

Potion in motion

Virgin coconut oil has been getting a bad rap for a long time but perceptions are now changing as new research paints it in a positive light.

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WALK into any supermarket and you'll probably find a wide array of cooking oils available on the shelves, both locally produced and imported ones.

However, virgin coconut oil (vco) and cococut oil are visibly missing from the display, which seems surprising, considering how coconut trees are easily found in a tropical country like Malaysia.

Why doesn't vco enjoy the same reputation as olive, sunflower or corn oils? Prof Datuk Dr Yaakob Che Man, director of the Halal Products Research Institute at Universiti Putra Malaysia in Serdang, Selangor, says that the marketing of vco could be improved.

"It is mostly available at the local jamu dealers' or shops, and rarely in pharmacies. The market seems to concentrate on the Malays rather than on all races. For the Indians, coconut oil is traditionally used as a hair tonic and massage oil," says Prof Yaakob.

In the late 90s, Prof Yaakob conducted various researches on coconut oil. He has written about it in an international journal, *Trends In Food Science And Technology*, and his contribution was selected as one of the top 25 hottest articles in 2009. It is an international peer-reviewed journal which publishes critical reviews and viewpoints on current technology, food science and human nutrition.

"The key findings are that coconut oil and vco contain medium chain fatty acids (MCFA), and are high in lauric acid. The human body converts lauric acid into monolaurin which, like MCFA, has many health benefits," explains Prof Yaakob.

He believes there is a propaganda war waged by soybean and corn oil producing countries on coconut oil, giving the latter a bad reputation. Coconut oil was deemed unhealthy as it is rich in saturated fats.

Prof Yaakob explains that unlike soybean and corn oil, coconut oil and vco can contribute to weight loss because of the MCFA

which can increase metabolism rate.

"We should change people's mindset that coconut oil is bad and can raise cholesterol levels. First of all, MCFA (which makes up 60% of the total fatty acids in vco and coconut oil) is easy to digest and goes to the liver directly after being absorbed," he says.

"It does not require a lot of enzymes for fat breakdown and bypasses the normal fat breakdown system.

Other types of fats go through multiple enzymatic breakdowns, and become lipoproteins, which are molecules made of proteins and fat. These are absorbed from the intestinal wall into the bloodstream and circulated throughout the body. These fats can deposit at the arterial wall, and cause heart and vascular problems.

"However, MCFA is directly burnt off as energy when it arrives at the liver. This helps

people with their metabolic and digestive systems, especially those with inflammatory bowel disease and cystic fibrosis, as it helps provide energy and nutrition. It can also be part of the ingredients of parenteral and enteral nutrition, as MCFA is easily digested and helpful for patient nutrition in hospitals," he says.

Other benefits of vco, according to Prof Yaakob, includes using vco as a hair tonic, which is thought to prevent hair loss and enhance hair health.

It is used in many topical formulations in cosmetics, including creams and lipsticks, and as an aromatherapy oil. It can be applied directly to the skin to combat dry, itchy skin, mild eczema and prevent stretch marks if applied during pregnancy.

He says that vco is usually sold as a health supplement, in which the monolaurin component has antibacterial and antiviral actions, which can cleanse your digestive system from bad bacteria.

In the Philippines, it is used as a salad dressing, similar to how people use virgin olive oil. "Vco is far more expensive than virgin olive oil, therefore cooking with vco is not economical, but it is possible. But it defeats the purpose of using vco as a source of antioxidants and vitamins as these will be destroyed in high heat," he explains.

What is the difference between coconut oil and vco? Prof Yaakob says it lies in the processing method and quality of the raw material.

For vco, only fresh coconut flesh is used, and it is either dried under controlled low temperature and environment, or fresh coconut milk is used to extract the oil.

He adds that vco does not go through the same refining, bleaching and deodorising process (which uses a lot of chemicals and could contribute to the loss of vitamins and

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antioxidants) as the normal coconut oil goes through.

The main exporters of vco are India and Philippines, and while Malaysia does not grow a lot of coconuts, it is garnering attention and vco is beginning to take off here, Prof Yaakob observed.

"It takes six months for a coconut fruit to mature and because our production is very low, we import vco from these two countries," he says.

The product has an exceptionally high shelf life due to its stability (as it goes through strict hygienic processing method and no preservatives are used) and the presence of antioxidants.

"Even after three years, it rarely shows signs of rancidity, as long as it is kept well and out of direct sunlight. When buying vco, make sure that the content of saturated fats is about 90% of the total fats and check the expiry date. If a bottle of vco has started to solidify and the surrounding temperature is below 25°C, you can put it into a tub of water to melt it," he advised.

The component monolaurin is also thought to be able to fight HIV, he says, but more research and clinical trials have to be conducted.

Since vco has now gained worldwide recognition and acceptance, Prof Yaakob hopes that Malaysians will warm up to vco to enjoy its many benefits.

"The government has been active in promoting vco locally and abroad, but it should be promoted more aggressively," he concludes.



Key facts

< VIRGIN coconut oil (vco) is extracted from the coconut meat or kernel, and made up of fatty acids, the basic component of all oils.

< Fatty acids are divided into short, medium and long chain, and make up the triglycerides.

< Fatty acids come in many forms, and in vco, it is predominantly made of lauric acid (48%). The breakdown of lauric acid in our body produces monolaurin, which is unique because it has antibacterial, antiviral and antiprotozoal properties.

< Monolaurin is also known to be part of the component present in breast milk that helps in babies' immune system.

< The medium chain fatty acids (MCFA) make up about 60% of the oil fatty acids. MCFA is considered a good form of fatty acids because it is digested relatively easily, and absorbed directly into the portal vein and straight into the liver, consequently burnt off as energy. It is not deposited as the fatty tissue in our body.

< MCFA also requires less energy and effort to breakdown, which means less work for our pancreas and digestive systems.

■ *Courtesy of Professor Datuk Dr Yaakob Bin Che Man, director of the Halal Products Research Institute at Universiti Putra Malaysia)*



How good is it? Coconut oil has many benefits and attributes.



Virgin coconut oil is loaded with antioxidants which are said to strengthen your immune system.