

Dr. Bronner's Fair Trade and Organic Virgin Coconut Oil (VCO) Frequently Asked Questions

1. Where does Dr. Bronner's Virgin Coconut Oil (VCO) come from?

Dr. Bronner's VCO is made at the coconut oil mill of Serendipol (Pvt) Ltd., Dr. Bronner's sister company, near the town of Kuliyaipitiya in the "Coconut Triangle" of Sri Lanka.

2. What is "Organic" and "Fair Trade" about our VCO?

"Organic" means that our farmers do not use chemical fertilizers, such as urea, or synthetic pesticides and herbicides. Rather, Serendipol supports the farmers with improving soil fertility and yields by natural means, such as supplying compost from our own compost plant.

"Fair Trade" means that prices paid to farmers, as well as wages and working conditions for farm and factory workers, are fair. To support community development in our host area, Dr. Bronner's and other customers of VCO pay a fair trade premium into a fund – some \$250,000 per year. The premium is administered by representatives of all stakeholders and funds a range of local development projects in education, health care, and workers welfare.

The entire Serendipol project is certified organic to USDA (NOP) standards and certified fair trade under the "Fair for Life" program by the Swiss certifier IMO.

3. How is Dr. Bronner's Virgin Coconut Oil (VCO) made?

Our VCO is made in a "dry process". It exclusively uses coconuts that are grown and harvested by Serendipol's farmers. After the harvest, nuts mature for 3 weeks on the farm or at the factory. The outer, fibrous husks are removed first, and within 48 hours the nuts are then processed into oil.

After shelling and washing, the coconut kernel is ground and air-dried in a fluidized bed dryer. Within 12 hours, the grated dried kernel is expeller pressed. The oil then goes through a two-stage filter process to remove solids and produces clear oil.

Serendipol's entire operation is certified organic and fair trade by IMO. It is also certified for food safety under ISO 22000 and HACCP by SGS.

4. What is the highest temperature incurred in the process? Where does it occur?

The maximum temperature incurred by the grated coconut during the process is 212 °F. This temperature is reached in the dryer. The drying of any agricultural good somewhat reduces the vitamin content of coconuts. It also eliminates most of the lipase enzymes that are responsible for the spoilage of coconut oil. It does not however, affect the most important nutritional attributes of coconut oil, i.e. its fatty acid composition. Almost all VCO sold in the U.S. are made using the same dry process that Dr. Bronner's uses. VCO made in the wet process retains these enzymes. It has a good flavor and more vitamins but it is prone to developing a soapy taste relatively fast.

5. What is expeller pressed? What is cold pressed?

“Expeller pressed” refers to the method of pressing oil. The oil is extracted from an oil seed or nut purely mechanically in an expeller press. No solvents are used to extract the oil. The oil is also not refined or hydrogenated after expelling, only mechanically filtered.

“Cold pressed” refers to the temperature at which the oil drips from the expeller. This term is not well defined but most oil millers agree that “cold pressed” oil means the dripping temperature of the oil is less than 140° F (60° C). Our VCO has a dripping temperature of 130° F. Some purists think “cold pressed,” means a dripping temperature of 120°F or less.

6. Is our oil “Raw”? If not, is there “Raw Coconut Oil” on the market?

A food can be called “raw” if it is unheated or cooked to a temperature less than 104–115°F (40– 46 °C). Since our VCO is dried and expeller pressed at temperatures higher than that we do not call it “raw”.

Virtually all VCO in the U.S. market is made using the same dry process and thus cannot be called “raw”. Few oils are made using a “wet” process in which the oil is separated from coconut milk using a centrifuge. The resulting oil can be tasty but it is less stable and prone to off-flavors.

7. What is the difference between our Whole Kernel and White Kernel VCO?

The whole kernel oil is made from the whole coconut kernel, with the brown parings, i.e. the soft inner skin is left on. The white kernel oil is produced from the kernel after removal of the parings. The whole kernel oil is more nutritious; it contains higher levels of certain micronutrients, such as phenolic antioxidants and carotenoids. A comprehensive nutritional evaluation of the two grades is ongoing.

The whole kernel oil has a slightly more nutty taste and a very slight yellow tint resulting from the carotenoids in the parings.

Both oils are equivalent regarding their potential culinary and body care uses.

8. What is the difference between VCO, Copra Oil and refined Coconut Oil?

Most coconut oil in the world is made from “copra”, the dried coconut kernel. To make copra, coconuts are cut in half and then dried in the sun or in a kiln. This routinely causes fungal infection, unpleasant off-flavor or even toxins in the kernel. Thus, copra oil must usually be refined, bleached and deodorized to be acceptable for use in food.

Virgin coconut oil (VCO) is made from kernel that is dried immediately after the cracking of the nut. Thus, it retains the delicate aroma of coconuts, does not have off-flavors, has very low levels of free fatty acids and does not require refining.

9. Is there a difference between “Virgin” and “Extra Virgin” Coconut Oil?

The Asian and Pacific Coconut Community has adopted standards for virgin coconut oil (<http://www.apccsec.org/document/VCNO.PDF>). They require that VCO is made from fresh, mature kernel only by mechanical means and that the oil meets high standards for free fatty acid content, color and flavor. However, there are no standards for the term “extra virgin” for coconut oil. That term has been borrowed from olive oil, which involves several pressing steps and “extra virgin” resulting from the first pressing and having very low free fatty acid content. This difference does not exist for VCO. All coconut oil offered as “extra virgin” is thus made using the same process as “virgin” and has the same measurable quality parameters. In fact the Canadian government recently cracked down on “Extra Virgin” claims on VCO as misleading, mandating that such claims be dropped from labeling and marketing in that country.

10. Do the nuts from Sri Lanka’s coconut triangle have a special flavor?

Sri Lanka’s coconut triangle is the country’s largest and oldest coconut growing region. From a mountaintop, the entire area looks like it’s mostly covered with coconut trees. Most coconut growing countries claim “their nuts taste best,” and Sri Lanka is no exception. The flavor of a coconut results from the tree variety and growing conditions of the crop. The most common varieties in Sri Lanka are the “Tipica” and “Nana” varieties, widely considered the most delicious for VCO and desiccated coconut. We further optimize flavor through the freshness of the nut and processing conditions.

11. Is the coconut oil is produced in a gluten free facility?

Dr. Bronner’s coconut oil is produced in a gluten free facility, i.e. no gluten containing products is processed at the oil mill.

12. Does Dr. Bronner’s have sufficient Supply of Coconut Oil?

Unlike all other suppliers of VCO in the U.S., Dr. Bronner’s has had its own production of VCO since 2007. Over 500 family farmers with about 8,000 acres of coconut land are now part of the project. Most of our coconut oil has been used as the main ingredient of our well-known soaps, where when saponified, it generates our unsurpassed lather. As our company grows we continue to add certified farmers to ensure we have supplies for both food and body care uses.

13. Is the Coconut Oil produced and bottled in a tree nut and peanut free facility?

The oil is produced in a nut free facility, but bottled in a facility both our co-packagers fill tree nut oils in their production lines. There is no cross-filling with our coconut oils, meaning that after they fill tree nut oils, they clean and sanitized their fillers and let them rest for a period of time. After that, they continue filling whatever they have scheduled.

14. What is the difference between Coconut Oil and Coconut Butter?

Virgin Coconut Oil is produced by *squeezing the oil* out of the dried kernel (imagine the coconut flakes that one uses for baking) whereas Coconut Butter is produced by *milling the dried* kernel. Imagine taking coconut flakes and grinding them into butter to keep the fiber and protein in it that you have in the dried kernel.

It's similar to almond or any other nut butter that is milled from the seed, nut, and dried kernel.

They are two different products with different applications. One is oil and it's used for that. The other (butter) has the nutritional value of the whole nut (with fiber, protein, minerals that you don't find in the oil) but you won't use it for frying or cooking in general. The coconut oil has naturally a higher level of the fatty acids, such as the lauric acid, that makes VCO nutritionally attractive.

15. Is the yellow/brown color in the bottom of the coconut oil jar normal?

The yellow / brown deposit sometimes found in the bottom of the coconut oil jar is normal. It is caused by very fine parts of the sediment created in the expelling process that is passed through the filter. It is not biological (bacteria / mold) and is common in natural / cold pressed oils.

16. Is Dr. Bronner’s Virgin Coconut Oil hydrogenated?

No, our coconut oil is not hydrogenated. During hydrogenation, a vegetable oil is reacted with hydrogen in the presence of a catalyst. The hydrogen converts unsaturated fatty acids into saturated ones, thus making the oil more solid (for use in shortening) and more stable. The hydrogenation of soy bean oil for use in shortening is the most relevant example. However, hydrogenation also creates varying amounts of trans-fatty acids which contribute to high blood levels of the "bad" LDL cholesterol and to an elevated risk

of cardiovascular disease. Thus, food processors increasingly switch to naturally solid fats, such as palm oil, or modify their hydrogenation process to minimize trans-fat generation.

17. What certification does Dr. Bronner's Coconut Oil have?

Dr. Bronner's Coconut Oils are fair trade, organic, non-GMO, cruelty-free and vegan certified.

18. How do I store the Coconut Oil?

Store coconut oil in a cool dark place. No refrigeration is needed.

19. Can I reuse the coconut oil?

Yes! You can reuse coconut oil like any other frying oil and the same rules apply to minimizing oxidation/rancidification:

- Preferably fry dryer goods, i.e. minimize water going into the oil
- Keep the oil temperature below the smoking point (this limits its use for deep frying),
- Strain the oil afterwards.

The best test to determine whether the oil is still suitable for frying is to taste it before re-using. Storing it in a glass jar at room temperature is fine.

20. Does eating Coconut Oil "clog your arteries" and raise your risk of cardiovascular disease?

For decades it was thought that all saturated fatty acids raise blood cholesterol levels and thus contribute to cardiovascular (CV) disease, such as heart attacks and strokes. Since over 90% of the fatty acids in coconut oil are saturated, eating coconut oil was considered to pose a high CV risk.

In contrast, controlled studies now increasingly support the following notion regarding the risks and benefits of saturated fats:

- Some saturated fatty acids in fact slightly lower, or worsen, the ratio of HDL ("good") cholesterol to LDL ("bad") cholesterol when eaten instead of mono or polyunsaturated fats. Yet, other saturated fatty acids, such as lauric acid, which accounts for 50% of coconut oil, actually seem to improve the HDL/LDL ratio.

- Moreover, it now appears that eating saturated fats actually improves the HDL/LDL ratio if eaten instead of processed carbohydrates, such as sugar and flour.

Naturally, every person responds individually to food intake and the formation of blood cholesterol in the human body appears to have a strong genetic component. Yet, for many, if not most people, the consumption of modest amounts of coconut oil, 1-2 tablespoons per day, may well improve your blood cholesterol levels – rather than clogging your arteries.

21. Is the Coconut Oil denatured?

There is no "denatured" coconut oil. Coconut oil is just fat. It does not contain protein so it cannot be denatured.