

Chapter 11

Nutrition

N is for nutrition, the fuel of life

BY FRED HARDINGE

Imagine with me that you have just come into possession of the sports car of your dreams! Money was no object in its design and manufacture. Even the smallest detail had been tended to with meticulous care. On the outside, the doors and fenders are aligned perfectly. The finish sparkles with perfection. You pop the hood and are greeted with the sight of an engine that is made with the craftsmanship of a fine Swiss watch. When you open the car door you savor the smell of soft, subtle leather. As you sink into the wonderfully padded seats and turn the ignition key to start the engine, you hear the *purr* from the powerful engine. The moment has come for you to take this—your car—for a drive!

After a few hours of pure enjoyment you notice that the fuel gauge is showing close to empty, so you pull into the first gas station you find. Looking in the owner's manual you see that the manufacturer has recommended only premium fuel for the high-compression engine. You decide, however, that any grade fuel will do and fill it with "regular" instead. *After all, you think, they look and smell the same.* Later, when you check the engine oil, you top it up with a little water!

With that kind of care, how long do you think your dream car will last?

Our bodies are far more beautiful and complex than the finest machine ever made by humans! Like a fine sports car, our bodies need fuel to power our lives, and that fuel

comes from the food we eat. A balanced diet chosen from the best foods will provide the essential nutrients needed for growth, maintenance, and energy. If we choose low-quality foods or do not eat enough of even the best foods, the body machinery will suffer. Too much food may result in obesity, and excessive amounts of some nutrients may cause toxicity.

The Right Body Fuel

Why wait for a special occasion to celebrate? Shouldn't we celebrate every meal with healthful food choices? In each meal one can enjoy the cornucopia of nutrient-dense, whole-grain breads and cereals, along with rich, colorful fruits and vegetables containing abundant amounts of vitamins, minerals, dietary fibers, and phytochemicals. Enjoy essential fats in crunchy nuts and seeds, bone-building calcium from low-fat milk or a fortified soymilk, and healthful proteins from satisfying legumes (beans, peas, and lentils) seasoned delicately with herbs and small amounts of salt, sugar, and vegetable oil as needed. These energizing, body-building foods consumed daily in appropriate quantities can reduce the risk of cancer, coronary heart disease, hypertension, intestinal disease, obesity, and osteoporosis. We can truly celebrate at every meal because of the abundance of good food God has given us!

Understanding Nutrition

Many people think that choosing good nutrition is difficult, and understanding it even harder! Both tasks, however, are really very simple. Let's start with the "understanding" part.

Our bodies get the nutrients we need from the food we eat as the food is digested and assimilated in a fantastic process that begins in the mouth, moves to the stomach, then to the small intestines, and finally to the large bowel. The nutrients our bodies need include:

- **Carbohydrates:** The largest portion of our diet should come from these in as unrefined a form as possible. Whole grains, legumes, fruits, and vegetables are rich in these. There are approximately 4 kcal (a unit used to express the amount of energy contained in food) per gram in carbohydrates.
 - **Proteins:** Every cell in the body contains proteins. Tissue repair and growth require them. While almost all foods contain some protein, particularly good sources are milk, eggs, and other animal products. Legumes are excellent plant sources. Each gram of protein yields 4 kcal.
 - **Fats:** These are a concentrated source of energy. We often get too much fat in our diet because we like the flavor it imparts to foods (i.e., boiled or baked potatoes versus French fries).
 - **Vitamins**
 - Fat soluble
 - Water soluble
 - **Minerals**
 - **Trace minerals**
 - **Antioxidants and phytochemicals:** These substances protect the body from disease and some of the effects of aging. They are found primarily in whole grains, fruits, vegetables, and nuts.

Essential Food Groups

There are five essential food groups. When we eat foods wisely chosen in appropriate amounts from all five groups, we will meet our optimal nutrient needs. Here are the five groups:

1. **Cereals and Grains:** These should form the foundation of our diet. They include whole-grain breads, pastas, rice, and corn. They are rich in dietary fiber and complex carbohydrates, as well as an array of vitamins and minerals when taken from unrefined (not white) sources. Depending on a person's age, weight, and activity levels, 6 to 12 servings from this group should be consumed each day.
2. **Fruits and Vegetables:** These foods come in a wide variety of colors, flavors, and textures and are the richest sources of the protective phytochemicals, antioxidants, and many vitamins and minerals. Depending on body size, age, and activity levels, at least 5 to 10 servings of these foods chosen from a range of colors should be consumed daily. Many people seem to prefer fruits over vegetables, but we need a balance of both. Foods in this group that are the deepest in color often have the largest amounts of phytochemicals and antioxidants. Fruit juices should be limited to no more than one small serving per day.
3. **Legumes, Nuts, and Seeds:** Legumes such as beans, peas, and lentils are an important source of good protein, along with minerals, vitamins, and other protective elements. Three to 5 servings of these should be included in the daily diet, depending on a person's age and weight. Nuts and seeds are excellent sources of essential fats, but because they are a concentrated source of calories, they should

be limited to no more than 1 to 2 servings per day. Nonvegetarians would include fish, fowl, and meat in this group, but should consume only moderate amounts.

4. **Dairy and Eggs** (or fortified equivalents): These animal sources of food provide many important nutrients, including calcium and vitamin B₁₂. Vitamin B₁₂ is found only in animal products and prevents pernicious anemia and neurological disorders. It also promotes normal cellular division. Individuals who choose not to consume any animal products need to eat sufficient foods fortified with vitamin B₁₂ or take it in supplement form. It's very important to read the food labels of the equivalent foods to make certain that they are adequately fortified. Deficiency symptoms of vitamin B₁₂ can take 4 to 6 years to develop after all intake has been stopped. By the time problems have been discovered, permanent damage may already have occurred.
5. **Fats, Oils, Sweets, and Salt:** These foods are required only in small amounts. The essential fats and sodium are necessary for optimum health. Iodine is a necessary trace mineral and is easily supplied if iodized salt is used; it also can be obtained from sea salt, seaweed, or a supplement. Refined sugar is not required for good health, but small amounts add palatability and flavor to our foods.

One of the most important keys to eating a balanced plant-based diet is selecting a variety of foods whose color, texture, and flavor add interest to the diet. These foods are best when consumed as they come from nature: not refined, not pulled apart, not fractionated. Whole foods should be the goal.

“Use plant foods as the foundation of your meals. . . . Eating a variety of grains (especially whole-grains), fruits and vegetables is the basis of healthful eating.”¹ This

recommendation has been simplified in the 2010 “Dietary Guidelines for Americans” to “Make half your plate fruits and vegetables.”²

Today the world is recognizing the advantages of a vegetarian diet:

- Low in fat, particularly saturated fat
- No cholesterol (with a total vegetarian diet)
- High in dietary fiber
- Low in refined sugar (need to avoid highly sweetened items, even if from plant foods)
- Contains rich sources of vitamins and minerals
- Contains high amounts of protective substances such as phytochemicals, antioxidants, etc.

Guiding Principles of Food Choices

A healthful diet needs to be based on sound principles that guide the food choices we make. We would like to suggest five:

- 1. Variety:** Perhaps the most important principle of eating right is selecting a variety of foods from the five groups discussed earlier in this chapter (cereals and grains; fruits and vegetables; legumes, nuts, and seeds; dairy and eggs or equivalents; and fats, oils, and salt). This ensures a wide range of nutrients to support a healthy body, and the various textures, tastes, and colors enhance the pleasure of eating.
- 2. Quality:** Choose the majority of your food from whole foods—not refined foods. These foods are nutrient-dense rather than calorie-dense.

3. **Balance:** Obesity is a growing problem worldwide. There needs to be a balance between the amount of energy we eat (foods) and the energy we expend (physical activity) if we are to remain at a healthy weight.
4. **Moderation:** Some important components of a healthful diet need to be eaten only in small amounts. These would include fats and salt. We require adequate amounts of the essential fats. Fats are also the vehicle for fat-soluble vitamins. We also need small amounts of salt to maintain our electrolytes.
5. **Avoidance:** Highly refined foods that often have large amounts of their nutritional elements removed should be avoided, as should foods and beverages that have no nutritional value (alcohol, coffee, and sodas).

Many excellent online tools are available that allow you to track and analyze what you eat every day. One of the best is SuperTracker,³ which is free for anyone to use.

Spiritual Food

A healthful diet can increase lifespan and the quality of life. God loves us and desires that we lead healthy, productive, and happy lives. We can celebrate His goodness as we appropriately enjoy the many products of the earth that He has given us.

Just as we require physical food each day, we also need to feed the inner person on spiritual food. We should not neglect to make a daily practice of feeding on God's Word. We have emphasized the need for variety, balance, and flavor in the foods we consume, but we require balance in our spiritual food, as well. We can feast on God's Word by contemplating His wonderful promises, reading inspirational stories and exhortations, and spending time daily in prayer. These practices will help us to grow spiritually along with physically.

Balance and control in life come from the steady application of the lessons learned in the reading of His Word.

Let us do these things with praise in our hearts for the energy and health that God provides.

Life Application Questions

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1. What foods did I choose for my three most recent meals? What proportion of what I ate consisted of cereals and grains; fruits and vegetables; legumes, nuts, and seeds; dairy and eggs? Did I make wise choices, or did I take too much of one group and too little of another? How much of my plate contained fruits and vegetables? How colorful was my plate? Did I have enough of the richly colored vegetables?
2. What portion of these meals consisted of highly processed products? Which of these can I start cutting back on, and which of the cereals, grains, and legumes can I enjoy eating more regularly?
3. How much did I consume of the essential fats and oils? Did I eat enough to ensure that I got the fat-soluble vitamins I need? Do I use too much fat or oil with my meals? How can I still have palatable food without using so much fat? How can I use herbs more creatively? Should I try to use more fresh foods?
4. Do I routinely use too much salt? Do I reach for the saltshaker without having first tasted my food? Have I read the labels of the processed foods I use to ensure that they are not hiding a great deal of salt (sodium) that would be harmful?
5. Is my body getting adequate amounts of vitamin B₁₂? How do I make sure I supplement these before I develop symptoms of irreversible neurological damage? Do I get adequate calcium in my diet, or am I at risk of bone loss?
6. How do I balance my intake of energy in the food I eat with my output of energy in physical activity? Do I weigh myself regularly to ensure that I am maintaining a healthful weight? Do I need to lose some excess weight? What “tricks” can aid me in my choices? How does using a smaller plate help me to lose weight? Do I need to choose more fiber-rich foods?
7. Susie’s friend Nathan noticed that Susie was a vegetarian. He asked her about the advantages of such a lifestyle. If I were Susie, what reasons would I give for my choice, and which would I emphasize the most? If a nonvegetarian friend invites me

to his home for a meal but expresses concern about how he could cook a meal without meat, what simple recipes would be easy for him to prepare but would fulfill the concept of the balance that I would like him to grasp? Does my church run cooking schools that I could invite him to?

8. Why do I place so much emphasis on my own dietary habits? Do I want a healthy body so that I can glorify God? Do I praise Him with the spiritual diet that I choose?

¹ USDA "Dietary Guidelines for Americans, 2000"; www.health.gov/dietaryguidelines/dgac/. Accessed June 19, 2012.

² USDA "Dietary Guidelines for Americans, 2010"; www.choosemyplate.gov/food-groups/fruits.html. Accessed online June 19, 2012.

³ USDA, SuperTracker; www.choosemyplate.gov/SuperTracker/default.aspx. Accessed June 19, 2012.