**S** uperpowers are what coconut oil has, Dr. Mehmet Oz told his TV audience last year. The benefits of coconut oil are “near miraculous,” says Internet osteopath and entrepreneur Joseph Mercola.

“Protect against cancer,” “dissolve kidney stones,” and “lose excess body fat,” promises a coconut oil distributor on its Web site. And, if you believe a new book and the Internet buzz, coconut oil might even cure Alzheimer’s disease.

Thinking about switching to this hot tropical fat? Here’s what you need to know.

What makes coconut oil stand out from other oils?

First, 92 percent of its fat is saturated. That makes coconut oil far more saturated than most other oils and fats. Olive and soybean oils, for example, are about 15 percent saturated, while beef fat is about 50 percent saturated and butter is 63 percent saturated. (Only palm kernel oil, at 82 percent saturated, rivals coconut oil.)

All those saturated chemical bonds explain why coconut oil is solid at room temperature and doesn’t go rancid quickly. That makes it attractive to many candy makers, who use it in chocolate, yogurt, and other coatings that don’t melt until they hit your mouth. (It’s also why some vegans—who eat no meat, fish, eggs, or dairy foods—use it as a butter substitute.)

Coconut oil is also unusual because it contains a high percentage of medium-chain triglycerides, or MCTs.

Most oils consist entirely of long-chain triglycerides, or LCTs, which are more than 12 carbons long. Soybean oil, for example, is 100 percent LCTs. Medium-chain triglycerides are 6 to 12 carbons long. Coconut oil contains roughly 40 percent LCTs and 60 percent MCTs.

The difference matters because our bodies metabolize MCTs differently than LCTs.

“MCTs are transported directly from the intestinal tract to the liver, where they’re likely to be directly burned off as fuel and raise the metabolic rate slightly,” explains researcher Marie-Pierre St-Onge of Columbia University. That means less is available to be circulated throughout the body and deposited in fat tissues.

So if you use coconut oil instead of other oils, will those extra pounds melt away?

**WEIGHT LOSS**

“The first of the health benefits of coconuts—the one you’re going to care about a lot—is weight loss,” Mehmet Oz announced on his TV show last year.

By eating more coconut oil, “you might slim your waist in one week,” notes health guru Joseph Mercola. (Mercola sells coconut oil for $65 a gallon on his Web site.)

But the evidence behind their claims is pretty thin. Only one published study, a master’s thesis in Brazil, has tested whether coconut oil could help people lose weight. It didn’t.

**ALZHEIMER’S**

Florida pediatrician Mary Newport was desperately trying to enroll her husband, Steve, in a clinical trial of a promising new Alzheimer’s drug in 2008. But he couldn’t score high enough on a mental screening test to qualify, Newport wrote in Alzheimer’s Disease: What If There Was a Cure? The Story of Ketones (Basic Health Publications, 2011).

Then she remembered reading on the Internet that a company claimed promising results from giving medium-chain triglycerides made from coconut oil to Alzheimer’s patients. Thinking they had nothing to lose, Newport bought a jar of coconut oil from a health food store and put several tablespoons in her husband’s oatmeal the next morning, hours before another test.

That afternoon she was astonished to learn that Steve had passed and was accepted into a study of an experimental
Accera did find one group of patients that scored better when taking MCT powder than the placebo, though the effect seemed to weaken by the end of the 90-day study. It was the patients without ApoE4, a version of a gene that increases the risk of Alzheimer’s fourfold.

Veech wasn’t impressed with the results. “We’re trying to interest food companies in producing ketones directly, bypassing the MCT stage,” he says.

Accera sells its MCT powder, under the name Axona, as a prescription “medical food” for the “clinical dietary management of mild-to-moderate Alzheimer’s disease.” (A medical food needs far less evidence than a drug does.)

HEART DISEASE

Conventional coconut oil—the kind used in some candies, coffee creamers, and movie theater popcorn—is made from dried coconut that is pulverized, cooked, and treated with chemicals to produce a bleached, refined oil for use in foods. It’s bad stuff,” says Cornell University trained expert Brenna. “You purée it, heat it gently, and skim off the fat that rises to the top.”

Of course, it’s possible that something else about the islanders’ diets or physical activity or genes neutralizes the rise in cholesterol that coconut oil produces.

Studies looking at the effect of coconut oil—virgin or conventional—on heart disease in humans are scarce.

In the only study done in people in the last 17 years, Malaysian researchers last year found that when they fed young men and women 20 percent of their calories from coconut oil for five weeks, LDL (“bad”) cholesterol was 8 percent higher and HDL (“good”) cholesterol was 7 percent higher than when the participants were fed 20 percent of their calories from olive oil. (The researchers didn’t respond to inquiries about whether they used virgin or conventional coconut oil.)

But just because HDL went up along with LDL doesn’t mean that coconut oil is healthy, points out Frank Sacks, professor of cardiovascular disease prevention at the Harvard School of Public Health in Boston. “We know that raising LDL levels increases the risk of heart disease,” he notes, “but we can’t say that raising HDL with diet or drugs can lower the risk of cardiovascular disease.”

Sacks’ bottom line: “Since polyunsaturated oils lower LDLs and coconut oil raises LDLs, we can’t recommend that people replace olive, canola, or other liquid oils with coconut oil.”

The Bottom Line

- There is no good evidence that coconut oil can help you lose weight or help cure Alzheimer’s disease.
- MCT oil may lead to modest weight loss when substituted for other oils.
- There is no good evidence that “virgin” coconut oil does less damage to your heart than conventional coconut oil.

About ten years ago, “virgin” coconut oil started to become a popular alternative. “It’s made with a mild extraction procedure from fresh coconut meat,” says Brenna. “You purée it, heat it gently, and skim off the fat that rises to the top.”

Proponents of this “cold-pressed” virgin coconut oil say that it’s a healthier, more natural fat than conventional coconut oil. But there’s little evidence for that.

For one thing, both virgin and conventional coconut oils contain the same saturated fats. In fact, their chemical compositions are so similar that only trained experts can tell them apart, using color, aroma, and taste. Nor is there evidence that cold-pressed oils are healthier than highly processed ones. “I am not aware of any studies,” says Brenna. But he also notes that “we see no data suggesting that heart disease is rampant in several small islands in Polynesia, where people consume most of their fat as coconut fat from fresh coconuts.”

Don’t count on coconut oil to ward off or cure Alzheimer’s.

Drug. He could remember things like the day of the week, the month, the season, and what city he was in, all of which he had trouble doing the day before.

“He said he felt as if a light had switched on,” she recalled.

So began the Newport’s journey, with Steve eating coconut oil every day (sometimes mixed with MCT oil) and Mary spreading the word about coconut oil’s potential as an Alzheimer’s cure through her blog, a new book published last year, and by lobbying scientists and politicians.

Unfortunately, the evidence doesn’t match the level of Newport’s enthusiasm. “Our brains normally use only glucose for energy,” explains National Institutes of Health researcher Richard Veech, who has worked with the Newport’s.

“But during fasting or starvation, when we draw on our fat stores for energy, our brains can switch to using products of fat metabolism called ketones as a replacement for glucose, provided the ketone levels get high enough in the brain.”

Early on in diseases like Alzheimer’s and Parkinson’s, the brain starts to lose its ability to use glucose, which leads to a kind of starvation of the brain. But the brain can still use ketones.

“If we could get the level of ketones in the brain up high enough in Alzheimer’s patients, the hope is that they can use this for energy in place of glucose and we may be able to restore some of the brain’s mental functions,” says Veech.

But don’t expect that to happen from consuming coconut oil or MCTs, Veech cautions. While cells produce ketones when they metabolize the medium-chain triglycerides in coconut oil, “that doesn’t lead to levels anywhere near high enough in the brain to do much good,” he notes.

Three years ago, a Colorado company—Accera, Inc.—tested a powder consisting of 100 percent MCTs extracted from coconut oil and palm kernel oil on 140 patients with mild to moderate Alzheimer’s disease. According to Accera, the MCT takers scored better than the placebo takers on a test of cognitive impairment given after 45 days (though the study found no difference after 90 days). However, that was only true if the researchers included 17 patients who were assigned—but not randomly assigned—to get MCT powder or the placebo. In a good study, patients are all randomly assigned. Otherwise, scientists might stack the placebo group with sicker people.

When Accera looked only at the 123 randomized patients, the MCT takers scored no better than the placebo takers.