

# 16 Health Facts on Palm Oil



Malaysian Palm Oil Promotion Council

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# Foreword

The contribution of palm oil to the world's food supplies has steadily increased in the last 20 years and its position as a major commodity in the global oils and fats trade is expected to remain. Despite a strong demand for its applications in food industry, palm oil has yet to position itself favourably in human nutrition. This is largely due to the misconception among the consumers and lack of awareness on the nutritional functions and attributes of palm oil to human health.



With advance in research fields in particular palm oil nutrition and enhanced understanding on the roles of dietary fats in some disease states, the time is thus, appropriate to review the nutritional attributes of palm oil. The Malaysian Palm Oil Promotion Council has taken an effort to review and update the previous 15 health facts on palm oil to reflect the current knowledge obtained from latest scientific findings, evaluation on the published scientific literature and recommendations from a group of experts in their related fields namely; International Nutrition Advisory Committee (INAC).  
(A list of the INAC members is provided on the next page)

This booklet is presented to you highlighting 16 Health Facts on Palm Oil. It is hoped that it will be useful for you to better understand and appreciate the positive roles of palm oil in human nutrition.



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# Introduction



Oil palm is unique in a sense that, unlike other oil bearing crops, it produces 2 distinct oils from a single fruit namely; palm oil from the fruit (also known as mesocarp) and palm kernel oil from the seed (also known as kernel). These 2 oils are chemically and physically different from each other with palm oil high in palmitic (C16) acid content while palm kernel oil is high in lauric (C12) and myristic (C14) acids.

A closer look at the fatty acid profile of palm oil reveals that it contains a balanced proportion of unsaturated and saturated fatty acids of about 50% each. This makes palm oil 'special' as one cannot perceive it as unsaturated or saturated oil. Indeed, no other oils possess this 'special' property as palm oil does.

Often, consumers tend to perceive palm oil as similar to coconut oil, which is also high in lauric and myristic acids. This misconception has led many to believe that palm oil is 'unhealthy' for edible uses thus, giving palm oil a 'bad' image.

The following 16 health facts on palm oil will enlighten you on the nutritional attributes of palm oil to human health. These facts are based on and supported by well-documented research findings from numerous research centres and reputable organisations worldwide. It is hoped that the listed literature references would be of great help to anyone wishing to gain a more detailed and accurate information on the nutritional functions of palm oil.



# 16 Health Facts on Palm Oil

## Fact 1

Palm oil is one of the seventeen edible oils possessing an FAO/WHO Food Standard under the CODEX Alimentarius Commission Programme (1).

## Fact 2

Palm oil has had a long history of food use of over 5,000 years (2).

## Fact 3

Palm oil is extracted from the flesh of a palm fruit solely by cooking and pressing. It should be clearly distinguished from palm kernel oil and coconut oil because it has lower level of saturated components with no significant content of capric, lauric and myristic acids (3).

## Fact 4

Palm oil contains an equal proportion of saturated and unsaturated fatty acids with about 44% palmitic acid, 5% stearic acid (both saturated), 40% oleic acid (monounsaturated), 10% linoleic acid and 0.4% *alpha* linolenic acid (both polyunsaturated) (3).





### Fact 5

Like all other vegetable oils, palm oil is cholesterol-free (4,5).

### Fact 6

Presently, it is consumed worldwide as cooking oil, in margarine and shortenings and is also incorporated into fat blends and wide variety of food products (6).

### Fact 7

For most food uses, palm oil does not require hydrogenation, thus avoiding the formation of trans-fatty acids (7-8).

### Fact 8

Refined palm oil, as used in foods, is a rich source of tocopherols and tocotrienols having Vitamin E activity. Red palm oil is the only commercially available rich source of carotenoids and can be used as pro-vitamin A activity (9).





### Fact 9

Palm oil without hydrogenation is an excellent frying oil. Unlike unsaturated oils such as soyabean oil, corn oil, and sunflower seed oil, it has lower tendency to oxidise and is resistant to the formation of polar components and cyclic polymers (10).

### Fact 10

Like other common edible fats and oils, palm oil is readily digested, absorbed and utilised as a source of energy (11).

### Fact 11

A number of recent controlled human studies in Europe, USA and Asia have confirmed that there is no significant rise in serum total cholesterol when palm oil, providing most of the dietary fat, is used as an alternative to other fats in the habitual diet (12-18).

### Fact 12

In the above mentioned studies, the level of HDL cholesterol, regarded as beneficial, was unaltered or significantly enhanced.





### Fact 13

The content of Lipoprotein (a) in blood plasma, a potent risk indicator for coronary heart disease, was significantly reduced when palm oil provided most of the dietary fat (19).

### Fact 14

Palm oil has been demonstrated to be a necessary component in current dietary recommendations to achieve a balanced distribution between saturates, monounsaturates and polyunsaturates. When humans consume diets having such fatty acid distributions, there is a tendency to improve the overall cholesterol lipoprotein ratios (20).

### Fact 15

The minor constituents in palm oil namely; carotenoids, tocopherols and tocotrienols have beneficial health properties including antioxidant, anti-cancer and cholesterol lowering effects. In addition, carotenoids in palm oil are biologically active as pro-vitamin A (21-24).

### Fact 16

Compared to a number of other edible oils, dietary palm oil reduces the number of chemically-induced tumours in rats (25).





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