

FREQUENTLY ASKED QUESTIONS ON VIRGIN COCONUT OIL



Philippine Coconut Authority

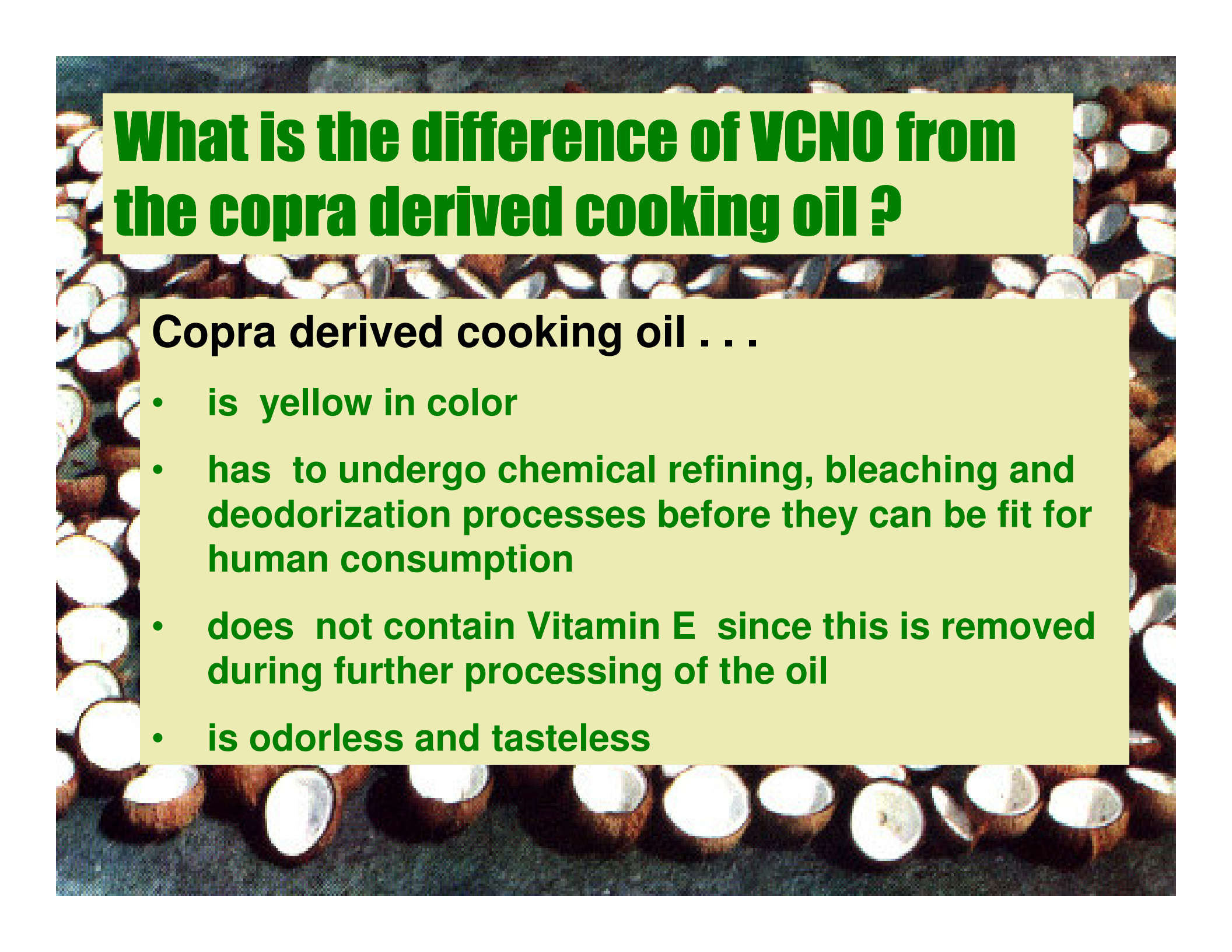
What is virgin coconut oil (VCNO) ?

VIRGIN COCONUT OIL may be defined as the naturally processed, chemically-free and additive-free product from fresh coconut meat or its derivative (coconut milk and coconut milk residue) which has not undergone any further chemical processing after extraction.



VIRGIN COCONUT OIL

- It is the purest form of coconut oil, water white in color, contains natural Vitamin E and with very low free fatty acid content (even without refining) and low peroxide value.
- It has a mild to intense fresh coconut aroma . The intensity of the scent depends on the process used for producing the oil.

The background of the slide is a close-up photograph of numerous coconut halves. The coconuts are arranged in a somewhat circular pattern, with their white interiors and brown outer shells visible. The lighting is bright, highlighting the texture of the coconut meat and the smooth surface of the shells.

What is the difference of VCNO from the copra derived cooking oil ?

Copra derived cooking oil . . .

- **is yellow in color**
- **has to undergo chemical refining, bleaching and deodorization processes before they can be fit for human consumption**
- **does not contain Vitamin E since this is removed during further processing of the oil**
- **is odorless and tasteless**

Interim Quality Standard for Virgin Coconut Oil

COLOR - Water White ; 1 Yellow, 0.1 Red

FREE FATTY ACID (as lauric) - **0.5 % max**

PEROXIDE VALUE - **3 max**

TOTAL PLATE COUNT - **< 10 cfu**

CONTAMINANTS :

Matter volatile at 105 °C - **0.2 % max**

Iron - **5 mg/kg oil**

Copper - **0.4 mg/kg oil**

Lead - **0.1 mg/kg oil**

Arsenic - **0.1 mg/kg oil**

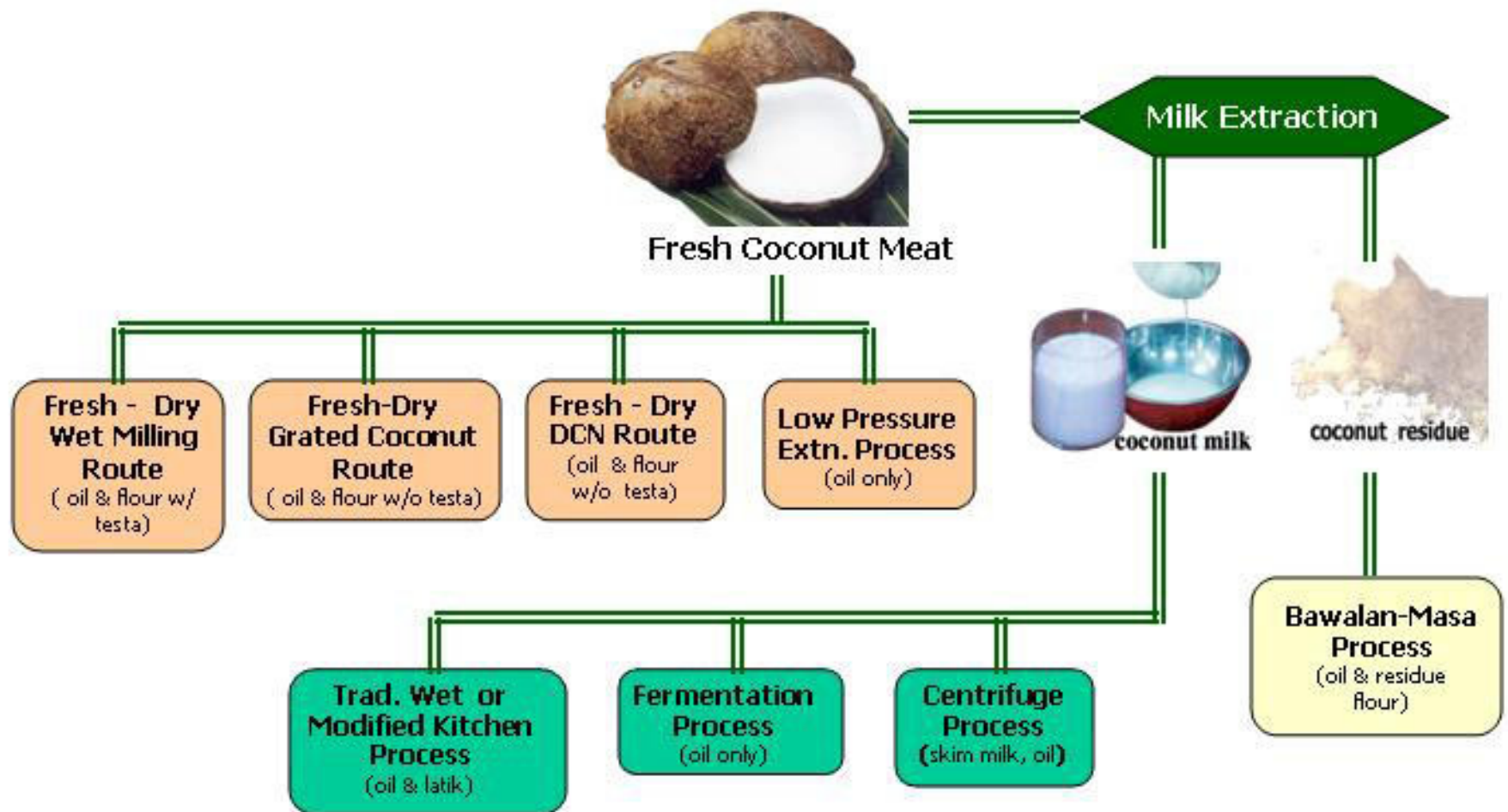
FOOD ADDITIVE - **NONE Permitted**

What causes the yellow color of the coconut oil ?

- Bacterial contamination of the coconut meat before oil extraction
- High process temperature

Therefore, for the coconut oil to be categorized as virgin, its color should be water white.

What are the different processes for producing VCNO ?



What is the effect of high temperature processing ?

- **Vitamin E or tocopherol content is removed**
- **The color becomes yellow**
- **In the presence of high moisture, the triglycerides may break into free fatty acid and glycerol**

Why is mild heating a necessary step when producing VCNO from coconut milk ?

Mild heating is necessary to insure that the film of water adsorbed in the surface of the oil is totally removed. The said film of water will cause the oil to get rancid if not properly removed. You can produce VCNO without any heating but the basic question will be how long will it last in storage before it becomes rancid.

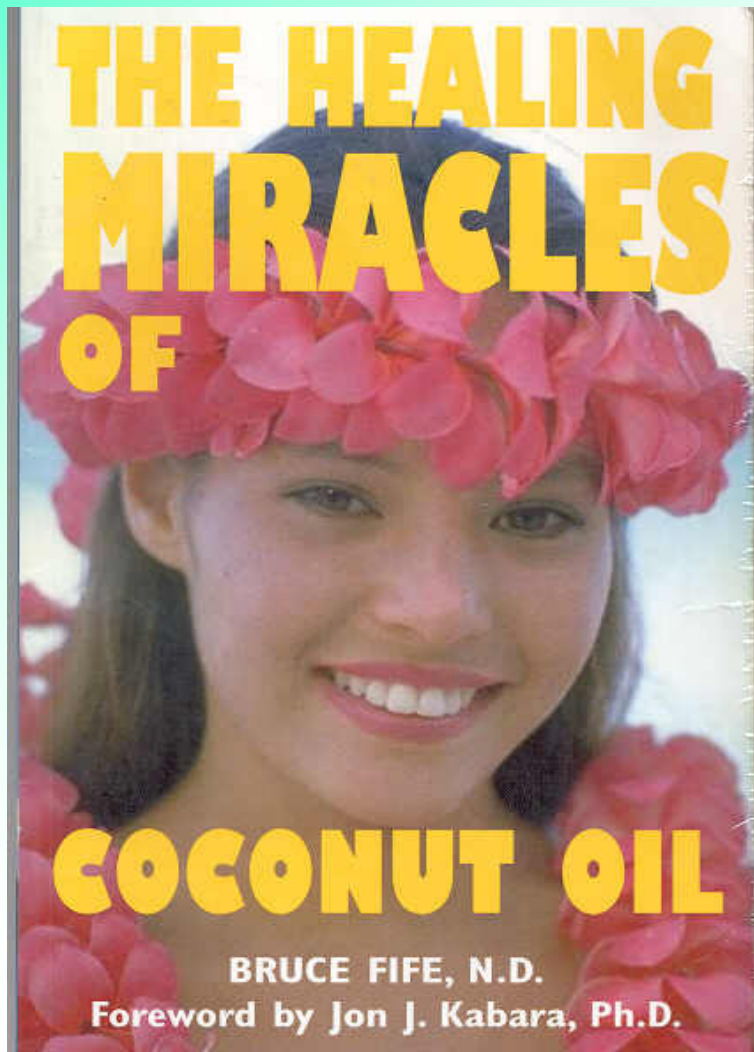
Does VCNO need to be kept in the refrigerator and how long does it last ?

No, VCNO does not need to be kept in the refrigerator. Coconut oil is the most stable among the plant oils being traded in the world. If properly processed, its natural anti-oxidants give it the longest shelf life compared to other oils. Samples of VCNO which I myself produced in December 1998 and stored in our laboratory at the PCA Davao Research Center still smell fresh the last time I was there in February 2003.

What are the current major uses of VCNO ?

- **As a hair conditioner**
- **As a body oil or a substitute for moisturizing lotion**
- **As carrier oil for aromatherapy and massage oils.**
- **As a nutraceutical and functional food**

Why is VCNO being considered as a “nutriceutical” substance ?



Aside from the instant energy that it provides to the human body, it also have some medicinal properties. It was found out that the medium chain ($C_8 - C_{12}$) fats in coconut oil is similar to the fats in mother's milk that gives babies immunity from diseases and have similar effects

What is the distinguishing characteristics of coconut oil ?

- High percentage of **lauric** (C_{12}) **fatty acid**, ranging from 48 - 53 % depending on the coconut variety
- High percentage of **medium chain fatty acids** (C_6 - C_{12}), generally about 64 %

What are the fatty acid compositions of other commercial vegetable oils as compared to coconut oil ?

	Coconut Oil	Palm Kernel Oil	Palm Oil	Corn Oil	Soybean Oil
A. Saturated					
C6:0 Caproic	0.50	0.30	-	-	-
C8:0 Caprylic	8.00	3.90	-	-	-
C10:0 Capric	7.00	4.00	-	-	-
C12:0 Lauric	48.00	49.60	0.30	-	
C14:0 Myristic	17.00	16.00	1.10	-	0.10
C16:0 Palmitic	9.00	8.00	45.20	11.50	10.50
C18:0 Stearic	2.00	2.40	4.70	2.20	3.20
C20:0 Arachidic	0.10	0.10	0.20	0.20	0.20
B. Unsaturated					
C16:1 Palmitoleic	0.10	-	-	-	-
C18:1 Oleic	6.00	13.70	38.8	26.60	22.30
C18:2 Linoleic	2.30	2.00	9.40	58.70	54.50
C18:3 Linolenic	-	-	0.30	0.80	8.30
C20:4 Arachidonic	-	-	-	-	0.90
% Unsaturated	8.40	15.70	48.50	86.00	90.80

What is the importance of Medium Chain Fatty Acids and Lauric Fatty Acid?

- **Since 1984 , increasing number of literatures are appearing regarding the antiviral, antimicrobial, antifungal and antiprotozoal properties of Medium Chain Fatty Acids (C8, C10, C12) with lauric acid (C12) and its monoglyceride form, monolaurin being mentioned as the most potent against lipid coated microorganisms which are not normally cured by ordinary antibiotics.**
- **Studies have also shown that MCFA is directly converted into energy at the liver and increases the metabolic rate of an individual. This in turn promotes weight loss and reduces the deposit of fats in the body.**

What do the experts say ?

Monolaurin, as a dietary supplement has shown very good results as an antibiotic and antiviral agent particularly in its potency against lipid-coated/enveloped viruses.

It does not cause resistance organism to appear and was also shown that it can reduce the resistance of germs to antibiotics.

When coconut oil is consumed, the body makes the disease fighting monolaurin.

**according to Prof. Jon Kabara
who pioneered research on monolaurin ...**

What do the experts say ?

Recently published research has shown that natural coconut fat in the diet leads to a normalization of body lipids, protects against alcohol damage to the liver and improves the immune system's anti-inflammatory response

The antimicrobial fatty acids and their derivatives are essentially nontoxic to man and they are produced *in vivo* by humans when they ingest those commonly available foods that contain adequate levels of medium chain fatty acids like coconut oil

The medicinal properties of lauric acid and monolaurin have been recognized by small number of researches for nearly four decades and this knowledge has resulted in more than 20 research papers and several U.S. patents.

**according to Dr. Mary Enig
a noted nutritional biochemist...**

What are lipid coated virus & bacteria ?

LIPID is the medical term for fats. Lipid coated microorganisms such as viruses and bacteria have an envelope of fats covering its basic life structure called nucleotides (DNA and RNA). This is the reason why ordinary antibiotics could not easily penetrate and kill this type of microorganisms. However, several researchers have reported that MCFA particularly lauric fatty acids which is predominately present in coconut oil can penetrate and dissolve the said lipid coating.

Microorganisms Inactivated by Lauric Acid & Monolaurin

LIPID COATED VIRUSES

- *Human Immunodeficiency Virus (HIV)*
- *Measles virus*
- *Herpes simplex virus*
- *Herpes viridae*
- *Sarcoma virus*
- *Syncytial virus*
- *Human lymphotropic virus (Type II)*
- *Vesicular stomatitis virus*
- *Visna virus*
- *Cytomegalovirus*
- *Epstein-Barr virus*
- *Influenza virus*
- *Leukemia virus*
- *Pneumovirus*
- *Hepatitis C virus*

LIPID COATED BACTERIA

- *Listeria monocytogenes*
- *Helicobacter pylori*
- *Hemophilus influenza*
- *Staphylococcus aureus*
- *Streptococcus agalactiae*
- *Groups A,B,F & G streptococci*
- *Gram-positive organisms*
- *Gram-negative organisms (if pre-treated with chelator)*

Source: Fife, B. 2001 'The Healing Miracles of Coconut Oil' Piccadilly Books, Ltd., Colorado Springs, CO 80936, U.S.A.

Bacteria Inactivated by MCFA & its Monoglycerides

BACTERIUM

DISEASES CAUSED

- | | |
|----------------------------------|--|
| • <i>Streptococcus</i> | - throat infections, pneumonia, sinusitis, ear ache, rheumatic fever, dental cavities |
| • <i>Staphylococcus</i> | - staph infection, food poisoning, urinary tract infections, toxic shock syndrome |
| • <i>Neisseria</i> | - meningitis, gonorrhea, pelvic inflammatory disease |
| • <i>Chlamydia</i> | - genital infections, lymphogranuloma venereum, conjunctivitis, parrot fever, pneumonia, periodontitis |
| • <i>Helicobacter pylori</i> | - stomach ulcers |
| • <i>Gram positive organisms</i> | - anthrax, gastroenteritis, botulism, tetanus |

Source: Fife, B. 2001 'The Healing Miracles of Coconut Oil' Piccadily Books, Ltd., Colorado Springs, CO 80936, U.S.A.

What is the connecting link of VCNO to SARS ?

- 🌐 According to Dr. Conrado Dayrit, the **coronavirus** which has been identified as the virus causing the SARS is also **lipid coated** which means that lauric fatty acid and monolaurin could possibly have an inactivating effect on it.
- 🌐 The pathogenic organisms causing influenza and pneumonia are both part of the list of lipid-coated viruses and bacteria which are found to be inactivated by lauric fatty acid and monolaurin which in turn is derived by the human body from coconut oil
- 🌐 It should be noted that the symptoms being exhibited by SARS infected patients are similar to symptoms of pneumonia and influenza.

THEREFORE, by inductive reasoning, it can be said that lauric fatty acid and monolaurin which are derived by the body from coconut oil can be a **POTENTIAL CURE FOR SARS**

Is the lauric fatty acid in VCNO reduced if it is processed using high temperature?

No, the lauric fatty acid content of any coconut oil is highly dependent on the variety of the coconut and not on the process used for producing it. In a study done by the PCA Zamboanga Research Center, it was found out that hybrid coconut contains higher amounts of lauric fatty acid compared to local tall varieties.

What is the recommended daily dosage of VCNO to obtain health benefits from it ?

- **Maximum 50 ml or 3.5 Tbsp. of virgin coconut oil equivalent to 21 g lauric fatty acid or**
- **Eating the meat of one half mature coconut or**
- **Eating 66 grams desiccated coconut or**

Are there side effects in taking VCNO ?

Yes, there could be especially if your body is not accustomed to high fat in the diet and if you are taking it for the first time. The most common side reaction is LBM or diarrhea. However, this type of diarrhea is not accompanied by stomach pain or stomach spasms unlike the usual diarrhea that is caused by toxins or food poisoning. You will just have a liquid bowel movement which is in a way could be considered as removing toxins from your intestines. So for first timers, do not start with the full 3 tablespoons dose. Instead, start with one tablespoon for a few days and gradually increase the intake as your body becomes acclimatized to it until you reach the full dose. You can also take it in divided doses at different times of the day instead of taking at one time the full 3 ½ tablespoons full dose.

What is the best time of the day to take VCNO ?

It depends on what benefit from the VCNO that you want to achieve . . .

- **If you want to use it for controlling weight, take it 30 minutes before lunch and dinner**
- **If you are using it as treatment for constipation, take it before bedtime**
- **If you just want to boost your immune system, take it anytime of the day in a single or divided doses.**

Important Note !!!

-  The information provided in this lecture is not in anyway meant to encourage you to substitute VCNO for the drugs or antibiotics being prescribed by your doctor in treating illnesses. Please take note that VIRGIN COCONUT OIL IS NOT A DRUG but a functional food and should only be used as such.
-  Further, always remember that anything in excess is bad so do not take more than 3 1/2 tablesppons of VCNO per day.

Final Remark

To boost your immune system and provide you a natural defense against many lipid-coated pathogenic organisms, you should make COCONUT in whatever form, a daily part of your diet.

Thank you very much



for your time and attention