

Diet and Lifestyle Recommendations: High Cholesterol and Heart Disease

Most of us have been taught that dietary cholesterol and saturated intake are the leading causes of heart disease. However, unless you are a “hyper-responder,” dietary cholesterol and saturated fat intake don’t significantly affect blood levels of cholesterol or heart disease risk. The latest research suggests that metabolic problems like insulin resistance and inflammation play a larger role than serum cholesterol levels or dietary fat intake in our risk of developing this disease.

If you’ve been diagnosed with heart disease or your doctor has told you that you’re at higher risk of developing heart disease, a nutrient-dense, anti-inflammatory Paleo diet is an excellent starting place. It includes all of the necessary micronutrients in their most bioavailable form, emphasizes an optimal balance of fats, eliminates highly processed and refined foods, and reduces other food toxins that interfere with nutrient absorption.

However, within the basic Paleo approach there’s tremendous room for individual variation, depending on existing health conditions among many other factors. If you have an abnormal lipid profile and are at increased risk of heart disease, your specific approach to a Paleo heart-healthy diet will depend on the root cause of your condition:

- If you have markers of insulin resistance, such as high triglycerides, low HDL, high blood sugar, and are overweight, you should follow a low-carbohydrate version of the Paleo diet.
- If you do not have markers of insulin resistance and simply have high total cholesterol, you should follow a “Mediterranean” Paleo diet.

LOW-CARB PALEO GUIDELINES

Decrease your carbohydrate intake to less than 15 percent of total calories per day (roughly less than 100 grams on a 2500 calorie diet and less than 75 grams on a 2000 calorie diet). Note that a low-carb diet can sometimes cause an initial increase in LDL cholesterol, but this effect is usually transient and lasts about three to six months. Low-carb diets are effective for weight loss in people with insulin resistance. They also increase HDL (i.e., “good”) cholesterol, reduce triglycerides, and improve other metabolic markers.

Here's a snapshot of what a day's worth of food might look like with a low-carb Paleo diet:

- **Breakfast:** Three scrambled eggs, bacon, raw sauerkraut, coffee with heavy cream
- **Lunch:** Chicken salad with fresh tomatoes, avocado, goat cheese, and olive oil and vinegar
- **Dinner:** Rib-eye steak with steamed broccoli and sweet potato

Avoid snacking between meals, as it can interfere with weight loss. You may also consider intermittent fasting, which has been shown to improve blood sugar control. Intermittent fasting involves alternating between periods of eating and periods of fasting. There are many ways to do it, but here are the two most effective and convenient methods:

- Compress your food intake between 12 p.m. and 8 p.m. This means you would skip breakfast and eat all of your meals within that eight-hour window each day.
- Perform a longer fast once a week or twice a month. In this case, you would fast for 36 hours, that is, from 8 p.m. on Tuesday night to 12 p.m. on Thursday.

MEDITERRANEAN PALEO GUIDELINES

While low-carb diets are the best choice for most people with insulin resistance, they may not be the best choice for those with high total and LDL cholesterol but normal metabolic function. In these cases, a "Mediterranean" Paleo diet may be a better choice. This means:

- Eat more carbohydrates (in the form of fruit, starchy tubers, and perhaps full-fat dairy, white rice, or properly prepared grains or pseudograins if you tolerate them). Aim for at least 25 to 30 percent of total calories from carbohydrate.
- Reduce your intake of saturated fat. Focus more on monounsaturated fats like avocados, olives, and nuts, and long-chain omega-3 fats EPA and DHA found in cold-water fish and shellfish.
- Reduce your intake of added fat. It's fine to eat fat as it naturally occurs in food, but don't add as much to foods. For example, if you have a sweet potato, just add a small amount of oil rather than several chunks of butter.
- Favor leaner cuts of red meat, chicken, turkey, and fish over fattier cuts of beef and lamb.

GENERAL HEART-HEALTHY DIET GUIDELINES

Regardless of whether you have insulin resistance, if you're at greater risk for heart disease, you should follow these guidelines:

- **Eat Cold-Water, Fatty Fish & Shellfish**
 - These fish are great sources of omega-3 fatty acids, which are beneficial for heart health. They have been shown to decrease heart disease risk by decreasing inflammation and positively changing gene expression. Focus on eating fish with high levels of EPA and DHA such as salmon, mackerel, herring, sardines, anchovies, and bass, as well as shellfish like oysters, clams, and mussels. Aim for 12 to 16 ounces per week for best effects.
- **Focus on Monounsaturated Fats**
 - Monounsaturated fats reduce LDL, triglycerides, and inflammation, increase HDL (good cholesterol), and lower blood pressure. Focus on olives, olive oil, avocados, and macadamia nuts. Aim for a handful of macadamia nuts, $\frac{1}{4}$ to $\frac{1}{2}$ of an avocado, and 1 tablespoon of olive oil daily.
- **Increase Your Antioxidant and Polyphenol Intake**
 - Antioxidants help to reduce oxidative damage, while polyphenols have a multitude of benefits, including increasing insulin sensitivity, lowering blood pressure, and lowering oxidized LDL cholesterol. To increase your intake of antioxidants and polyphenols, eat the rainbow! Fruits and vegetables are great sources of antioxidants and polyphenols, but don't miss out on meats, organ meats, eggs, and dairy, which contain important antioxidants not found in plant foods, like CoQ10.
- **Eat Nuts**
 - Nuts have been shown to reduce an array of cardiovascular risk factors such as BMI, waist circumference, and systolic blood pressure. Tree nuts are the most beneficial and include: almonds, Brazil nuts, cashews, chestnuts, filberts/hazelnuts, macadamia nuts, coconut, pecans, pine nuts (pignoli nuts), pistachios, and walnuts. Be careful not to overeat these, as it can be very easy to do so! Aim for a handful of nuts several times a week.



- **Eat Fermented Foods and Soluble Fiber**
 - Fermented foods help to reduce lipid levels, as well as increase antioxidant potential and lower blood pressure and inflammatory molecules. Fermented foods include sauerkraut, kimchi, beet kvass, kombucha, kefir, and more. Aim for one to two tablespoons of fermented vegetables with each meal, plus a half-cup of kombucha or kvass and a half-cup of yogurt or kefir per day.
 - Soluble fiber also improves gut health and lowers lipid levels. Make sure to include some starchy vegetables and fruits in your diet to increase your intake of soluble fiber.

- **Practice Stress Management**
 - It is vital that those with heart disease or high heart disease risk implement a stress management practice. Practice meditation, deep breathing, tai chi, yoga, etc., on a daily basis for best results.

- **Get Enough Sleep**
 - Sleep deprivation is associated with weight gain and systemic inflammation and has been shown to double the risk of heart disease. Make sure you leave enough time for eight hours of sleep and practice good sleep hygiene by avoiding blue light at night, using blackout shades or an eye mask, and getting sunlight exposure when you wake up in the morning.

- **Incorporate Physical Activity**
 - Physical activity helps you lose weight and improves blood pressure, insulin sensitivity, and lipid levels—all of which decrease your risk of cardiovascular disease. Focus on standing and walking more (aim for 10,000 steps per day!), and incorporate 150 minutes of moderate-intensity activity, 75 minutes of strenuous activity, and 30 minutes of high-intensity activity per week for best results. Just make sure you don't overdo it, since overtraining can negate the benefits of exercise!