

*NUTRITION & PHYSICAL DEGENERATION*

by Weston A. Price, D.D.S.

## FOREWORD TO THE 50TH ANNIVERSARY HERITAGE EDITION (1939 - 1989)

by Granville F. Knight

To fully understand the implications of Dr. Weston A. Price's work, and the supporting evidence of others, one must think in terms of ecology and cellular metabolism - for our era of synthetic chemicals has complicated his observations. A simple definition of ecology is the relationship of man, beast, fish, fowl, vegetation and all other forms of life to each other, to the living soil, and to the total environment. Over many centuries the relatively simple life of primitive man and beast has gradually changed to a complex artificial and chemicalized civilization posing new and difficult problems of adaptation. Food - fresh from fertile soil or the sea - has been replaced for the most part, by refined, processed and preserved produce of far different nutritional qualities. (The industrial revolution started a migration to the cities, which, in turn, created a demand for foods that could be transported long distances and stored without spoilage.)

In the past two hundred years the natural fertility of our soil has rapidly declined. At first, when crop failures appeared, settlers simply abandoned their farms and moved west to virgin areas. Later, the application of manure composed of animal or crop residues, and the rotation of crops were effective in maintaining fertility. More recently, the increasing availability of artificial fertilizers of high nitrogen content has enabled the grower to harvest one crop after another without allowing the land to lie fallow - a custom which encouraged the multiplication of soil organisms that, in turn, would release soil nutrients as needed by plants. Often against his better judgment the modern farmer has been forced to use monoculture, artificial fertilization, pesticides, herbicides and mechanization in order to keep ahead of ruinous taxation, inflation and ever-increasing costs of production. The result has been production for "quantity" rather than "quality," and the gradual destruction of our precious top soil and mineral reserves, in or beneath the soil. This has been well documented by Dr. William Albrecht of the University of Missouri. Our markets are flooded with attractive, but relatively tasteless, vegetables and fruits. The protein content of wheat and other grain has steadily declined; this being a reliable index of soil fertility. Animal food such as fowl and meat reflect similar changes. Fowl are usually raised in cramped quarters and their food limited to that prescribed by man. As a result cirrhotic livers are common and egg quality is inferior. Both groups are frequently treated with antibiotics, anti-thyroid drugs and hormones which produce castration, myxedema and waterlogged tissues. These practices are designed to stimulate more weight gain on less feed. The advantages to the producer are obvious: to the consumer, they are indeed questionable.

Moreover, in this day and age, human beings are increasingly exposed to thousands of chemicals in air, food and water. They are also dosing themselves - or being dosed - with a multitude of drugs. Chemical contacts include food additives, pesticides, herbicides, nitrates, and the effluents from modern industry. Many of these are coal tar products or their derivatives and other synthetic compounds completely foreign to the experience of man's biochemical makeup.

Long-lasting, chlorinated hydrocarbon pesticides, such as DDT, have even penetrated our food chain. In some areas at least, herbicides such as 2,4-D and 2,4,5-T contaminated by the highly toxic and teratogenic 3,4,6,7 tetrachloro-p-dibenzodioxin - have entered our food and water supplies. This is also true of other chlorinated diphenyls which are products of modern industry. These compounds may pose even more of a threat than DDT: even 2,4-D and 2,4,5-T have recently been shown to produce birth deformities in animals.

Residues of DDT and related chemicals are now found in most living creatures from the Arctic to the Antarctic, including phytoplankton which not only furnish the basic food for fish, but produce much of the oxygen essential for our survival. Through biological magnification the amounts tend to increase in vertebrates high in the food chain. Pelicans and the bald eagle are threatened with extinction, for DDT interferes with the production of hard egg shells. Abnormal softness seems to follow pathologically rapid destruction of sex hormones by liver enzymes whose actions are speeded up by DDT. (As a result, nesting mothers crush their eggs before they hatch.) Many other birds may share the same fate. Similar mechanisms could be operative in mammals, with different but conceivably bizarre and possibly irreversible changes related to propagation. Perhaps our current alarm about the "population explosion" is premature.

Most drugs and chemicals act by slowing down or accelerating one or more of the estimated 5,000 enzyme systems in each body cell. Since many of these may act synergistically, only time will tell the possible cumulative effects on human beings of minute amounts of many different chemicals. They could be disastrous.

Nutritional surveys in the United States and Canada have indicated that malnutrition is just as prevalent on this continent as in the "backward countries." Since individuals in all walks of life are affected, the problem would seem to be primarily one of neglect in the production of truly nourishing foods, together with ignorance regarding the selection, preparation and use of those available in the market place. In addition, since most of us, through poor inheritance, are nutritional cripples, our need for nutrients is often greater than normal. Therefore some individuals need larger amounts of vitamins, metals, trace elements, fatty acids and amino acids than can be obtained from even the best foods and will never be well until these are supplied as supplements.

At last we are faced with the inevitable consequences of our profligate use and abuse of natural resources. The laws of God and nature are immutable: They cannot long be broken without retribution. As the author has aptly stated: "Life in all its fullness is Mother Nature obeyed."

The observations of Dr. Price graphically portray what happened to primitives in all parts of the world, once they abandoned the tribal wisdom which had kept them physically sound for many generations. In our increasingly urbanized society, we have almost completely lost track of the fundamentals of good nutrition. Unless we mend our ways we may be headed for oblivion.

Hopefully, this Heritage edition of Dr. Price's work will again stimulate private practitioners in medicine and dentistry to apply his findings at the clinical level. They will find the public more receptive than in the past. We cannot turn back the clock: we cannot return completely to the ways of our forefathers, wherein they always had access to fresh food from fertile soil. However, we can - and we must - do everything possible to use this basic knowledge in a modified form. Perhaps we can compensate to some extent for the mischief that has been done. In this respect, the following suggestions, based on thirty-five years of clinical experience, are submitted for consideration:

- (1) Reduce the volume of industrial effluents, including fluorides, now contaminating our air, water and food as rapidly as possible, through federal, state and local controls.
- (2) Ban the use of untested food additives immediately. Reduce the number of those tested, considered harmless, and approved for use to an absolute minimum.
- (3) Rapidly phase out the use of long-acting pesticides and herbicides, unless proven harmless, except for emergency situations such as malaria control. Ban the sale of these pesticides for household use. Seek control of insect pests and weeds through other means, including soil improvement. Well

nourished plants are more resistant to insects and fungi than deficient ones.

(4) Warn the public that all petrochemicals, whether in food, water, air, pesticides, cosmetics, detergents, drugs or other environmental contacts, are potentially dangerous to many, and probably to all, individuals. Tell them that the least contact is the best.

(5) Give the public access to fundamental knowledge of good nutrition. If we are to survive, this must be taught in every school grade from kindergarten through college. Primitive wisdom tells us that the production of healthy, normal babies depends upon optimum parental nutrition *before conception*, as well as during pregnancy. Breast feeding is most important and should be followed by a diet high in raw and unprocessed foods. Most birth deformities are unnecessary. Good bones, good muscles, attractive skin, normal endocrines, a healthy liver, good reproductive capacity, good intelligence and good looks depend upon good food. Our people must know food values - and nourishing food is not necessarily expensive.

(6) Compost city wastes for use as fertilizers: return organic materials, minerals and trace elements to help rebuild our plundered soil; and reduce the use of synthetic fertilizers high in nitrogen content which are contaminating our water and food supplies. Demonstrate to farmers that this approach is economically feasible.

(7) Raise foods for quality rather than quantity. High protein, high vitamin and high mineral foods have much higher survival value than those with more calories but less of the essential nutrients. Calories alone are not enough.

(8) In line with the concept of "biochemical individuality," as expressed by Dr. Roger Williams, which postulates the inheritance of acquired partial enzyme blocks, many patients need vitamin and mineral supplements for optimal health, and even for normal metabolism. These must be prescribed, along with a basic diet, as deemed necessary by the experience and knowledge of the individual practitioner.

(9) Aside from a study of nutritional values of food - which most people will not undertake - there are a few simple steps available to everyone. If these were to be publicized and universally followed, the immediate and long term benefits could be incalculable; and the results would certainly be obvious in six months. They are as follows:

(a) Reduce the consumption of sugar in all forms to an absolute minimum.

(b) Avoid white or ordinary whole wheat bread. Eat only whole grain breads made from *freshly ground* flour, free of chemical preservatives. (The production of such bread would require a mill and adequate bakeries in every community.) Use brown in place of white, polished rice. These simple changes in food production and habits would result in a much higher intake of protein, Vitamin B complex, minerals and Vitamin E. The latter has only recently been recognized as essential for man. (It is appalling to think of the millions of tons of these vital nutrients that have been extracted from our foods and fed to animals over the past century.)

(c) When available, use only fresh fruits, vegetables, dark green leaves of lettuce and other greens such as watercress that have been raised in fertile soil without the use of insecticides. Ordinary fruits should be peeled because of possible pesticide residues and vegetables thoroughly washed for the same reason. Home gardens are to be encouraged. Frozen or canned vegetables and fruits are nourishing but less desirable. Steam or lightly cook all vegetables which are not eaten raw and save any cooking water for tomato juice cocktails or soup.

(d) Sprouted beans, alfalfa and other seeds contain desirable nutrients and are free of contamination. They can be sprouted in every kitchen. The consumption of 60%, or more, of food in the uncooked state seems logical.

(e) Avoid stale fats and foods cooked in re-used fats, such as ordinary potato chips, french fried potatoes, etc. Recent, preliminary evidence adduced by Robert S. Ford suggests that partially rancid fats, rather than animal fat per se, may be one of the real villains responsible for atherosclerosis.

Sources of stale fats include products such as bread, crackers, pastries and commercial cereals made from stored processed flour.

(f) Two servings daily of foods with an alkaline residue such as potatoes, unsprayed beet greens, turnip tops, spinach, dandelion greens, dehydrated grasses, or sorghum cane juices, in accordance with the findings of Dr. Martha R. Jones, may be of great importance in maintaining the body's alkali reserves. Her studies suggest that good diets providing a moderate excess of alkali to neutralize acid foods, such as meat, bread, eggs and other nutritious staples are not only beneficial to health, but a major factor in the prevention of dental caries. (This is one of the few aspects of native diets not analyzed by Dr. Price.)

Elimination of the "empty calories" in (a) and (b) alone would result in increased resistance to infection, a marked reduction in the bizarre and disabling symptoms of reactive hypoglycemia, fewer attacks of so-called "viruses," a renewed supply of energy, more zest for life and a gradual reduction in the incidence of degenerative diseases, which seem to be the hallmark of our civilization. In the absence of serious pathology, the results are predictable - even though not based upon "one thousand controlled cases." A healthy body should have increased resistance to chemicals - as well as to invasion by viruses and bacteria.

The Price-Pottenger Foundation is indebted to Dr. Price's widow, Monica Price, R.N., whose dedication and help were invaluable to Dr. Price, and to the Pottenger family for entrusting to this organization the scientific works of these pioneers in nutrition, not only for their preservation but for the dissemination of their findings to the public. The Foundation is also grateful for the devoted work of our Curator, Alfreda F. Rooke, M.P.H., who shared Dr. Price's dream; for the unselfish services of our Board of Directors; and for the substantial and loyal help of hundreds of individuals, many of whom have personally experienced the benefits which accompany the application of sound nutritional principles. We hope to be worthy of this trust and seek the support of others who may now, or in the future, realize the vital importance of this fundamental approach to the survival of our civilization.

**For more information or to order the book, *Nutrition & Physical Degeneration*  
Contact PRICE-POTTENGER NUTRITION FOUNDATION at PPNF@AOL.COM  
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