



**A Flourishing Gut -- and
Certain Behaviors --
Promote Good Health**

*Guidelines to Building a
Strong Immune System*

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INTRODUCTION

The Gut-Immune Connection

To build greater immunity against disease, particularly viral infections, we need to understand the gut-immune relationship. During health, the human gut bacterial community is diverse. Each person harbors over 100 trillion bacteria comprised of over 2000 different known species. According to biologic scientists, the gut microbiome plays an essential role in the development, instruction, and priming of the immune system. The proper balance, composition, and healthful diversity of gut bacteria is necessary for favorable immune responses and the enjoyment of optimal health. Imbalance that favors unfriendly bacteria over friendly germs triggers strong immune and inflammatory processes that promote chronic disease. Friendly gut bacteria have the opposite effect!

Belkaid, Y. and Hand, T. *Cell*. (2014) Mar 27; 157(1): 121–141.
doi: 10.1016/j.cell.2014.03.011

Other Sources:

[Wildwood Lifestyle Center](#)

[Harvard Medical School](#) on "The Sensitive Gut" and "the Gut-Brain Connection"





How the Foods you Eat Affect How You Feel From [Nutritional Psychiatry: Your brain on food](#)



Serotonin is a neurotransmitter that helps regulate sleep and appetite, mediate moods, and inhibit pain. Since about 95% of your serotonin is produced in your gastrointestinal tract, and your gastrointestinal tract is lined with a hundred million nerve cells, or neurons, it makes sense that the inner workings of your digestive system don't just help you digest food, but also guide your emotions. What's more, the function of these neurons — and the production of neurotransmitters like serotonin — is highly influenced by the billions of “good” bacteria that make up your intestinal microbiome. These bacteria play an essential role in your health. They protect the lining of your intestines and ensure they provide a strong barrier against toxins and “bad” bacteria; they limit [inflammation](#); they improve how well you absorb nutrients from your food; and they activate neural pathways that travel directly between the gut and the brain.

Studies have compared “traditional” diets, like the [Mediterranean diet](#) and the traditional Japanese diet, to a typical “Western” diet and have shown that the risk of depression is 25% to 35% lower in those who eat a traditional diet. Scientists account for this difference because these traditional diets tend to be high in vegetables, fruits, unprocessed grains, and fish and seafood, and to contain only modest amounts of lean meats and dairy. They are also void of processed and refined foods and sugars, which are staples of the “Western” dietary pattern. In addition, many of these unprocessed foods are fermented, and therefore act as natural probiotics.

So, to express a general message of advice,

Diets that are high in whole plant foods (fruits, vegetables, legumes, whole grains, but low in added sugar, saturated and trans fats) stimulate the proliferation of beneficial bacteria such as those that have beneficial anti-inflammatory properties. In other words, liberal amounts of raw fruits and vegetables are particularly useful in building healthy gut microflora. . . and add to that the improvement of your blood circulation for transport of those plant food nutrients.

In contrast, a poor-quality or Western diet (rich in sugar, animal products, salt, processed foods, and refined carbohydrates) is linked to more disease-causing bacteria. Eating meals at regular times, exercise, and sufficient sleep help to populate the gut with disease-fighting bacteria.

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In this short ebook, I will describe some major strategies for the improvement of your nutritional intake.

So, let's get started!

My Plate: Optimal Nutrition Facts from Scientists Who Know



The U.S. Dietary Guidelines evolve from the concept of My Plate, where one can estimate proportions of food groups on the meal plate.

The Guidelines are a published manual with extensive information on food values and recommended portions of value-rich foods that should be consumed on a daily basis to maintain optimum weight and nutrition status.

To start out on your Meal Plan for a day, with this example in mind, you will need to determine these factors:

- Your present weight and what your desired/optimal weight should be
- How many calories/day you should consume
- Your food allergies
- Any special diet restrictions (from your health professional)
- Whether or not you will eat/drink snacks
- What type of diet you need/desire (vegetarian, vegetarian with fish, vegan, etc.)

Tools you will need: Portion cups, measuring spoons

My Plate Preparations cont'd. . .

You may be wondering why on the previous page I did not include animal meats (only freshwater fish). It is because meat-eating jeopardizes one's efforts in weight control, infection resistance, and organ functions. Society is recognizing that animals, wild or domesticated, carry pathogens that are not necessarily killed by cooking, but could be activated by it. And, some cooking methods enhance deleterious fat intake. Slaughtering and preparing meat for market is not a reliably clean process either. Gourmet appetites of some humans even evoke raiding habitats of unique wild animals for "valuable" protein, risking exposure to unknown pathogens that may cause a pandemic of disease (flu, corona virus).

Other reasons for a plant-based diet is concern for the environment, that is being politically hi-jacked.

"The Actual Reason Meat Is Not Healthy: Nutrition studies leave out a crucial factor." James Hamblin, Author. *The Atlantic*, October 10, 2019

"How much would giving up meat help the environment?" from Economist.com 11/15/19

(PDF)
Plant-based dietary methods are growing in popularity among individuals who are stewards of the health they are given by their Creator and the health of the natural environment they share in this world.

Have you seen the movie, "**Forks over Knives**"? It examines the profound claim that most, if not all, of the degenerative diseases that afflict us can be controlled, or even reversed, by rejecting animal-based and processed foods. But, how does one do that? Watch it on iTunes, Amazon, YouTube, or Netflix. Here is the [home website](#).

Consider the entertaining expressions on the next 3 pages . . .

God Planned Foods for Specific Body Needs

It's been said that God first separated the salt water from the fresh, made dry land, planted a garden, made animals and fish... All before making a human. He made and provided what we'd need before we were born. We're such slow learners...

God left us a great clue as to what foods help what part of our body!



A sliced Carrot looks like the human eye. The pupil, iris and radiating lines look just like the human eye. And Yes, science now shows carrots greatly enhance blood flow to and function of the eyes.



A Tomato has four chambers and is red. The heart has four chambers and is red. All of the research shows tomatoes are loaded with lycopine and are indeed pure heart and blood food.



Grapes hang in a cluster that has the shape of the heart. Each grape looks like a blood cell and all of the research today shows grapes are also profound heart and blood vitalizing food.



A Walnut looks like a little brain, a left and right hemisphere, upper cerebrums and lower cerebellums. Even the wrinkles or folds on the nut are just like the neo-cortex. We now know walnuts help develop more than three (3) dozen neuron-transmitters for brain function.



Kidney Beans actually heal and help maintain kidney function and yes, they look exactly like the human kidneys.



Celery, Bok Choy, Rhubarb and many more look just like bones. These foods specifically target bone strength. Bones are 23% sodium and these foods are 23% sodium. If you don't have enough sodium in your diet, the body pulls it from the bones, thus making them weak. These foods replenish the skeletal needs of the body.



Avocados, Eggplant and Pears target the health and function of the womb and cervix of the female - they look just like these organs. Today's research shows that when a woman eats one avocado a week, it balances hormones, sheds unwanted birth weight, and prevents cervical cancers. And how profound is this? It takes exactly nine (9) months to grow an avocado from blossom to ripened fruit. There are over 14,000 photolytic chemical constituents of nutrition in each one of these foods (modern science has only studied and named about 141 of them).



Figs are full of seeds and hang in twos when they grow. Figs increase the mobility of male sperm and increase the numbers of sperm as well to overcome male sterility.



Sweet Potatoes look like the pancreas and actually balance the glycemic index of diabetics.



Olives assist the health and function of the ovaries



Oranges , Grapefruits, and other Citrus fruits look just like the mammary glands of the female and actually assist the health of the breasts and the movement of lymph in and out of the breasts.



Onions look like the body's cells. Today's research shows onions help clear waste materials from all of the body cells. They even produce tears which wash the epithelial layers of the eyes. A working companion, Garlic, also helps eliminate waste materials and dangerous free radicals from the body.



Vital Nutrients You Need Daily

WHAT IS THE "IDEAL" DIET?

- Calories to maintain ideal body weight
- Low in total fat
- Low in saturated fat
- Cholesterol-free
- Moderate in protein
- High in fiber
- High in complex carbohydrates
- Low in simple sugars
- Low in sodium
- Adequate in all vitamins and minerals
- Rich in phytochemicals
- Free of irritating spices and harmful substances
- Drug-free
- Times to provide rest to digestive organs

Eat food as close to the natural state as possible without the refinement, food processing, addition of food additives and extra storage that the food industry uses. Be cautious also when cooking to follow these tips to prevent nutrient losses:

1. Do not overcook
2. Use a minimum of water, steaming is preferable
3. Cover the pan in which food is being cooked. Turn down the heat.
4. Save liquids from cooking and use in other dishes such as soups, etc.
5. Do not cook more than you need. Leftovers have less nutritional value.
6. Do not use wilted, overripe or bruised foods.



More Resources for Your Nutrition Management

[What is Good about Potatoes? Do They Raise the Risk of Diabetes?](#)

[Does What You Put on Your Plate Influence Your Mind Function?](#)

What is the [MIND Diet](#), anyway?

[Reversing Type 2 Diabetes](#) (Purdue Univ. video)

[Choosing Healthy Meals as You Age](#)

There are more beneficial articles on the LivingSmart website to download.

[Yummly](#)

You can sign in for free and gain access to thousands of calculated recipes that fit your needs and your preferences, calculating calories and nutrients.

[Meal Planner Pro](#)

Has a nutrition calculator for any recipe; provides Diabetic Exchanges, creates a shopping list according to your needs, values, and meal plan. Easy to use, even when you are surfing for recipes on the internet; just copy and paste ingredients with their measures onto an entry box and click a command button. In 10-15 seconds you have the calculations. Special diet requirements, such as heart health, high cholesterol, high blood pressure, weight management, athletic training, osteoporosis, anemia, gluten or lactose intolerance, vegetarian types, and diabetic stage are calculated into your recipes based on the profile of yourself you build.



And More Resources for Your Nutrition Management . . .

Food and Fitness Trackers; Shopping List Apps



My Calorie Counter: free online eating and physical activity journal that includes BMI calculator, allows you to track calories, and search for over 45,000 foods; requires registration with a username and password. <http://www.my-calorie-counter.com>

My Fitness Pal: free online resource that includes a recipe and nutrition facts calculator, basal metabolic rate calculator, and BMI calculator. <http://www.myfitnesspal.com/>

MyPlate— free print materials on nutrition education, using MyPlate, recipes, and sample menus. <http://www.choosemyplate.gov/tipsresources/printmaterials.html>

Livestrong: free food and fitness tracker; mobile application available for a fee. www.livestrong.com

OptUp - Smart grocery shopping based on nutritional needs

See "**7 Best Food Tracking Apps**" (according to a Nutritionist)

<https://www.goodhousekeeping.com/health-products/g28245675/best-food-tracking-apps/>

Assessing Your Current Nutrition Status and Diet Intake



In order to make the right choices in the food you buy and eat, it is important to first assess what you currently take in, your weight and what it should be, and how to proceed in maintaining a healthy weight and gain satisfaction from the experience of eating. You will be introduced to assessment tools here in this ebook, on the hosting website, and on off-site websites.

You will find these on the LivingSmart Lifestyle page of the website:

National Diabetes Prevention Program - Food and Activity Tracker
(PDF)

Day's Meal Plan Worksheet r/t MyPlate

Determining Overweight and Obesity (PDF) (dttac)

Diets, Food, and Nutrition -- What is Sustainable in the World?

[A report in the National Academies Press](#) (2019) from a Workshop
(Open it as a PDF and examine the details of the findings. Some snippets from it follow . . .)

Chapter 2 explores the complexities and necessary compromises of sustainable diets.

Chapter 3 examines the challenges of and opportunities for measuring diet and modeling the human and environmental impacts of dietary and agricultural changes.

Chapter 4 describes what modeling and other studies suggest about program and policy actions that can support sustainable diets. Building on the foundation laid in the earlier chapters,

Chapter 5 further explores and adds new perspective on food system innovations designed to address sustainability.

Chapter 6 summarizes several participants' reflections on the workshop and their main takeaways.

The Food and Agriculture Organization's definition of a sustainable diet consists of four dimensions:

1. nutrition and health,
2. economic,
3. social and cultural, and
4. environmental.

Sustainable diets not only have low environmental impact but also are healthy, affordable, and acceptable to society.

The challenge is particularly difficult for those living in low- and middle- income contexts and in countries where tremendous inequalities force policy makers to make difficult decisions about what to prioritize.

Much of the challenge stems from the rapid demographic transition under way worldwide, with increasing wealth, urbanization, and other factors driving a growing demand for meat.

Because of the fluctuating nature of food prices, a goal should be to focus on pursuing a sustainable-diet strategy that encompasses both abundance (low prices) and scarcity (high prices).

“Sustainable diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations.

Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.”





Fruits & Vegetables to Store at Room Temp:

Bananas
Basil
Cucumber
Eggplant
Garlic
Grapefruit
Green beans
Lemons
Limes
Onions
Oranges
Potatoes
Summer squash
Sweet potatoes
Watermelon
Winter squash
Zucchini

Safe and Sustaining Methods of Storing

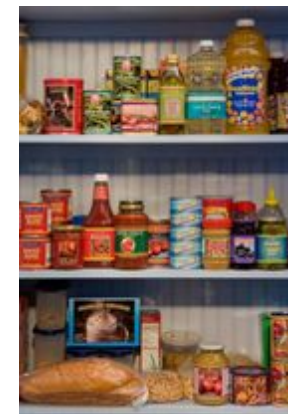
Food

Fruits & Vegetables to Store in the Fridge

Apples
Asparagus
Blueberries
Broccoli
Brussels sprouts
Cabbage
Carrots
Cauliflower
Cherries
Cilantro
Corn (whole ears in the husk)
Dark leafy greens
Grapes
Leeks
Lettuce
Parsley
Peas
Pomegranate
Raspberries
Strawberries

Store These on Your Counter, Then Move to The Fridge When Ripe

Apricots
Avocados
Kiwifruit
Mangoes
Melons
Nectarines
Papayas
Peaches
Pears
Pineapple
Plums



Safe and Sustaining Methods of Storing Food, cont'd.



Determining whether to store your fruits and veggies in or out of the fridge is really only half the battle. Some fruits and veggies should be stored separately no matter where they land. Ethylene gas, a natural gas that some fruits emit, can speed the ripening process of some (but not other) fruits and vegetables. This can sometimes be a good thing.

Want to ripen your avocado faster? Store it next to a ripe banana in a paper bag and let the ethylene from the banana do its magic.

But you don't always want your fruits and veggies ripening on fast-forward, because they may end up rotting before you can eat them. A good rule of thumb is to keep high-ethylene gas-emitting fruits apart from other produce. Apples, avocados, stone fruits, pears, bananas and tomatoes are a few of the top offenders, with delicate leafy greens being some of the most susceptible to ethylene gas.

Also, keep onions to themselves. Onions love to share their fragrance with their neighbors (especially after they've been cut), so they should be stored separately and especially away from potatoes, which will wilt and sprout more quickly when onions are present.

Refer to the LivingSmart website for the following guides:

[**Organizing/Reorganizing Your Kitchen for Safety and Convenience**](#)
[**Monitoring your Food Inventory**](#)

VEGETABLE PARTNERS

Let's imagine some appealing plant-based meals . . . Try



Tomato and parsley, eggplant and pepper, onion and potatoes, garlic and dill. We will remind you of some and introduce you to new combinations that not only tickle your palate, but increase your nutritional benefit.

Tomatoes, garlic, and oregano or basil are common buddies in Italian food. Beans, rice, and cheese are comfortable associates in Mexican dishes. However, new combinations are emerging as people seek new culinary experience to put a spark to eating, particularly vegetarians. Here are some:

Sprouts

There are many varieties of sprouts that enrich recipes with protein and the immunity enhancer, chlorophyll.

Freshly picked sprouts, grown on your kitchen counter, are best. You may buy the seeds in packages that have explicit directions. Be sure to follow the recommendations for cleansing the seeds in a bleach solution before preparing them in the sprouter kit.

NK Lawn and Garden has mixtures and individually packaged varieties. Check them out.

Bean Sprouts and Veggies in a Pancake

Pancake: Whisk together 1 c. egg substitute with 1/4 tsp. ground coriander, 1/4 tsp. freshly ground black pepper; then stir in 1 c. bean sprouts (fresh or canned), 2 T. minced scallions, and 1 tsp. minced fresh ginger. Set aside.

Veggie mixture: In a large non-stick frying pan you can use in the broiler over medium high heat, warm a tsp. of olive or peanut oil. Then add:

1 c. snow peas

1 c. sweet red pepper strips

1 c. thinly sliced mushrooms

1 T. low-sodium soy sauce

2 minced garlic cloves.

Stir frequently, cooking for 4-5 minutes or until veggies are tender.

Set aside; preheat broiler. Wipe out pan, add 1 tsp. oil and warm over medium heat. Add the egg mixture, coat bottom of pan to cover evenly. Cook for 4-5 minutes until golden and top is almost set. Sprinkle the top of the pancake with the veggie mix.

Broil about 5" from heat source for 2 minutes or until egg is completely set. Cut in 4 wedges to serve. Approx. 81 calories.

Asparagus and Mushrooms

Prepare asparagus by snapping off woody ends and blanching in boiling water for 3-5 minutes, then drain and chill.

Prepare a vinaigrette by mixing:
2 T. white vinegar wine or balsamic vinegar

3 1/2 oz of olive oil

1 garlic clove, crushed

1/4 snipped chives

1/4 tsp. fresh thyme

1/4 fresh oregano

1/4 tsp. salt

Pinch of ground black pepper

Pour over asparagus and let sit for 20 minutes.

Then slice fresh mushrooms over the mix.

Green Beans and Potatoes with Zing

Parboil small white potatoes (if thin-skinned, do not peel) until tender but not soft; drain and set aside (save the water for another recipe so as not to waste vitamins). Cook 1 lb. fresh, uncut string beans until tender but still crisp--3-4 minutes; plunge in cold water and drain well.

Whisk together:

2 T. olive oil

2 T. balsamic vinegar

1 T. freshly squeezed lemon juice

1 crushed garlic clove

1 chopped spring onion

1 tsp. red chillie pepper flakes

1/4 tsp. salt

Coat the potatoes and beans together and chill for 2-3 hours before serving.

The Cauliflower, Broccoli, Cabbage Collection

Cauliflower, Raisin, and Couscous:

[A curried dish with several ingredients]

In a large non-stick frying pan melt 1 T. margarine over medium heat and add:

1/2 c. chopped onions

1/2 c. chopped celery

2 garlic cloves, minced

Cook and stir for 2 minutes. Then add:

1 tsp. ground cumin

1 tsp. ground cinnamon

1 tsp. tumeric

1/2 tsp. dry mustard

1/2 tsp. ground cloves. Then add:

1 medium head cauliflower separated into small florets; broccoli may be substituted.

1 sweet red pepper, sliced

1/2 c. water.

Cook for 5-7 minutes until tender. then stir in 1/2 c. raisins, 2 T. unsweetened shredded coconut and 1/4 c. water.

Continue to cook for 6-8 more minutes while stirring. When vegetables are tender but not mushy, remove and stir in 2 tsp. lemon juice mixed with 1 T. honey.

Serve over cooked couscous.

Roasted Brussels Sprouts and Squash:

Preheat Oven to 350°.

In a small bowl mix:

1/2 c. apple juice,

1 T. honey,

1/4 c. raisins,

1/2 tsp. caraway seeds, and a pinch of dry mustard.

In a 9" x 13" baking dish, arrange

2 c. halved brussel sprouts,

2. c. peeled and cubed butternut squash,

1 1/2 c. cut green beans, and

1 c. sliced carrots.

Pour the juice mixture over them and sprinkle with pecans a T. sesame seeds, and grated coriander.

Cover with foil and roast for 25 minutes.

Stir. Roast uncovered for 15 more minutes.

Greens

Salad Greens Combinations:

Spring green combinations, Romaine lettuce, Bibb lettuce, and spinach are great candidates for the salad bed. Add thinly sliced red or Vidalia onion rounds, walnuts and your choice of canned Mandarin orange sections (drained) or chopped fresh mango, or craisins or quartered fresh figs with a few parts of Nasturtium blossoms.

Sprinkle with balsamic vinaigrette or a mixture of herbed olive with a tincture of balsamic vinegar.

A sliced hard-boiled egg (one per serving) may replace the fruit





Legumes

Southwestern Black Bean Cakes

(Scrumptious little meal)

You will need: One 15-ounce can black beans, fresh tomatoes, guacamole and seasonings.

In a food processor, place 8 cilantro leaf clusters and 2 cloves garlic and whiz until chopped. Then add rinsed and drained black beans, 1/3 c. Mexican pepper of choice (fresh or cooked), 2 T. olive oil, 1 tsp. cumin, 1 egg. Blend until beans are coarsely chopped. Add plain fine bread crumbs to consistency for forming patties.

Grill or fry ½ inch thick patties in olive oil on both sides for approximately 8 minutes at medium heat. Serve with a large dab of guacamole on top and sliced tomatoes surrounding it. Serves 4.

Vegetable, Soybean, and Cashew Stir-Fry

You will need: 1 package of edamame (frozen green soybeans), a 1-inch knob of gingerroot, cashews, broccoli, carrots, scallions, and seasonings.

Mix a broth together of ¾ c. water or vegetable broth, ¼ c. lite soy sauce, and 1 T. cornstarch.

After coarsely chopping 2 c. red pepper into small slices and rinsing the edamame under cold water and chopping the ginger, heat 1 T. peanut oil in large non-stick wok or deep skillet over high heat. Add these ingredients to 2 c. broccoli florets, 1 c. shredded carrots and stir-fry until broccoli is tender. Then add ½ c. unsalted roasted cashews and 1 c. chopped scallions and stir for 2 minutes. Stir the broth mixture into the vegetables; bring to boil, cover-stirring frequently-for 2 minutes, or until the sauce is thickened and bubbly. Serve over 4 rice servings in bowl or plate.

And, now you have come to the end of A Flourishing Gut. I invite you to use what you have learned here to give you energy and strength to examine, and probably adjust, your exercise pattern in your lifestyle. So, proceed to the ebook "Get Moving!"



