Why Should We Eat Whole Foods?
by Annemarie Colbin, Ph.D.

For many years I have been teaching that it is a good idea to consume whole foods for our health and well-being. The reasons seemed obvious. Whole foods are those that nature provides, with all their edible parts.

Whole foods of vegetable origin include fresh vegetables and fruits; whole grains (millet, brown rice, oats, rye, whole wheat, buckwheat, quinoa, cornmeal); beans and legumes (lentils, chick peas, kidney beans, etc); nuts and seeds. Whole foods of animal origin include eggs, small whole fish, seafood (shrimp, lobster, soft shell crabs), and small fowl. Under this model, when consuming larger animals (pork, beef, venison) the idea is to use as many parts as possible (muscle, kidney, heart, etc), including the bones to make stock, to maximize nutrient intake. Eating whole foods insures consumption of the maximum amount of original natural nutrients, in the right proportions.

Conversely, fragmented foods include all foods that are missing original parts: refined complex carbohydrates such as white flour and white rice (missing fiber and nutrients found in bran and germ); conversely, the bran and germ of grains (missing carbohydrates); sweeteners (crystallized sugars, syrups, concentrates -- all missing water, some missing most nutrients); refined and deodorized oils and fats (missing both their trace elements and the rest of the plant or animal). Fragmented foods that have generally been considered healthful include juices and tofu (all missing fiber), bran, wheat germ (missing starch), and vitamin supplements (missing macro nutrients and whatever micro nutrients they do not contain). Fragmented, extracted, or concentrated nutrients may have medicinal applications.

A healthful regime would include at least 70-80% whole foods. How could anyone doubt the wisdom of this concept? If human beings are part of the earth, denizens of the ecosystem, we are programmed to survive on what the earth provides. When we consume foods that are missing certain of their original ingredients, wouldn't our bodies know that? Wouldn't they respond in some unexpected manner to this deficiency? For a long time, society ignored this question, even though studies had shown conclusively that various fragmented foods contributed to disease -- e.g., polished rice caused beri-beri,, and plain cornmeal brought on pellagra, both B-vitamin deficiencies.

But recently, there have been some studies that show more clearly that the body can distinguish between whole and fragmented foods, between whole foods and nutrients taken in the form of supplements -- and that whole foods have better health benefits than the individual nutrients.

For example, whole foods are more likely to protect against disease than their individual nutrients. According to Nan Kathryn Fuchs, Ph.D., in the September '98 *Women's HealthLetter*, whole grains give better protection against chronic diseases than any of their component nutrients used as supplements. One of the major benefits of eating whole grains is that they slow down the digestive process, thereby allowing better absorption of the nutrients. Their fiber content also regulates blood

sugar by slowing down the conversion of starches into glucose. Whole grains make favorable changes in the intestines, allowing healthful bacteria to keep disease-producing bacteria in check; they have strong anti-oxidant properties to help protect the body against free radicals, as well as phyto-estrogens and phytochemicals that break down carcinogenic substances. Most interestingly, grains have a more concentrated amount of these phytochemicals than fruits and vegetables. Apparently, we don't need much: a half cup of brown rice, a bowl of oatmeal, or a few slices of wholegrain bread may be quite sufficient. Here is a reminder of which are whole grains: in addition to those just mentioned, consider whole grain rye, barley, quinoa, amaranth, whole wheat, buckwheat or kasha, millet, and whole corn or (non-degermed) cornmeal. Foods that are *not* whole grain: regular pasta, breakfast cereals (unless specifically made from whole grains), most breads (look for "wheat" in the ingredient list, and you'll know it contains white flour), white rice, and degermed cornmeal.

Other phytonutrients that have been in the news for a while are the carotenoids such as beta carotene, which are in fact precursors to Vitamin A. However, their benefits are felt best when they are part of whole foods such as yams, carrots, and winter squash. According to Jeffrey Bland, Ph.D., the incidence of macular degeneration, an eye disease that causes blindness, is considerably lower in persons who regularly consume these vegetables than in those who do not. Supplements of beta carotene, on the other hand, do not seem to offer such protection.

Insuring our nutritional health is therefore quite simple. We can do so by consuming daily one or two servings of whole grains, a serving of beans and/or animal protein, plenty of vegetables of many different colors, and fruit and nuts as snacks. Here is a great recipe, rich in carotene, tasty and easy to boot.

FRENCH CARROTS

½ lb carrots, sliced thin on the diagonal

1 cup water or stock

1 tablespoon extra virgin olive oil or organic butter

2 tablespoons chopped parsley

1. Place the carrots and water or stock in a small pot, and steam carrots, covered, until tender, or about 20-25 minutes. Remove cover, and cook a little longer to evaporate the liquid, or pour it off if there is too much.

2. Push the carrots to the side, add the olive oil or butter to the pot, and saute the steamed carrots until fragrant, about 8-10 minutes.

3. Just before serving, toss with the finely chopped parsley. Makes 3-4 servings.

References

1. Fuchs, Nan Kathryn, Ph.D., in "The Nutrition Detective: Healthy Whole Grains," quoting from Slavin J; Jacobs D; Marquart L, "Whole-grain consumption and chronic disease: protective mechanisms." *Nutr Cancer* 1997;27(1):14-21.

2. Bland, Jeffrey, "Phytonutrition, Phytotherapy, and Phytopharmacology," *Alt Ther Health and Medicine 1996;2(6):73-76,* quoting Seddon JM, Ajani UA, Sperduto RD, et al, "Dietary carotenoids, vitamins A, C, and E, and advanced age-related macular degeneration." *JAMA*, 1994;272:1413-1420