Do Coconuts Cure All?

Coconut products have increased in popularity this decade – coconut oil, coconut butter, coconut milk, coconut water, creamed coconut, coconut flour . . . and the list goes on. Though coconut oil was condemned in the 1980s and 1990s, it is now promoted by many as a superfood. Some of the claims include that coconut oil boosts weight loss, immune and thyroid function, blood sugar control, digestion, brain function in those with Alzheimers and that it reduces seizures and improves cholesterol levels. Add to the list that it is a great moisturizer for skin and hair, and it is no wonder that many people have switched from their usual fats and oils to coconut oil. But, are these claims true?

First, let’s look at the difference between coconut oil and other oils and fats. Natural coconut oil contains over 90% saturated fat. The only other oil close to that level of saturated fat is palm kernel oil. Butter is 62% saturated fat, meats and poultry have less, and canola oil contains less than 7% saturated fat. The 2010 Dietary Guidelines for Americans recommend reducing saturated fat in the diet to less than 10% of calories because saturated fat raises blood cholesterol more than other kinds of fat. For most people, one to two tablespoons of coconut oil provides 10% of their daily recommended calories in saturated fat.

There is more to fat than saturated versus unsaturated, however. Fats vary in how many carbons they contain and are often classified as short, medium, or long chain triglycerides. Short and long chain triglycerides are usually stored as fat in the body, but medium chain triglycerides (MCTs) go directly to the liver and are likely to be burned for fuel. Most vegetable oils contain only long chain triglycerides, but coconut oil has 45-60% MCTs.

Because of its unusually high content of MCTs, some people equate coconut oil with MCT oil. There are very important differences. MCT oil is manufactured for use in medicine and research. It is 99.9% MCTs, specifically caprylic acid and capric acid, and has been shown in small, short-term studies to result in more weight loss (about one pound more per month) than other oils without a negative effect on cholesterol levels. Coconut oil contains 8% and 6%, respectively, of these two MCTs.

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The main MCT in coconut oil is lauric acid (47%), followed by myristic acid (18%). These two fatty acids increase total cholesterol more than palmitic acid, found in meat and dairy products, which is also the next highest fatty acid (9%) in coconut oil. Lauric acid alone does increase high-density lipoprotein (HDL or “good”) cholesterol, decreasing the total-to-HDL cholesterol ratio. Still, coconut oil’s three main fatty acids all raise low-density lipoprotein (LDL or “bad”) cholesterol so that the current recommendation from professional healthcare organizations is to limit coconut oil along with other saturated fats.

The main study cited in advertising coconut oil for weight loss is usually misinterpreted. 40 women with abdominal obesity received either two tablespoons of coconut oil or 2 tablespoons of soybean oil daily for 12 weeks as a supplement to a calorie-reduced diet and exercise four days a week. There was no significant difference in the amount of weight loss between the two groups. Although the study ended with a statistically significant difference in the waist circumference of those who received the coconut oil, the average waist circumference for both groups was essentially the same.

Clinical evidence that supports health benefits of coconut oil gets weaker from there. Most of the support for the health claims being advertised is anecdotal. There are some who say this has to do with whether conventional or virgin coconut oil is used. Conventional coconut oil, which is bleached and refined, is typically blamed for the negative results on cholesterol levels. Virgin coconut oil is touted as healthier and more natural, but it contains the same saturated fats as conventional coconut oil.

Here a few more points that may be helpful when discussing coconut products with clients. Coconut oil has a melting point of about 75 degrees Fahrenheit, so it may be solid or liquid depending on the temperature of the room in which it is stored. Coconut milk or coconut water is being advertised as an alternative to sports drinks. People may use the terms interchangeably, but coconut milk is usually high in calories and fat. Coconut water is the liquid from inside green coconuts and has about 50 calories and less than one gram fat, two grams protein, and 9 grams carbohydrate per cup. It also provides 600 milligrams of potassium and 252 milligrams of sodium. Endurance athletes who drink it instead of sports drinks will need to drink plenty of it and may need to consume additional sodium and carbohydrates (e.g., pretzels). For most exercise workouts lasting less than one hour, there is no evidence that coconut water is better than plain water.

Resources:
Cunningham, E. Is there science to support claims for coconut oil? J Am Diet Assoc. 2011;111:786.
St-Onge, MP, Bosarge A, Goree LL, Darnell B. Medium chain triglyceride oil consumption as part of a weight loss diet does not lead to an adverse metabolic profile when compared to olive oil. J Am Coll Nutr. 2008;27:547-552.

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