THE MICHAEL J. FOX FOUNDATION
FOR PARKINSON'S RESEARCH

Brain Food: Eating Well if You Have Parkinson's (or Worry You Might Get It)

About This Guide

This resource and accompanying materials are a response to regular questions from the Parkinson's community about what to eat to manage symptoms, potentially slow progression and even prevent disease. Many people and families living with Parkinson's share that they are eager to learn practical ways to take control in their health journey, through healthier eating and otherwise.

Content development was led by board-certified neurologists and movement disorder specialists Rachel Dolhun, MD, and Erin Presant, DO. Dr. Dolhun is the senior vice president of medical communications at The Michael J. Fox Foundation for Parkinson's Research in New York, New York. She currently is pursuing a second board-certification in lifestyle medicine, which is the use of evidence-based lifestyle interventions, such as healthy diet, regular physical activity, positive social connections and more, to prevent, treat and reverse disease. Dr. Presant is a culinary medicine specialist and founder of the Medicine of Yum in Santa Barbara, California. She helps people hone or improve their cooking and eating skills to reach health goals. Learn more at **medicineofyum.com**.

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Information in this guide was accurate at the time of publication in 2022. For the latest on Parkinson's and diet, visit **michaeljfox.org**.

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Eating to Boost Brain Health

Diet Is a Way of Life

When you hear the word "diet," you might think "weight loss." Or you might think about one of the many popular regimens that list foods you should or shouldn't eat. Diet has, unfortunately, come to mean a short-term solution that often involves cutting or counting calories or eliminating foods that taste good or are familiar to you.

The foods you eat can boost energy, mood and brain function and help you feel better overall.

But your diet is simply the foods you typically eat. A healthy diet doesn't have to be strict, hard to follow or expensive. It also doesn't have to eliminate foods you like or recipes you enjoy.

Diet is a powerful tool. The foods you eat can boost energy, mood and brain function. They also can help you feel better overall. Diet has the potential to ease and even prevent many medical conditions, ranging from diabetes to high blood pressure to brain disease, such as Parkinson's or Alzheimer's.

But it can be hard to know which is the best diet for you and your health. Scientists are learning more and more about how diet can impact health and which foods are better or worse for your brain and body. And they're working toward more specific and personalized information to help each individual and each family make the best choices for their unique selves.

Above all, diet is a way of life. And it's a way to honor our tastes and traditions, socialize and connect with friends and loved ones, and live well. You don't have to give up any of that to eat well.

This guide shares the latest information on diet as well as research-backed strategies for eating well, no matter your age, health status, cultural traditions or tastes. It also includes recipes and tips contributed by several of The Michael J. Fox Foundation's community members, both with and without Parkinson's. Whether you're just starting a journey toward eating healthier or you've been practicing for years, you live with Parkinson's or care about someone who does, you're sure to find helpful tools here.

Brain Food: What to Eat and What to Avoid

Despite what news headlines or product labels might say, there are no "magic" foods for your brain or for your memory and thinking. But some foods are better for the brain than others because they contain an abundance of vitamins, nutrients and other health-promoting elements.

Learn which foods are good for your brain and which are not as good. But more importantly, learn why. This can help avoid less helpful ways of thinking about or approaching foods as either all "good" or all "bad." And it also can help you choose foods that you enjoy and that also have qualities that support brain and body health.

HINT

Incorporate whole fruits, such as apples, oranges or strawberries, into meals and snacks. Leave the skin on to get the most fiber and nutrients. Look for other foods with antioxidants, too, such as beans, pecans, cinnamon, turmeric, green and black tea, or coffee. "Eating the rainbow" — fruits, veggies, spices, drinks and other foods of varied colors — provides the most nutrients and antioxidants.

Better Brain Foods: Eat More of These

Fruits

Fruits contain many minerals and vitamins that support body and brain health. They also contain fiber, which aids digestion and gut health. And they are full of antioxidants, which clear out harmful substances that can damage cells and potentially lead to disease, such as Parkinson's or Alzheimer's. All fruits are good, but research shows that berries, such as blueberries, blackberries, raspberries and others, may be especially beneficial because they are high in antioxidants.

Other fruits that contain antioxidants include:

+ Apples
+ Apricots
+ Cherries
+ Figs
+ Plums
+ Red grapes
+ Tomatoes

Aim to eat three to four servings of fruit per day. A serving is one piece of fruit, such as a banana, or one half cup of blueberries. To get your daily intake, add fruits to meals and snacks. Try to eat fruit as it's found in nature, such as an apple with the skin on or a handful of cherries.

Fruit has natural sugar, which isn't bad for you and which is different than added sugars, which can be harmful.

→ See page 8.

These extra sugars are common in canned or jarred fruit as well as bottled smoothies and fruit juices. Frozen or dried fruit is okay, as long as it doesn't have added sugar. When fruit is out of season or too expensive, these may be the best options.

Vegetables

Like fruits, vegetables are packed with health-promoting vitamins, minerals, antioxidants and fiber. Vegetables support a healthy brain and gut. And a healthy gut, in turn, supports a healthy brain.

→ Read more on page 46.

Green, leafy vegetables, such as kale, collard greens, spinach and bok choy, and cruciferous vegetables, such as broccoli,

cauliflower and cabbage, are especially beneficial. This is because they have lots of antioxidants. Other veggies full of antioxidants include onions and hot peppers and herbs such as parsley.

Try to eat at least one serving of green, leafy vegetables and at least two servings of other vegetables each day. A serving of green, leafy vegetables is about two cups, or the size of a small salad. A serving of other vegetables, such as broccoli or jicama, is a half cup. (To get your two servings per day, eat a full cup.) There is no one veggie that is the only or the "right" one. The best one is the one you'll eat — choose veggies that are familiar to you and to your culture.

Healthy Fats

Some think fat is unhealthy. And it's true that some types of fats aren't as good for us.

→ See page 10 for more.

But others are good — and necessary — for heart, brain and body health. Good fats boost good cholesterol (HDL) and decrease bad cholesterol (LDL). They also support healthy blood pressure and blood vessels and may even reduce risk of stroke, memory and thinking changes, or brain disease, such as Alzheimer's.

Some fats are good — and necessary — for heart, brain and body health.

HINT

Try vegetables outside of lunch and dinner. Add them to your breakfast or an afternoon snack. Toss veggies with eggs or in a savory oatmeal or dip chopped vegetables in hummus, salsa or guacamole.

Brain Food *continued*

Good fats are unsaturated. You can find these in olive or canola oil, nuts, seeds and fish.

Omega-3 and -6 fatty acids are a specific type of healthy, unsaturated fat. Omega-3 foods include salmon, tuna, mackerel, halibut, shrimp, trout, walnuts, flax seed, chia seeds, hemp seeds, seaweed and Brussels sprouts. Omega-6 foods are corn, soy (including tofu), meat, poultry, eggs, coconut or avocado oil, pumpkin seeds, sunflower seeds, safflower oil and peanut butter.

While both omegas are important for health, the balance of omega-3 to -6 in your diet is extra important. Too little omega-3 or too much omega-6 can lead toward inflammation, which is not good for cells. Many people tend to get more omega-6 because these are in many processed foods or animal products. You might find better balance simply by increasing omega-3. You can get your weekly dose from two servings of fish or a total of six to eight ounces. Or, add nuts, flaxseeds or chia seeds to oatmeal, smoothies or salads. If you eat meat, buy grass-fed beef, if possible, as this has a more favorable ratio of fatty acids than grain-fed beef. (But try to limit your overall intake of red meat as this is not the best source of healthy fat.)

Better Brain Health: Eat Less of These

Added Sugar

Sugar (glucose) is a necessary energy source for our bodies. But too much sugar on a regular basis is linked to poorer memory and thinking as well as diabetes, heart disease and stroke. Researchers believe sugar causes inflammation, which can lead to disease.

But not all sugar is equal. Natural sugars, such as those in fruits, certain vegetables and dairy products, are not the same as refined sugars, such as white sugar, brown sugar and corn syrup. Refined sugars are common in baked goods, packaged cookies and treats, and sugar-sweetened beverages.

Outside of natural sugars, the American Heart Association recommends no more than six teaspoons (25 grams) of added sugar per day for women or nine teaspoons (38 grams) for men. For context, one sugar packet contains about a teaspoon, or four grams, of sugar. A 20-ounce bottle of cola has 17 teaspoons, or 68 grams, of sugar.

HINT

When cooking veggies, meat or other items, try swapping olive, canola or other plant oil for butter or bacon fat. And aim to get omega-3 through food, rather than a supplement, as a supplement may be less beneficial than food sources. (But always check with your doctor and dietitian about what's best for you.)

HINT

Refined sugars are hidden in items you might not expect. These may include condiments, such as ketchup; sauces, such as barbecue sauce; salad dressing; juices and smoothies; coffee drinks; cereals; and soda. Check labels for added sugars. To cut down, try gradually replacing sugar-sweetened beverages with water, cut sugar out of your coffee or eat an orange instead of drinking orange juice. Limit ultra-processed foods such as baked goods and bagged or boxed snacks. Try baking your own treats, substituting dates or unsweetened applesauce for some or all of the sugar.

All the Flavor in Better Baked Chicken

Oretha Winston Hunter
MJFF Associate Director of Facilities; Brooklyn, New York

I've worked at The Michael J. Fox Foundation since 2016 and I'm constantly speaking to our community and pointing patients and families to our latest educational resources. I know the importance food has in our everyday lives, including our brain. That's why I've incorporated healthier recipes into my own kitchen.

A family favorite: Better Baked Chicken. Instead of deep-frying chicken, we bake it in the oven with a flavorful flour coating that turns crispy. By baking, you avoid excess oil, fat and calories that come with deep frying. Trust me, it's just as good as the real thing, with less calories and less grease, but all the flavor!

Ingredients

1 pound Skinless, boneless chicken breast

1 ½ cup buttermilk

½ cup to 1 cup All-purpose flour (Editor's note: You can substitute a whole wheat flour or gluten-free flour, such as almond flour.)

1 tsp paprika

½ tsp salt

½ tsp pepper

Butter, to coat pan (Editor's note: You can use olive oil instead.)

Instructions

Cut chicken breasts into at least four portions. Place chicken in a bowl with the buttermilk and let sit in the fridge for about 20 minutes. Combine flour, paprika, salt and pepper in a separate bowl. Dip each piece of chicken in flour mixture, making sure to coat it completely. Place chicken in a baking pan on parchment paper that has been coated or sprayed with butter or olive oil. Bake at 400°F for 35-40 minutes.

Editor's Note: Another option for healthier, crispy chicken is to dip chicken in an egg mixture, coat with whole-wheat breadcrumbs, and spray with olive oil spray. Bake at higher heat (400°F) in the oven or in an air fryer.

Always talk to your doctor about the right amount of sodium for you.

Unhealthy Fats

Too much unhealthy fat can raise bad cholesterol (LDL), clog blood vessels and cause inflammation, leading to heart and brain disease.

The not-so-good-for-you fats include saturated fats and trans fats. Saturated fats are found mainly in animal products, such as red meat, butter and cheese, and coconut oil. Trans fats, which some experts believe are the most harmful fats, are found in baked goods, icing or frosting, cookies, donuts, coffee creamers, french fries, microwavable popcorn and others.

Even though the U.S. Food and Drug Administration (FDA) banned trans fats, they're still used. Under current regulations, a label can list zero trans fats even if the food contains small amounts.

HINT

Focus on eating more whole, fresh foods. The more you avoid ultra-processed foods, the less likely you'll be to consume sneaky and dangerous trans fats.

Sodium

Our bodies need sodium, or salt, to work properly. But too much sodium can harm blood vessels or raise blood pressure. And this can cause heart, kidney and other problems. Early research suggests too much sodium might also cause inflammation in the gut, which can impact brain health.

Like added sugar, sodium seems to be everywhere once you start looking. It's especially high in canned soups or beans, frozen meals, and jars of sauce or broth. Processed meats, such as bacon, deli meats and ham, also have a lot of sodium.

The American Heart Association recommends 2300 mg of sodium or less per day. For people with heart problems or high blood pressure, the recommendation is 1500 mg per day. It's easy to quickly meet or exceed these recommendations: two ounces of deli turkey meat (about a sandwich's worth) can contain 620 mg of sodium and two teaspoons of taco seasoning have 380 mg.

Always talk to your doctor about the optimal amount for you, though. Some people with low blood pressure, for example, may need extra sodium.

HINT

The more you cook at home and the less you eat foods from cans, jars and boxes, the easier it is to control your sodium intake. Look for salt-free spice blends and low-sodium broth and soy sauce. Use fresh or dried herbs, rather than salt, to boost flavor. Try small amounts of tomato or miso paste, Worcestershire sauce or vinegar for a significant flavor punch without as much sodium.

2300mg

of sodium is the maximum daily amount recommended for most adults by the American Heart Association.

General Guidelines for a Healthy Diet

Healthy eating doesn't have to be complicated. And it doesn't have to mean following a specific program or plan or changing everything about the way you eat. It's mostly getting back to basics: learning which foods support health; what healthy portions look like; and how to adapt to fit your tastes, lifestyle and traditions.

Each person's version of a "healthy diet" is different. It depends on your culture and customs, physical and other activity, locally available foods, lifestyle and other individual characteristics.

In general, a healthy plate or bowl contains half veggies and fruits and half protein and whole grains.

→ See page 13.

Using this as a starting point, mix and match the foods you most enjoy. Consider these examples:

+ **Vegetables:** okra, squash (chayote, zucchini, kabocha, pumpkin, butternut, spaghetti squash, etc.), nopale, kale, spinach, bok choy, carrots, succotash, cassava root, jicama, peppers of any type, sweet potatoes, cabbage, eggplant, onions, broccoli, cauliflower, parsnips, collard greens, mushrooms.

+ **Fruits:** berries of any kind, guava, mango, papaya, apple, bananas, plantains, lychee, jackfruit, dragon fruit, star fruit, grapes, plums, pears, loquats, watermelon, cantaloupe, pineapple, honeydew melon, kiwi, passion fruit. Citrus (lemon, lime, orange, grapefruit) is a good addition to many proteins and/or vegetables.

+ **Protein:** lean cuts of meat — which have less fat — such as chicken breast, pork tenderloin, or top round or sirloin grass-fed beef; if you use chicken thighs or other cuts of meat with visible fat, trim before cooking; seafood; eggs; soy products such as tofu or tempeh; beans (pinto, black, kidney, black-eyed peas, butter or lima beans); chickpeas; lentils; and peas (green, yellow or split).

+ **Whole grains:** brown, black or wild rice; quinoa; barley; wheatberries; sorghum; corn (on or off the cob or stone-ground grits without additives); millet; buckwheat; oats; whole-wheat bread or pasta.

If you want another way of thinking about healthy eating, consider the World Health Organization (WHO) general guidelines at **who.int/news-room/fact-sheets/detail/healthy-diet**.

Healthy eating is mostly about getting back to basics.

Everything in Moderation

Jimmy Choi
age 46; MJFF Patient Council Member; Bolingbrook, Illinois

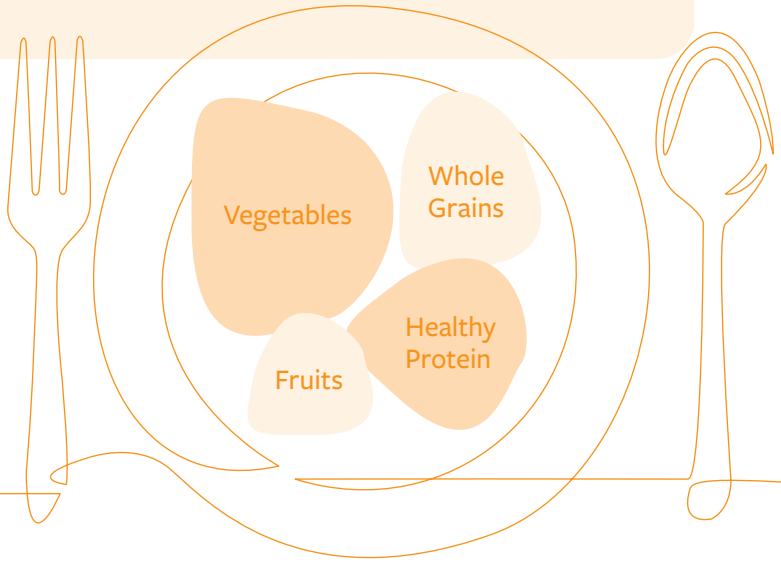
I think using more whole foods, rather than processed foods, is the best first move we all can make toward healthier eating. Instead of buying processed and packaged vegetables and meats, I go with fresh. That avoids a lot of the preservatives, sodium and other chemicals added to foods. As much as possible, I buy food that resembles food as it was grown or hatched.

Shrimp is my go-to protein. It is low in calories, high in nutrients and very versatile. You can grill, stir-fry, steam and even microwave shrimp. I like to steam a lot of foods because it limits the use of oil, keeps nutrients in vegetables and tenderizes protein for easier digestion. Another trick is to blend vegetables into sauces for a thicker consistency, natural flavor and more nutrients.

While eating healthy is important, we should all still enjoy things in life. It's okay to eat a cookie or slice of cake every once in a while. Don't think, "I can't have that donut because it'll take 200 burpees to burn it off!" Everything in moderation.

Healthy Eating Plate

Courtesy of Harvard T.H. Chan School of Public Health



What's the Best Diet for Brain Health?

As you learn about healthier eating, you're likely to come across confusing or conflicting information. Among the many popular diets, each provides different recommendations and different potential benefits.

There isn't one "best" diet for brain health. And there's no one way to eat healthfully. While much research supports the Mediterranean diet (see below), some experts wonder whether the research on this diet and the diet itself are fully inclusive. Rather than following this or any other regimen to a tee, try to learn what about that diet might support brain health so you can find a way of healthy eating that suits you.

Here, we breakdown the most common diets — not to endorse one over another, but to help you make an informed decision toward your own healthy way of eating.

Mediterranean Diet

The Mediterranean diet is "plant-forward," meaning it focuses primarily on vegetables, whole grains, legumes, nuts and other foods from plants. It incorporates fish and seafood for those who eat animal protein and limits other meats and animal products, such as dairy. In general, this diet centers on foods that are beneficial for overall and brain health.

⟶ See page 6 for more.

Outside of particular foods, the Mediterranean diet encourages the community and social aspects of eating. By sharing meals with friends and family, you can be more mindful and build connections, an important part of caring for your brain. These are good considerations for everyone and every meal, regardless of dietary habits.

The Mediterranean diet is one of the mostly widely studied, with results suggesting that people who follow this diet may have less heart disease; stroke; brain disease, such as Parkinson's or Alzheimer's; and other medical conditions. In people living with these conditions, the diet may even help ease some of the symptoms.

This way of eating, however, may not be accessible or enjoyable for everyone. And you don't have to strictly follow this program for health. If you wish, adapt the concepts that resonate to fit you and your lifestyle and leave the rest.

DASH Diet

The DASH (Dietary Approaches to Stop Hypertension) diet was developed as a way to decrease high blood pressure. It primarily focuses on limiting sodium as this can help reduce blood pressure, which can improve brain and heart health.

⟶ See page 10.

This diet also is plant-forward, recommending primarily fruits, vegetables, whole grains, seeds and nuts. For those who eat meat, it suggests lean proteins, such as skinless chicken breast or pork tenderloin rather than beef. It does not limit dairy or endorse seafood.

For the right diet for you, learn which ones support brain health.

Some consider this a "less strict" Mediterranean diet.

Research suggests this diet, in conjunction with exercise, might boost thinking.

MIND Diet

The MIND (Mediterranean DASH Intervention for Neurodegenerative Delay) diet combines aspects of the Mediterranean and DASH diets. It was designed to potentially delay or prevent memory and thinking changes that can come with age. For that reason, it focuses on whole, unprocessed foods high in antioxidants and brain-boosting nutrients. And it limits less-healthy foods, such as butter and margarine, cheese, red meat, fried foods, and pastries and sweets. This program offers specific recommendations for how much of which foods to eat each day or week.

Studies suggest that this diet may help delay or prevent Parkinson's or Alzheimer's disease, but, as with most diets, more work is needed.

Intermittent Fasting

Intermittent fasting has gained attention as a possible method for weight loss as well as a complementary tool for managing various medical conditions, such as cancer. Early studies have shown fasting could potentially ease symptoms of brain disease, such as Parkinson's, Alzheimer's and multiple sclerosis. But more work is necessary to define the potential benefits and risks as well as which individuals may be most likely to benefit.

This approach restricts when, rather than what, you eat. Still, for general well-being, it's important to focus on healthy foods. The theory is that by giving your body time without food, your cells can "clean up" any inflammation in the body.

Because people may naturally consume fewer calories by eating less often, weight loss is a typical result of this diet.

There are many types of intermittent fasting. One of the most common is the 16/8 approach, in which a person does not eat for 16 of every 24 hours, leaving eight hours a day to eat. Another approach is 5/2. With this method, a person eats their normal amount of calories for five days each week and restricts to 500-600 calories per day for the other two days. Other approaches may include eating like you normally do most days and then fully fasting for a day or two.

For some people, especially those with certain medical problems or who take certain medications, Intermittent Fasting may not be safe. It also can be difficult to maintain, especially long-term. Be sure to speak with your physician and a dietitian before adopting this approach.

What's the Best Diet for Brain Health? *continued*

Other Popular Diets

There are several other "mainstream" diets that people choose to follow for different reasons: to lose weight, boost general well-being, or manage health-related concerns, for example. These include the ketogenic (or "Keto"), paleo, gluten-free, grain brain, vegetarian and vegan diets.

The ketogenic diet is low in carbohydrates, high in fat, and moderate to high in protein.

→ See page 52.

It aims to shift the body's usual energy source from sugar (glucose) to fats, or ketone bodies, which some believe are a more "efficient" fuel and may protect the brain from inflammation and other stress. However, it limits nutrient- and vitamin-rich fruits and vegetables (carbohydrates). And many people following this diet rely heavily on animal proteins, such as chicken or beef, which have unhealthy fats and can be harmful to health in the long run.

Small studies have shown that a ketogenic diet can help treat certain types of seizures that medication cannot control (epilepsy). And small, relatively short-term studies have looked at whether a keto diet might help treat symptoms of Parkinson's, Alzheimer's or other brain diseases, or even prevent these diseases from happening. But results have been mixed. Larger, longer studies are necessary to determine full benefits and risks. A ketogenic diet can be difficult to follow and may, especially over time, lead to high cholesterol, heart disease and other problems.

The paleo diet aims to mirror how our ancestors, hunter-gatherers, ate. In this way, it promotes certain healthy eating habits, such as focusing on whole, unprocessed foods and limiting sugar, dairy and refined carbohydrates. The latter are found in baked goods, crackers and chips. (Fruits and veggies have natural, healthy carbs as well as other nutrients.) But the Paleo diet also limits whole grains, beans and legumes, which are considered beneficial for brain and heart health. This diet is restrictive, can limit socializing and connecting over food, and may be hard to follow. Currently, there's no strong evidence to support paleo over other diets for brain and heart health.

A gluten-free diet excludes all foods containing gluten. Gluten is a protein found in wheat, rye, barley and other grains. This diet is medically necessary for people who have been diagnosed with celiac disease, a digestive condition that is triggered and worsened by gluten. And it may help those who feel ill (bloated, gassy or tired) after eating gluten, which might indicate intolerance or sensitivity. Some people report improvements in memory and thinking on a gluten-free diet, but studies have proven this benefit only in those who have celiac disease. Often, people may feel better because they are eating less processed foods and more whole foods, such as fruits and vegetables. In general, a gluten-free diet is likely safe but may not offer significant benefits for those who can tolerate gluten.

The grain brain diet also limits gluten as well as carbohydrates and sugar. The diet's creator believes that these items, even from healthy sources, such as whole grains, veggies and fruits, damage the brain. Some think of this diet as a variation of the keto or gluten-free diet since it's low in carbohydrates and high in fats. Like many limiting diets, it can be tough to maintain. There also is little scientific evidence to support this diet at the current time.

Vegetarian and vegan diets are "plant-based" meaning they include mainly foods from plants and little or no animal products. Depending on your preference, a vegetarian diet may include eggs and dairy products. This is called a lacto-ovo-vegetarian diet. Pescetarian is a variation that includes fish but no other animal meat. A vegan diet has absolutely no animal products: no eggs, meat, fish or even honey. A strict vegetarian or vegan diet may lead to low B12 or choline, which are essential for the brain. If you follow one of these diets, talk with your doctor and dietitian about whether you need a supplement and what dose and how often to take it. A growing body of research supports a plant-forward approach for brain and body health. Whether it's better to go "plant-only" is not yet clear.

Plant-based diets include many foods from plants and little or no animal products.

Jim McNasby, JD
age 53; MJFF Chief People Officer and Patient Council Member; New York, New York

“I’m vegan, which means I’ve eliminated all meat, poultry, fish, dairy and eggs from my diet. I try to eat fresh fruit and vegetables every day. And I try to find foods that are as unprocessed as possible. The less processed, the better.”

Tips and Tools for Healthy Eating

There are many potential barriers to healthy eating. Some, such as trouble building new habits or finding motivation, are part of being human. Others, such as limited availability or access to healthy foods, are driven by social, health care and other systemic disparities.

Think outside the box — and the jar, can and bag.

Much work remains to diversify nutrition information and guidelines through broader and more inclusive research, to allow equitable access to healthy foods, and to grow the base of non-white dietitians and other nutrition professionals. Overcoming these challenges will take time, focused effort, and significant collaboration.

As we work toward solutions to overcome barriers, consider these tips and tools to begin and maintain healthier eating:

Take one step at a time.

You don't have to — and shouldn't — change your whole diet overnight. That can feel overwhelming and difficult to maintain. Any shift toward healthier eating is positive. Make small changes slowly. Swap avocado (healthy fat) for cheese (unhealthy fat) on your sandwich. Try half brown rice instead of a full serving of white or jasmine. Make one meal "meatless," using beans or soy products in place of ground beef. Gradually adopting healthy habits will help you find a sustainable and satisfying diet that works for you.

Think outside the box.

And outside of the jar, can and bag! Foods packaged this way may be highly processed and contain added sugar, salt and unhealthy fats. But not all are. Frozen fruits and veggies can be as healthy as — and less expensive than — fresh produce. Just make sure the only ingredient is fruit or vegetables; no sugar, salt or other items you can't pronounce. Same goes for canned or bagged beans and whole grains.

Plan ahead.

Thinking about what you are going to eat helps support healthy habits. Same with shopping: Using a list often leads to fewer unhealthy impulse purchases. Buying in bulk or planning multiple meals with the same ingredients also can be cost saving.

If planning an entire week of meals feels overwhelming, you don't have to. Even having a general idea of what you plan to eat for the next meal or the next day can give you a healthier outlook and framework. It also gives you the opportunity for more options and potentially better choices.

Find shortcuts.

If available, buy pre-chopped veggies or fruits. (Frozen are fine.) Try pre-washed and pre-cut greens for salads. While more expensive, these may save time and energy when prepping meals.

Another time-saver is to cut all your fruits and veggies at once so you can use them for different meals and snacks throughout the week. A vegetable chopper or food processor can make this even easier.

In the same vein, try batch cooking. This is making large portions of bases or sides, such as whole grains, beans (bagged typically are less expensive than canned), or toppings and ingredients, such as sauces, broths or dressings. You can pull from this batch for different meals throughout the week or freeze and thaw when needed. You can do this with veggies, too. Roast extra for dinner and use them for breakfast, lunch and dinner over the next day or two.

Read labels.

Look at the back of the bag or the side of the box. The more ingredients (and the harder they are to pronounce), the more processed a food is. Technically, most foods are processed in some way. If it's not exactly as you'd see it in nature — like an apple growing on a tree — it's processed. Yogurt is a good example. It's technically a processed food. But if plain, it likely has little or no added sugar or artificial ingredients. A box of crackers, on the other hand, may be highly processed, made of white flour, sugar, sodium, preservatives and even added coloring.

Note the serving size and calories per serving as well as the amount of saturated fat, sodium, added sugars and fiber. Look for less fat, sodium and added sugar and more fiber. For more information on label reading, visit **fda.gov/food/new-nutrition-facts-label/how-understand-and-use-nutrition-facts-label**.

Eat mindfully.

Mindfulness is being aware of what, how much and when you eat. It's not complicated, but it's not always easy to do. We're used to multitasking — eating breakfast on the go, lunch at our desks, and dinner in front of the TV. When we don't pay attention, we enjoy our food less and miss cues we're full.

Next time you eat, really think about it. Some questions to consider: Am I really hungry? Or am I thirsty? Is what I'm eating helpful to my body? What does the food look, smell, taste and feel like? (Is it crunchy, smooth or fizzy?) Is there a way you can enjoy eating more? (Dining with others, sitting at a table, lighting candles, etc.) Are you eating just to "do something" or because you're stressed? If so, would going for a walk, calling a friend, or practicing a hobby be a better option?

Involve your loved ones.

If you live with loved ones or family, eating well is much easier together rather than on your own. You can keep each other accountable while trying new recipes, prepping meals or enjoying conversation and connection over dinner. You also can divide tasks of shopping, cooking and cleaning up. Everyone can do what they like best or what's easiest for them. And even with different tastes and diets, a family can cook and dine together. Many recipes work for a variety of proteins and vegetables. You can easily make both chicken and eggplant parmesan at once, for example, to satisfy both meat-eaters and vegetarians.

Take on healthy eating as a learning project or experiment in which you try new ingredients, foods and styles of cooking. Watch demonstrations, take a

nutrition class or try a hands-on cooking class as "date" night or a social outing. Many are available for free or low-cost, both online and in-person. Some are one-time only; others span the course of a few weeks. Some focus on one skill, like using a knife or chopping; others focus on a specific food group or cuisine. Look for opportunities at community centers or colleges, farmers markets or teaching kitchens.

Consult a nutrition expert.

Some health care professionals, such as a registered dietitian, culinary medicine specialist, or lifestyle medicine clinician, are knowledgeable and skilled in the areas of nutrition and diet. They can be especially helpful if healthy eating is brand new to you or if diet changes could impact a medical condition you live with. They can help you learn about healthy eating and guide and support you in making changes. A culinary medicine specialist can also help you learn to cook or improve your skills.

Note that nutritionists also work in the diet and food realm, but they are not required to have formal training. Their background and experience may vary. Ask your doctor for a referral or search online for someone in your area. The Academy of Nutrition and Dietetics maintains a database of registered dietitians at eatright.org/find-an-expert. You can find a culinary medicine specialist at **culinarymedicine.org/certified-culinary-medicine-specialist-program/businessdirectory**. You also can search online for Black, Latino, Asian and other professionals who understand your specific interests, cultures and traditions. Some may offer in-person or virtual consults and many post useful information and tips in blogs, social media posts and other open forums you can follow.

When working with a nutrition professional, check their credentials, experience and approach to make sure they're a good fit for you. And check with your insurance company to determine coverage and costs.

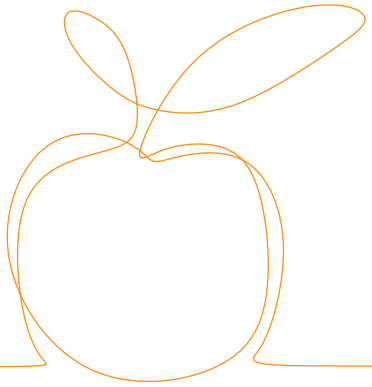
Dine out, if you like.

Healthy eating does not mean you have to cook and eat every meal at home every day. Sometimes you need a break. Dining out can be a fun, social activity, which is important. And it can still be healthy, you just might have to get creative. Look for healthier versions of food, such as protein that is grilled or baked instead of fried. Substitute steamed veggies or a salad for French fries. Ask for dressings and sauces on the side. Make a meal out of veggie sides and a healthy appetizer or split an entrée with your dining companion if portions are large.

Be patient.

It takes time to establish new habits. As with anything new, you're likely to have good days, bad days and "slip ups." Don't be too hard on yourself. But do brainstorm ways to prevent or manage the times when you stray from healthy eating. If you snack when stressed, for example, might journaling, meditating or talking a walk be better options? What healthy snacks can you have on hand for those moments?

Remember that every positive step counts. Measure progress by how you feel and take pride in knowing you're caring for your body and brain the best way you can.



More Mindful Eating

Michael S. Fitts
age 49; MJFF Patient Council Member;
Alabaster, Alabama

I'm from the South and when I was growing up, it was a rule that you had to eat everything on your plate. Now, I take my time to eat; I chew my food. I don't miss the signal from my stomach to my brain telling me I'm full. And when I'm full, I stop eating. I make sure to taste my food before adding salt and butter, which used to be automatic for me. I watch portions, too. I love pasta and rice and I can't completely remove them from my diet. So I eat them occasionally and in smaller portions.

I've never been a cook. For me, dining out is healthier than a microwavable meal, which can have lots of salt. I love soup, a half-sandwich or salad from the grocery store. If I eat fast food, I get a kid's meal, which is helpful for both cost and health reasons.

I stopped eating late at night, but I still snack throughout the day. Smaller meals work better for me. But I make sure to choose healthier snacks, like nuts and popcorn, and to plate a serving size, rather than graze from the bag. This prevents mindless eating of more than I want or need.

You can find an expert who understands your specific interests, culture and traditions.

FAQs

What supplements should I take?

Doctors and nutrition experts recommend that you aim to get most or all vitamins and nutrients from your food. If you eat a diet rich in veggies, fruits, whole grains and fish, you may get everything your body and brain needs. But if you follow a specific diet or avoid specific food groups, you may need a supplement. The same goes if you have a vitamin deficiency. Always talk with your doctor about what's best for you and your health.

Many supplements on the market claim to boost memory and thinking or overall brain health. But none has yet been proven to have substantial benefit. Your money and time are likely better spent on eating well and exercising. Even though supplements are "natural," they can still cause side effects and interact with prescription medication. They're also not regulated by the U.S. Food and Drug Administration (FDA), so what's inside the bottle may not necessarily match the label.

Do I have to buy organic foods?

Organic food has not been shown to be more nutritious than non-organic. But organic fruits and veggies do have less pesticide or chemical residues, which have been linked to certain brain conditions, such as Parkinson's.

Organic food typically is more expensive. One option may be to buy only organic versions of produce that has been found to have the highest levels of pesticides. This is called the "Dirty Dozen." (Learn more at ewg.org/foodnews/dirty-dozen.php.) You also could look for local farmers market produce that is grown without pesticides. This is technically organic but may not labeled as such if it's too difficult or expensive for smaller farms to certify organic. If organic doesn't fit your budget, it's better to eat non-organic fruits and vegetables rather than none at all.

Note that other organic foods, such as processed cookies or crackers, have no nutritional advantage.

Is coconut oil good for my brain?

Early, small studies suggested coconut oil may be beneficial for the brain. But more recent, larger trials do not support this claim. Coconut oil is a saturated, or unhealthy, fat. It can increase bad cholesterol (LDL) which can be harmful to your heart and brain. Olive oil, which is unsaturated, is generally a better choice.

What about red wine?

Previous work has suggested that, because it contains antioxidants, red wine may benefit heart health. But research is evolving toward a better understanding of alcohol's potential benefits and risks and the optimal amount, if any, for health. Recent guidelines suggest that no amount of alcohol is "good for you" and recommend drinking not at all or only in moderation. For women, that's one drink per day or less. For men, it's two.

Talk with your doctor and a dietitian about the best and safest options for you, given your medical conditions and medications. And if you don't drink alcohol, don't start for health-related goals.

Should I take probiotics or prebiotics?

Probiotics and prebiotics aim to support a healthy digestive system and therefore healthy body and brain by boosting the "good" bacteria that live in the gut. (These bacteria are called the microbiome.) Probiotics are good bacteria and prebiotics are "fertilizer" to grow good bacteria.

In general, people who eat a diverse, balanced diet and who do not have digestive conditions do not need to take probiotics or prebiotics. You can get probiotics from fermented foods, such as kefir, kombucha, kimchi, sauerkraut and tempeh. You can find prebiotics in fiber-rich foods, including fruits, such as apples and bananas; vegetables, such as onions, garlic and asparagus; and whole grains, such as oats and barley.

If you live with certain gastrointestinal conditions, have constipation or regularly take antibiotics, your doctor may recommend probiotic or prebiotic supplements. Always ask your personal physician and dietitian what's best for you.

Do I have to exercise if I eat well?

Exercise, like diet, is an important part of caring for your body and brain. It's not exercise or diet; it's both! They work hand in hand. When you eat well, you have more energy to exercise. When you exercise, you're likely more motivated to eat well.

Current guidelines recommend at least 150 minutes of moderate aerobic exercise each week. That's a half hour of physical activity that gets your heart pumping five days a week. Many people walk briskly, but others cycle, swim or run. You can work out alone, with a partner or in a class, at home, in a gym or outside. There's something for every body and every fitness level. The most important thing is to find something you enjoy so you'll do it regularly.

If you aren't yet active, especially if you have medical conditions, talk with your doctor about how to get started.

Leonard Chandler
age 73; MJFF Patient Council Member;
Helena, Alabama

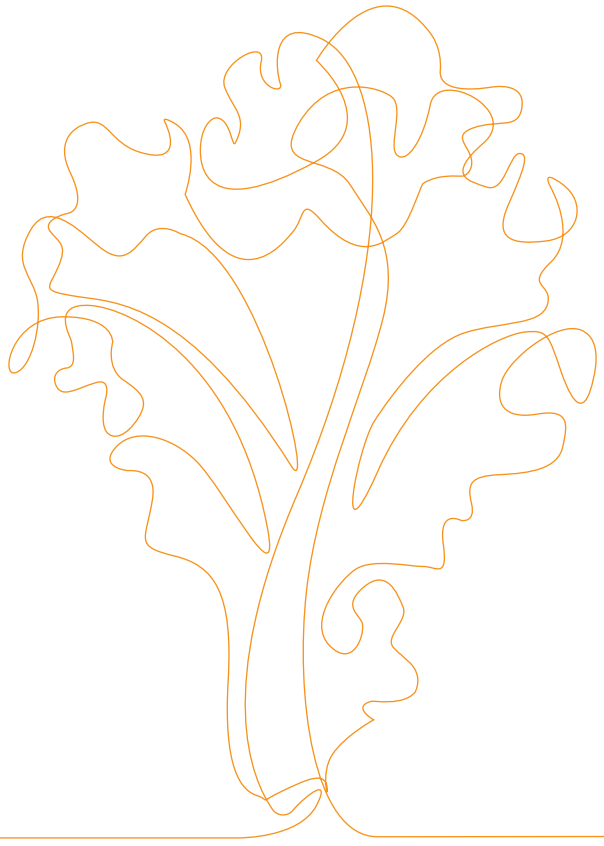
"I have found that my nutrition and exercise is directly connected with my state of mind. The less stress and emotional upheaval I'm exposed to, the better the effects of diet and exercise. The more stress I have, the less benefit I feel from a healthy diet and exercise. To me, this is a good example of how mental well-being supports physical well-being and vice versa."

Section 02

Eating Well When Living with Parkinson's

Diet as a Treatment Tool

At this time, there is no one diet that has been proven to treat Parkinson's disease (PD) or to slow or stop its changes over time. But what you eat can ease symptoms, improve how medication works and boost mood and general health. A healthy, balanced diet is an important part of managing Parkinson's. It's just as important as taking medication, exercising regularly and connecting with others. As with all Parkinson's treatments, the best diet differs from person to person — it's built for you, your symptoms and your lifestyle.



A healthy, balanced diet is an important part of managing Parkinson's — and is just as important as taking medication, exercising regularly and connecting with others.

Easy Gourmet Grain Bowl

Israel Robledo
age 57; MJFF Patient Council Member; Midland, Texas

A few years before and after my Parkinson's diagnosis, my food choices weren't the best for overall health. But as I cut out junk food, stopped snacking in the evenings and took up walking and indoor cycling, I felt much better in general. As I lost weight, my balance trouble and stiffness also seemed to lessen.

Thanks to my wife's support and cooking skills, a healthy gourmet-type dinner is a daily treat. One of our favorite meals is a grain bowl, which can be adjusted to your personal preferences and tastes.

Grain Bowl

First pick your grain base. I like Jasmine or Basmati rice mixed with a little bit of quinoa for extra protein. (I cook a large batch of grains since they're easy to reheat.) Part of your base also could be pasta or zucchini noodles, kale or spinach, or other veggies.

Protein is next. My favorite is blackened shrimp, chicken or salmon. (See below for my blackened spice recipe.) Teriyaki is good as well. The best part is you can use any protein, even rotisserie chicken or roast beef. It's fun to create a bowl with whatever's in your fridge.

Now, toppings. I pick a variety of colorful and tasty toppings. Examples: thinly sliced cucumber or radish, julienned carrots, quick pickled red onion, shaved purple cabbage, mushrooms, edamame, avocado or whatever else you love. (I slice veggies and store them in airtight containers in the fridge so all I have to do is get creative with picking and choosing.) You can also add garnishes, such as chopped cashews, scallions, sesame seeds and a wedge of lime.

Finally, dress with a store-bought or homemade Thai peanut sauce.

⟶ See page 59 for recipe.

Blackened seasoning

2T smoked, regular OR sweet paprika

1T Cayenne pepper (use more or less for your desired level of spiciness)

1T onion powder

1 tsp garlic powder

1 tsp sea salt

½ tsp dried basil

½ tsp dried oregano

½ tsp dried thyme

For an even spicier mix, add 1 tsp. of black pepper.

Use as much or as little suits your taste. Store the remainder in an airtight container.

Eating to Ease Symptoms

For people with Parkinson's, diet can be a tool to ease symptoms, such as constipation and low blood pressure. And there are ways to adapt diet, if necessary, when symptoms such as swallowing trouble, smell loss and apathy (lack of motivation) are part of Parkinson's.

Constipation

Everyone's body has its own schedule of bowel movements. Some go once a day, others a few times a week. Constipation is change in your pattern — either going less frequently or having more difficult-to-pass bowel movements.

Constipation is common in people with Parkinson's. It can happen at any point, from decades before diagnosis to years into living with the disease. Not only is constipation uncomfortable, it also can interfere with how PD medications work.

Certain medications may be part of treating constipation, but the first steps typically are dietary and other lifestyle changes. Consider these tips:

Drink a lot of water.

Water increases flow through the digestive tract. Doctors recommend you drink at least six 8-ounce glasses of water per day. Warm water or prune juice, especially in the morning, can encourage a bowel movement. Caffeine, alcohol and hot weather may cause dehydration and increase water needs.

Eat more fiber.

Fiber helps drive waste through the intestine. Gradually increase the amount of fiber in your diet with vegetables (peas, broccoli, kale, cauliflower or spinach), berries, fruits with the skin on (pears, apples or plums), dried fruits without added sugar, whole grains, beans and bran. As you add fiber, increase fluids, namely water. Fluid works with fiber to normalize bowel movements. And try to decrease highly processed foods, which are low in fiber and high in sugar. These can contribute to constipation.

Make meals smaller.

Some people notice that eating multiple small meals throughout the day — rather than fewer larger ones — allows more time for digestion. Eating more nutrient-dense foods that include fiber can help you feel full.

Add pro- or prebiotics.

Probiotics are bacteria that may help balance the "good" and "bad" bacteria that live in your gut. Prebiotics help supply the "good" gut bacteria with energy.

To get probiotics or prebiotics, you don't have to take an expensive or daily supplement. You can them through your

diet. Fermented foods, such as kimchi, sauerkraut, kombucha, kefir, yogurt, tempeh and miso, contain probiotics. High-fiber foods, such as artichokes, asparagus, bananas, garlic, onions, soybeans and whole grains, have prebiotics. These foods can ease constipation but also promote general well-being.

Exercise regularly.

Abdominal muscle movement helps activate the gut. Steady, moderately strenuous exercise, such as walking, swimming, light weightlifting, or boxing, may help ease constipation.

First steps toward easing constipation are typically dietary and other lifestyle changes.

Soania Mathur, MD
age 50; MJFF Patient-Council Co-chair;
Toronto, Canada

Finding Balance with Smaller Meals

I find it difficult to balance constipation and slow stomach emptying, which also is common in Parkinson's. Constipation requires more fiber, but that can cause bloating and aggravate slow stomach emptying. For me, the fiber in berries and veggies works better than fiber in bran and other carb sources.

I also eat multiple smaller meals rather than fewer, bigger meals. Lunch might be more like a snack: a plate with crackers, cheese, vegan meats, fruits and vegetables that I can pick and choose from, eating as much or as little as I'd like. A few hours later, I'll have another similar-sized meal, so I don't overload my system at any one time.

Low Blood Pressure

Some people with Parkinson's experience low blood pressure, particularly after living with the disease for some time. This can cause dizziness and lightheadedness and increase walking trouble and risk for falls. Low blood pressure can be caused by PD or by the medications used to treat it.

As with constipation, initial treatments often are dietary and lifestyle changes. Recommendations may include:

Drink more water.

Aim for at least six to eight 8-ounce glasses of water per day. Try filling your glass from a gallon (or other measured) container so you can track your daily intake. Add lemon, berries or cucumber to enhance taste.

Before standing from sitting, drink a large, cold glass of water. This can boost blood pressure for a short period.

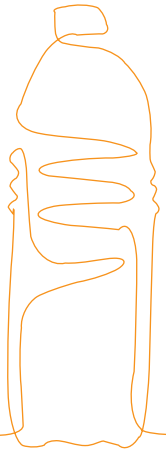
Add salt.

If your heart and kidneys are healthy, salt your food or eat salty foods. Examples include V8 juice or V8 hydrate, coconut water, a low-sugar sports drink or salted nuts. Ask your doctor about the right amount of salt for you and the best sources.

Aim to drink

6–8

8-oz. glasses of water every day to help with low blood pressure.



Drinking a large, cold glass of water before standing can boost your blood pressure for a short period.

Limit alcohol.

Alcoholic beverages can temporarily lower blood pressure. If you drink alcohol, drink extra water to stay hydrated.

Eat smaller meals.

For some people, eating, especially large meals, can lower blood pressure as blood diverts to the digestive system. Smaller meals throughout the day may even out blood pressure fluctuations.

Exercise regularly.

A moderate but regular exercise routine is good for general health and blood pressure. But avoid excessive sweating or long periods in the sun or heat, which can worsen low blood pressure. Always hydrate before and during exercise and consider carrying salty snacks, such as a package of salted nuts, in case you need a boost.

There are other ways to manage low blood pressure, too. These may include changing positions (such as standing up) slowly, avoiding long periods of standing without moving, raising the head of your bed when sleeping, or wearing compression hose or an abdominal binder, which help blood circulate.

Review your medications with your doctor to see if any might contribute to low blood pressure. You may no longer need a drug you once did to control high blood pressure, or you may need to adjust the dose or timing. Other drugs — certain antidepressants, fluid pills or bladder medications — also can decrease blood pressure.

When diet, lifestyle and medication changes aren't enough or if symptoms are significant, your doctor may prescribe a drug to raise blood pressure.

Swallowing Problems

Over time, a person with PD may experience trouble eating or drinking. It may be more difficult to swallow certain foods or liquids, you may have to clear your throat more often, or you might cough with meals. For some, it feels like food gets stuck as it's going down. Swallowing problems can be mild or more significant, and they could increase risk for choking or pneumonia. Your doctor and a speech therapist can evaluate and treat swallowing problems.

They'll offer recommendations personalized for you, your dietary preferences and your specific swallowing problems. These may include:

Mealtime strategies

Tucking your chin while swallowing, taking small bites and chewing slowly, not drinking through straws, and waiting until after meals to drink beverages.

Diet changes

Thickening liquids with nectar, honey or other agents to make them easier to swallow; making foods softer; or avoiding foods that may be harder to swallow, such as dry breads, crackers and rice. There are many recipes and cookbooks for easier-to-swallow meals.

Exercises

Speech-therapist prescribed activities to strengthen swallowing muscles.

For care partners, the Heimlich maneuver

Learn to monitor for signs of choking and how to help, in case of emergency, with the Heimlich maneuver, also called "abdominal thrusts."

Parkinson's medications may help swallowing somewhat, but they often don't fully address symptoms. And it may be harder to take your pills when you have trouble swallowing. Ask your doctor and pharmacist about other options. Levodopa, for example, comes as a capsule (Rytary) that can be opened and sprinkled on applesauce or food of similar consistency, a tablet that dissolves in the mouth, and a gel (Duopa) that's continuously infused directly into the small intestine. "Rescue" medications, for a sudden or unexpected return of symptoms ("off" time) are available as an injection (Apokyn, or apomorphine), inhaler (Inbrija, or levodopa) or under-the-tongue dissolvable strip (Kynmobi, or apomorphine).

Smell Loss

Many people with Parkinson's notice that their ability to smell decreases or goes away over time. In some, it's even the earliest sign of the disease, happening years or decades before motor symptoms and diagnosis.

Losing your sense of smell affects your sense of taste. And if you can't taste, eating may be less enjoyable. With smell and taste loss, some people lose their appetite, which can lead to weight loss.

If you have smell loss, consider these tips to make meals more interesting:

Add spice.

Many people find that spices, such as cayenne pepper, or hot sauce boost flavor. Vinegar, ginger, or mint or other fresh herbs also can add stronger flavor.

Try sour foods.

Plain yogurt, lemon juice or sorbet, and pickles may be easier to taste and can add dimension to your meals.

Play with texture and temperature.

For texture, you might try nuts or celery for crunch, a carbonated beverage for bubbles and fizz, or peanut butter or honey for stickiness. Experiment with different temperatures; some people prefer warmer foods and others, cooler. And you can mix and match — top a warm bowl of soup with a dollop of cool yogurt or sour cream, for example.

Get colorful and creative.

When foods are visually appealing, they're more enticing. Use care and creativity with how you put your food on a plate or in a bowl. Use veggies, spice and other foods of all different colors.

Make a meal an event.

Eat with others, if possible, to enjoy company and connection while eating. If you're eating a favorite meal, talk about why you love it, where the recipe came from, or what you remember about

making or eating it as a child. Add candles or music, if helpful, and sit together at a table, away from TV and other distractions.

Weight Loss

Sometimes, smell loss or other Parkinson's symptoms, such as significant involuntary movement (dyskinesia), can lead to weight loss. If you have trouble maintaining weight, try to eat foods that contain a lot of calories in a small portion (they are calorie dense) but that are also full of nutrients. Examples include nuts and nut butter (such as almond or peanut butter), tahini, whole grains, eggs, avocados, olives, and olive or other plant-based oils. Avoid or limit high-calorie foods that do not provide nutrition, which include crackers, chips, cookies and other baked goods.

Another option to boost calorie intake may be smoothies, made with nut butter, avocado, and other calorie- and nutrient-dense items. You can add protein powder for even more calories.

Mood Changes

A lot of people with Parkinson's feel down or depressed or experience a lack of motivation (apathy). These symptoms can bring fatigue or decrease energy. And they can make healthy-eating efforts more challenging and less enjoyable. What's more, not eating well can worsen mood changes and fatigue, making it even tougher to build and maintain healthy habits.

One strategy for managing apathy is goal- and schedule-setting. It may be helpful to set a nutrition-based goal, such as preparing one meal a week. Enlist your loved ones and family members to not only help, but also keep you accountable. If apathy tends to worsen in the afternoon or evening or later in the week, try to plan, shop or prep meals ahead of these times, when you are feeling your best and your Parkinson's symptoms are well-controlled.

Mood changes are a common part of Parkinson's. They are treatable with exercise, medication and/or talk therapy. If mood changes impact your ability to make and enjoy meals or to do other activities you want or need to do, speak with your doctor.

Sleep Problems

Many people with PD have trouble falling or staying asleep. Sleep troubles can cause fatigue and worsen mood or memory changes as well as other Parkinson's symptoms. They also can increase cravings for processed foods, sweets and other less nutritious options which can drain energy.

Healthy eating may not fully solve sleep problems. But research indicates that, in general, those who follow a balanced diet report better sleep. And although not conclusive, research also suggests that some foods may promote sleep. These include kiwifruit; sour, or tart, cherries; dairy or soy milk; and chamomile tea.

Other tips for improved sleep may include:

Don't eat too close to bedtime.

Try to eat your last meal at least three hours before bed so your body has time to digest. Eating anything, especially when spicy or fatty, before bed can cause stomach upset, reflux and indigestion. Also, high-carbohydrate meals may make you feel sleepy but could interfere with sleep quality. Aim for a balanced dinner, with protein and carbs, to enhance sleep.

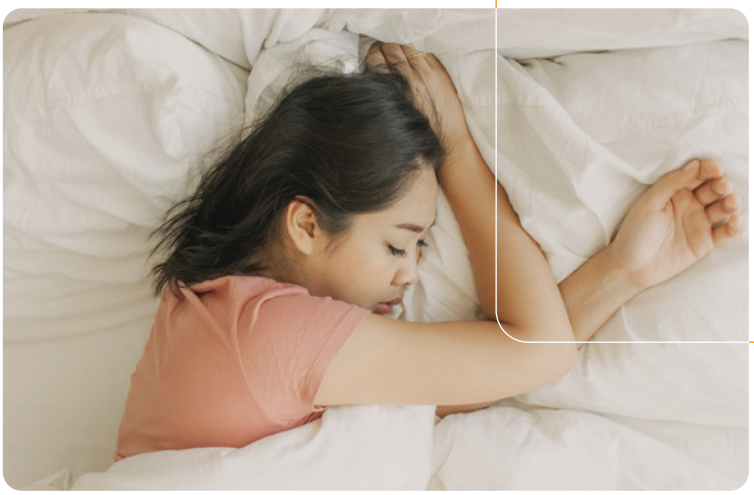
Limit liquids in the evening.

It's important to drink water throughout the day, particularly if you have constipation or low blood pressure. But watch fluid intake in the late afternoon and early evening, especially if you wake up to use the bathroom during the night. Also pay attention to caffeine — in soda, coffee and tea — as well as alcohol. Caffeine can make it harder to fall asleep. Alcohol may actually help you get to sleep, but it impacts how well you do.

Practice good sleep habits.

Go to bed around the same time each night and get up around the same time each morning. Create a wind-down routine about an hour before bed in which you ready your mind and body for sleep. You could read a book, sip a cup of decaffeinated tea or take a warm bath. Keep your room cool, dark and quiet for the best sleep. For more, check out MJFF's guide on Sleep and Parkinson's Disease at **michaeljfox.org/sleepguide**.

Those who follow a balanced diet report better sleep.



Keeping Regular Meal Times

María L. De León, MD
age 54; MJFF Patient Council Member; Nacogdoches, Texas

One of the things I have found with Parkinson's is that what you eat is just as important as when you eat. I have to be very regimented, consistently eating three meals a day and no later than 6 p.m. Otherwise constipation worsens.

This is different than how I was used to eating with my Spanish culture. In my family, as in most Hispanic families, lunch usually happened around 2-3 p.m. and dinner around 8 p.m. because everyone stays up late. But my digestive system can no longer keep up with my heritage. At home, we keep a more traditional American schedule, which drives my De León family nuts! But anytime I get together with family, we end up eating late. I can't resist my family's cooking, so I take much smaller portions. But these still worsen my digestive problems.

I tolerate liquids and fruits best. And for protein, it's eggs. They're easy to make and easy to swallow. They can be made so many different ways — hard-boiled, scrambled with queso fresco cheese and topped with salsa, in an egg-salad sandwich, or as an egg white frittata with spinach or tomato. An over-medium egg does the trick, too, as long as it's covered in hot sauce, chilies or peppers, or dried crushed red pepper. Spices improve digestion and add color and taste for those of us with poor sense of smell.

Diet and Parkinson's Drugs

For some people, adjusting the content or timing of meals may help certain Parkinson's medications work better or limit side effects.

Levodopa/Carbidopa

Examples: Dhivy, Duopa, Inbrija, Rytary, Sinemet, Stalevo

Levodopa is absorbed in the same part of the gut as the protein in food. Taking levodopa at the same time as eating protein (meat, fish, cheese, beans or nuts) may mean less medication is absorbed. For many people, especially early in Parkinson's, this is not a problem. But later in the disease, some people notice that protein impacts how well their medication works. Medication might take longer to kick in or sometimes not kick in at all. Or, medication benefit might wear off before the next dose is due.

In that case, it may be helpful to separate medication from meals, taking a pill 30 to 60 minutes before or after eating. The best timing varies depending on the person and their levodopa formulation. Longer acting forms, such as Rytary, may need more separation. Also watch for protein in places you might not expect, such as oatmeal, quinoa or buckwheat. If you are highly sensitive to the protein-medication interaction, you might want to save higher amounts of protein for evening and eat more carbohydrates and low-protein foods during the day when it's most important for medication to work well. (This is called the "protein redistribution" diet.)

If taking levodopa on an empty stomach causes nausea or other symptoms, try combining with a low- or no-protein snack such as crackers, toast, a few veggies or a piece of fruit.

Dopamine agonists

Examples: Apokyn (apomorphine), Kynmobi (apomorphine), Mirapex (pramipexole), Neupro (rotigotine), Requip (ropinirole)

Unlike levodopa, this class of drugs does not compete with dietary protein. So there are no specific dietary restrictions. But each person has different medication responses and side effects. If your symptoms are not well-controlled, your doctor may recommend taking the drug on an empty stomach. If, on the other hand, medication causes nausea or upset stomach, your doctor may suggest taking it with food.

MAO-B inhibitors

Examples: Azilect (rasagiline), selegiline, Xadago (safinamide)

These medications increase a natural substance in the body called tyramine, which regulates blood pressure. When mixed with foods that are high in tyramine, these drugs could significantly raise blood pressure. This is a rare, but serious, potential interaction. You don't have to cut out tyramine-containing foods but it's best to eat them in moderation.

Foods high in tyramine:

+ Alcohol: tap beer, wine, vermouth
+ Aged cheese: blue cheese, Camembert, Swiss
+ Cured, fermented or air-dried meat: mortadella, salami

In general, it's a good idea to avoid these processed meats. They may contain a lot of sodium and, when eaten regularly, could contribute to heart and other disease.

+ Fermented cabbage: kimchi, sauerkraut
+ Pickled fish: herring, lox
+ Soybean products: miso soup, soy sauce, tofu

Tips and Tools for Eating Well with Parkinson's

For some, Parkinson's might interfere with planning, prepping and eating healthy meals. Low blood pressure or unsteadiness can make grocery shopping or standing in the kitchen more challenging. A hand tremor or stiffness can make chopping vegetables or eating soups tougher. Apathy can make any activity feel like an uphill battle.

In addition to general tips for healthy eating (see page 18), here are suggestions for making meal-related tasks a bit easier when living with Parkinson's:

Get the right equipment.

Many kitchen tools can make meal prep and cooking much easier. A few examples:

Chef's knife

You can use this type of knife to cut most fruits, vegetables and other foods. It doesn't have to be expensive, just sharp. The sharper the knife, the easier it is to cut food without cutting yourself. Some people also wear cut-resistant gloves for extra safety.

Food processor or chopper

These come in various brands and sizes, both automatic and manual. You can use these to chop veggies; make nut butters, hummus or other dips and sauces; and even grind meat or shred cheese.

Blender

Like most tools, there are many different versions and styles of blenders. These create a smooth, soft consistency for smoothies, soups and sauces. Consider a high-speed standing blender for smoothies or a handheld immersion blender for soups and sauces. A high-speed blender can even help reduce chopping needs if it can break down bigger pieces of fruits and veggies.

Silicone molds and trays

These are helpful for food prep and storage. When making larger batches of soups, smoothies or sauces, you can freeze smaller portions in these molds. Then pop them out and defrost when ready to use, especially on days when you don't feel like cooking or don't have much time.

Non-slip mats

These tools can keep you and your kitchen tools stable. Use one under your cutting board to prevent movement while chopping. (Or get a non-slip cutting board.) And put one under your feet to make standing more comfortable.

Easy-to-use utensils

Larger and heavier utensils may be easier to manipulate, dampen tremor, and make eating smoother. There are many different types of utensils, cups and other tools to make mealtime easier.

Air fryer

With an air fryer, you can (quickly!) make crispy vegetables, chicken or fish without preheating your oven or using lots of unhealthy fat. An air fryer is a nice-to-have, not a need,-to-have, but it's helpful for some.

Plan and prep when you feel best.

Parkinson's can have up and down times. While these can be unpredictable, you may have windows when medication typically works best and symptoms are least bothersome. Plan your meals, shop and prep during those periods. If your apathy or fatigue comes on later in the day, get meal prep out of the way earlier so it's one less thing to do before dinner.

Take shopping shortcuts.

Some people have trouble shopping because of walking or balance changes. Try to go when medication is working best and, if possible, when the store is least crowded or cramped. Push a cart to help balance or use a motorized scooter, if available. Consider farmers markets too, as these may be easier to maneuver.

You also could ask a neighbor or loved one to grab groceries. Or order groceries or meals online for pickup or delivery.

Make yourself comfortable.

Standing at the kitchen counter to prep meals, especially for longer periods, may be tough. Instead, sit on a tall chair or move to a table so that you don't have to worry about standing or balancing while working. And make sure you've got everything you need before you start. Not having to move back and forth can save time and energy.

Choose recipes that work for you.

A casserole or a one-pot meal — something you can throw together in a rice cooker, instant pot or slow cooker — may be easier than one that requires multiple steps and multitasking. Sheet pan meals are another simple, easy-to-clean up option. You can find all sorts of recipes for these types of meals, which typically include a protein, veggies and sometimes sauce. Add a side of whole grains and some fruit for a complete, nutritious meal.

Have a backup plan.

We all have days when we don't feel well or don't feel like cooking. These may happen more often in Parkinson's. When you feel up to it, make extra portions of a meal or ingredients that freeze well so you can easily thaw and reheat.

Try to plan, shop for and prep meals in windows when medications are working best.

Healthy, Tasty Choices for a Busy Family

Claudia Revilla
age 57; MJFF Patient Council Member; Peoria, Illinois

Food is more than nourishment for the body. It's a way to bond with others. Its purpose is to bring happiness, which is much needed by people living with Parkinson's and their loved ones.

When I was diagnosed with Parkinson's, I was in my early forties, with two young boys and a busy husband. Our immediate goal was to figure out how to make things easier around the house.

Meal planning can be time consuming (young family with busy children anyone?) and stressful (the last thing a person with Parkinson's needs). It also can involve long shopping lists (more errands and inevitably forgetting ingredients) and lots of cleaning up (ugh!). And after you start the dishwasher, it's homework, bath, bedtime and Parkinson's. Chaos began at 5 a.m. and ended at 10 p.m.!

One day, before picking my boys up from school, while thinking about what's for dinner, I happened to see a celebrity chef on TV, making the simplest, most delicious sandwiches with rotisserie chicken. Easy to replicate and a family pleaser! I began paying attention to ways to simplify cooking and added my own ideas and ingredients. The secret was losing fear of making mistakes and gaining confidence in opting for healthy and tasty choices for me and my family.

The Revilla family signature dish: Chipotle Chicken.

Ingredients

1 large tomato, chopped, or 1 15-oz can of diced tomatoes

½ white onion, chopped

2 cloves garlic, chopped

1 cup low-fat cream cheese

1 cup low-fat sour cream

1-2 chipotle peppers from a can, chopped (adjust to desired spiciness)

Juice or salsa from chipotle pepper can

1 heaping tablespoon of chicken bouillon

3-4 chicken breasts, cut into piece

Instructions

Blend the tomato, onion, garlic, cream cheese, sour cream, chipotle peppers, juice from chipotle pepper can, and chicken bouillon. Pour this thick salsa over three or four chicken breasts, cut into pieces, in an oven-safe dish, making sure all the chicken is covered with sauce. Cover with foil and bake at 375°F for approximately one hour and 15 minutes.

In a rice cooker or on the stovetop, follow instructions to cook plain white rice. Once it's done, serve with chicken and sauce on top. Enjoy!

FAQs

I've heard fava beans contain levodopa. Should I eat them for Parkinson's?

Levodopa helps temporarily boost dopamine, the brain chemical that decreases in Parkinson's, causing movement problems. Most people with Parkinson's take levodopa in the form of prescription medication to ease symptoms.

Fava beans are a natural source of levodopa. But how much they contain, how well your body might absorb it, and if and how your symptoms will respond is unclear.

Because of this, eating fava beans alone to treat Parkinson's may not have a noticeable effect. And eating large amounts when you are taking prescription levodopa might result in too much levodopa and involuntary movement, or dyskinesia.

What about mucuna pruriens? Can I take that for Parkinson's?

Mucuna pruriens, or "velvet bean," is another dietary source of levodopa. It differs from prescription levodopa in that it is not combined with carbidopa, a medication that boosts levodopa's benefits and limits side effects. Because mucuna does not have carbidopa, you may need higher doses or experience nausea or other side effects.

It also can be difficult to figure out how much levodopa you're getting from mucuna and what the best amount is for you. Because the U.S. Food and Drug Administration (FDA) does not regulate dietary supplements such as mucuna, what's in the bottle could be different than what the label says and there may also be impurities or other chemicals.

Using mucuna to treat Parkinson's could result in uneven symptom control and, if taken with prescription levodopa, could cause too much levodopa and dyskinesia.

What supplements should I take for Parkinson's?

There is no supplement recommended specifically for Parkinson's. None has yet been proven beneficial to treat symptoms or to slow or stop the progression of disease.

Doctors and nutrition professionals recommend you get as many nutrients, minerals and vitamins as possible through your diet. But if you have a vitamin deficiency or specific medical condition, your physician may suggest a supplement. If you have falls or are older, for example, you'll want to make sure calcium and vitamin D levels are sufficient for bone health.

Several supplements, including creatine, CoQ10, inosine and vitamin E have, unfortunately, failed to show benefit for Parkinson's in clinical trials. Studies on glutathione, an antioxidant, have shown mixed results, so the potential benefit is unclear. Still, many people with Parkinson's anecdotally report benefit with different supplements.

Simply because supplements are "natural" does not mean they are completely "safe." Always talk with your doctor and pharmacist about the pros and cons, including potential medication interactions and side effects, before starting a supplement. Iron supplements, for example, can interfere with levodopa absorption, so these should be taken a few hours apart.

Is dairy bad for Parkinson's?

Maybe, maybe not. Dairy can worsen non-motor symptoms, such as constipation, which is common in PD. But research has not yet determined whether dairy can impact Parkinson's progression. Some studies have shown a link between three or more servings a day of low-fat dairy products and increased Parkinson's risk. The possible reasons are not clear but may include pesticides or other products in dairy or behaviors outside of eating dairy itself. If you live with a risk for Parkinson's, such as having a family member or a genetic link, it may be prudent to limit dairy intake or eat types of dairy that have not been linked to Parkinson's risk, such as yogurt or kefir.

Can coconut oil treat Parkinson's disease?

Coconut oil contains high amounts of fats called medium-chain triglycerides (MCTs). The body uses these fats quickly and efficiently, so some believe MCTs could improve overall health and brain function. Some people with Parkinson's have, anecdotally, reported benefit from coconut oil for both motor and non-motor symptoms, including constipation and thinking and memory problems. But at the current time, there is no validated scientific research to support the use of coconut oil in PD.

Coconut oil is high in unhealthy saturated fat. This can raise "bad" cholesterol (LDL), which can increase risk of heart disease, stroke and other conditions. For this reason, it's typically recommended that, if you want to use coconut oil, you use it as a replacement for, rather than in addition to, other saturated fats like butter.

Is coffee good for Parkinson's?

At the current time, there's no significant support for coffee or caffeine to slow Parkinson's progression or to treat symptoms. In some people, caffeine increases PD symptoms, such as tremor and anxiety. But because coffee and green tea contain antioxidants, a daily cup may be good for general health. (Just don't add lots of refined sugar!)

In large population studies, researchers found that people who drank coffee seemed to have a lower risk of Parkinson's. This shows a relationship but does not prove that coffee prevents Parkinson's. Still, researchers can follow these types of clues to learn more about the disease and develop potential treatments. As an example, a recently approved PD medication works in the same brain areas as caffeine.

How is the gut connected to Parkinson's?

Parkinson's can involve the gut (digestive tract) in different ways. Many people experience constipation, sometimes years or decades before motor symptoms and diagnosis. Because of this, many researchers believe Parkinson's starts in the gut and moves to the brain. Others experience irregular or slower stomach emptying after eating, which can lead to nausea, bloating and fullness. Digestive symptoms can decrease the benefit of Parkinson's medications.

People with Parkinson's also have different gut bacteria (microbiome) than people without Parkinson's. Researchers are studying whether this is a cause or result of Parkinson's disease, or if it might be from Parkinson's medications or other factors, such as diet.

The gut and microbiome are intense areas of research in Parkinson's. Learning when and how Parkinson's impacts the gut could lead to earlier diagnosis, better treatments for symptoms like constipation, and a way to slow or stop disease changes over time.

The gut and microbiome are intense areas of research in Parkinson's.

While research is not conclusive, 1 daily cup of coffee may be good for general health.

Section 03

Research on Diet, Brain Health and Parkinson's

Research and Diet, Brain Health and Parkinson's

"Eggs are a nutritious source of protein."

"Red meat in moderation."

"A glass of red wine is good for your heart."

"Eggs might raise your cholesterol."

"Avoid all animal products."

"The risks of drinking wine may outweigh the benefits."

Health headlines often provide conflicting information. As research evolves, the news and recommendations evolve, too. But it can be hard to know, based on the latest news, when to shift your diet or stay the course.

Here, learn how scientists study diet, what we know about diet and brain health and where we're headed, and how to be a savvy consumer of diet and other science news.

How scientists study diet

Research studies are carefully controlled experiments. The best studies compare a group of people that gets a treatment, such as a specific diet, with a group that doesn't. Neither the participants nor the researchers know who gets treatment and who doesn't. It's nearly impossible to structure diet studies this way.

Many research studies test a certain diet in a small group of people, without a comparison group. In this setting, it can be hard to specify and monitor exactly what and when a person eats, or to know if someone truly follows a prescribed plan. It can be especially tough to do this in large groups of people for long periods of time. It's also difficult to control for other factors, such as exercise, that might influence results. It may not be possible to tell whether a benefit or improvement is from diet itself or from a new motivation or greater sense of well-being. In other words, a person may feel better simply because they are taking a positive action in their health.

Another way to study diet is through questionnaires. Researchers might ask what types of foods you eat, how long you've followed a certain diet, and whether you have certain medical conditions or develop them over time. It can sometimes be hard for people to recall these details with certainty, and this can lead to inaccuracies. And these types of studies can only show links; they cannot prove cause and effect. For example, a survey-based study may conclude that people who eat more berries are less likely to have memory changes. This means berries are correlated with memory, not that they prevent memory changes.

Like many clinical trials, much diet research has not, in general, included broad, diverse and underrepresented populations. However, researchers, funders, advocates and others are working to design and lead trials that are widely accessible and available in order to gather results that are relevant and useful to all.

Ongoing trials aim to learn how diet impacts Parkinson's symptoms and disease course, and which is best for people with PD. If diet is of interest to you, this may be an area to get involved. Many research opportunities are available. Some ask you to complete an online questionnaire about what you eat and how you feel. Others ask you to follow a specific way of eating to see if and how it impacts symptoms. All studies need volunteers both with and without Parkinson's. Find recruiting studies at foxtrialfinder.org.

What we know about diet and brain health

In the last few years, more and more research has looked at how diet affects brain health. What we eat plays a role in how healthy — or unhealthy — our gut (digestive system) is. And the gut and the brain "talk" via nerves, body chemicals and other pathways. We've all experienced this brain-gut communication: losing our appetite when upset or feeling sleepy after a large meal. A diet that supports gut health is a diet that supports brain health.

The gut holds trillions of bacteria. This is called the microbiome. Most gut bacteria are helpful. They aid in food digestion, nutrient absorption and vitamin making, and they support the immune system. Some, far fewer, bacteria are potentially harmful. Each of us has a unique microbiome, with different types and amounts of both good and bad bacteria. Our microbiome is based on what we eat, what medications we take, where and how we live, and sometimes also diseases we have. Researchers understand that an unbalanced microbiome, with more bad and less good bacteria, is linked to symptoms, such as constipation, and disease, such as Parkinson's. But they have not yet figured out how, exactly, they are linked. For example, do changes in the microbiome cause disease or are they a result of disease? They also have not yet learned the "optimal" microbiome, which is likely different for different people, and how best to modify the microbiome to treat or prevent disease.

Where research is headed

Science is working toward answers to these and other questions, and toward better therapies and more specific dietary recommendations for the treatment and potentially prevention of a wide variety of diseases.

Currently, we all rely on the same general dietary guidelines for health. But we're working toward more personalized dietary guidelines, or "precision nutrition." Like precision medicine, which aims to develop drug and other treatments specific to each unique individual, precision nutrition aims to create personalized nutrition plans. These would be tailored to each person, based on their genetics, medical conditions, lifestyle, microbiome and other factors.

How to be a savvy science consumer

Diet is a popular topic, both in the news and in our social circles. We're regularly inundated with information and sometimes also misinformation. We hear about the latest research updates, the newest fad, or the diet that a friend successfully follows. Amidst all this, it can be hard to separate fact from fiction.

As you sort through news, keep a healthy bit of skepticism. Don't believe everything you read or hear. If it sounds too good to be true, it probably is. Consider these tips, too:

+ Go to the original source

Find out where the information was published. A well-respected, peer-reviewed journal, such as Journal of the American Medical Association, New England Journal of Medicine, or American Journal of Clinical Nutrition? Or one not as widely recognized? Check the study basics: how many people participated, how long the studied lasted, how the researchers gathered data. Smaller, shorter studies and those based on surveys may not provide strong evidence.

+ Compare news coverage

See if and how other sites are reporting the information. Are they communicating similarly or are there competing views?

+ Dig deeper

Figure out who is reporting and why. Is there an underlying motivation, such as profit-seeking (if a product is being sold, for example), a political agenda, or exaggeration to grow viewership?

+ Put news in context

Look to trusted sources, such as your physician, dietitian or credible organizations, to get the full story. Learn if and how the news applies to you. Did the study involve people with backgrounds or experiences similar to yours? Might some, but not all, information be relevant? The same goes when someone shares their personal success (or failure) with a specific diet or other treatment. Just because it worked for them, doesn't mean it'll work for you.

+ Develop a checklist to evaluate news

Create a set of criteria or questions you can use to gauge the accuracy of news stories. Make a list of red flags, such as words like "miracle cure," that raise concern.

+ Pause before sharing

Do your research before forwarding an email or sharing a social post. Make sure the information is correct and credible to avoid spreading misinformation.

Science is working toward answers to where research is headed.

Appendix

Glossary

Antioxidant
a substance that can prevent or slow cell damage caused by free radicals. Free radicals are normal, but harmful, products of certain processes in the body, such as digestion. But they also can happen with exposure to sunlight, tobacco and other factors.

Carbohydrate
Energy source for the body. Carbohydrates contain sugars, starches and fiber. Your body uses carbs for energy and stores any extra. Carbohydrates are found in most foods including vegetables, fruits, breads and pasta. (Remember there is a difference between the healthier carbs in fruits and vegetables and the ones found in highly processed foods, such as baked goods.)

Fat
Another fuel source for the body and a way to store energy. Fat is broken down into fatty acids and extra is stored. Fat contains more calories per gram than either carbohydrates or protein. It can be healthy or unhealthy. Unsaturated fats, found in olive oil, seeds and nuts, and avocado, are healthy. Saturated fats, found in meat, dairy and baked goods, are unhealthy, especially when eaten in high amounts.

Inflammation
A protective mechanism to fight disease or injury. Sometimes inflammation happens when there is no disease or injury, because of an unhealthy diet, for example, or other stressful factors.

Mineral
An element from the earth and food that the body requires to work properly. Minerals essential for good health include calcium, phosphorus, potassium, sodium, chloride, magnesium, iron, zinc, iodine, chromium, copper, fluoride, molybdenum, manganese and selenium.

Nutrient
A substance, such as a vitamin or mineral, that helps the body function.

Plant-forward
A way of eating that emphasizes plant foods, such as vegetables and whole grains, but is not limited to only plant foods. Animal products, such as meat and dairy, are a much lesser component.

Prebiotic
A nondigestible substance in food that promotes growth of "good" bacteria in the gut. Examples of prebiotic foods include asparagus, artichokes, garlic, onions, bananas, barley, oats and cocoa.

Probiotic
Live bacteria that live in the gut. These are "good" bacteria that support body health and function.

Processed food
A food that has been altered during preparation. A cut apple is technically processed, but very minimally. A bag of peas or can of beans is also minimally processed. A potato baked and served with olive oil and herbs is also processed, but not heavily. Ultra-processed foods don't resemble natural products and often contain artificial colors, added sugars and other unhealthy substances. Examples include hot dogs, cold cuts and packaged cookies.

Protein
Building blocks of our cells. Proteins are broken down into amino acids that are necessary for the body to function. Excess protein is stored as fat. Protein is found in both animal and plant sources. Animal sources include meat and fish; plant sources include beans and soy products.

Vitamin
a compound necessary for normal growth and nutrition. The body doesn't make vitamins on its own; it derives them from what we eat.

Recipe Ideas

Breakfast

Easy Frittata

Ingredients

Olive oil spray

1 tsp olive oil

6 large eggs

2 cups spinach (or kale or collard greens, with ribs removed and chopped)

½ red bell pepper, chopped finely

½ red onion thinly sliced or ½ cup shallots thinly sliced

1 tablespoon fresh or 1 tsp dried chopped oregano (You can omit this and substitute your favorite herbs, spices or seasonings.)

¼ cup crumbled feta cheese

½ cup water

Pepper to taste

Instructions

1. Preheat oven to 350° Fahrenheit and spray muffin tin with olive oil cooking spray.
2. Heat 1 tsp olive oil in a pan and sauté the peppers and onions for about 3-5 minutes to remove moisture. Add spinach and cook for a few minutes, until leaves begin to wilt.
3. Meanwhile, crack the eggs into a medium bowl and whisk with ½ cup water, oregano and pepper. Set aside.
4. Divide the vegetable mixture between the prepared muffin tins. Pour egg mixture over the vegetables. Top with feta cheese.
5. Cook in preheated oven for about 20 minutes until the eggs are firm.

These can be eaten immediately or cooled and stored in an airtight container in the fridge for 3–4 days.

Notes: Use whatever vegetables you prefer. You could try mushrooms (sauté alone about 5-7 minutes to remove moisture); cherry tomatoes (quarter and add directly to egg mixture; no need to cook); or zucchini (diced and sautéed with the other vegetables).

More healthy breakfast ideas

+ Scrambled eggs with sautéed veggies and whole wheat toast. You can mix beans with the eggs or put them on the side with your favorite seasonings.
+ Breakfast tacos with vegetables, beans and eggs wrapped in corn tortillas. Top with your favorite salsa and/or avocado.
+ Whole-grain oatmeal (not packaged and flavored instant oatmeal) with your favorite berries, chia seeds and a sprinkling of almonds.
+ Avocado on whole wheat toast, topped with your favorite veggies, such as spinach, tomatoes or onions and drizzled with olive oil.
+ A smoothie of unsweetened, plant-based milk (almond, oat, cashew or other) or plain, unsweetened Greek yogurt, which is high in protein, mixed with fruits, leafy greens, and a small amount of almond or peanut butter without added sugar or oil. (Watch portion size. One serving is about 6-8 ounces.)
+ Use whole wheat flour or ground oats (grinding your own is cheaper than buying oat flour), plant-based milk and a touch of honey to make your own pancake or waffle batter. Top with berries or a small amount of syrup.

Lunch and Dinner

Upgraded Spaghetti and Meatballs

+ Instead of white pasta, use whole-wheat or other whole-grain pasta, such as brown rice or even lentil pasta.
+ Swap 93/7 ground turkey for ground beef or use half turkey and half 90/10 beef. (93/7 means 93 percent lean meat and 7 percent fat. 90/10 means 90 percent lean meat and 10 percent fat.)
+ If possible, use grass-fed beef, as this has a better balance of fats.

→ See page 7.

+ Add grated, drained zucchini or minced mushrooms to up the veggies and decrease the meat.
+ Look for jarred pasta sauce (if not making your own) with no added sugar and low sodium.

Use whole-wheat or whole-grain pasta instead of white pasta.

Mediterranean Salad

This recipe, which incorporates lots of healthy veggies and protein, can be made well in advance of mealtime.

Ingredients

2 15-ounce cans chickpeas, drained and rinsed

1 large cucumber, diced (or 2 Persian cucumbers), with peel on

1 red bell pepper, diced

2 cups cherry tomatoes, halved or quartered

¼ cup red onion, diced

4 oz feta cheese, crumbled

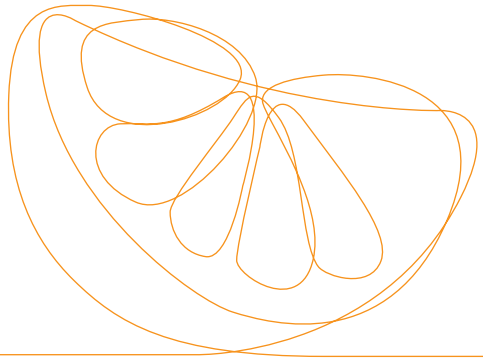
¼ cup parsley, finely chopped

Lemon vinaigrette (see below)

Instructions

1. Add all ingredients to a mixing bowl.
2. Toss with lemon vinaigrette (see next page) or serve with lemon vinaigrette on the side.

Notes: You can chop vegetables as coarsely or finely as you like. If there are ingredients you don't like, omit them or replace with another. You could substitute carrot, for example, for bell pepper. The salad will keep in an airtight container in the fridge for about five days.



Lemon Vinaigrette

Ingredients

⅓ cup olive oil

¼ cup lemon juice

1 teaspoon Dijon mustard

½ teaspoon honey

1 garlic clove, minced

Salt and pepper to taste

Instructions

Add all the ingredients to a small bowl and whisk together.

Note: You can use this for side salads, chicken or fish, and other meals, too. Store any unused vinaigrette in an airtight container in the fridge.

Butternut Squash Soup

This is easy to make in big batches, freeze and reheat when you don't feel like cooking.

Ingredients

2 tablespoons extra-virgin olive oil

1 large yellow onion, chopped

½ teaspoon sea salt

1 (3-pound) butternut squash, peeled, seeded, and cubed, which makes about 3-4 cups chopped.

3 garlic cloves, chopped

1–2 tsp of curry powder (or more to taste)

1 teaspoon grated fresh ginger

3 to 4 cups vegetable broth

Freshly ground black pepper

Instructions

1. Heat the oil in a large pot over medium heat. Add the onion, salt, and several grinds of fresh pepper and sauté until soft, 5 to 8 minutes. Add the squash and cook until it begins to soften, stirring occasionally, for 8 to 10 minutes.

2. Add the garlic, curry powder, and ginger. Stir and cook 30 seconds to 1 minute, until fragrant, then add 3 cups of broth. Bring to a boil, cover, and reduce heat to a simmer. Cook until the squash is tender, 20 to 30 minutes.

3. Let cool slightly and pour the soup into a blender, working in batches if necessary, and blend until smooth. If your soup is too thick, add up to 1 cup more broth and blend.

More healthy lunch and dinner ideas

+ Use soba noodles, which are made of buckwheat (a whole grain), or whole-wheat spaghetti for a hot or cold salad. Add your favorite vegetables and toss with peanut sauce.

→ See page 59.

  For protein, add tofu, chicken or shrimp.

+ Add whole grains or legumes to up the protein and nutrition of salads. Mix black-eyed peas with chopped vegetables or toss corn and black beans together for an easy side.

+ Prepare soups and chilis with leaner protein — at least 90/10 ground beef or 93/7 ground turkey. Add more vegetables or beans to cut down on the amount of meat. Brown meat and sauté vegetables in olive oil rather than butter or bacon fat.

+ Make tacos more nutritious by using corn tortillas and adding beans or minced mushrooms to reduce the amount of meat. Top with avocado, veggies or homemade salsa.

→ See page 58.

Sweet Snacks

Coconut Date Balls

Dates are naturally sweet — they don't have any added sugar. They also are full of nutrients and healthy antioxidants.

Ingredients

10 Medjool dates, pitted

2 cups pecans

Pinch of sea salt

¼ cup unsweetened plus 1 tablespoon shredded or desiccated coconut

Instructions

1. Soak pitted dates in warm water for about 10 minutes, until they soften.
2. Place the pitted dates and pecans in a food processor. Add one tablespoon of coconut. Blend on high until the mixture reaches a sticky, dough-like consistency.
3. Scoop about 1–2 tablespoons of the mixture and use your hands to roll it into a ball.
4. Pour the rest of the coconut on a plate and roll each ball in coconut, gently pressing so the coconut sticks.
5. Store in the fridge in an airtight container for up to 10 days. You can also freeze and defrost when you are ready to eat.

Makes about 12–14 bites.

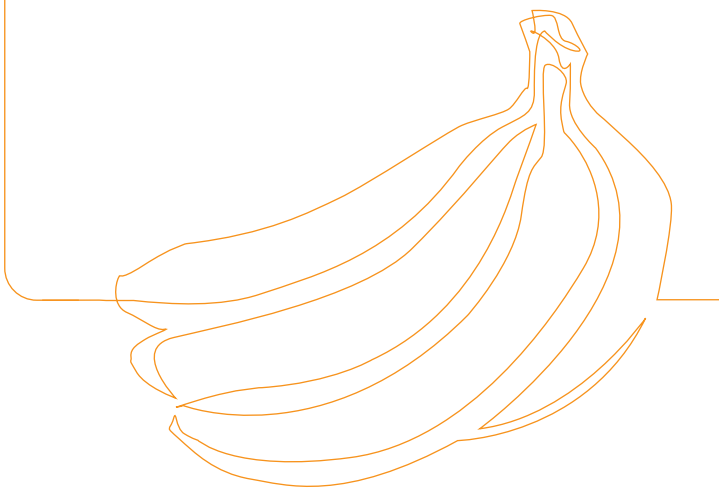
More sweet snack ideas

+ A piece of fruit, such as an apple or pear, with the skin on, dipped in a tablespoon of no-sugar, no-oil added peanut or almond butter.
+ ¼ cup dried fruit without added sugar and a handful of roasted nuts or seeds.
+ A homemade smoothie with fruit and plant-based milk or plain low-fat yogurt.
+ ½ cup plain low-fat yogurt with a teaspoon of honey. Don't use too much honey as your body breaks it down the same way as sugar.

Banana "Ice Cream"

This is a soft and sweet, but healthy, treat that contains no added sugar.

Slice overripe (brown) bananas into circles and place them in a bag in the freezer. When you crave a sweet, cold treat, throw frozen banana pieces in a blender and blend until smooth. Add your favorite spices, such as cinnamon, pumpkin pie spice, chai powder or unsweetened cacao powder. Top with cacao nibs if you want to add a crunchy texture.



Savory Snacks

Homemade Tortilla Chips

When you make your own chips, you can use the best ingredients and avoid deep frying. Corn tortillas count as a whole grain, which is an added benefit!

Ingredients

12 corn tortillas

3 tablespoons of olive oil

Spices of your choice

Instructions

1. Preheat oven to 325° Fahrenheit.
2. Take 4 corn tortillas and stack them on top of one another, cutting them like a pizza into 8 triangular pieces.
3. Toss triangles in a bowl with about one tablespoon of olive oil and whatever spices you like. Suggestions: salt and pepper; sweet or smoked paprika; garlic and onion powder; nutritional yeast (for a vegan "cheesy" chip); or rosemary, thyme and oregano.
4. Place the seasoned triangles on a baking sheet in a single layer. (You may need to use more than one sheet or bake in batches.)
5. Bake tortillas for about 10 minutes or until the edges are browned. Remove and let cool. They will continue to crisp up once they are out of the oven so don't overdo them.

To use an air fryer instead: Prepare triangles as above. Spray fryer with olive oil cooking spray. Cook a single layer of tortilla triangles at 350° Fahrenheit for 3 minutes. Then flip the chips, adding a little olive oil cooking spray if they appear dry. Cook for another 2–3 minutes or until slightly browned. Remove and let cool.

More savory snack ideas

+ Two tablespoons of hummus with carrots, celery, cucumbers, or your favorite veggies.
+ A handful of unroasted, lightly salted nuts. Watch portion size, as nuts are high in calories.
+ One dill pickle. Watch portion size, as these are high in sodium.
+ One serving of olives.
+ Edamame with a pinch of salt. You can buy this frozen and already shelled.
+ Seaweed, which can be found in snack-sized packages or purchased in larger sheets.
+ Hard boiled eggs. Boil a half dozen at the beginning of the week so you have on hand for a quick and protein-filled snack.
+ Roasted, crunchy chickpeas with your favorite seasoning, such as a homemade or low-salt creole seasoning.
+ Plain popcorn, made in an air popper or with canola or olive oil, and topped with your favorite seasonings. Avoid pre-packaged microwave popcorn, which has unhealthy fat and excess sodium.

Sauces and Toppings

Pico de Gallo

Pico de gallo is a great way to use fresh tomatoes and add a punch of flavor to many different foods.

Ingredients

3–4 ripe tomatoes

1 cup chopped onion

1 chopped jalapeno pepper, seeded (optional depending on your desired level of spice)

⅓ cup chopped cilantro

Juice of one lime

Salt and pepper to taste

Instructions

Combine all ingredients in a bowl.

Serve with homemade tortilla chips or on top of tacos, eggs, beans, rice, soups, salads or chilis. Store in an airtight container in the fridge for up to three days.

Chimichurri sauce

Chimichurri sauce is a tangy, vibrant topping for meat or vegetables.

Ingredients

1 cup packed parsley leaves

3 garlic cloves

2 tsp dried oregano or 2 tablespoons fresh chopped oregano

⅓ cup extra-virgin olive oil

2 tablespoons of red or white wine vinegar or sherry vinegar

½ tsp sea salt

Pepper to taste

¼ –½ tsp of red pepper flakes (optional depending on desired level of spice)

Instructions

Hand method: Chop parsley, garlic and oregano finely and place in a medium bowl. Add vinegar and stir. Slowly pour in olive oil while stirring. Make sure all ingredients are well-combined. Add salt, pepper and red pepper flakes (if using).

Food processor method: Place parsley, garlic, oregano and vinegar in a food processor and pulse until chopped finely. With the food processor running, pour in olive oil. Add salt, pepper and red pepper flakes (if using) and pulse a few more times until all ingredients are well-combined.

Refrigerate in an airtight container for up to one week or freeze for up to three months.

You can use chimichurri sauce as a marinade for beef, poultry, seafood. It also can be a topping for any of these proteins or for grilled or roasted vegetables. Try it on beans or grains, too, to add flavor and color.

Peanut Sauce

A savory, healthy sauce that has many different uses and keeps well.

Ingredients

3 tablespoons natural, unsalted creamy peanut butter

2 tsp toasted sesame oil

3 tablespoons reduced-sodium soy sauce

1 tbsp rice wine vinegar

2 cloves garlic, finely minced

1 tbsp honey

Red pepper flakes, to taste

Juice of one lime

Instructions

If peanut butter is too thick, put it in a microwaveable bowl and warm for 10 seconds at a time until you can stir easily. Combine the rest of the ingredients into the peanut butter and stir until well-combined.

Store in an airtight container in the fridge for up to one week.

Use as a marinade for beef or chicken, as a dipping sauce for chicken or shrimp, a topping for stir-fried vegetables, or as a dressing for soba rice noodle salad or a grain bowl.

Kale-Basil-Walnut Pesto

Pesto is a great way to incorporate vegetables, herbs and a good dose of healthy olive oil.

Ingredients

⅓ cup walnuts

2 large garlic cloves, chopped

2 cups gently packed fresh basil leaves

A handful of chopped kale

½ teaspoon salt

¼ teaspoon ground black pepper

⅔ cup extra-virgin olive oil

½ cup grated Parmigiano-Reggiano cheese

Instructions

1. In a food processor combine walnuts, garlic, basil, kale and salt and pepper.
2. Pulse briefly to form a paste.
3. Add the Parmigiano-Reggiano.
4. While the food processor is on, slowly drizzle in the olive oil and continue to blend until it all comes together.

You can store this in the fridge in a tightly sealed container for about a week or you can freeze it for up to three months.

Try pesto on pasta or other whole grains; roasted vegetables; or chicken, eggs or other protein. Use it to add extra flavor to soups.

Pantry Staples

Keeping your kitchen stocked with healthy items that you and your family enjoy can make it easier to pull together a quick meal when you're low on time or energy. Consider these basics:

+ **Olive oil: extra-virgin, not light**

Extra-virgin olive oil has the highest quality and highest level of antioxidants. Light olive oil has the lowest quality and lowest amount of antioxidants; it's heavily processed. Light refers to the color, not the calorie count.

+ **Peanut, almond or other nut butter**

Make sure there's no added salt, sugar or oil as these change the nutritional value. Buy freshly ground or look at the ingredient list. There should be only one ingredient: nuts.

+ **Tomato paste**

+ **Your favorite spices**

Be careful of premade spice mixes, which can be high in sodium and contain added sugar.

+ **Your favorite nuts and seeds**

Lightly salted or unsalted and unroasted. Roasting typically adds unhealthy oils and fats.

+ **Canned or bagged beans and lentils**

+ **Whole-wheat or other whole-grain bread and pasta**

+ **Whole grains and oats**

+ **Low sodium chicken and/or vegetable broth**

+ **Your favorite, in-season produce**

This will vary based on where you live. Frozen fruits and vegetables are a good option when fresh aren't available.

+ **Limes, lemons and oranges**

These citruses add flavor to an otherwise plain salad or side dish.

+ **Garlic**

+ **Onions**

+ **Eggs**

+ **Tofu or tempeh**

+ **If you eat meat, lean cuts, such as skinless chicken breast**

You can buy fresh, especially when on sale, and freeze it. If possible, try to avoid buying frozen, which has added sodium.

+ **If you eat seafood, fish**

Locally sourced, wild-caught fish is best. But it can be expensive. Wild-caught means it was caught in its natural environment — a lake, river or ocean. Farmed fish is raised in pens or tanks. These fish may get less exercise (and therefore have more fat) and eat a less nutritious diet. If wild-caught is too expensive, look for sustainably farmed fish. Canned tuna, anchovies and sardines also are good sources of healthy fats. Anchovies and sardines may be higher in sodium, but small amounts can give big flavor to salads and sides. Eat a variety of fish as some, such as tuna, are higher in mercury.

+ **Unsweetened, plant-based milk**

Examples include almond, oat, macadamia nut, cashew, pea and others.

+ **Plain non-fat or low-fat Greek yogurt**

Whole-milk yogurt is high in saturated fat. Flavored yogurts have added sugar. Buy plain and add your own flavor with fresh fruit, nuts or a touch of honey. Greek yogurt offers more protein than regular yogurt, and is often thicker, which can be more satisfying.

You can pull together a quick meal with a well-stocked pantry.

Note

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