisin.com/2020/07/27/motivation/>

Make a Goal and a Plan

- “It takes as much energy to wish as it does to plan”
- What will be your goal for the week?
 - Cook something (new) from scratch?
 - Try a new recipe?
 - Incorporate more / new foods



Resources:

- **Mediterranean diet recipes:**

- Old Ways Foundation (website)
- Eating Well Magazine (website)

- **Mind Diet recipes:**

- Mind Diet Recipes by Julie Andrews MS, RDN (book)
- Mind Diet for Beginners by Kelli McGrane, MS, RDN (book)

- **Vegan recipes:**

- Becoming Vegan by Vesanto Melina (book)
- Pick Up Limes (blog)
- The Full Helping (blog)
- The Minimalist Vegan (blog)
- Vegan Richa (blog)
- Forks over Knives (website)

- **Beans**

- The Bean Institute (Website)

- **Cooking**

- Cookus Interruptus (You Tube)
- All Recipes (many recipes have videos)

Use Cronometer – free diet tracking app to put in ingredients to get protein per serving and calories

Meal Delivery – If you need a break

- Daily Harvest <https://www.daily-harvest.com/>
- Thistle: <https://www.thistle.co/>
- Modify Health (Mediterranean) <https://modifyhealth.com/>
- Shef – available in some areas – local chefs <https://shef.com/>



DAILY HARVEST

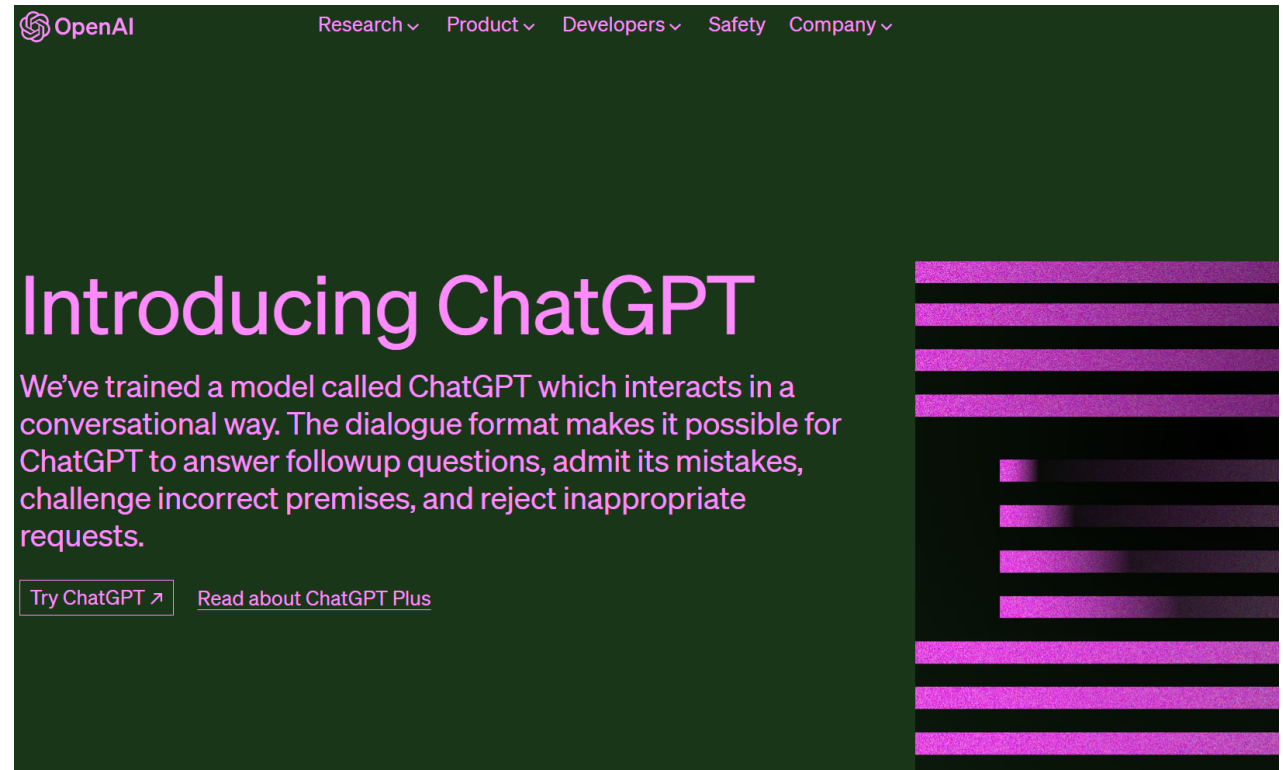
modifyhealth.

THISTLE

shēf

Chat GPT – Artificial Intelligence online tool can help with meal ideas, recipes and shopping lists

- <https://openai.com/blog/chatgpt>
- Potential prompts:
 - Give me 5 ideas for how to cook farro according to a dairy free Mediterranean diet
 - Provide a weeks worth of meals using MIND diet principles that can be made in 20 minutes or less
 - Provide recipes and a shopping list for these meals....
 - Provide a recipe for how to use these three ingredients (enter ingredients) using a MIND diet perspective
 - Create a shopping list for the recipes you just gave me

A screenshot of the OpenAI website's introduction to ChatGPT. The page has a dark green background with white text. At the top left is the OpenAI logo, and at the top right are navigation links for Research, Product, Developers, Safety, and Company. The main heading is "Introducing ChatGPT" in a large, bold, white font. Below the heading is a paragraph of text describing the model's capabilities. At the bottom of the main content area are two buttons: "Try ChatGPT" and "Read about ChatGPT Plus". On the right side of the page, there is a decorative graphic consisting of several horizontal white bars of varying lengths, resembling a stylized bar chart or a list of items.

OpenAI Research Product Developers Safety Company

Introducing ChatGPT

We've trained a model called ChatGPT which interacts in a conversational way. The dialogue format makes it possible for ChatGPT to answer followup questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests.

[Try ChatGPT](#) [Read about ChatGPT Plus](#)