



THE IMPORTANCE OF NUTRITION

DO YOU EAT TO LIVE OR LIVE TO EAT?

“You are what you eat” is more than just a catchy phrase your mother used to get you to eat right. It’s a profound truth. From the Stone Age to the Industrial Age, people have recognized the healthful properties of certain foods. And now, in the Information Age, the importance of nutrition is so well recognized and supported by scientific evidence that virtually every major public health organization in the world makes dietary recommendations. The link between good nutrition and disease prevention is similarly strong. In the United States, for example, the American Cancer Society estimates that 35% of cancers that are not genetically predetermined can be prevented simply by eating right!

“We must shift our national focus from avoiding nutritional deficiencies to understanding the preventive miracles proper nutrition offers,” wrote Dr. Bernadine Healy, former director of the U.S. National Institutes of Health, in her book *A New Prescription for Women’s Health*. “The validity of nutrition as a legitimate scientific discipline can no longer be questioned.”

The foods and supplements we consume make up our diet. In recent years, the belief that a balanced diet is a cornerstone of health has sparked a revolution in the way people think about food. Whereas meat, potatoes, and salad constituted “eating well” in much of the 20th century, the diet of the 21st century will likely incorporate Mediterranean, Asian, and vegetarian eating patterns and low-fat, low-salt, high-fiber foods. Fueled by our growing knowledge of health and nutrition, our new view of food focuses on eating to achieve optimal health. But people have intuitively known the health benefits of foods for centuries, as evidenced by a well-quoted line from 17th-century French playwright Molière: “One should eat to live, not live to eat.”

CELLULAR NUTRITION IS THE FOUNDATION OF HEALTH

If you built your dream house, you’d first build a strong foundation and then assemble the finest materials available to complete your project. Constructing a foundation of health that will last a lifetime requires the same commitment to quality building materials. Cells are the “building blocks” that make up a body, and each of the human body’s about 73 trillion highly specialized cells require clean air and water and essential nutrients — carbohydrates, lipids and sterols, proteins, vitamins and related food factors (such as phytonutrients), minerals, and enzymes. Good whole foods and good whole-food supplements provide the nutritional diversity and density that lay the foundation for good health.

NUTRITION AFFECTS YOUR HEALTH BOTH TODAY AND TOMORROW

The diet is your body’s only source for raw materials it needs to perform its day-to-day functions. Cellular workings are complicated and continual. Fortunately, your cells perform their jobs automatically, without any forethought on your part. *Your only responsibility to this intricate, dynamic system is to provide the high-quality nutrients the body needs to do a good job.*

This task is challenging, since every day billions of cells are created, destroyed, and replaced. Over the course of seven years, most of our cells, with the exception of brain cells and a few very specific glandular cells, are replaced. For example, red blood cells, which carry oxygen throughout your body, have a life span of only four months before they’re removed from the bloodstream and destroyed. The human body contains about 25 trillion red blood cells, so the demand for nutrients to constantly replace these cells is enormous! Some cells, such as those of the mouth or intestines, turn over even faster — every day, in fact!

Furthermore, different cells and tissues have special nutritional requirements. For instance, lung cells have a higher requirement for vitamin C than many cells, whereas eye tissue has a higher need for lutein and other carotenoid phytonutrients. The body’s nutrient supply, provided by foods and supplements, must exceed demand, or deficiency symptoms result.

Over the short term, a nutrient-deficient diet compromises day-to-day health. For instance, carotenoids — colorful plant pigments responsible for the red in tomatoes, the orange in carrots, and the yellow in squash — are critical to the function of certain blood cells that defend the body against microbial invaders. Studies show that a carotenoid-deficient diet weakens immunity. Conversely, a carotenoid-rich diet boosts immunity. So may vitamin C and zinc (both may shorten the duration of a cold). Short-term effects of nutrient deficiencies are also apparent — evidenced as lower energy levels — in people whose diets are deficient in B-vitamins or iron.

Over the long term, suboptimal nutrition may predispose us to early aging and degenerative disease.

DISEASE IS NOT AN INEVITABLE CONSEQUENCE OF AGING

Many gerontologists (scientists who study aging) believe that disease and debility are not inevitable consequences of growing older. They believe that longer and healthier lives are achievable through a healthful balance of diet, exercise, rest, and relaxation.

The seeds of suboptimal health are often sown in childhood, when many children and teens consume highly processed,



fatty, salty, and sugary foods. By their 20s, most people are not as healthy as they should be because they fail to get enough exercise or to eat diets rich in antioxidants or other nutrients. By the time they're in their 30s, prime time for devotion to family and career, they are often too busy for regular exercise and sufficient sleep. By their 40s, due to stress, poor diets, and inactivity, they're tense, undernourished, and overweight. At about age 50, most diseases begin to manifest themselves. Many women, for instance, begin to show signs of osteoporosis, and many people of both sexes begin taking one medication or another. Large portions of the population begin to receive regular care for hypertension and high cholesterol.

Health continues to decline, with millions of people each year suffering from chronic conditions that limit their activity: broken hips, arthritis, heart disease, high blood pressure, diabetes, slipped disks, asthma, visual impairment, hearing loss, paralysis, stroke, mental impairment, lung disease, etc. Most people die in their mid-70s of heart disease, cancer, or osteoporosis (complications from hip injuries). Poor nutritional habits are a key reason.

A GLOBAL GLANCE AT MORTALITY: POOR NUTRITION TAKES ITS TOLL EVERYWHERE

The life expectancy in the world's least-developed countries is 43 years, compared to 78 years in one of the world's most developed countries, according to the World Health Organization. The global average for life expectancy is almost 65 years. Other World Health Organization statistics show the widespread occurrence of diseases which may be exacerbated by poor diets. Worldwide, circulatory system diseases, the largest single cause of death, kill about 10 million people each year. Hypertension (high blood pressure) — a major contributor to heart disease, stroke, and kidney failure — affects 8 to 18% of adults worldwide. Cancer claims about 6 million lives, with breast cancer the main cause of cancer deaths among women in developed countries and lung cancer the biggest killer of men. By the end of this century, more than 100 million people will suffer from diabetes — 90% of them with the form strongly linked to lifestyle habits such as inappropriate diet and lack of activity. And 1 in 3 women over age 50 have osteoporosis (thinning of the bones) and are therefore at heightened risk for bone fractures.

It doesn't have to be this way! Today some of the world's leading scientists are convinced that poor nutrition contributes to every one of these diseases! Poor nutrition and other unhealthy, unbalanced aspects of our lifestyles are robbing us of the ability to achieve our theoretical biological potential of 120+ years. Most of us are losing decades and spending way too much time in the zone of declining health. Barring infectious disease and accidents, there's no reason why large portions of the population can't live to be over 100. But the issue is not just adding years to your life — it's adding life to your years!

Regardless of age, a balance of good nutrition, exercise, and rest goes a long way toward achieving health, vitality, and longevity. But good nutrition is more than eating healthy foods which supply necessary carbohydrates, lipids, sterols,

protein, vitamins and related food factors (such as phytonutrients), minerals, and enzymes. It means giving our bodies substances it can *use*. Note that diet is what we eat, but nutrition is what our cells and tissues actually *receive*.

EATING WELL BY ITSELF IS NO GUARANTEE OF GOOD NUTRITION

Foods must pass through six stages: diet (eating healthy foods), digestion (mechanically breaking down foods through mouth chewing and stomach churning), absorption (passage of nutrients from the intestines into the bloodstream), circulation (distribution of nutrients carried in blood to cells), assimilation (incorporation of nutrients into cells), and elimination (removal of metabolic waste products from cells). Only when *all* of these challenges are successfully met do our foods provide our bodies with the nutrition they need so you can see that eating well *by itself* is no guarantee of good nutrition. Nonetheless, a good diet is the foundation upon which our health and vitality are built.

