

# FACT SHEET

## UNDERSTANDING ORGANIC/NATURAL FOODS

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How many times have you heard someone say, "Natural foods are better than processed foods?" Or how about, "If I only eat organic foods, I am not likely to get cancer." In many instances consumers are being persuaded by the abundance of misinformation and half-truths about nutrition and our food supply. "Natural" and "organic" are probably two of the most misused and least understood words in today's vocabulary.

Consumers need to understand these two terms to make better food purchasing decisions.

One area of misconception is aimed at the nutritional benefits from eating only "organic foods." The adjective "organic" suggests a food derived from a living plant or animal. In this sense all our foods are organic. Perhaps it is better to talk about "organically grown" foods, which includes foods raised without chemical fertilizers or pesticides.

True organic farmers use manure or compost instead of chemical fertilizers to add minerals to soils. Some people believe that plants grown in this manner are nutritionally superior. The fact is that organic and inorganic nutrients must be in a soluble form to be utilized by plants. The essential nutrients in commercial fertilizers are already in this form. Organic fertilizers, however, must be broken down by microorganisms into the inorganic form. Under these circumstances nutritional superiority of organically grown foods is unlikely. In addition, widespread use of organic fertilizers of animal or human origin presents special problems with bacterial contamination.

The public has been led to believe that anything labeled organic is free from chemical contamination. Not so, for even products labeled "organically grown" show up with pesticide residues. On occasion, these residues are higher than in products marketed

through regular channels. One laboratory in California purchased "organic" lettuce from six San Francisco health food stores and nonorganic lettuce from a conventional supermarket. The supermarket lettuce contained 0.01 parts per million of phosdrin (a spray used to kill aphids), one "organic" lettuce had 0.06 parts per million and a second had 0.08 parts per million. Another organic lettuce was also contaminated by phosdrin and two other pesticides.

In another study, conducted by Wayne State and Michigan State University researchers, 10 brands of bread were purchased. Five came from health food stores and five from supermarkets. All 10 samples including a bread whose label said it was made from "organic" flour, had traces of pesticide residues.

It is, therefore, quite difficult to consider paying a 10 to 50 percent premium for "organically produced" foods, when there is no assurance they are free from chemical residues.

"Natural" is the other term used so often in describing certain food products. Generally, natural foods are considered to be in their original state or have had minimal refinement and processing. But is natural really better or safer? This is a difficult question to answer without examining some of the problems associated with natural foods.

There are many instances of toxic constituents occurring in foods in the natural or original state. Toxic compounds called glycoalkaloids are present in the ordinary potato, but one would have to eat 40 to 50 large potatoes daily to develop symptoms of glycoalkaloid poisoning. People also have become ill from prolonged consumption of large quantities of cabbage, which contains a goiter-producing substance. Lima beans contain cyanide-forming compounds, and nutmeg can be lethal in large quantities. Spinach contains oxalic acid, which binds iron, preventing its absorption in the body. Spinach also contains nitrites, the safety of which has been ques-

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tioned. The list of natural toxicants in food is long, but the concentration of each one is so low that grossly exaggerated consumption is necessary to create a hazard. Yet this type of consumption is the basis for testing most food additives.

Processing is the other bad word implicated in the natural food definition. However, it is difficult to imagine what our food supply would be like without it. Processing in its various forms is a necessary and integral part of today's food system. Freezing preserves nutrients that can be lost if fresh foods are not consumed immediately; pasteurization kills potentially dangerous bacteria in milk; canning enables us to enjoy fruits and vegetables year around without refrigeration.

Foods containing preservatives are not considered natural. Preservative is a bad word much like processing. Calcium propionate is a preservative widely used in breads to prevent mold growth. Yet calcium propionate occurs naturally in raisins and Swiss cheese. Today we return more than 100 million pounds of bread to producers. This much or more spoils in the home. Without the use of this one ingredient, these figures would triple or quadruple. All of this happens in a world of malnutrition and hunger.

Another area of misconception is that vitamins from natural sources are superior to synthetic vitamins. But the fact is our bodies cannot distinguish between the two. For example, the body cannot tell the difference between vitamin C from an orange and that synthetically made in the laboratory.

There are many "pseudonutritionists" and "food experts" who are prophets of doom and gloom on the quality of our food supply. Consumers have been led to believe that our food supply is filled with poisons to increase shelf-life and that the nutritional value has been reduced because of overprocessing. The fact is that all preservatives and additives must undergo very thorough testing before being allowed in the marketplace. Additive manufacturers must prove that any new additive is safe in the quantity recommended. The testing procedures is extremely conser-

vative according to an article published by the American Medical Association. First, the dosage is increased until some physiological effect is produced. Then, this dosage usually is multiplied by 100 as a safety factor and tested further.

Other crusaders think that nutrition is lost in processing. One spoke of "slow murders in the kitchen" and scorned "refined stuff." They commonly point to lost nutrition as a prime cause of modern health problems. It is ironic to blame processed foods and preservatives for nutrition disorders when obesity is one of our major nutrition-related problems today.

These accusations have been around for many years. But modern medicine has not been able to trace plagues to processed food. Doctors wonder where all the food-sickened people are. It is difficult to believe that through ignorance, indifference or conspiracy, thousands of physicians and scientists are suppressing real causes, cures and preventions of disease. "Yet, this is what many so-called food experts would like us to believe.

Regulations of the organic/health food industry are in the very early stages. Laws in Oregon and California are somewhat advanced, but overall regulation of this industry cannot compare to the sophistication of the Food & Drug Administration and the Food Safety & Quality Service of the U.S. Department of Agriculture. When one considers the regulatory inadequacies and the increased costs of "organic" groceries, the opportunities for consumer rip-off increase.

"Natural" and "organic" are two terms often used to describe certain food products. With a common sense approach and understanding of their meanings one can objectively evaluate much of the allure associated with these words. There is certainly nothing wrong with natural and organic products, if one understands the limitations. It is hard to believe that our food supply is as bad as many would like us to believe, especially since our average life span is on the increase while most nutritionally related diseases are declining.

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