Nutritional Effects of Palm Oil*

FACT 1: Palm oil has had a long history of food use dating back over 5,000 years.

FACT 2: Like other common edible fats and oils, palm oil is easily absorbed, digested and utilized for the support of healthy growth.[2]

FACT 3: Palm oil is now consumed worldwide as a cooking oil, margarine and shortening, and is also incorporated into fat blends and a wide variety of food products.[3]

FACT 4: It contains an equal proportion of saturated and unsaturated fatty acids, containing about 40% oleic acid (monounsaturated), 10% linoleic acid (polyunsaturated), 44% palmitic acid (saturated) and 5% stearic acid (saturated).[3,4]

FACT 5: Its fatty acid composition is like that of human milk.[18]

FACT 6: Although there is a tendency to group palm oil with palm kernel and coconut oils, palm oil should be distinguished from the latter two oils by its lower level of saturation and its lack of shorter chainlength and the cholesterol-raising fatty acids, such as capric, lauric and myristic.[4]

FACT 7: Preliminary results from recent human feeding studies conducted in Asia, namely, Malaysia and Pakistan, have shown that a palm oil-enriched diet did not raise blood cholesterol, but in fact reduced the levels of blood cholesterol and LDL-cholesterol compared with diets containing coconut oil, butterfat, vegetable ghee or hydrogenated cottonseed oil.[12,13]

FACT 8: Several human feeding studies using formula diets conducted in the U.S., not specifically designed to study palm oil, have revealed that a palm oil diet lowered plasma cholesterol compared with the starting periods during which the subjects were eating their habitual Western diets.[14,15]

FACT 9: As opposed to tallow, lard, dairy fat, palm kernel oil and coconut oil, a palm oil diet lowered the levels of blood cholesterol and LDL-cholesterol in experimental animals.[7,9,10]

FACT 10: A palm oil diet fed to hamsters (which are regarded as a good model for the study of lipoprotein metabolism) leads to synthesis of the highest amount of the *protective* HDL-cholesterol and the greatest production of liver LDL receptors (key to removal of *harmful* LDL-cholesterol) of several fats tested including an American fat blend.[11]

FACT 11: Palm oil, as used in the U.S., is a rich source of Vitamin E — the tocopherols and tocotrienols, with the latter predominating.

The following beneficial effects have been shown for tocopherols and tocotrienols in animal studies:

- Tocotrienols suppress cholesterol production in the liver.[19]
- Tocotrienols lower the level of serum cholesterol and damaging LDL-cholesterol.[19]
- Tocopherol and tocotrienols are anti-aggregatory to blood platelets, thereby reducing tendency for thrombosis.[20]
- Tocopherol and tocotrienols promote prostacyclin production, leading to a vasodilatory anti-thrombotic state.[21]
- Tocopherol and tocotrienols give protection against certain types of exprimental cancers.[22,23]
- Tocopherol (and tocotrienols) enhance the body's defence mechanism against infections.[24]
- Tocopherol and tocotrienols are natural anti-oxidants. They act as scavengers of damaging oxygen-free radicals that are hypothesiz-

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ed to play a role in cellular aging, atherosclerosis and cancer.[25,28]

FACT 12: Animals fed a palm oil-enriched diet have shown a reduced tendency for their blood to clot.[6] This beneficial anti-thrombotic effect may be associated with its ability to promote a favourable shift of two local hormones, prostacyclin and thromboxane.[5,9]

FACT 13: A palm oil diet, as opposed to diets containing animal fats, or vegetable oils from corn or soybean, has a protective effect on the development and incidence of chemically induced breast cancer in an animal model.[16,17]

FACT 14: Unrefined palm oil is the richest source of beta-carotene, which is widely regarded as an anti-cancer agent of great promise.[29] Unrefined palm oil is currently used in a number of other countries.

FACT 15: Palm oil, like any other vegetable oil, is cholesterol-free.[1]

FACT 16: Palm oil does not contain trans-fatty acids and uncommon cis fatty acids found in hydrogenated fats. There is some evidence suggesting that trans-fatty acids (even though unsaturated) may act as saturated fatty acids.[30,31]

EDITOR'S NOTE

These facts have been reviewed by a panel of eminent nutritionists namely:

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