

Health Update: A New Plan

In 1956 the USDA began heralding meat in their basic food grouping plan. In 1991, they brought about a change by dropping the meat. Wonder why we don't hear more about it? Here it is:

Vegetables

3 or more servings a day

Vegetables are packed with nutrients; they provide vitamin C, beta-carotene, riboflavin, iron, calcium, fiber, and other nutrients. Dark green leafy vegetables such as broccoli, collards, kale, mustard and turnip greens, chicory, or bok choy are especially good sources of these important nutrients. Dark yellow and orange vegetables such as carrots, winter squash, sweet potatoes, and pumpkin provide extra beta-carotene. Include generous portions of a variety of vegetables in your diet.

Serving size: 1 cup raw vegetables; $\frac{1}{2}$ cup cooked vegetables

Whole Grains

5 or more servings a day

This group includes bread, rice, pasta, hot or cold cereal, corn, millet, barley, bulgur, buckwheat, groats, and tortillas. Build each of your meals around a hearty grain dish--grains are rich in fiber and other complex carbohydrates, as well as protein, B vitamins and zinc.

Serving size: $\frac{1}{2}$ cup hot cereal; 1 ounce dry cereal; 1 slice bread

Fruit

3 or more servings a day

Fruits are rich in fiber, vitamin C, and beta-carotene. Be sure to include at least one serving each day of fruits that are high in vitamin C-- citrus fruits, melons, and strawberries are all good choices. Choose whole fruit over fruit juices, which do not contain very much fiber.

Serving size: 1 medium piece of fruit; $\frac{1}{2}$ cup cooked fruit; 4 ounces juice

Legumes

2 or more servings a day

Legumes--which is another name for beans, peas, and lentils--are all good sources of fiber, protein, iron, calcium, zinc, and B vitamins. This group also includes chickpeas, baked and refried beans, soy milk, tempeh, and texturized vegetable protein.

Serving size: $\frac{1}{2}$ cup cooked beans; 4 ounces tofu or tempeh; 8 ounces soy milk

Be sure to include a good source of vitamin B₁₂, such as fortified cereals or vitamin supplements.

Basic Food Groups

Many of us grew up with the USDA's old Basic Four food groups, first introduced in 1956. The passage of time has seen an increase in our knowledge about the importance of fiber, the health risks of cholesterol and fats, and the disease-preventive power of many nutrients found exclusively in plant-based foods. We also have discovered that the plant kingdom provides excellent sources of the nutrients once only associated with meat and dairy products--namely, protein and calcium.

The USDA revised its recommendations with the Food Guide Pyramid, a food grouping plan that reduced the serving suggestions for animal products and vegetable fats. PCRM, determining that regular consumption of such foods--even in lower quantities--poses serious, unnecessary health risks, developed the New Four Food Groups in 1991. This no-cholesterol, low-fat plan supplies all of an average adult's daily nutritional requirements, including substantial amounts of fiber.

The major killers of Americans--heart disease, cancer, and stroke--have a dramatically lower incidence among people consuming primarily plant-based diets. Weight problems--a contributor to a host of health problems--can also be brought under control by following the New Four Food Group recommendations.

Isn't it just amazing that the closer we look at God's Plan, the better it gets!

Protein

In the past, [and now again] some people believed one could never get too much protein. In the early 1900s, Americans were told to eat well over 100 grams of protein a day. And as recently as the 1950s, health-conscious people were encouraged to boost their protein intake.

Recommended protein intake for men is 63 grams. The average protein consumed by a non-vegetarian man is 103 grams. The average protein consumed by a vegetarian man is 105 grams.

For women, the recommended protein intake for women is 50 grams. The average protein consumed by a non-vegetarian woman is 74 grams. And the average protein consumed by a vegetarian woman is 65 grams.

Obviously, there is no problem with vegetarians getting enough protein. If any problem exists, it is the other way around. Excess protein consumption has been linked to many diseases.

Today, some fad diets encourage high-protein intake for weight loss, though Americans tend to take in nearly twice the amount of protein they need anyway. And while individuals following such a diet have had short-term success in losing weight, they are often unaware of the health risks associated with a high-protein diet. Excess protein has been linked with osteoporosis, kidney disease, calcium stones in the urinary tract, and some cancers.

The Building Blocks of Life

People build the proteins of their bodies from amino acids, which, in turn, come from the proteins they eat. A varied diet of beans, lentils, grains, and vegetables contains all of the

essential amino acids. It was once thought that various plant foods had to be eaten together to get their full protein value, but current research suggests this is not the case. Many nutrition authorities, including the American Dietetic Association, believe protein needs can easily be met by consuming a wide variety of amino acid sources over an entire day. Also, eating enough calories is essential for the best use of protein by the body.¹

The Trouble with Too Much Protein

The average American diet contains meat and dairy products. As a result, it is too high in protein. This can lead to a number of serious health problems:

Kidney Disease: When people eat too much protein, they take in more nitrogen than they need. This places a strain on the kidneys which must expel the extra nitrogen through urine. People with kidney disease are encouraged to eat low-protein diets.² Such a diet reduces the excess levels of nitrogen, and can help prevent kidney disease, too.

Cancer: Although fat is the dietary substance most often singled out for increasing one's risk for cancer, protein also plays a role. Populations that eat meat regularly are at an increased risk for colon cancer,³ and researchers believe that the fat, protein, natural carcinogens, and the absence of fiber in meat all play roles. In 1982, the National Research Council noted a link between cancer and protein.⁴

Osteoporosis and Kidney Stones: Diets that are rich in protein, especially animal protein,⁵ are known to cause people to excrete more calcium than normal through their urine⁶ and increase the risk of osteoporosis. Countries with lower-protein diets have much lower rates of osteoporosis and hip fractures.⁷

Increased calcium excretion increases risk for kidney stones. Researchers in England found that by adding about 5 ounces of fish (about 34 grams of protein) to a normal diet, the risk of forming urinary tract stones increased by as much as 250 percent.⁸

For a long time it was thought that athletes needed much more protein than other people. The truth is that athletes need only slightly more protein, which is easily obtained in the larger servings athletes require for their higher caloric intake. Vegetarian diets are great for athletes. To consume a diet that contains enough, but not too much, protein, simply replace animal products with grains, vegetables, legumes (peas, beans, and lentils), and fruits. As long as one is eating a variety of plant foods in sufficient quantity to maintain one's weight, the body gets plenty of protein.

References

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Calcium in Plant-Based Diets

Many people choose to avoid milk because it contains fat, cholesterol, allergenic proteins, lactose sugar, and frequent traces of contamination, not to mention the health risks and the fact that 70% of dairy cows worldwide HAVE leukemia. Milk is also linked to juvenile-onset diabetes, Chrones Disease and other serious conditions.

The dairy industry has brain-washed us into thinking that we have to drink milk in order to get enough calcium. Happily, there are plenty of other good sources of calcium.

Keeping your bones strong depends more on preventing the loss of calcium from your body than on boosting your calcium intake. Some cultures consume no dairy products and typically ingest only 175 to 475 milligrams of calcium per day. However, these people have low rates of osteoporosis. Cultures consuming high amounts of Dairy show equally higher levels of Osteoporosis. Many scientists believe exercise and other factors have more to do with osteoporosis than calcium intake does.

Calcium in the Body

Almost all of the calcium in the body is in the bones. There is a tiny amount in the blood stream which is responsible for important functions such as muscle contraction, maintenance of the heartbeat, and transmission of nerve impulses.

We constantly lose calcium from our bloodstream through urine, sweat, and feces. It is renewed with calcium from bone. In this process, bones continuously lose calcium. This bone calcium must be replaced from food.

Calcium needs change throughout life. Up until the age of 30 or so, we consume more calcium than we lose. Adequate calcium intake during childhood and adolescence is especially important. Later, the body begins to slip into "negative calcium balance," and the bones start to lose more calcium than they take up. The loss of too much calcium can lead to soft bones or osteoporosis.

How rapidly calcium is lost depends, in part, on the kind and amount of protein you eat as well as other diet and lifestyle choices.

Reducing Calcium Loss

A number of factors affect calcium loss from the body:

- Diets that are high in protein cause more calcium to be lost through the urine. Protein from animal products is much more likely to cause calcium loss than protein from plant foods. This may be one reason that vegetarians tend to have stronger bones than meat eaters.
- Caffeine increases the rate at which calcium is lost through urine.
- Drinking soda pop [esp. Cola] is reported to leech calcium from the body.
- Diets high in sodium increase calcium losses in the urine.
- Alcohol inhibits calcium absorption.
- The mineral boron may slow the loss of calcium from bones.
- Exercise slows bone loss and is one of the important factors in maintaining bone health.

Sources of Calcium

Exercise and a diet moderate in protein will help to protect your bones. People who eat plant-based diets and who lead an active lifestyle probably have lower calcium needs. However, calcium is an essential nutrient for every-one. It is important to eat calcium-rich foods every day.

The "Calcium in Foods" chart gives the amount of calcium found in some excellent plant sources. A quick glance shows how easy it is to meet calcium needs. The following sample menus each provide close to 1,000 milligrams of calcium.

CALCIUM IN FOODS

(content in milligrams)

Grains

Brown rice (1 cup, cooked) 20

Corn bread (1 2-oz. piece) 133

Corn tortilla 42

English muffin 92

Pancake mix (1/4 cup; 3 pancakes; Aunt Jemima Complete) 140

Pita bread (1 piece) 18

Wheat bread (1 slice) 18

Wheat flour, all-purpose (1 cup) 22

Wheat flour, Pillsbury's Best (1 cup) 238

Whole wheat flour (1 cup) 40

Fruits

Apple (1 medium) 10
Banana (1 medium) 7
Dried figs (10 figs; 187 grams) 269
Naval orange (1 medium) 56
Orange juice, calcium-fortified (8 oz.) 300
Pear (1 medium) 19
Raisins (2/3 cup) 53

Vegetables

Broccoli (1 cup, boiled, frozen) 94
Brussels sprouts (1 cup, boiled, 8 sprouts) 56
Butternut squash (1 cup, boiled) 84
Carrots (2 medium, raw) 38
Cauliflower (1 cup, boiled) 34
Celery (1 cup, boiled) 64
Collards (1 cup, boiled, frozen) 348
Kale (1 cup, boiled) 94
Onions (1 cup, boiled) 46
Potato (1 medium, baked) 20
Romaine lettuce (1 cup) 20
Sweet potato (1 cup, boiled) 70
Legumes black turtle beans (1 cup, boiled) 103
Chick peas/garbanzos (1 cup, canned) 78
Great Northern beans (1 cup, boiled) 121
Green beans (1 cup, boiled) 58
Green peas (1 cup, boiled) 44
Kidney beans (1 cup, boiled) 50
Lentils (1 cup, boiled) 37
Lima beans (1 cup, boiled) 32
Navy beans (1 cup, boiled) 128
Pinto beans (1 cup, boiled) 82

Soybeans (1 cup, boiled) 175

Tofu (1/2 cup, raw, firm) 258

Vegetarian baked beans (1 cup) 128

Wax beans (1 cup, canned) 174

White beans (1 cup, boiled) 161

Source: J.A.T. Pennington, Bowes and Church's Food Values of Portions Commonly Used. (New York: Harper and Row, 1989.)

Cooking without Eggs

Many people choose not to use eggs in their diet. About 70 percent of the calories in eggs are from fat, and a big portion of that fat is saturated. They are also loaded with cholesterol, about 213 milligrams for an average-sized egg. Because egg shells are fragile and porous and conditions on egg farms are crowded, eggs are the perfect host to salmonella, the bacteria that is the leading cause of food poisoning in this country.

Eggs are often used in baked products because of their binding and leavening properties. But smart cooks have found good substitutes for eggs. Try one of the following the next time you prepare a recipe that calls for eggs:

If a recipe calls for just one or two eggs, you can often skip them. Add a couple of extra tablespoons of water for each egg eliminated to balance out the moisture content of the product.

Eggless egg replacers are available in many natural food stores. These are different from reduced-cholesterol egg products which do contain eggs. Egg replacers are egg-free and are usually in a powdered form. Replace eggs in baking with a mixture of the powdered egg replacer and water according to package directions.

- Use 1 heaping tablespoon of soy flour or cornstarch plus 2 table-spoons of water to replace each egg in a baked product.
- Use 1 ounce of mashed tofu in place of an egg.
- In muffins and cookies, half of a mashed banana can be used instead of an egg, although it will change the flavor of the recipe somewhat.
- For vegetarian loaves and burgers, use any of the following to bind ingredients together: tomato paste, mashed potato, moistened bread crumbs, or rolled oats.

Rendering

In our tract "*Beauty's Only Skin Deep*" we published an article on rendering plants, what goes in it and what it's being used for. Well, we happened upon an article written in 1997 by Pamela Rice and thought you might find it informative.

With Rendering, It's Not Easy Being a Vegan.

Aged animals, roadkill, shelter dogs and cats. . . they all go into the vat to be boiled down for every imaginable consumer product

In my constant quest to uncover the seamy side of meat production, I was admittedly delighted, but then quite horrified, when I read a recent *New York Times* account of our country's rendering industry.

Rendering? The term refers to a process the meat industry and others rely upon to take care of an incessant and nagging predicament they face: by-product dead animals and parts of dead animals.

Think about it. Millions of chickens and other livestock victims of today's agribusiness die tortured deaths on factory farms every year. Half of every butchered cow and a third of every butchered pig are not consumed as food by humans. On a daily basis, some 250 rendering plants deal with a hundred million pounds of feet, tails, feathers, bones, spinal cords, hooves, milk sacs, grease, intestines, stomachs and eyeballs.

Both business and government add to this volume. Farms contribute the most, but animal shelters, with their daily kill of euthanized cats and dogs, also provide a hefty share. Highway patrolmen, with the days roadkill, partake of the service, too. They all benefit as their headaches are carted away, first to be minced, then to be poured into vessels and steam cooked.

On the "fringes of polite society," this "witch's brew," as the *Times* put it, consists of a slurry of animal fat and protein, which eventually makes its way into every conceivable commercial product. Certainly industrial lubricants; But also, on the less savory side, such products as lipstick, pharmaceuticals and gummy candies. Ultimately, the ubiquity of these rendered ingredients makes it tough even for careful vegans to avoid them completely.

Steam cooking reduces the animal stew so it can be broken down and separated. Fats and oils rise to the top; heavier materials-- hooves, muscle, bones -- settle to the bottom. The various levels of fat are siphoned off, filtered and processed more by centrifuge. The heavier material is dried, squeezed of fat and then dried again, with the resultant powder serving to make cannibals out of our nation's livestock. You might call it recycling; and at least one trade group that represents renderers, the Animal Protein Producers' Industry, is proud to use this term.

Most of us know at least bits and pieces of the mad-cow saga still dragging on in England. There is strong evidence that the British practice of feeding rendered scrapie-infected sheep to cows was the cause. With such recycling so commonplace in the United States, widespread concern is mounting.