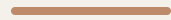


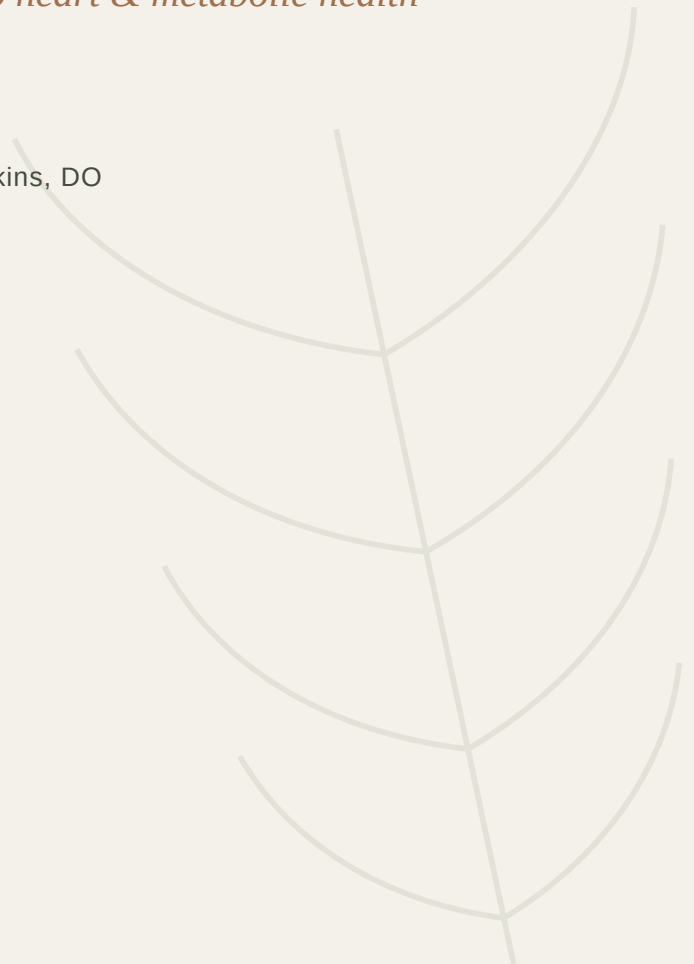
COMPREHENSIVE GUIDE

Cardiometabolic Food Plan

A modified-Mediterranean approach to heart & metabolic health



Functional & Integrative Medicine · Justen Watkins, DO



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Why the Cardiometabolic Food Plan?

The Cardiometabolic Food Plan is designed for:

- Those at risk for heart disease (cardiovascular disease, or CVD)
- Those at risk for metabolic syndrome, type 2 diabetes, or both
- Those with CVD (high blood pressure, high cholesterol, elevated blood fats)
- Those with metabolic syndrome (elevated blood sugar, increased waist size)
- Those with type 2 diabetes

Diet and lifestyle changes are very effective in preventing and treating all of these conditions. Why use the same plan for both cardiovascular and metabolic disease? Though they seem different, they share similar underlying causes—**inflammation, insulin resistance, and stress**. This plan is called “cardiometabolic” because it addresses both, using food to treat the common root causes.

Features of the Cardiometabolic Food Plan

Modified Mediterranean approach

The traditional Mediterranean diet drew interest when people on the Greek island of Crete were found to have lower rates of heart disease. Since 1970 it has become one of the most well-studied diets for heart disease, metabolic syndrome, and type 2 diabetes. The pattern emphasizes whole foods—fruits, vegetables, whole grains, nuts, legumes, dairy, extra-virgin olive oil, spices, modest poultry and fish, low red meat. It is the *combination* of these foods, not any single one, that produces the benefits, which include improved waist circumference, HDL cholesterol, blood fats, blood pressure, and blood sugar.

Those who prefer their own ethnic cuisines can still include therapeutic foods—e.g., avocado oil in place of corn or soybean oil, and a broader array of spices. The key takeaway is to select whole, fresh, unprocessed foods whenever possible.

Low glycemic impact

Not all foods affect blood sugar equally. Sustained high blood sugar damages blood vessels and organs sensitive to sugar, like the eyes and kidneys. The goal is to eat low-glycemic foods that produce only small fluctuations in blood sugar and insulin—legumes, nuts, seeds, most whole grains (oat, barley, spelt), and most vegetables and berries. Medium- and high-glycemic foods should be eaten with protein or fat to balance the impact. Refined sugars and processed grains are high-glycemic and cause sharp spikes.

Features (continued)

Targeted calories

A calorie target may be established depending on your goals, determined by body weight, metabolic rate, activity level, and risk factors. A targeted plan can support weight loss and reduce chronic disease risk. Work with your practitioner to find what suits your needs.

Balances blood sugar

A balanced meal should provide up to four hours of energy and leave you feeling satisfied, clear-headed, and energized. Hunger, brain fog, shakiness, or fatigue within an hour of eating may signal the meal was missing quality protein, fat, or enough whole-food carbohydrates.

High in fiber

Recommended intake is about 25 g/day for women and 38 g/day for men, yet only ~5% of people get enough. Insoluble fiber acts like an “inner broom” and prevents constipation; soluble fiber (oat bran, barley, nuts, seeds, beans, lentils, psyllium) helps lower cholesterol, balances blood sugar, and feeds healthy gut bacteria. Aim for at least 5 g per serving, with a daily goal of 25–35 g.

Low in simple sugars

Refined sugar—especially high-fructose corn syrup—is associated with elevated triglycerides, low HDL, increased blood sugar, and decreased insulin sensitivity. Refrain from added sweeteners as much as possible. Satisfy a sweet tooth with low-glycemic fruits like apples and unsweetened applesauce. Avoid artificial sweeteners (aspartame, sucralose, acesulfame-K, saccharin) entirely.

Features (continued)

Balanced quality fats

What replaces dietary fat matters greatly. Replacing saturated fat with refined sugar or trans fats worsens heart outcomes; replacing it with unsaturated (liquid) fats improves them. This plan emphasizes anti-inflammatory mono- and polyunsaturated fats and limits saturated fat. Extra-virgin olive oil raises HDL and protects blood vessels. Anti-inflammatory, omega-3-rich foods include oily fish, leafy greens, nuts, EVOO, and seeds. For high triglycerides or low HDL, fish oil supplementation may be recommended.

Condition-specific phytonutrients

Plant foods contain thousands of compounds that affect body function and promote heart health. Specific examples:

- **Blood sugar balance:** cinnamaldehyde (cinnamon), isoflavones (soybeans), beta-glucan (oats, barley)
- **Protecting LDL from damage:** lycopene (tomatoes, grapefruit, watermelon), green tea polyphenols, soy isoflavones, dark chocolate and pomegranate polyphenols
- **Supporting blood pressure:** sulfur compounds (garlic), beta-glucan (oats), soy isoflavones, pomegranate and dark chocolate polyphenols

Touring Through the Food Plan

Your provider may recommend a calorie target and a specific number of selections within each category. Several foods in each category are highlighted as **Therapeutic Foods**.

Protein

Protein stabilizes blood sugar and should be in every meal—ideally about one-third of daily calories (the average Western diet provides only one-fifth). Choose oily, low-mercury fish (anchovies, herring, mackerel, salmon, sardines, trout), plus lean meats, poultry, hard cheeses, and free-range eggs.

Therapeutic Foods: omega-3-rich fish and soy-based foods (miso, tofu, tempeh, soy protein).

Legumes

A perfect source of quality protein and complex carbohydrates for fullness and stable blood sugar. Eat at least one serving daily.

Therapeutic Foods: organic edamame, organic black soybeans.

Dairy & Alternatives

Your practitioner will advise on non-fat or low-fat dairy. Some dairy fats (e.g., conjugated linoleic acid) may be heart-protective, so discuss whether dairy is advisable for you.

Therapeutic Foods: soy milk, yogurt, kefir.

Touring (continued)

Nuts & Seeds

Aim for 1–2 servings daily of a mixed blend of unsalted nuts, not roasted in oil. Pumpkin seeds in oatmeal, tahini over vegetables, almond butter on apple slices.

Therapeutic Foods: flaxseed, unsalted mixed nuts, unsalted soy nuts.

Fats & Oils

Up to one-third of daily calories, with less from saturated fats. Avoid trans and partially hydrogenated fats. Store oils in dark glass; discard if rancid. (Canned coconut milk belongs here as a fat; boxed coconut milk is a dairy alternative.)

Therapeutic Foods: avocado, avocado oil, olives, extra-virgin olive oil.

Non-Starchy Vegetables

Provide medicinal compounds that reduce heart and metabolic disease risk—aim for at least 9 servings daily ($\frac{1}{2}$ cup cooked or 1 cup raw greens). Leafy greens supply magnesium and folate and help lower blood pressure. Choose fiber-containing vegetable juices without added sugar or salt.

Therapeutic Foods: all greens (beet, collard, dandelion, kale, mustard, turnip, chard, spinach), garlic, onions, tomatoes.

Starchy Vegetables

Limit to 1 serving per day. Only moderate-glycemic options are included; white potatoes are excluded. Sweet or purple potatoes are lower-glycemic alternatives.

Therapeutic Foods: beets.

Touring (continued)

Fruits

Low- to moderate-glycemic fruits; about two servings per day on a lower-calorie plan. Eat with a little protein for blood sugar balance.

Therapeutic Foods: blueberries, pomegranate.

Whole Grains

Highly recommended for fiber and phytonutrients that lower cholesterol and stabilize blood sugar. Oats and barley contain beta-glucan. Limit to 1–2 servings per day. Those with celiac disease or gluten intolerance should avoid gluten-containing grains (barley, rye, commercial oats, wheat, spelt).

Therapeutic Foods: oats, barley.

QUICK TIP

Avocado is ideal for heart health—about 9 g of fiber, healthy monounsaturated fat, and nearly 700 mg of potassium in a whole fruit. Enjoy it on salads, in smoothies, or as guacamole.

Therapeutic Foods for Cardiometabolic Health

Soy (miso, tofu, edamame, soy protein, soy nuts) provides polyunsaturated fat, fiber, vitamins, minerals, and isoflavones; eating soy is associated with lower blood pressure and improved blood vessel health. Choose high-quality, unsweetened, minimally processed soy.

Fish: 1–2 servings per week of oily fish (wild salmon, herring, sardines) may reduce heart-related death risk by up to 36%. Vary your seafood and limit high-mercury fish.

Leafy greens: a plant source of nitrates that open blood vessels, plus folate (associated with reduced stroke and heart disease risk). High-nitrate options include spinach, celery, endive, fennel, kohlrabi, leek, lettuce, parsley, beets, and arugula.

Onions: among the best sources of quercetin and detoxifying sulfur compounds.

Tomatoes: cooked tomatoes are an excellent source of lycopene, plus beta-carotene and vitamin E. (Those sensitive to nightshades should avoid them.)

Yogurt & kefir: live cultures support healthy gut microflora, which influences inflammation, weight, and cholesterol.

Therapeutic Foods (continued)

Blueberries: packed with phytonutrients that keep blood vessels open and may lower heart attack risk and help with blood sugar control. Low-glycemic with very high antioxidant levels.

Pomegranate: the one fruit-juice exception—small amounts of unsweetened juice (under 2 oz) may reduce blood fats, blood pressure, and arterial plaque.

Barley: high in beta-glucan to help lower cholesterol and blood glucose and improve insulin function. Low-glycemic. (Avoid if gluten-intolerant.)

Oats: like barley, rich in beta-glucan, plus antioxidant compounds and magnesium for blood sugar and insulin regulation.

Green tea: may reduce blood pressure, triglycerides, and cholesterol, and help lower blood sugar. General recommendation is about 3 cups daily.

Cocoa: dark chocolate (70%+ cacao, minimal sweetener) contains phytonutrients that help keep arteries open. About one square of baker's chocolate daily has shown benefits; it contains caffeine, so caffeine-sensitive people may prefer smaller amounts.

Condition-Specific Considerations

If you have high blood pressure

Reduce these: sodium (limit to 1,500 mg—less than 1 tsp per day), processed and frozen meals, fast foods, fatty meats, full-fat dairy, soft drinks, added sweeteners, caffeinated beverages, alcohol, and saturated fats (butter, coconut oil).

Increase these:

- **Proteins:** fermented soy (natto, tofu, tempeh, miso), legumes, cold-water fish (sardines, herring, haddock, salmon, trout), unsalted mixed nuts, dark chocolate (about 1 square)
- **Vegetables & fruit:** blueberries, seaweed (hijiki, wakame), garlic, mushrooms, celery, lycopene-rich foods (tomatoes, guava, watermelon, apricots, pink grapefruit, papaya), pomegranate juice
- **Fats & oils:** olive, flaxseed, and sesame oils
- **Carbohydrates:** high-fiber whole grains (oatmeal, oat bran, barley) and psyllium fiber

QUICK TIP

This guide is for general education and does not replace individualized medical advice. Work with your provider to tailor the plan to your specific cardiometabolic needs and any medications.