



SALES KIT

VIRGIN COCONUT OIL

FOR INDUSTRIAL USAGE

PRODUCT SPECIFICATIONS

A. PRODUCT DESCRIPTION

VCO (Virgin Coconut Oil) is a colorless, transparent oil extracted from coconut meat through a special process. It is processed without the addition of any chemical substances.

B. PHYSICAL SPECIFICATIONS

- | | |
|-------------------------|---------------------------------------------------------|
| 1. Appearance | : Colorless/transparent at temperatures above 25°C. |
| 2. Taste | : Free from rancid/sour taste. |
| 3. Aroma | : Free from rancid aroma and has a sweet coconut aroma. |
| 4. Insoluble impurities | : Maximum 0.05% (w/w) |

PRODUCT SPECIFICATIONS

C. CHEMICAL SPECIFICATIONS

1. Moisture Content	: Maximum 0.1%
2. Specific Gravity (30°C)	: 0.915-0.920
3. Saponification Value	: 248-265 mg KOH/g
4. Acid Value	: Maximum 0.5 mg KOH/g
5. Peroxide Value	: Maximum 2 meq/kg
6. Free Fatty Acid (as Oleic Acid)	: Maximum 0.1%
Free Fatty Acid (as Lauric Acid)	: Maximum 0.07%
7. Iodine Value	: 5.0-11.0

D. MICROBIOLOGY

1. <i>Total Plate Count</i>	: maks. 10
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PRODUCT SPECIFICATIONS

E. COMPOSITION

100% pure coconut oil

F. APPLICATION

For use in the production of cosmetics and food, especially health foods, Ayurveda, nutraceuticals, and pharmaceutical applications.

G. PACKAGING

Packaging in 15 kg pails

H. SHELF LIFE

24 months from the production date under recommended storage conditions.



VCO RAW MATERIALS

Just like coconut oil, VCO is also obtained from the meat of ripe coconuts. Many people do not know that VCO can also be derived from by-products of coconut meat.

According to FAO (Food and Agriculture Organization), VCO can be processed from coconut milk, coconut milk residue, desiccated coconut (dried grated coconut), etc., that have not undergone any chemical processes.

VCO PROCESSING METHODS

There are various methods for making VCO, such as the *fresh-dry process*, *traditional wet process*, *fermentation process*, *centrifuge process*, etc.

Each VCO producer may have different processes from other VCO producers.

Some VCO production methods involve low heating temperatures, with a maximum of 90°C. The higher the temperature used, the oil will turn yellowish.



INTRODUCTION TO COCO VCO

We already know that VCO can be obtained from various raw materials and through different processing methods.

What about the VCO produced by COCO?

COCO Virgin Coconut Oil (VCO) is made from desiccated coconut that has not undergone any chemical processes. It is processed through a fresh-dry process involving low heating temperatures, ensuring that the VCO remains completely clear without any yellow color.



VCO USE APPLICATION



FUNCTIONAL FOOD



HAIRCARE AND SKINCARE

ADVANTAGES OF VCO AS FUNTIONAL FOOD



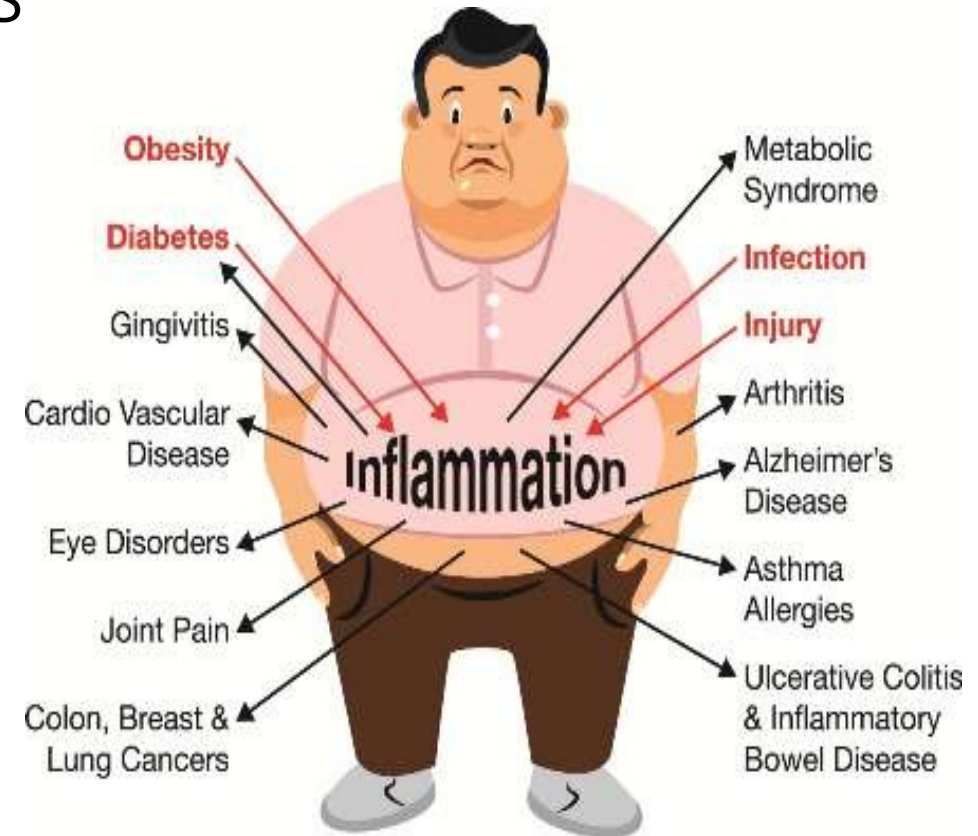
SOURCE OF MEDIUM CHAIN FATTY ACIDS (MCFA)

MCFAs, particularly lauric acid, have antiviral, antifungal, and antibacterial properties, which can boost the immune system. This content makes VCO frequently used as a mouthwash because it can kill bacteria that cause oral and dental diseases.



ANTI-INFLAMMATION

VCO contains antioxidant compounds that help protect the body from inflammation and damage caused by free radicals.





ADVANTAGES OF VCO AS FUNCTIONAL FOOD



EASILY BURNED FOR ENERGY

Unlike other fats that tend to be stored as fat reserves first, MCFAs in VCO are more easily burned by the body directly for energy. This is why VCO is used in several energy bars and is also consumed directly before exercising.





SUITABLE FOR DIETS

On a keto diet, there is a risk of dizziness and fatigue due to the restriction of carbohydrates as an energy source. VCO is essential for those on a keto diet because it is easily and quickly converted into energy.

WHAT IS MCFA?

MCFA is a fatty acid that is abundantly found in breast milk. MCFA helps to enhance the immune system and protect babies from bacterial, viral, and fungal infections. Without the intake of MCFA, babies are susceptible to illness and malnutrition. Therefore, MCFA is commonly added to formula milk.

Apart from breast milk, the highest content of MCFAs is also found in coconut oil.

-  This coconut oil is good for breastfeeding mothers to consume to improve the quality of their breast milk. Mothers can use coconut oil as a substitute for cooking oil used in daily cooking.
-  Coconut oil can also be used to make complementary foods (MP-ASI) for babies aged 6 months and above.



ADVANTAGES OF VCO AS FUNCTIONAL FOOD



FREE OF CHOLESTEROL

Unlike butter, coconut oil does not contain cholesterol, making it healthier and safer for heart health and blood vessels.



FREE OF TRANS FATS

COCO coconut oil is free of trans fats. Trans fats are the most harmful fats that can increase the risk of heart attacks and strokes.



WITHOUT PRESERVATIVES

COCO coconut oil is free of preservatives and other additives, making it safer for long-term health.

VIRGIN COCONUT OIL

as functional food

VCO can be consumed 1-2 tablespoons per day. It can be taken directly or added to food or drinks. If you want to consume VCO directly, here are some useful tips:

1. Start with a gradual dose so that the body can adapt.
2. VCO can be consumed at any time. If you want to lose weight, consume VCO before meals. If you want to address digestive issues, consume VCO after meals.



VCO USE APPLICATION



FUNCTIONAL FOOD



HAIRCARE AND SKINCARE

VIRGIN COCONUT OIL

For care and beauty products



MOISTURIZING THE SKIN

VCO can naturally moisturize the skin and is safe to use in daily beauty products.

HELPING TO TREAT ACNE

VCO contains lauric acid, which has antiviral, antibacterial, and antimicrobial properties, making it effective in fighting acne-causing bacteria.

REDUCING ECZEMA SYMPTOMS ON THE SKIN

VCO can help alleviate symptoms of skin conditions such as hives, eczema, and dermatitis.

REDUCING SCAR MARKS

VCO can help increase collagen levels, a protein important for wound healing. Additionally, its antimicrobial properties can prevent infections, one of the risk factors that can complicate the wound healing process.

PROTECTING AGAINST HAIR DAMAGE

VCO locks in moisture, making hair look healthy and shiny. It also helps hair grow longer, thicker, and faster.

PREVENTING DANDRUFF

One of the causes of dandruff is fungi, and VCO can help reduce fungal (*Malassezia*) presence.

EXAMPLES OF COCONUT BASED BEAUTY PRODUCTS



Disclaimer: Products shown are not COCO products. Images are displayed to show the massive opportunities VCO has in the beauty industry.



COCONUT OIL AS A CARRIER OIL

Carrier oil is a term used for oils used to dilute or dissolve essential oils. Essential oils have strong fragrances used for aromatherapy purposes. Essential oils can cause irritation if applied directly to the skin, so they need to be mixed with carrier oil beforehand.

Here are the dilution ratios of essential oil to carrier oil:

- For adults:
 - 2.5% dilution: 15 drops of essential oil per 6 teaspoons of carrier oil
 - 3% dilution
 - 5% dilution 30 drops of essential oil per 6 teaspoons of carrier oil
 - 60 drops of essential oil per 6 teaspoons of carrier oil
 - 10% dilution
- For children:
 - 0.5-1% dilution: 3-6 drops of essential oil per 6 teaspoons of carrier oil

COCONUT OIL FOR OIL-PULLING

Oil-pulling is a method of rinsing with oil.

Benefits of oil-pulling:

- *Coconut oil helps pull out bacteria that cause oral and dental diseases, and reduces bad breath.*
- *It is safer and less irritating compared to mouthwash.*

User Instructions:

1. Take 1 tablespoon of coconut oil.
2. Rinse in your mouth for 10-20 minutes.
3. Dispose of the oil in a nearby trash can after rinsing.
4. Rinse your mouth with a mixture of water and salt.



Important tips:

- Do it in the morning before breakfast.
- You can do other activities while rinsing, like showering, etc.
- Start with 5 minutes of rinsing per day and gradually increase the duration.
- Avoid rinsing too vigorously, as it can cause jaw discomfort.
- Remember to brush your teeth in the morning and before bed.



COCONUT OIL FOR MAKING SKINCARE

Coconut oil is also great for the skin because it moisturizes and nourishes the skin, making it widely used in beauty products such as:

- Lip balm
- Lip scrub
- Lip gloss
- Skin moisturizer
- Body lotion
- Body scrub
- Hand Cream
- Face cleanser
- Makeup remover
- Eye cream
- Face cream
- Face mask
- Soap
- Shampoo
- Toothpaste
- Hair conditioner
- Hair mask
- Massage oil

Example recipe for coconut oil-based skincare that can be made at home: Body Scrub:

- Mix: 50 ml coconut oil + 50 grams of brown sugar + 50 grams of coffee grounds
- Apply to dry skin. Gently scrub.
- Rinse with clean water.

HOW TO PROPERLY STORE COCONUT OIL

- Store it in a dry and clean place.
- Ensure the container is tightly closed to prevent contamination.
- Keep it away from direct sunlight to maintain its quality.





SIDE EFFECTS OF VCO

So far, no research has reported any dangerous side effects from using VCO. Possible side effects:

1. VCO has a detoxifying effect (cleansing toxins) in the digestive tract, which can sometimes cause discomfort in the stomach. This is normal to occur from day 1 to day 3 of consuming VCO.
2. Although VCO can help with weight loss, it still contains calories, so it should not be used excessively. If used excessively, the weight loss effect may not be achieved.



RBD COCONUT OIL



VCO



MCT OIL

COMPARISONS OF RBD COCONUT OIL ,VCO, AND MCT-OIL

These three oils are both made from coconut oil. So what are the differences between these three oils?

	RBD COCONUT OIL	VCO (VIRGIN COCONUT OIL)	MCT OIL <i>(Medium-chain-triglyceride Oil)</i>
DEFINITION	Oil extracted from coconut meat through the RBD process.	Oil extracted from coconut meat through the most natural process possible (avoiding high heat and without using chemicals). Known as virgin coconut oil, extra virgin coconut oil, and unrefined coconut oil.	Oil that only contains medium-chain triglycerides (MCT). Most commonly derived from coconut oil due to its high MCT content, but some also come from palm oil.
OTHER NAMES	Coconut Oil, Refined Coconut Oil, Parafin Coconut Oil	VCO, Virgin Coconut Oil, Extra Virgin Coconut Oil, Unrefined Coconut Oil	MCT Oil, Fractionated Coconut Oil
RAW MATERIALS	Coconut meat and its by-products	Coconut meat and its by-products	The majority comes from coconut oil, but can also be from palm oil

	RBD COCONUT OIL	VCO (VIRGIN COCONUT OIL)	MCT OIL <i>(Medium-chain-triglyceride Oil)</i>
PROCESS	Refining, Bleaching, and Deodorizing process (RBD)	Various methods such as fresh-dry process, traditional wet process, fermentation process, centrifuge process. Unlike RBD oil, VCO is not processed at high temperatures. The maximum allowed heating temperature for VCO is 90°C.	Fractionation process to separate and extract only the medium-chain triglycerides (MCT).

	RBD COCONUT OIL	VCO (VIRGIN COCONUT OIL)	MCT OIL <i>(Medium-chain-triglyceride Oil)</i>
COLOUR	<ul style="list-style-type: none"> - In liquid state: Clear yellowish. -In frozen state: Ivory white when frozen. 	<ul style="list-style-type: none"> - In liquid state: Clear as water. - In frozen state: Ivory white when frozen. 	Varies, ranging from clear to clear yellowish to brownish.
AROMA	Has a coconut aroma, but very light.	Has a stronger coconut aroma compared to RBD coconut oil.	No aroma, no taste. Very light.

	RBD COCONUT OIL	VCO (VIRGIN COCONUT OIL)	MCT OIL <i>(Medium-chain-triglyceride Oil)</i>
ADVANTAGES	<ul style="list-style-type: none"> -Cheapest price compared to VCO and MCT Oil. - Suitable for cooking because it has a high smoke point, making it safe for high-temperature cooking (frying, baking, etc.). - Does not leave a coconut smell that interferes with cooking results. 	<ul style="list-style-type: none"> -Stronger aroma, suitable for beauty products. -The production process avoids high-temperature heating and without chemicals. Suitable for many beauty products that use VCO due to its content. It has more antioxidants and a stronger fragrance compared to RBD coconut oil, and is cheaper than MCT Oil. 	<ul style="list-style-type: none"> -Does not solidify at room temperature and refrigerator. -Contains the most MCT compared to RBD coconut oil and VCO, so it provides better health benefits. -Easier to digest by the body. -Does not smell like coconut at all, making it easier to consume directly.

	RBD COCONUT OIL	VCO (VIRGIN COCONUT OIL)	MCT OIL <i>(Medium-chain-triglyceride Oil)</i>
DISADVANTAGES	<ul style="list-style-type: none"> -Solidifies at 24°C. - Has the lowest antioxidant content compared to VCO and MCT Oil. 	<ul style="list-style-type: none"> -Solidifies at 24°C 	<ul style="list-style-type: none"> -Most expensive compared to VCO and MCT Oil.
USES	<ul style="list-style-type: none"> -For cooking purposes, from sautéing, frying, to baking. - Can also be used in beauty products. 	<ul style="list-style-type: none"> - For direct consumption or added to food/drinks as functional food. - For health and beauty products, such as soap, body scrub, lip balm, body butter, etc. 	<ul style="list-style-type: none"> - For direct consumption or added to food/drinks as functional food. For mixing in health products, such as supplements, etc.

FREQUENTLY ASKED QUESTIONS ABOUT VCO



FAQ:

WHAT IS THE MAIN DIFFERENCE BETWEEN REGULAR COCONUT OIL (RBD COCONUT OIL) AND VCO?



VCO is colorless, clear, and transparent like water. Meanwhile, coconut oil has a clear slightly yellowish color due to the refining process involving high-temperature heating.

VCO does not undergo high-temperature heating to maintain its purity and antioxidant content.

FAQ:

WHY DOES VCO HAVE A CLEARER COLOR COMPARED TO REGULAR COCONUT OIL (RBD COCONUT OIL)?

Because VCO is produced without involving high-temperature heating to maintain its purity and antioxidant content (maximum allowable temperature = 90°C). The hotter the temperature used, the oil will turn yellowish.

RBD coconut oil undergoes high-temperature heating processes to make the coconut oil have a neutral aroma and odor, and stable to use for cooking.

Therefore, regular coconut oil (RBD coconut oil) has a slightly yellowish color.



FAQ:

IS VCO THE SAME AS CLENTIC OIL?



Not all clentic oils can be categorized as Virgin Coconut Oil (VCO).

Clentic oil is a term for all coconut oils processed traditionally from heating coconut milk. Coconut oils sold in the market can be clear or yellowish. Both are referred to as Clentic oil.

Meanwhile, VCO has a standard that it should not be processed at high temperatures (maximum 90°C) and should be clear and transparent like water. Coconut oil that is clear and transparent like water can be called VCO. The yellowish ones are more accurately referred to as regular coconut oil.

FAQ:

WHY DOES VCO COCO HAVE A LESS INTENSE AROMA COMPARED TO OTHER VCOs?

VCO COCO has a significantly stronger aroma compared to regular coconut cooking oil, but when compared to other VCOs, some among them have a stronger aroma than VCO COCO. This is because VCO COCO undergoes a deodorization process aimed at preventing it from quickly becoming rancid.



FAQ:

IS THE PROCESSING OF DEODORIZATION ALLOWED FOR THE PROCESSING OF VCO?

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Increasing the quality of virgin coconut oil (vco) using activated carbon adsorbent from candlenut shell (*Aleurites mollucana*)

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Abstract. Virgin Coconut Oil (VCO) is one of the product from coconuts. VCO has many benefits in health and industry. One method of making the VCO is often used today is the fermentation. Today many domestic industries produce virgin coconut oil (VCO) but in fact, the industry has not been all good in terms of quality. The use of activated carbon from candlenut shells as an adsorbent to increase the quality of VCO has studied. The parameters tested were water content, free fatty acid, and peroxide. The results showed a decline in water levels from 0.1655% to 0.0597%, peroxide number decrease from 0.1991% to 0.0991%, and the free fatty acid content of 0.4186% to 0.366%.

The process of deodorization is allowed in the processing of VCO.

Some journals have researched that the deodorization process in VCO can reduce the increase of free fatty acids (FFA) during storage, thus preventing VCO from quickly becoming rancid.

FAQ:

IS VCO ALLOWED TO BE PROCESSED FROM *DESSICATED COCONUT (DC)*?

According to the FAO (Food and Agriculture Organization), VCO can be processed from derivative products of coconut meat, including desiccated coconut.



Table 4. Comparative assessment of different processes for producing VCO

Type of process	Quality of oil and recovery	Advantages and limitations
1. Fresh-dry process (Wet milling route) (High Pressure Expeller Method) M.C. of meat for extraction should be 3 – 4%	FFA: 0.05 – 0.08% M.C.: 0.07 – 0.1% Colour: water-clear Oil recovery: 31 kg/100 kg of fresh milled coconut meat (Based on 50 % initial M.C. of fresh meat)	Produces full protein, medium fat coconut flour as a co-product. Long shelf-life of oil: 1 yr and more. Uses mechanical type of equipment to produce the oil. Can be produced in a village-scale plant operation.
2. Fresh-dry process (Desiccated coconut route) (High Pressure Expeller Method) M.C. of meat for extraction should be 3 – 4%	FFA: 0.05 – 0.08% M.C.: 0.07 – 0.1% Colour: water-clear Oil recovery: 30 kg/100 kg of fresh, pared, ground meat (Based on 50 % initial M.C. of fresh meat)	Produces full protein, medium fat coconut flour without testa as a co-product. Long shelf-life of oil: 1 yr and more. Uses mechanical type of equipment to produce the oil. High investment cost, suited only to medium scale plant operation (10,000 nuts/day and above).
3. Fresh-dry process (Grated coconut route) (High Pressure Expeller Method) M.C. of meat for extraction should be 3 – 4%	FFA: 0.05 – 0.08% M.C.: 0.07 – 0.1% Colour: water-clear Oil recovery: 30 kg/100 kg of fresh grated meat (Based on 50 % initial M.C. of fresh meat)	Produces full protein, medium fat coconut flour without testa as a co-product. Long shelf-life of oil: 1 yr and more. Uses mechanical type of equipment to produce the oil. Can be done in a micro-scale plant operation.
4. Low Pressure Method M.C. of meat for extraction should be 10 – 12% for bridge press and DME expeller, and 7 – 10% for Thai S. Steel Expeller ¹	FFA: 0.1 – 0.2% M.C.: 0.17% and above Colour: water-clear Oil recovery: 24.5 kg/100 kg of fresh grated coconut meat (Based on 50 % initial M.C. of fresh meat)	Uses manually operated equipment to produce the oil. Produces a semi-dry coconut residue that has to be further dried or processed to have market value. Shelf-life of oil is very short if not immediately dried by gentle heating after extraction to remove water.

FAQ:

IS HEATING ALLOWED IN THE PROCESSING OF VCO?

Virgin Coconut Oil

production manual for micro- and
village-scale processing

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According to the FAO (Food and Agriculture Organization), heating is permitted in the VCO process, but it must be kept within a maximum limit of 90°C to maintain purity and ensure that the VCO remains clear in color.

FAQ:

FOR BEAUTY PRODUCTS, WHICH IS MORE SUITABLE, COCONUT OIL OR VCO?

Coconut oil and VCO are both used in beauty products. However, VCO has the advantage due to its higher antioxidant content.

Beside that, VCO has a stronger aroma (with a more intense coconut scent) compared to regular coconut oil, making it suitable as a base for beauty products such as massage oils, body butters, etc.





FAQ: FOR COOKING, WHICH IS MORE SUITABLE, COCONUT OIL OR VCO?

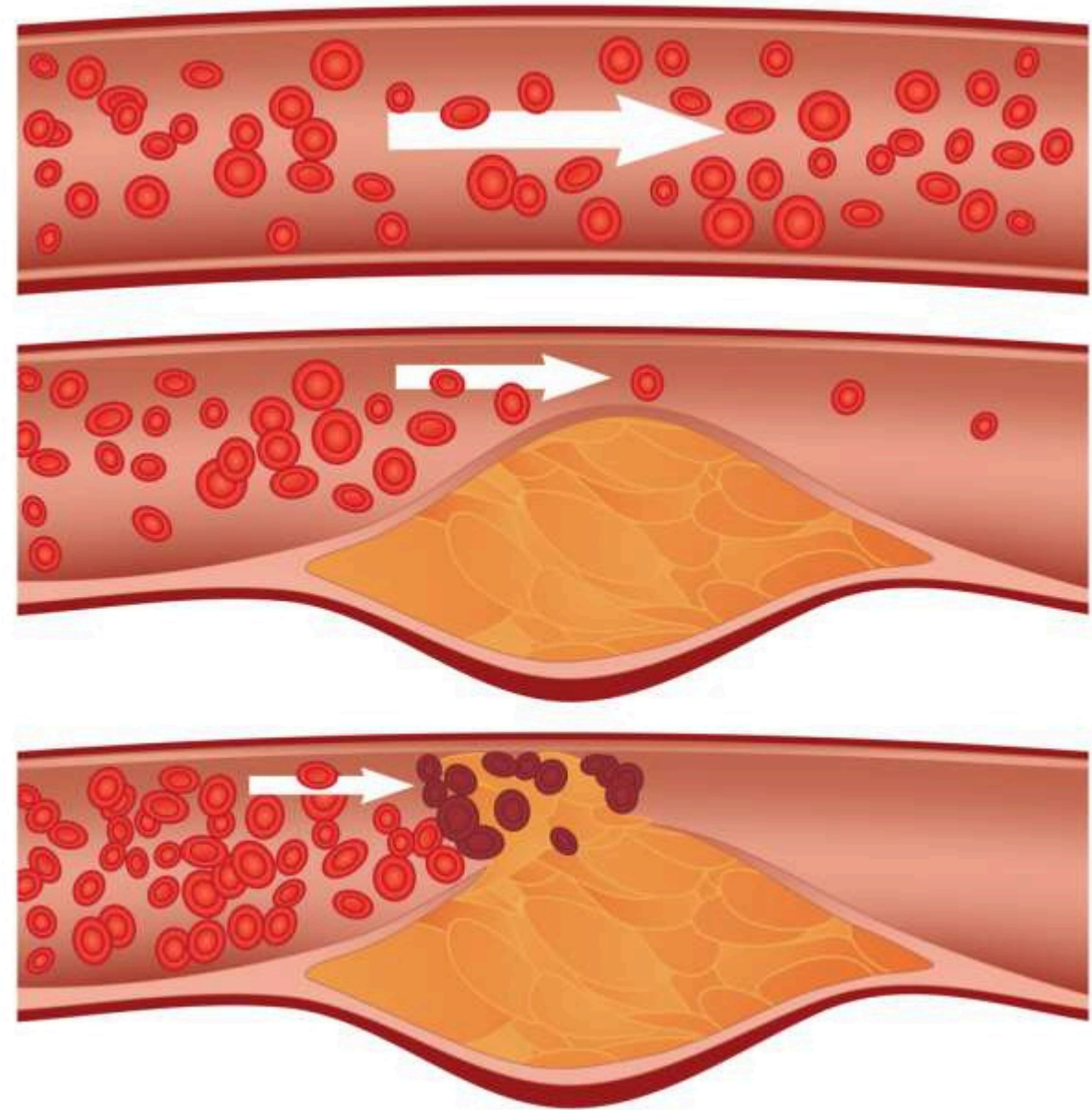
Coconut oil is more suitable for cooking because it has a higher smoke point, making it safe for high-temperature cooking methods like frying, baking, roasting, etc.

Additionally, coconut oil does not leave a strong coconut odor in the cooked food and is generally cheaper than VCO. If you want to use VCO for cooking, it is recommended to use low heat or use it for dishes that do not require cooking (e.g., salad).

FAQ:

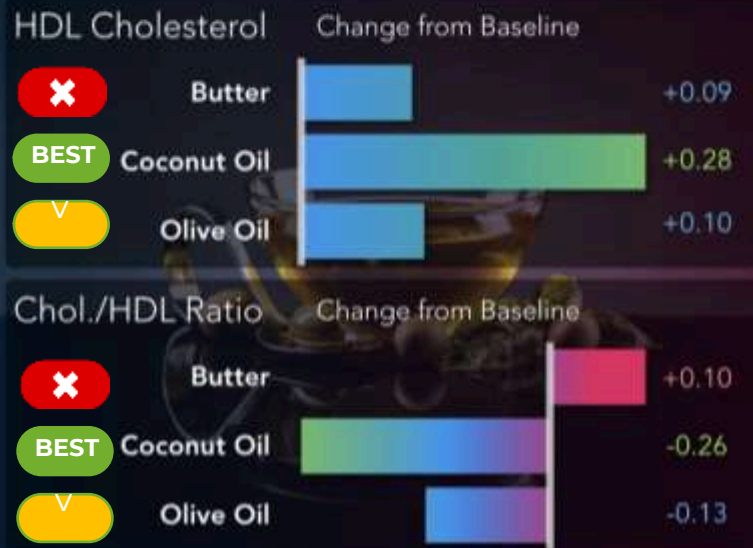
DOES VCO CONTAIN CHOLESTEROL?

Cholesterol is produced by the liver, so only humans and animals contain cholesterol. As a plant-based product, 100% coconut oil does not contain cholesterol.



Butter vs Olive Oil vs Coconut Oil

A randomized clinical trial shows that coconut oil and olive oil are both healthier than butter.



FAQ: IS COCONUT OIL NOT GOOD FOR HEART HEALTH?

Traditionally, we were taught that saturated fats are bad fats. However, saturated fats derived from plant-based products have different effects compared to those from animal sources.

Saturated fats in animal products tend to increase bad cholesterol (LDL), while saturated fats in plant products increase good cholesterol (HDL). Research comparing the effects of consuming olive oil, coconut oil, and butter has shown that coconut oil has the most positive effect on heart health and blood vessels.

FAQ:

WHY DOES VCO TURN SOLID AND WHITE?

VCO has a melting point of 24-26°C. Below this temperature, VCO solidifies and turns white.

Don't worry, this is completely normal and not harmful at all. VCO can be used directly and will return to liquid form when heated.

