

Coconut Oil – Smart Alternative to other Cooking oils

S.R Priya* and Lalitha Ramaswamy**

Introduction

Coconut oil is produced by crushing copra, the dried kernel, which contains about 60- 65% of the oil. The oil has the natural sweet taste of coconut and contains 92% of saturated fatty acids (in the form of triglycerides), most of them (about 70%) are lower chain saturated fatty acids known as medium chain fatty acids (MCFAs). Lauric acid is the chief contributor, with more than forty percent of the share, followed by capric acid, caprylic acid, myristic acid and palmitic acid.. Lauric acid, the major fatty acid from the fat of the coconut, has been recognized for its unique properties in food use. The lauric acid in coconut oil is used by the body to make disease-fighting fatty acid derivative monolaurin in the skin. Monolaurin is the antiviral, antibacterial, and antiprotozoal monoglyceride used by the human or animal to destroy lipid-coated viruses such as HIV, herpes, cytomegalovirus, influenza, various pathogenic bacteria, including listeria monocytogenes and helicobacter pylori, and protozoa such as giardia lamblia. Some studies have also shown antimicrobial effects of the free lauric acid. Recently published research has shown that natural coconut fat in the diet leads to normalization of body lipids, protects against alcohol damage to the liver, and improves

the immune system's anti-inflammatory response. Saturated fats have a molecular structure that gives the fat stability. These fats do not easily go rancid. Bruce Fife in his book *Coconut Cures* noted that coconut oil lasts on the shelf for several years, he was aware of oil stored safely for fifteen years.

Health Benefits of Coconut oil

Thyroid-stimulating: Coconut oil has the ability to support the thyroid and improve metabolism. Coconut oil contains healthy fats and fatty acids that are quickly and easily absorbed, digested, metabolized and utilized by the body, ideal for nourishing the elderly and those debilitated from diseases.

Lowers cholesterol: Coconut oil as a "saturated fat" is not the culprit for heart disease as has been claimed. Heart disease prevention begins with consuming a good quality saturated fat such as coconut oil. Coconut oil actually regulates blood cholesterol levels as well as triglycerides and therefore helps in heart disease prevention and treatment. Coconut oil has a positive antioxidant action in the body, thus reduces the need for antioxidant intake.

Helps with weight loss: Obesity is currently one of the biggest health problems in the world. Medium chain triglycerides (MCTs) are a source of sustained energy, and the

body prefers to use MCTs as a source of energy instead of converting them into body fat. MCTs in coconut oil can increase energy expenditure compared to the same amount of calories from longer chain fats and appears to be especially effective in reducing abdominal fat, which lodges in the abdominal cavity. They are sent directly to the liver and are converted into energy. The advantage of this is that there is no energy slump from the consumption of coconut oil, as MCTs do not trigger an insulin response (unlike carbohydrates).

Helps keep diabetes in check: It does not produce an insulin spike in the bloodstream. Instead it helps to control blood sugar by improving the secretion of insulin.

Reduces heart disease: MCTs are well known for their benefit to the cardiovascular system, and are able to prevent atherosclerosis (hardening and narrowing of the artery wall) and reduce platelet aggregation (which can cause heart attacks and blood clots). MCTs have also been shown to lower LDL cholesterol, which is linked to cardiovascular disease, and some studies have shown it can raise HDL cholesterol (which is considered to be 'good cholesterol'). Studies on people in the Pacific Islands found that their total caloric intake included thirty to sixty percent from fully saturated coconut oil. These Pacific Islanders have nearly

*Ph.D Scholar, **Associate Professor and HOD, Department of Nutrition and Dietetics, PSG College of Arts and Science, Coimbatore – 641 014. E-mail –priyaramsay84@gmail.com

non-existent rates of cardiovascular disease. Three decades ago coconut oil occupied almost all the kitchens in the tropics, where it is grown. For many years coconut oil was considered as good oil with many nutritional uses. A negative campaign against saturated fats in general, and the tropical oils in particular, led to most food manufacturers abandoning coconut oil in recent years in favor of hydrogenated polyunsaturated oils. Media influenced the minds of the people to switch over from purchasing our own traditional oil to other edible oils, by advertising as “heart healthy” vegetable oils. Studies done on populations consuming high coconut oil showed no adverse effects on the health. Massive studies portray the magical benefit of coconut oil used by islanders and proved that the “artery clogging” was a myth.

Supports the immune system and



Good for the skin and hair : For thousands of years, coconut oil has been used to make the skin soft and smooth and give hair a rich, shiny luster. Coconut oil has a natural creamy texture and is almost free from pesticides and other chemicals and contaminants. It has been used for years in soaps, shampoos, creams and other body care products. Massaging the new born baby with coconut oil is a traditional practice at majority of households in Tamil Nadu and Kerala. This practice acts as skin moisturizer, delays wrinkles and sagging of the skin during ageing. It plays a greater part in curing problems like psoriasis, dermatitis, eczema and dry flaky skin. When applied externally it forms a protective antibacterial layer protecting the infected body part. Also, coconut oil speeds up the healing process of bruises by helping to repair damaged tissue. Application of coconut oil on the scalp is an ideal hair tonic that promotes healthy hair growth. It is rich in nutrients, able to stimulate the hair follicles and contribute to the general health of the scalp. Using coconut oil for hair growth is a technique used since time immemorial and has gained popularity in the recent years because of public clamor for more organic and natural products that do not harm both people nor the environment. Using coconut oil for

hair growth also helps people with thin, flat, rough and dry hair stands to grow thicker, softer and shinier locks. Coconut oil not only promotes healthy hair growth but also prevents hair breakage and damage.

Nourishing for the brain: Coconut oil improves cognitive function, and stalls, or even reverses and neurodegenerative diseases in early stages. Ketogenic diet is currently being studied to treat various disorders. The diet involves eating very little carbohydrate and large amounts of fat, leading to greatly increased concentrations of ketone bodies in the blood. MCT in coconut oil can increase blood concentration of ketone bodies, which can help reduce seizures in epileptic children. In neurological illnesses, including Alzheimer’s, Parkinson’s, and multiple sclerosis, it has been shown that areas of the brain are energy deficient. These parts of the brain are starved for fuel, due to metabolic defects that deny glucose entry to the neurons. Ketone bodies, made by the liver from coconut oil, supply fuel to these energy-starved parts of the brain and bypass the metabolic defects of the neurons.

Relieve arthritis pain: Arthritis can occur at almost any age, the risk of developing this degenerative disease increases during ageing. Over the years many theories have been proposed as to the cause of arthritis including food allergies, genetics, trauma, and infection. As the evidence mounts it is becoming evident that arthritis occurs primarily as a consequence of infection. Researchers have identified numerous bacteria, viruses, and fungi with all the forms of arthritis. The disease can be triggered by almost any type of infection, such as the flu, a urinary tract infection, or even candidiasis. Coconut oil for arthritis is considered as one of the



help to stave off from infection:

Almost 50 % of the fatty acids in coconut oil is the 12 –carbon Lauric acid, and is enzymatically digested and forms monolaurin. Both lauric acid and monolaurin can kill harmful pathogens like bacteria, viruses and fungi. These substances have been shown to kill the bacteria *Staphylococcus aureus* (a very dangerous pathogen) and the yeast *Candida albicans*, a common source of yeast infections in humans.



best natural remedies for inflamed muscles and joints. Taking 2-4 tablespoons of coconut oil daily, with meals reduce chronic infection. It effectively reduces inflammation and is very soothing to inflamed tissues and joints. It also strengthens bones.

Ancient medicine: Coconut oil has a long and highly respected reputation in many cultures throughout the world, not only as a valuable food but also as an effective medicine. It is used throughout the tropics in many of the traditional systems of medicine. In India, it is an important ingredient in some of the ayurvedic medical formulations. Ayurvedic medicine has been practiced in India for thousands of years and is still used as the primary form of medical treatment by millions of people. Coconut oil has been part of Ayurvedic medicine for 5,000 years in India. Coconut products are recognized for its healing properties in both Ayurvedic and Indian folkloric medicine to treat variety of conditions such as burns, wounds, ulcers, skin fungus, lice, kidney stones and choleraic dysentery.

Speeds Recovery: People in Panama drink a glass of coconut oil to protect themselves from illness as it is also believed to speed recovery from

sickness.

Culinary Application of Coconut Oil

Coconut oil melts at about 76° F, becoming a clear liquid. At moderate room temperature it has a soft buttery texture and is sometimes called coconut butter. Dr Fife in his book "The coconut oil miracle" has stated that coconut oil can be a better choice for the preparation of baked foods such as cookies, cakes, muffins, piecrusts, tarts, fudges and brownies. For frying nothing beats coconut oil. It is not absorbed into foods as much as other vegetable oils, does not splatter, and can be used over again. Coconut oil can be stored safely and easily for a long time (least two or three years unrefrigerated). This is due to the lack of polyunsaturated fats in coconut oil which helps create a much slower rate of rancidification. Coconut oil can be used for frying and cooking because of its good resistance to rancidity development. It is also used as a substitute for expensive butterfat, cheese and ice cream to make the food products more affordable without altering their palatability. Coconut oil is a better choice for cooking and frying of Indian snacks. Snacks prepared with coconut oil such as banana slices, tapioca chips, jackfruit chips and other traditional ones like



murukku, mixture, pakoda, vada and pazham pori etc stays prolonged without rancidity. This is in contrast to other oils (eg olive oil) which get oxidized and results in the formation of free radicals upon heating.

The flavor of coconut is used frequently in Indian cuisine in the preparation of dishes like avaiil, thoran, ericheri, and also for non vegetarian dishes like fish curries, fish fry, chicken curry, meat fry etc. The mild coconut flavor of coconut oil naturally complements the other flavors in these types of dishes.

When hydrogenated, coconut oil is used as margarine, shortening and baking fat. Various applications of coconut oil in industries are as follows:

- source of fat in infant formulas and baby foods because it can be easily absorbed and digested;
- Used as a spray on crackers, cookies and cereals to enhance flavour, increase shelf-life and impart a glossy appearance;
- an ingredient in imitation chocolates, in confectionary and ice cream, in place of cocoa butter along with cocoa powder.

Conclusion

In the battle of cooking oils prevailing at present, coconut oil is regaining its original value. Researchers have disclosed its antiviral and antibacterial effects and it is clear that it is nature mimic of the human breast milk and hence used in infant formulae. With all these good quality attributes, coconut oil can be promoted as "The king of oils". Coconut oil commands consistent growing demand worldwide. This encourages the coconut growers in our country to enhance coconut productivity, thus paving the way for moving towards the first place in global coconut production.