

COCONUT OIL DIETARY GUIDELINES AND SUGGESTIONS

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See www.coconutketones.com for more information

HOW CAN COCONUT OIL BE USED IN THE DIET?

Coconut oil can be substituted for any solid or liquid oil, lard, butter or margarine in baking or cooking on the stove, and can be mixed directly into foods already prepared. Some people take it straight with a spoon, but for most people it may be hard to swallow this way and more pleasant to take with food. When cooking on the stove, coconut oil smokes if heated to greater than 350 degrees or medium heat. You can avoid this problem by adding a little olive or peanut oil. Coconut oil can be used at any temperature in the oven when mixed in foods.

WHAT IS THE NUTRIENT CONTENT OF COCONUT OIL? DOES IT CONTAIN OMEGA-3 FATTY ACIDS?

Coconut oil has about 117-120 calories per tablespoons, about the same as other oils. It contains 57-60% medium chain triglycerides, which are absorbed directly without the need for digestive enzymes. Part of it is metabolized by the liver to ketones which can be used by most cells in the body for energy. This portion of the coconut oil is not stored as fat. Coconut oil is about 86% saturated fat, most of which is the medium chain fats that are metabolized differently than animal saturated fats. It contains no cholesterol and no transfat as long as is non-hydrogenated. An advantage of a saturated fat is that there is nowhere on the molecule for free radicals or oxidants to attach. About 6% of the oil is monounsaturated and 2% polyunsaturated. Coconut oil also contains a small amount of phytosterols, which are one of the components of the “statins” used for lowering cholesterol. Coconut oil contains omega-6 fatty acids but **no omega-3 fatty acid**, so this must be taken in addition to coconut oil. You can obtain all of the essential fatty acids required by using just coconut oil and omega-3 fatty acids. If you were to use coconut oil as your primary oil, the only other oil you would need is an omega-3 fatty acid, which you can get by eating salmon twice a week, or taking fish oil or flax oil capsules, 2-3 per day. Some other good sources of omega-3 fatty acids are ground flax meal, chia (a fine grain), walnut oil and walnuts. Lauric acid is a medium chain triglyceride that makes up almost half of the coconut oil. Scientific studies show that lauric acid has antimicrobial properties and may inhibit growth of certain bacteria, fungus/yeast, viruses and protozoa. It is one of the components of human breast milk that prevents infection in a newborn.

WHAT KIND OF COCONUT OIL SHOULD I USE?

Look for coconut oils that are non-hydrogenated with no transfat. Avoid coconut oils that are hydrogenated or super-heated because it changes the chemical structure of the fats. If you like the odor of coconut, look for products called “virgin,” “organic,” or “unrefined,” which are generally more expensive than “refined,” or “all natural,” or “RBD” (refined, bleached and deodorized) coconut oil, which do not have an odor. The oil itself is tasteless. Any of these have essentially the same nutrient with about 57-60% MCT oil (medium chain triglycerides.) The least expensive that I have been able to find so far is the Louanna brand at Walmart, priced locally at \$5.44 per quart. Using **coconut oil capsules is not an efficient way** to give the oil since the capsules are relatively expensive and

contain only 1 gram of oil per capsule, whereas the oil is 14 grams per tablespoon. Capsules might be useful for someone who will not take the oil.

WHY DOES THE COCONUT OIL LOOK “CLOUDY?”

Coconut oil is a clear or slightly yellow liquid above 76 degrees but becomes solid at 76 degrees and below. If your house is kept right around 76 degrees you may even see partly liquid oil with solid clouds of oil floating in it. If your home is generally kept at 75 degrees or below, the oil will tend to be a white or slightly yellow soft semi-solid.

WHAT OTHER COCONUT PRODUCTS CONTAIN COCONUT OIL?

Coconut milk is a combination of the oil and the water from the coconut and most of the calories are from the oil. Look for brands with 10 to 13 grams of fat in 2 ounces. Look in the grocery store’s Asian section. Some brands are less expensive but are diluted with water. **Coconut cream** is mostly coconut milk and sometimes has added sugar. **Flaked or grated coconut** can be purchase unsweetened or sweetened and is a very good source of coconut oil and fiber and has about 15 grams oil and 3 grams fiber in ¼ cup. Frozen or canned **coconut meat** usually has a lot of added sugar and not much oil per serving. A **fresh coconut** can be cut up into pieces and eaten raw. A 2” x 2” piece has about 160 calories with 15 grams of oil and 4 grams of fiber. **MCT Oil** (medium chain triglycerides) are part of the coconut oil and can also be purchased in some health food stores or on-line. This may be useful for people who are on the go and do not have much time to cook. Also, MCT oil is used as energy and not stored as fat, so it may be useful for someone who wants to lose weight, if substituted for some of the other fats in the diet. **Coconut water** does not usually contain coconut oil, but has other health benefits. The electrolyte composition is similar to human plasma and is useful to prevent or treat dehydration.

HOW SHOULD I STORE COCONUT PRODUCTS?

Coconut oil is extremely stable with a shelf life of at least two years when stored at room temperature. It does not need to be refrigerated and becomes extremely hard when cold. If you wish to keep it in the refrigerator, you can measure out 1 or 2 tablespoons into each section of a plastic ice cube tray. The coconut oil easily pops out of the plastic tray. Coconut milk is mostly coconut oil and can be substituted for the oil in many ways. Coconut milk must be refrigerated after opening and should be used within a few days or tossed out. Grated or flaked coconut can be stored at room temperature for a few weeks, but may last longer if stored in a refrigerator. A freshly cut up coconut can be stored in the refrigerator for a few days or freezer for a couple of weeks.

WHO SHOULD TRY THIS?

People who have a neurodegenerative disease that involves decreased glucose uptake in neurons could benefit from taking higher amounts of coconut and/or MCT oil to produce ketones which may be used by brain cells as energy. These diseases include Alzheimer’s and other dementias, Parkinson’s, ALS (Lou Gehrig’s), multiple sclerosis, Duchenne muscular dystrophy, autism, Down’s syndrome, and Huntington’s chorea. Ketones can

also serve as an alternative fuel for other cells in the body that are insulin resistant or cannot transport glucose, and could potentially lessen the effects of diabetes I or II on the brain and other organs. If you are at risk due to family history, you consider making this dietary change as well. If your loved one is in assisted living, the doctor may be willing to prescribe coconut oil to be given at each meal, increasing gradually.

HOW MUCH SHOULD I TAKE?

If you take too much oil too fast, you may experience indigestion, cramping or diarrhea. To avoid these symptoms, take with food and start with 1 teaspoon coconut oil or MCT oil per meal, increasing slowly as tolerated over a week or longer. If diarrhea develops drop back to the previous level. For most people, the goal would be to increase gradually to 4-6 tablespoons a day, depending on the size of the person, spread over 2-4 meals. Mixing MCT oil and coconut oil could provide higher levels and a steady level of ketones. One formula is to mix 16 ounces MCT oil plus 12 ounces coconut oil in a quart jar and increase slowly as tolerated, starting with 1 teaspoon. This mixture will stay liquid at room temperature.

WHAT ABOUT CHILDREN?

Children with Down's syndrome and some children with autism show decreased glucose uptake in parts of the brain. A reasonable amount to give a child would be about ¼ teaspoon of coconut oil for every 10 pounds that the child weighs, 2 or 3 times a day. Also, some children like the taste of coconut milk - 1 ½ to 2 teaspoons per 10 pounds weight can be added to the diet 2 or 3 times a day. If you use coconut milk for a child be sure to refrigerate it and toss after two days. Do not add honey to coconut milk for children under 1 year old due to risk of infection.

DO I NEED TO BE WORRIED ABOUT GAINING WEIGHT FROM THE EXTRA FAT IN THE DIET?

Yes!! The best way to avoid gaining weight is to substitute coconut oil for most other fats and oils in the diet, and if that isn't enough, cut back on portion sizes of carbohydrates, such as breads, rice, potatoes, cereals, and other grains. In general it is a good idea to use whole milk products but, if weight gain is a problem, you can also compensate for some of the new fat in the diet by changing from full fat to lower fat dairy products, such as milk, cheese, cottage cheese and yogurts, as well as low-fat or fat-free salad dressings, to which you can add coconut oil. Also, use a measuring spoon and remove the excess by leveling it with a knife to avoid overestimating, which can make a big difference in the number of calories consumed. Tiny glass measuring cups are available at grocery stores with markings for teaspoons and tablespoons. These are especially useful for combining salad dressing with coconut oil.

DOES COCONUT OIL INCREASE CHOLESTEROL?

Hydrogenated coconut oil can increase cholesterol. Therefore look for non-hydrogenated coconut oil with no transfat. There is no cholesterol in coconut oil itself, and with non-hydrogenated coconut oil, most people will see little difference or will see an improvement in their HDL ("good") and a decrease in LDL ("bad") cholesterol. Some see an increase in total cholesterol, usually as a result of an increase in HDL ("good") cholesterol.

SOME OTHER BENEFITS OF COCONUT OIL AND OTHER COCONUT PRODUCTS

Coconut oil is easily absorbed by the body and increases absorption of certain vitamins and minerals and other important nutrients. This would also hold true for coconut milk, coconut

meat, whether wet or dry, such as flaked or grated coconut. The fiber in coconut meat may be especially beneficial to persons with Crohn's or other types of inflammatory bowel disease or malabsorption syndromes and people who have diarrhea from MCT or coconut oil.

All of your cell membranes and about 60-70% of the brain and are made up of fats. Cholesterol is a very important component of the support structure of the brain. Many cell functions take place within the cell membrane. Since about the 1950's many people in this country have been using 100% vegetable oil, which is usually hydrogenated polyunsaturated fat and contains transfat, which can carry free radicals into your cell membranes. If you begin to substitute coconut and other natural oils, such as olive oil and even butter, along with omega-3 oils you may be able to undo some of the damage. Most of the cells of the body turn over within 3 to 6 months and you may notice a nicer texture to your skin, and a decrease in certain problems such as yeast and fungal infections.

FOOD IDEAS

- Use coconut oil instead of butter on toast, English muffins, bagels, grits, corn on the cob, potatoes, sweet potatoes, rice, vegetables, noodles, pasta.
- Mix coconut oil into oatmeal or other hot cereal.
- Add coconut oil or milk to smoothies, yogurt or kefir.
- Mix coconut oil half and half with salad dressings.
- Mix coconut oil into your favorite soup, chili or sauce.
- Use a measured amount of coconut oil to stir fry or sauté (add peanut oil over medium heat)
- Purchase or make coconut macaroons made from all natural products.
- Eat a 2" x 2" square of raw coconut for a snack to provide 15 grams of oil.
- Add flaked or grated coconut to hot or cold cereal, yogurt, fruit or vegetable salads.
- "The Coconut Lover's Cookbook," Bruce Fife – many more great ideas

Coconut macaroons:

2 egg whites Dash of salt 1/2 tsp vanilla
2/3 cup sugar **or** 1/4 cup sugar and 1 to 2 dashes of Stevia extract
1 cup shredded coconut

Beat egg whites with salt and vanilla until soft peaks form. Gradually add sugar (and stevia), beating until stiff. Fold in coconut. Coat cooking sheet with generous amount of butter. Drop by the rounded teaspoon onto cookie sheet. Bake at 325 degrees for 20 minutes. Makes about 18 cookies. Each cookie at this size would have about 4 grams of coconut oil.

Coconut Milk:

Mix in a container and shake well before use:

1 can of coconut milk ½ can of water Dash of salt
1-2 tablespoons of honey or other sweetener to taste

- Store in refrigerator and discard unused portion after 4 days.

MCT Oil/Coconut oil Mixture

Store at room temperature, in a quart size jar:

16 ounces MCT oil + 12 ounces coconut oil

"Fudge"

Melt and mix together **1 cup each** of coconut oil and chocolate chips and divide equally into a plastic ice cube tray and place in freezer. In a 16 cube tray, each cube will equal 1 tablespoon coconut oil. Add grated coconut and/or nuts for variety.