



# **The Vegan Diet How-To Guide**

*For Diabetes*

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# Introduction



Diet changes are the cornerstone to treating type 2 diabetes. Current diet recommendations require restricting portion sizes, measuring and weighing foods, and limiting the total amount of carbohydrate. However, evidence suggests that a different dietary approach may be more effective and easier to follow.

The evidence favoring a new approach came first from comparisons of various populations around the world. People whose diets were based mainly on plant-derived foods—that is, rice, noodles, beans, and vegetables—were less likely to develop diabetes, compared with people whose diets are fattier or centered on meatier dishes. For example, among people following traditional Japanese diets, diabetes was rare. Studies show that when people moved from Japan to the U.S. and adopted a Western diet, they were much more likely to develop diabetes.

These studies suggested that meaty, fatty diets cause the body to be more resistant to insulin's actions. Clinical research studies have shown that adopting a low-fat, plant-derived diet does indeed improve insulin sensitivity, help with weight loss, and reduce blood sugar and cholesterol.

Part of the value of a low-fat, plant-based diet is that it is very low in saturated fat—that is, the kind of fat that is found especially in meats, dairy products, and tropical oils (coconut, palm, or palm kernel oil). To cut fat effectively, you'll want to do two things:

The first step is to avoid animal-derived products. Needless to say, this eliminates all animal fats. It does something else, too: It eliminates animal *protein*. While we need protein, we do not need animal-derived protein. Animal proteins accelerate kidney damage in people who have already lost some kidney function. They also increase the loss of calcium from the body (through the kidneys and into the urine), potentially increasing the risk of osteoporosis. Plant sources of protein do not present these problems.

The second step is to avoid added vegetable oils. Although oils are often thought of as healthier than animal fats, they are just as high in calories. For the healthiest diet, you will want to keep oils to a minimum. This guide covers both of these steps.

It also helps you select the most healthful carbohydrate-containing foods, and provides many other ideas for healthful foods to choose.

The way of eating explained in this guide does not require weighing or measuring, and you will never go hungry!

## Step 1. A Vegan Diet: Avoiding Animal Products

Animal products contain fat, especially *saturated* fat, which is linked to heart disease, insulin resistance, and certain forms of cancer. These products also contain cholesterol, something never found in foods from plants. And, of course, animal products contain animal protein. It may surprise you to learn that diets high in animal protein can aggravate kidney problems and calcium losses. Animal products never provide fiber or healthful complex carbohydrate.

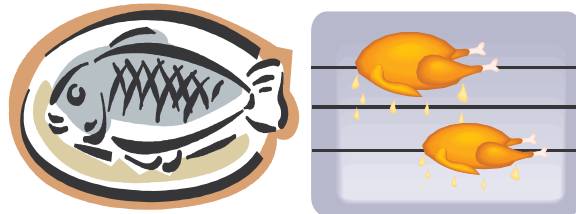
A *vegan* diet is one that contains no animal products at all. So, to be specific, here are the foods you'll want to avoid:

### Avoid Red Meat



You already know that red meats are a source of unnecessary and unhealthy fats and cholesterol. And they are also devoid of fiber, which is found only in vegetables, fruits, beans, and whole grains.

### Avoid Poultry and Fish



Many people imagine that chicken is low in fat. However, the actual numbers might surprise you. The leanest beef is about 29 percent fat as a percentage of calories. The leanest chicken—white meat with the skin removed—is not much lower—about 23 percent—and much of its fat is in the saturated form.

While fish vary in their fat content, they all have fat and cholesterol. And while many fish varieties contain omega-3 (“good”) fats, they also contain saturated fat. Fifteen to 30 percent of the fat in fish is saturated (“bad”) fat. Plus, fish protein is very much like other animal proteins. You are better off getting your protein from plant sources.

In contrast to animal products, beans derive only about 4 percent of their calories from fat. In fact, nearly all vegetables, fruits, beans, and grains are less than 10 percent fat. And plants never contain cholesterol.

It is important to avoid meats *completely*. Having even small amounts now and then will reduce your benefit. Avoid all red meat, poultry, and fish.

## Avoid Dairy Products



A vegan diet omits dairy products. This means milk, cream, cheese, yogurt, butter, etc. Most dairy products are high in fat, particularly saturated fat. Nonfat versions are typically high in sugar (lactose). Nonfat milk, for example, is about 55 percent sugar, as a percentage of calories.

You'll want to avoid dairy products completely, even nonfat versions.

## Avoid Eggs



Like all animal products, eggs have no fiber at all. Egg yolks are high in fat and cholesterol. Egg whites are high in animal protein, the type of protein that, when eaten in a large quantity, can be harmful to the kidneys and can contribute to calcium losses.

**There are many good nondairy milk products and egg substitutes available.**



## Step 2. Avoiding Added Vegetable Oils and Other High-Fat Foods

Although most vegetable oils are in some ways healthier than animal fats, you will still want to keep them to a minimum. All fats and oils are highly concentrated in calories. A gram of any fat or oil contains nine calories, compared to only four calories for a gram of carbohydrate. Here are some tips for cooking without oils:

- Cook with vegetable broth or water
- Steam instead of fry
- Use nonstick cooking spray
- Top salads with nonfat dressings
- Use spices instead of added oils to flavor foods.
- Use mustard instead of mayonnaise on sandwiches
- Use bean spreads, hummus, or jam instead of margarine
- Use applesauce in baked recipes
- Read package labels. It is best if a serving of food has only about two grams of fat.

A diet that eliminates *added* oils is not a no-fat diet. There are traces of vegetable oils in vegetables, beans, whole grains, and fruits; these are necessary for health.



### Avoid Foods Fried in Oil

This means avoiding French fries and onion rings.

Avoid fatty or oily toppings: Typical salad dressings are out. Acceptable toppings include nonfat dressings, lemon juice, or apple cider vinegar.



### Avoid Avocados, Olives, and Peanut Butter



### Step 3. Low Glycemic Index

The glycemic index identifies foods that increase blood sugar rapidly and allows you to favor foods that have much less effect on blood sugar.

High-glycemic-index foods include sugar itself, white potatoes, most wheat flour products, and most cold cereals.

One surprise is pasta. Because of the way it is processed, pasta (spaghetti, etc.) actually has a low glycemic index.

	<b>Red Light:</b> White & wheat bread, most dry cereals, baking potatoes, watermelon, pineapple
	<b>Yellow Light:</b> All-Bran, Grape-nuts, brown rice, couscous
	<b>Green Light:</b> Pumpernickel, rye, barley, oats, pasta, sweet potatoes, beans, lentils, vegetables, most fruits



## Step 4. Go High-Fiber

- Load up on beans, vegetables, and fruits
- Choose whole grains (try barley, oats, quinoa, millet, whole wheat pasta, etc.)
- Aim for 40 g/day (start slowly)
- Aim for at least 3 g per serving on labels and at least 10 grams per meal





## Step 5. Volumetrics

Here is an optional step that can help with weight control. It was pioneered by Barbara Rolls, a researcher at Penn State University. The idea is to eat foods that have fewer calories than grams per serving. Take a look at the label from a package of carrots below. There are 45 calories per 85 grams of food. Since 45 is a smaller number than 85, this means the food is a high-volume, low-calorie food.

Nutrition Facts	
Serving Size 1 cup (85g) (3 oz.)	
Servings per container 2.5	
Amount per serving	
Calories 45    Calories from Fat 0	
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 55 mg	2%
Total Carbohydrate 10g	3%
Dietary Fiber 3g	12%
Sugars 5g	
Protein 1g	
Vitamin A 350% • Vitamin C 8% • Calcium 2% • Iron 0%	
<small>*Percent Daily Values are based on a diet of 2,000 calories. Your daily values may be higher or lower depending on your calorie needs.</small>	
	Calories: 2,000    2,500
Total Fat:	Less than 65g    80g
Sat. Fat:	Less than 20g    25g
Cholesterol:	Less than 300mg    300mg
Sodium:	Less than 2,400mg    2,400mg
Total Carbohydrate:	Less than 300mg    375mg
Dietary Fiber:	Less than 25g    30g
Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4	

Ingredients: Carrots.

Try adding lots of soups, salads, and foods cooked in water (like oatmeal) to your daily diet. These “heavy” foods will make you fill up without taking in a lot of calories.




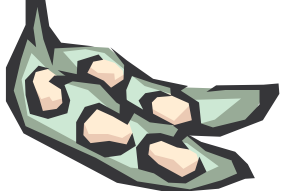
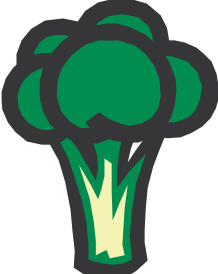
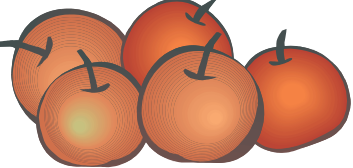




## Step 6: Focus on the “New Four Food Groups”

**OVERALL PRINCIPLE:** Choose low-fat, low-glycemic-index foods from plant sources. There is no limit on portion sizes of these foods. Avoid all animal products and keep vegetable oils to a bare minimum.

### THE “NEW FOUR FOOD GROUPS”

	<p><b>Grains:</b> such as pasta, rice, high-fiber cereals, corn, oatmeal, bagels, bread, couscous, bulgur wheat, millet, barley, rye, etc.</p>
	<p><b>Legumes:</b> such as beans (black, pinto, kidney, garbanzo, white, baked, etc.), peas, split peas, lentils, nonfat soy products (nonfat soymilk, fat-free veggie burgers, textured vegetable protein, etc.)</p>
	<p><b>Vegetables:</b> any and all. Examples include potatoes, tomatoes, cucumbers, carrots, broccoli, cauliflower, spinach, kale, collards, squash, green beans, bok choy, sweet potatoes, and artichokes.</p>
	<p><b>Fruits:</b> all, except avocados, olives, pineapple, and watermelon. Bananas, apples, grapes, pears, peaches, oranges, melon, grapefruit, kiwi, berries, and fruit juices, among others, are all good choices.</p>

**ALSO OKAY:**

- Nonfat salad dressings and other nonfat condiments, fat-free vegan cookies, fat-free chips, crackers, and other snacks
- Coffee (with nonfat, nondairy creamer)
- Alcoholic beverages, used occasionally
- Sugar, used occasionally
- Used rarely: nuts, seeds, chocolate (nondairy), full-fat soy products such as tofu, tempeh, soy cheese, etc.

**A WORD ABOUT...**

**Protein:** Plant foods have plenty of protein. The recommended amount of protein in the diet for post-menopausal women is 10 percent of calories. Most vegetables, legumes, and grains contain this amount or more. Some that are especially rich ( $\geq 20$  percent of calories) include all the beans, spinach, broccoli, asparagus, and mushrooms. Those seeking extra protein can choose beans or lentils (especially in combination with rice or other grains).

**Calcium:** Plant-based diets actually reduce calcium requirements. Because diets rich in animal products cause the body to lose more calcium, a person on a vegan diet needs less calcium to stay in calcium balance. Good sources of calcium include broccoli, kale, collards, mustard greens, beans, figs, fortified orange juice, fortified cereal, or fortified, nonfat soy or rice milks.

**Vitamin B<sub>12</sub>:** Those following a diet free of animal products for more than three years (or at anytime in childhood, pregnancy, or nursing) should take a B<sub>12</sub> supplement of 5 mcg per day. Any common multiple vitamin will provide this amount.

## MEAL SUGGESTIONS

**BREAKFAST**— Often breakfast can be similar to the one you are accustomed to with a few simple modifications.

- Hot cereals: oatmeal with cinnamon, raisins, and/or applesauce
- All-Bran or muesli with nonfat soy or rice milk and/or berries, peach, or banana
- Apples, strawberries, bananas, oranges or other fruit
- Pumpnickel or rye toast, topped with jam (no butter or margarine)
- Oven-roasted sweet potato “home fries” solo or smothered with “sautéed” mushrooms, peppers, and onions

*If you like extra protein:*

- Fat-free meat substitutes (e.g., Gimme Lean fat-free “sausage” or “bacon”)
- Burrito filled with “refried” beans, lettuce, and tomato (no egg or cheese)
- Tofu scrambler

**LUNCH**— Whether you dine in or out at lunch, there are lots of healthy and delicious options from which to choose. Here are some ideas to get you started:

### Salads

- Garden salad with lemon juice, fat-free dressing, or soy or teriyaki sauce
- Legume-based salads: Three-bean, chickpea, lentil, or black bean and corn salads
- Grain-based salads: Noodle, couscous, bulgur, or rice salads
- Commercial bagged salad brands are fine, but look for the fat-free or no-added-fat versions

### Soups

- Vegetable-based soups: carrot-ginger, mixed vegetable, mushroom-barley, etc.
- Legume-based soups: black bean, vegetarian chili, spinach lentil, minestrone, split pea, etc.
- Instant or prepared soups as long as they are low-fat and free of animal products.

### Sandwiches/Wraps

- Black bean dip, peppers, tomatoes, and lettuce wrapped in a whole wheat tortilla
- CLT: cucumber, lettuce, and tomato sandwich with Dijon mustard on pumpnickel or rye bread
- Hummus sandwich tucked into whole wheat pita with grated carrots, sprouts, and cucumbers
- Black bean and sweet potato burrito with corn and tomatoes
- Sandwich made with fat-free meat alternatives such as barbeque seitan, Lightlife Smart Deli turkey style, or Yves veggie pepperoni slices and your favorite sandwich veggies

**DINNER** — Emphasize vegetables and legumes and grains in all your meals. For many, the evening meal is a good place to try new items. Typically you might start with a bean, rice, or other grain or potato dish and add a couple of vegetables.

**Legumes:** Use generous amounts of legumes

- Pintos, vegetarian refried and baked beans, black beans, garbanzos, kidney beans

**Starches:**

- Grains: pasta, brown rice, boxed rice dishes, couscous
- Potatoes: Favor sweet potatoes and yams, instead of white potatoes.
- Breads: Pumpernickel, rye, or whole-grain breads are preferred. Avoid sweet breads that contain oil, eggs, or milk.

**Vegetables:**

Try any vegetables you like.

- Steamed
- Roasted with herbs
- Fresh

**Main Dishes:**

- *Pasta marinara:* Some commercial sauces are fine (any brand that has less than 2 grams fat per serving and is free of animal products).
- *Beans and rice:* Try black beans with salsa, vegetarian baked beans, or fat-free refried beans.
- *Soft tacos:* Prepare this dish with a flour tortilla, beans, lettuce, tomato, and salsa.
- *Fajitas:* Lightly sauté sliced bell peppers, onion, and eggplant in a nonstick pan, with fajita seasonings.
- *Chili:* Vegetarian boxed or canned versions are fine.
- *Veggie lasagna:* Made with low-fat tofu to replace the ricotta, layered with grilled veggies.
- *Vegetable stir-fry:* Season with soy sauce or other low-fat stir-fry sauce. Be sure to use a nonstick pan. Serve over pasta, beans, or rice.
- *Fat-free vegetarian burgers:* Look for lentil burgers or other commercial brands.

**Desserts:**

- Fresh or cooked fruit
- Fruit smoothie

**Snacks:**

- Fruit
- Carrot, celery, or other vegetables with low-fat hummus
- Vegetarian Cup o' Soup brands (split pea, lentil, etc.)
- Baked tortilla chips with salsa or bean dip
- Air-popped popcorn
- Toast with jam (no butter or margarine)

## GENERAL TIPS

### Trying New Foods and New Tastes:

- Explore new recipes, new books, and new products.
- Be strict with yourself. It is easier than teasing yourself with small amounts of the foods you are trying to leave behind.
- Focus on the short term.
- If you have trouble finding recipes you like, please discuss this with group leaders or participants. There are always solutions.

### Convenience Foods:

- Fat-free meat substitutes are quick and can ease the transition.
- Buy prepared salads that are fat-free or have no added fats.
- Use frozen vegetables or canned vegetables instead of fresh.
- Canned beans
- Try low-fat (less than 5g fat per meal), vegan frozen meals (Amy's, Mon Cuisine, Cedarlane Natural Foods, and Dr. McDougall ).

### On-the-Go:

- Travel Tips:
  - ◆ Request nondairy vegetarian meals for flights
  - ◆ All hotels will have oatmeal, pasta with tomato sauce, potatoes, and vegetable plates, even if they are not on the menu.
  - ◆ Bring along instant soup cups or instant oatmeal.
- Dining Out: *Look for ethnic restaurants, especially Japanese, Chinese, Mexican, and Italian, as they normally have many vegetarian dishes.*
  - ◆ *Japanese:* vegetable sushi; miso soup
  - ◆ *Chinese:* rice with steamed vegetables (no oil)
  - ◆ *Mexican:* bean burrito, hold the cheese, sour cream, and guacamole; Spanish rice. Ask the waiter to bring out warm corn tortillas to dip in the salsa and tell them to take away the fried chips.
  - ◆ *Italian:* pasta e fagioli (soup); pasta marinara; ask that oil be kept at an absolute minimum.
  - ◆ *Thai:* vegetarian selections with rice; avoid coconut milk
  - ◆ *Indian:* rice dishes or breads (beware of curries—they are very fatty)
  - ◆ *Middle-Eastern:* tabouleh; hummus with whole wheat pita
  - ◆ *American:* vegetable plate; salad bar; baked beans; spaghetti; fruit plate; for salads, ask for no dressing, or try lemon or lime juice, ask that fatty toppings, such as cheese, bacon, eggs, olives, and avocados, be left off

## **TROUBLE-SHOOTING:**

*What to tell others:*

- ◆ “I’m following a low-fat (or vegetarian) diet right now.”
- ◆ “I’m participating in a healthy diet study.”

*If beans give you gas, try a few of these tips:*

- ◆ Rinse beans thoroughly with water before cooking or eating
- ◆ Cook beans with Kombu (a type of seaweed)
- ◆ Try using smaller beans such as lentils

*Cravings:*

- ◆ Stock up on healthful foods at home and at work to prevent hunger-induced indiscretions.
- ◆ Keep unhealthful foods out of the house. Donate nonperishable items that aren’t allowed in the diet to your local food pantry.
- ◆ If you follow a very-low-fat menu, your tastes will gradually drift to prefer lower-fat foods.

The Veganizer



*See how to change your regular meals into low-fat vegan meals.*

<b>If your regular breakfast is:</b>	<b>Try this breakfast instead:</b>
Cereal with milk Strawberries	Oatmeal with cinnamon Strawberries
Donut Coffee with cream Banana	Pumpnickel toast with jam Coffee with nonfat, nondairy creamer Banana
Scrambled Eggs Home fries Sausage	Scrambled low-fat tofu Oven-roasted Sweet Potatoes Gimme Lean™ fat-free sausage

<b>If your typical lunch is:</b>	<b>Try this lunch instead:</b>
Turkey sandwich with lettuce, tomato, and mayo Yogurt Potato chips	Sandwich with hummus or black bean spread, lettuce, and tomato on pumpnickel or rye bread Applesauce Fat-free chips or high-fiber crackers
Chicken noodle soup Bread Green Salad	Vegetable Soup/Minestrone Bread Green Salad with fat-free dressing or vinegar
Chicken burrito Refried beans	Bean and sweet potato burrito with lettuce, tomato, and onion (hold the cheese) Vegetarian black beans

<b>If your typical dinner is:</b>	<b>Try this dinner instead:</b>
Fettuccine Alfredo or Spaghetti with Meat Balls Green salad with ranch dressing Garlic bread w/ butter	Pasta primavera with mixed vegetables and garlic or Spaghetti with marinara sauce Green Salad with fat-free balsamic vinaigrette Garlic bread without butter
Broiled Salmon Boiled new potatoes w/ parmesan cheese Asparagus with hollandaise	Broiled portabella mushrooms Sweet Potatoes with basil and black pepper Asparagus with orange sauce
Hot and sour soup Beef and broccoli Rice	Vegetarian hot and sour soup Stir-fried Chinese vegetables (hold the oil) Broccoli with garlic sauce Rice
Chicken fajita Rice Refried beans	Vegetable fajita (hold the oil) Brown Rice Vegetarian black beans