

Power Up Vegan-Style

The Revolutionary Diet for a Powerful, Healthy Body

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Body builders are always searching for the best eating pattern. Unfortunately, some diets overdo it with protein, weakening the bones, and straining the kidneys. Others provide a more healthful amount of protein, but enough fat to build a serious spare tire. Many are low in vitamins and nearly devoid of fiber. How do we find the best diet?

First of all, if your goal is to build muscle mass, what matters most is not your diet, but your resistance training regimen. When aspiring body builders ask me what is the best way to build muscle, I answer, “Get plenty of iron. Not in your food—in your hands!” All the nutrition in the world will not build muscles without a regular training regimen.

Even so, foods are important. Good nutrition means protein, carbohydrate, fat, fiber, vitamins, and minerals—not only in the right amounts, but also the right kind. Let’s focus on some key nutrients:

Protein

There is an ongoing debate about how much protein is optimal for building muscles. Some authorities suggest protein intakes similar to those recommended for general health—around 50 to 60 grams per day (which is actually about twice the body’s true physiologic need), while others are convinced that muscle development is better on a diet containing at least 150 grams of protein daily.

More important than the *amount* is the *type*. In the early 1900s, many nutritionists favored animal proteins because they are high in essential amino acids, the “links” that build the protein chain. However, it is now known that the sulfur-containing amino acids in animal proteins can leach calcium from the bones, encouraging bone-weakening osteoporosis. Animal proteins are also hard on the kidneys. In high amounts, animal proteins gradually wear out the *nephrons*, the kidneys’ filter units.

Plant proteins provide all the essential amino acids, and are much easier on the bones and kidneys. Historically, vegetarians combined (or “complemented”) plant foods so that a rela-

tive lack of certain amino acids in grains, for example, was made up for by complementary amino acids in beans or other foods. However, this concept has fallen by the wayside in recent years as nutritionists have found that *any* variety of plant foods provides more than enough complete protein without any special combining. Both the American Dietetic Association and U.S. official dietary policy hold that intentional combining is not necessary for adequate protein.

But weight trainers demand more than a basic diet. They need more protein and more calories. While the exact amount of protein needed is a matter of continuing controversy, you can get whatever amount you want from plant sources. Surprisingly, vegetables contain generous amounts of protein. Typical green vegetables are approximately 40 percent protein, as a percentage of calories. The hitch, however, is that vegetables are not at all nutrient dense, so you have to eat generous servings of vegetables to boost your protein intake substantially.

Legumes (beans, peas, and lentils) are more nutrient dense and easily supply a substantial amount of protein. Most varieties are about 25 percent protein, and yield approximately 15 grams of protein per cup.

Soybean products push protein higher. While soybeans are higher in fat than other beans, defatted soy products, such as textured vegetable protein (TVP), are high in protein with virtually no fat at all.

But don’t think that beans have a patent on protein. Wheat noodles, believe it or not, contain substantial amounts; some varieties have about 10 grams of protein in every two ounces of dry pasta, and that’s before you figure in any toppings.

Vegetarian protein supplements are available at health food stores, and most contain about 25 grams of protein per 1-ounce serving, with virtually no fat.

Plant foods are loaded with advantages: There is no better way to cut body fat. And you skip all the animal fat and cholesterol that come from animal products. Don’t let anyone tell you can’t build muscle from plant protein. Bulls, stallions, gorillas, and elephants build their massive strength, not from meat, eggs, or dairy products, but entirely from plant nutrition.

Higher-Protein Plant Foods (serving size: 1 cup, cooked)

	calories	protein (g)	fat (g)
<i>Legumes</i>			
Baked beans (vegetarian)	235	12.2	1.1
Black beans	227	15.2	0.9
Chickpeas	285	11.9	2.7
Kidney beans	225	15.4	0.9
Lentils	231	17.9	0.7
Lima beans	217	14.7	0.7
Navy beans	259	15.8	1.0
Peas	134	8.6	0.4
Pinto beans	235	14.0	0.9
Split peas	231	16.4	0.8
<i>Soybean Products</i>			
Soybeans	298	28.6	15.4
Soymilk	140	10.0	4.0
Tempeh	330	31.4	12.8
Tempeh burger (1 burger)	110	12.5	3.2
Textured vegetable protein	120	22.0	0.2
Tofu (firm)	366	39.8	22.0
<i>Breakfast cereals</i>			
All Bran	213	12.0	1.5
Grape-Nuts	416	12.4	0.4

Calcium

While many vegetarians consume milk and other dairy products for calcium, they are better off without them. Milk proteins are like other animal proteins in their ability to leach calcium and overwork the kidneys, and sensitivities to dairy proteins take a surprising number of forms, from allergies and sinus conditions to joint problems. Although green vegetables have somewhat less calcium than milk, the absorption fraction is usually much higher. Legumes are also calcium-rich.

Iron

Green vegetables and legumes are loaded with iron, and in a form which is more absorbable when the body needs more and less absorbable when the body already has plenty of iron. Iron is another reason to avoid milk products: not only are they extremely low in iron, they actually inhibit iron absorption.

Vitamin B₁₂

Vitamin B₁₂ is important for maintaining healthy blood and healthy nerves. It is not produced by plants or animals, but, rather, by bacteria and other one-celled organisms. In non-industrialized, developing countries, bacteria in soil and

on plants provide the tiny amounts of B₁₂ needed by the body. However, improved hygiene, careful washing, and modern processing destroy the bacteria that make B₁₂. Animal products contain B₁₂, because the bacteria in the animals' gut produce the vitamin, but along with it come cholesterol, fat, and the other disadvantages of animal products.

All common multivitamin tablets contain B₁₂, as do some packaged foods. The body needs only about 1 microgram per day, and since the body stores this vitamin, there is no need to have B₁₂ every day, but it should be included at least every few days.

THE NEW FOUR FOOD GROUPS

To insure complete nutrition, the easiest overall guide is the Physicians Committee for Responsible Medicine's (PCRM's) New Four Food Groups. Devised in 1991, the New Four Food Groups assures an adequate mix of amino acids, essential fats, complex carbohydrates, vitamins, and minerals by building the menu from grains, vegetables, legumes (beans, peas, and lentils), and fruits. Put these groups together in the following amounts for every 1,200 calories in your daily diet:

- **Whole grains:** 3 or more servings (1 serving = 1/2 cup hot cereal, 1 oz. dry cereal, 1 slice bread)
- **Vegetables:** 5 or more servings (1 serving = 1 cup raw or 1/2 cup cooked)
- **Fruits:** 3 or more servings (1 serving = 1 medium piece of fruit, 1/2 cup cooked fruit, 1/2 cup fruit juice)
- **Legumes:** 2 to 3 servings (1 serving = 1/2 cup cooked beans, 4 oz. tofu or tempeh, 8 oz. soymilk)

In this simple plan, animal products are no longer considered dietary essentials and are best eliminated completely. It is also recommended that vegetable oils be kept to a minimum. Start with the grain. About half of your plate should be rice, noodles, corn, etc., or, if you prefer, substitute a starchy vegetable, such as a potato. Grains give you good, clean-burning, complex carbohydrates that increase your body's production of thyroid hormone and noradrenaline to cut body fat. Next, fill about a quarter of your plate with vegetables. I usually suggest two different vegetables, such as carrots and a green vegetable at a single meal. These are vitamin powerhouses. The final quarter of your plate should be filled with legumes: beans, lentils, peas, etc. Legumes are rich in protein, complex carbohydrate, fiber, and omega-3 fatty acids. Fruit make great desserts and snacks, but include them whenever feels right for you. Add a daily multiple vitamin or any other reliable source of vitamin B₁₂, and you're set with complete nutrition.

Vegetarian foods lend themselves very well to multiple meals in the day. Their high content of complex carbohydrates helps keep up the metabolic rate.

Some people prefer to start their day with fruits. It helps them feel energized all day. Others, however, feel out of sorts if they start their day with fruit. The reason is that sugars—even fruit sugars—increase the brain chemical serotonin, which can cause sleepiness, depression, or irritability for some people. If that includes you, the effect can be prevented by having higher

protein foods earlier in the day. Examples of higher protein foods include a slice of marinated tempeh burger (available at health food stores) along with your regular breakfast or, believe it or not, beans on toast, a staple in Latin America and England. Black beans are a good choice, either on toast or with rice. It may not sound like breakfast, but with a little salsa it will definitely open your eyes in the morning. Chickpeas also do the trick, served straight out of the can or with a non-fat dressing.

Omega-3 fatty acids are found in flax seed oil, beans, and vegetables, and are more stable than the omega-3s in fishes.

MAKING IT EASY

When you are making a dietary switch, it helps to keep things as simple as possible. Here are some tips to help you cook and shop:

Keep canned beans on hand.

A typical cookbook will tell you to soak beans overnight, then to cook them for several hours, but do yourself a favor and buy precooked, canned beans. You'll always have them on hand, and all you have to do is heat them in a saucepan. Health food stores carry low-sodium, organic varieties, along with other tasty convenience foods, like vegetarian chili in a can, which is delicious and very low in fat.

If beans cause gas for you, try different varieties.

For most people, black beans have little effect, while pinto or navy beans have more. The digestive tract tends to adjust over time. In any case, don't feel that you need an enormous serving of beans. A little bit goes a long way nutritionally.

Try instant foods for convenience.

Fantastic Foods, for example, supplies a range of instant entrées and soups to grocery and health food stores. Instant soups go well for snacks and can be kept in a drawer at work.

Get to know rice.

Americans are not very familiar with the staple grain of Asia, but they ought to be. It is nutritious, easy to cook, and lends itself to making extra to save for later. Health food stores carry short-grain brown rice, which, if you toast it and cook it like pasta, becomes really tasty. Here's how: Rinse a cup of rice in a saucepan of cool water, then drain off the water as thoroughly as you can. Put the saucepan on medium heat, stirring constantly until the rice dries, about one minute. Then add three cups of water and a pinch of salt (if you like), and bring it to a boil. Cover and simmer for about 30 to 40 minutes, until the rice is soft but still retains a hint of crunchiness. Pour off any excess water. Do not overcook rice. Season with a low-sodium soy sauce, if you like. You can easily reheat leftover rice in a saucepan with a little added water.

Frozen is fine.

Frozen vegetables are nearly equivalent to fresh vegetables in nutrient content, and have a decided convenience advantage. Canned varieties are not as nutritious as either fresh or frozen, but are certainly better than having no vegetables at all. A juicer is a great way to get the nutrition of vegetables, with lots of variety.

Try the three-step approach.

Let's face it—we're not gourmet chefs: we choose from a repertoire of maybe eight or nine different meals. All you need to do is to find eight or nine vegetarian meals that you really like. First, pick three meals you like already that are totally vegetarian—spaghetti marinara, minestrone with whole grain bread, or whatever. Second, pick three more meals you can modify to be purely vegetarian. For example, instead of meat in chili, use beans or TVP, a textured vegetable protein sold in health food stores. Switch from a meat burrito to a bean burrito. Third, find three recipes that are new to you. All bookstores and libraries have loads of vegetarian cookbooks. In three simple steps, you've solved your problem.

Keep salad ingredients, such as lettuce, broccoli, cauliflower, etc., on hand.

Break them up and store them in the refrigerator so you have a good supply ready with no preparation.

For a cheese-like taste...

To make a cheese-like taste in sauces and even on pizza, with none of cheese's fat and cholesterol, try a sprinkle of nutritional yeast flakes, found at all health food stores.

Check out the health food store.

For the died-in-the-wool meat-eater, there are burgers, hot dogs, and luncheon meats, all made entirely of meat substitutes and very satisfying. Look at the fat content on the label, though. Some are nearly as high as the foods they replace and are valuable mainly as transitions to healthier eating. You'll also find TVP, nutritional yeast, and healthful milk substitutes made from soy or rice. And while you're there, pick up a B₁₂ supplement, if you don't already get B₁₂ in other vitamins.

Don't tease yourself with occasional meat products.

Our taste buds are easily seduced by fatty foods, and by far the easiest way to change the diet is to change *completely*.

COMMON PITFALLS

Most people who go vegetarian have better energy and endurance. The menu is so low in fat that the viscosity of the blood is measurably diminished, leading to

better blood flow. And people on a low-fat, vegetarian diet typically begin to reduce body fat without even trying. But there are two common wrong turns:

- **Not eating enough:** Plant foods are bulkier than meat products. If you find yourself feeling hungry, you are simply not eating enough.
- **Too much oil:** Some vegetarians replace fried chicken with fried onion rings, and end up with diets that have far too much vegetable oil. True, vegetable oils will not elevate cholesterol levels as animal fats will, but all fats, including vegetable oils, have the same calorie content. And the increase in blood viscosity that comes from fats or oils leaves you feeling sluggish and cuts endurance. Avoid fried foods, and use lemon juice or vinegar instead of oily salad dressings.

For most of us, a vegetarian diet is a departure from the foods on which we were raised. But most people adapt to the new tastes very easily, and the benefits are enormous. An animal-based diet conspires against your arteries and your waistline. A vegetarian diet, on the other hand, actually helps *reverse* even long-standing arterial blockages and allows your natural leanness to show.

For additional information, menus, and recipes, see *Food for Life* by Neal D. Barnard, M.D. (Harmony Books, 1993).