



KARYN SHANKS MD

Heart, Hope, Healing

Brain Food: Feed, Heal, and Protect Your Brain

BY KARYN SHANKS MD | OCTOBER 14, 2017



Brain Food: We can eat our way to better brains—and protect the vibrant minds we cherish—regardless of a devastating family history like mine.

I am especially concerned about *my* brain as I age. My Dad started showing signs of cognitive decline in his 60s and was diagnosed with Parkinson's disease with rapidly progressive dementia in his 70s. We've watched his deterioration with horror. He currently lives in a skilled nursing facility where he receives twenty-four hour care for all aspects of his life. There are days when he sleeps and hardly knows his wife when she comes for their daily visit, and occasions when he's more lucid and enjoys life's simple pleasures. But he's no longer the man he was.

My dad is the second consecutive generation to suffer this fate—my Grandpa also had Parkinson's disease and dementia, finally dying from heart failure in his 70s. This family legacy has my rapt attention. What's in store for *me*?

Fortunately, there are two revolutionary innovations in scientific thought with real life applications that give me hope and practical solutions: *Epigenetics* and *Neuroplasticity*.

The science of Epigenetics shows us that we literally change our gene expression—and thus our biology—when we change our environment. We are *not* destined to the same fate as our ancestors. While we may share the same genes, those genes leave very distinctive signatures—with different health outcomes—determined by the contrasting ways in which we live our lives.

Neuroplasticity is the promise that our brains can heal. With the right conditions in place, our brains repair, form new connections, grow, and improve function. We can both prevent and recover from all manner of brain injury and dysfunction.

The food we eat has undoubtedly the greatest influence on what our genes are up to, and is the major power player in the health of our brains.

We *can* change the direction of our destinies—by harnessing the power of food—Brain Food—to feed, heal, and protect our brains.

What's Brain Food?

Brain Food feeds our minds, supporting the cognitive performance we depend on to thrive and enjoy our lives. Robust nutrition supports our brain's ability to create energy, repair itself, and maintain healthy structure and function. What it's not are those foods that are toxic or irritating, leading to damage and distress in our brains.

Brain Food Attributes (we can do ALL this with the food we eat!)

- Provides essential nutrients required for healthy structure, function, and repair.
 - Healthy Fats
 - Healthy Proteins
 - Micronutrients
 - Antioxidants
- Downshifts excesses of damaging inflammation.
- Enhances detoxification and clearance of toxic substances from the brain.
- Improves energy production in the brain.
- Maintains healthy blood sugar levels and improves insulin sensitivity.
- Increases ketone levels (products of using fat to make energy).
- Supports a healthy gut and microbiome—leading to a healthier brain via the [Gut-Brain Connection](#).
- Helps optimize hormone balance (energy, stress, and sex hormones).

- Supports production of Brain-Derived Neurotrophic Factor (BDNF), a powerful molecule that protects the brain.
- Supports Nuclear Receptor Factor 2 (Nrf2) to enhance the production of glutathione (powerful brain antioxidant and detoxicant).
- Supports Nuclear Factor Kappa Beta (NFkB) to put the brakes on inflammation.
- Increases levels of Glutathione and other important brain antioxidants.

Ideal Brain Food Plan for Protection and Enhancement of Brain Health

The ideal way to eat for brain protection and rehabilitation is to follow a very low carbohydrate, nutrient-dense, anti-inflammatory food plan. This is easily accomplished by keeping intake of healthy fats high, carbohydrates low (with *no* sugar, grains, or highly processed carbohydrates), and by following the guidelines below for *foods to exclude* and *top Brain Foods to include* in your plan. Eating this way will shift your metabolism toward using fats to make energy, away from sugar, creating conditions highly favorable for brain health and cognitive performance.

The ideal Brain Food plan will also provide all key brain nutrients, while avoiding inflammation promoting foods.

No-Brainer Foods to Exclude

Forgive the pun, but these are the foods that are *not* good for the brain.

Those of you who know me or who utilize a Functional Medicine approach to lifestyle and healing, know that these are the most problematic foods we eat by driving inflammation, toxicity, and blood sugar imbalances—conditions that damage the brain.

- All grains
- Animal milk products
- All sugars
- All processed foods (with the exception of high quality supplements or protein powders)
- High mercury fish (tuna, shark, swordfish)
- High sugar-content fruit
- Beans and legumes
- All meat or eggs derived from industrial farms (stick to 100% pasture-raised, grass-fed animals)
- All food contaminated by pesticides or herbicides (glyphosate)

- Reduce alcohol—limit to 5 ounces wine or beer per night, taken with or after evening meal.

For those who have suffered from inflammatory or autoimmune disorders, or upon recommendation from your trusted healthcare practitioner (preferably trained in Functional Medicine), you may also need to reduce intake of (or completely eliminate) eggs, nuts, and nightshade vegetables (tomatoes, white potato, sweet and hot pepper, egg plant).

Top Brain Foods

[Healthy Fats](#)

- Omega-3 Fats from wild-caught fish: salmon, mackerel, anchovies, sardines, herring.
- MCT oil: medium-chain triglycerides derived from organic coconuts—help drive ketosis and support brain energy production.
- Coconut fat: coconut milk (culinary version, not from carton), coconut cream, butter, fresh, oil.
- Avocados

[Healthy Protein](#)

- Enough wild-caught fish (see above), or pasture-raised beef or chicken to meet protein requirements.
- [Pasture-raised eggs.](#)
- Average protein need is 0.5 to 0.8 grams protein per pound body weight consumed over a day.

Low Starch-High Nutrient Vegetables

- Mushrooms
- [Cruciferous vegetables](#)
- Dark green leafy vegetables
- Sulfur-containing vegetables: onion, garlic, cabbage

Low Sugar-High Nutrient Fruit

- Blueberries
- Blackberries
- Pomegranate seeds
- Cranberries

Probiotic and Prebiotic Vegetables

- Probiotic foods: sauerkraut, kimchi, kombucha
- Prebiotic foods: resistant starches (sweet potato, rutabaga, parsnips), jicama, leeks, artichokes

Beverages

- Coffee
- Black tea
- Green tea
- [Golden milk](#) (coconut milk, ginger, turmeric, black pepper)

Spices and Condiments

- [Turmeric \(with black pepper to improve absorption\)](#)
- Black pepper
- Dark chocolate
- Cinnamon

Brain Food Supplements

- Turmeric Extract—also called Curcumin: powerful anti-inflammatory; take 2-3 grams per day in divided doses of product standardized to at least 90% curcuminoids.
- Resveratrol: take 1-2 100 mg capsules twice daily.
- Fish oil: EPA and DHA are the major omega-3-fatty acids from fish—take 1-2 grams of each daily in divided doses, with a fatty meal to improve absorption.
- [Vitamin D](#): 5-10,000 IU per day taken with a fatty meal; ask your doctor for 25-hydroxy vitamin D levels—the goal is to be in the range of 70-80.
- Glutathione: master brain anti-oxidant/detoxicant—take 300-400 mg per day in a liposomal form.
- NAC—N-acetyl cysteine: the precursor for Glutathione—take 400-600 mg per day.
- MCT oil—medium chained triglycerides: take 1 tablespoon 1-2 times daily, first dose in the morning (I put it in my tea).

Resources:

Karyn Shanks, MD. [*The Gut-Brain Connection: Root Cause Solutions for Depression.*](#) 2017.

Karyn Shanks, MD. [*Gut-Brain Connection-Part Two: Action Steps for Healing Depression.*](#) 2017.

Karyn Shanks, MD. [*Intermittent Fasting: How it Energizes My True Life.*](#) 2017.

Karyn Shanks, MD. [*Healing Foods: My Favorite Healthy Fats.*](#) 2016.

Karyn Shanks, MD. [*Protein: How Much Do We Need to Support Optimal Health?*](#) 2016.

KARYN SHANKS MD

Karyn Shanks, MD, is a physician who lives and practices in Iowa City. Her work is inspired by the science of Functional Medicine, body-mind principles, and wisdom gleaned from the transformational journeys of thousands of clients over her twenty-five-year career. Her work honors each individual and the power of their stories, their inner wisdom, and innate healing potential. She believes that the bones of healing are in what we do for ourselves. She is the author of *Liftoff*, a manual of energy recovery and healing through essential self-care practices.

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