

# Sense and Nonsense About Fats in the Diet

RP 98 2

*This personal perspective maintains that in the context of the American diet coconut oil has been wrongly singled out as harmful*

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□ THE PERCENTAGE OF the amount of fat used per capita in the United States is about 40%. The consensus of various health organizations is that caloric intake should be reduced, and the amount of fat lessened to about 30%. That 30% should be represented by the different classes of fats—the saturated, monounsaturated, and polyunsaturated. This goal is reasonable and prudent and one that we should be emphasizing in our efforts to educate the public for the improvement of health.

USDA consumer reports indicate that of the approximately 40% fat consumed in the diet at present, 99% of that comes from the long-chain triglycerides (animal fat, dairy fats, hydrogenated oils, and salad oils). The baker, the chef, and the housewife use such items as butter, shortening, and margarine to optimize the functionality, appearance, texture, and taste of the final product. Animal fats from steaks, chops, and hamburger contribute fat, but they, too, are long-chain triglycerides. Although liquid vegetable oils—used as salad oil and in mayonnaise—are long-chain triglycerides, they do contain mono- and polyunsaturates as major components of their composition.

In our efforts to educate the public to eat less, eat less fat, and maintain a balance of the types of fat consumed, one would think that we would place the emphasis on these long-chain triglycerides, which constitute 99% of the fat intake. What has actually happened, however, is that we have made a scapegoat out of coconut oil, stressing the alleged harmful use of that particular oil. Congressional hearings (Glickman and Waxman hearings on the Tropical Oils), publications of The Center for Science and the Public Interest, and many dietitians pound away at coconut oil

as "bad saturated oil."

This brief article provides a personal perspective on coconut oil and how this oil has been singled out as harmful. The article advances the opinion that coconut oil has become a scapegoat to divert attention from the fact that we eat too much, consume too many calories, and consume too much fat.

## Categorizing Coconut Oil

Coconut oil, when used in food products, has certain specific uses. For its taste, stability, shelf life, and functionality, it is the best oil to use as a spray on top of crackers. For the same reasons, it has been used as the fat in the preparation of cream fillers in biscuits or in coffee creamers. But all of these uses combined with the use of coconut oil in medicinal foods, do not constitute more than 1% of the total amount of fat used in the United States for edible purposes. Why then are we maligning coconut oil, making it bear the brunt of all this bad publicity? Can it be that in our ignorance we find it convenient to take it out on a "goat" in order to divert attention from the real problems in the American diet?

If we are really interested in the scientific facts concerning fats and oils, then we should examine a few pertinent findings. In recent years we have come to recognize that subgroups are necessary in our identification of polyunsaturates. We therefore differentiate between the Omega 6 group (vegetable oils) and the Omega 3 group (fish oils). To be consistent, we now identify the

monounsaturates, such as olive oil, as the Omega 9 group. This classification is better and more accurate, reflecting the differences necessary for scientific description and discussion of the unsaturates (Fig. 1).

For some 35 years we have shown that such subgroups exist and must be recognized in the saturates as well. The medium-chain triglycerides and the long-chain triglycerides exist in the saturated class. If we wish to be accurate scientifically, we must recognize this subgroup as well as use the terminology accordingly. When one does note this subgrouping in the saturates, one sees that fats and oils of the kernel oils (lauric fats) are distinct and different from the rest of the saturated fats. Their composition of fatty acids, their metabolic characteristics, and their absorption and oxidation rates as compared with long-chain triglycerides, are distinct and different. It is for this reason that coconut oil, a typical medium-chain triglyceride, is used in medicinal foods, infant feeding formulas, and such uses where quick and high energy is needed for the patient.

In the prostaglandin cascade, the saturated fatty acids which are able to elongate and desaturate are C16:0 palmitic acid and longer acids. Those shorter than the palmitic acid rarely are noted in any elongation and desaturation process. The kernel oils (lauric fats), such as coconut, are quickly burned as fuel and energy in the body. They do not elongate and desaturate. They do not enter into the prostaglandin cascade as the long-chain triglycerides. In the course of our food intake, there is enough linoleic acid, the essential fatty acid, present to ensure that coconut oil becomes a very acceptable nutritional fat (Fig. 2).

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# Lipids

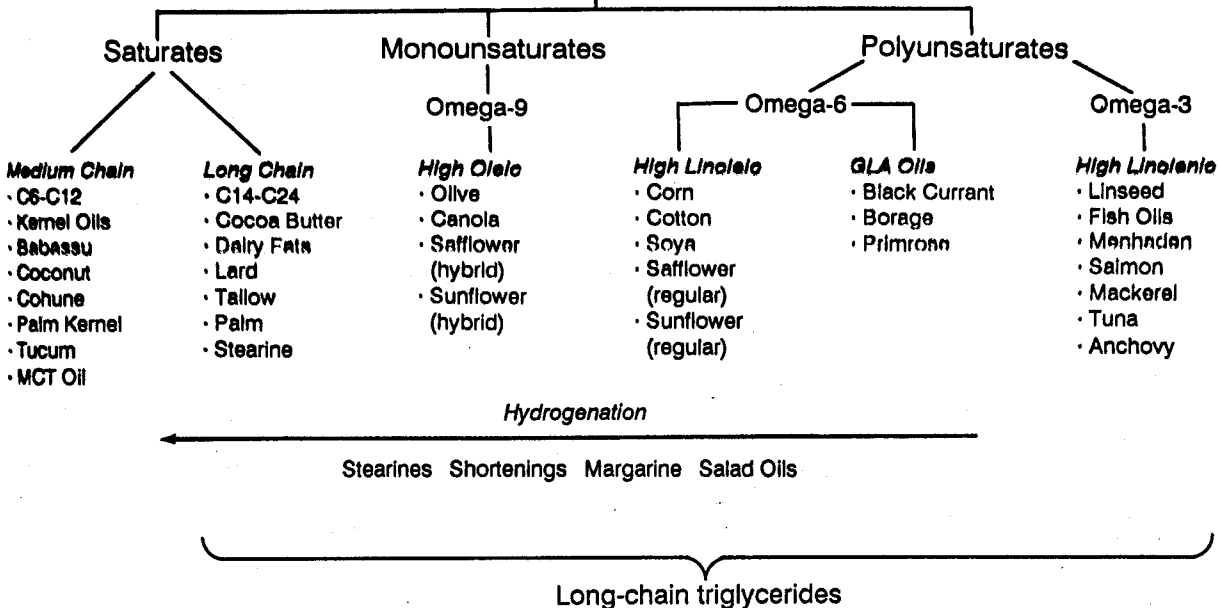


Fig. 1—Classification of Fats and Oils

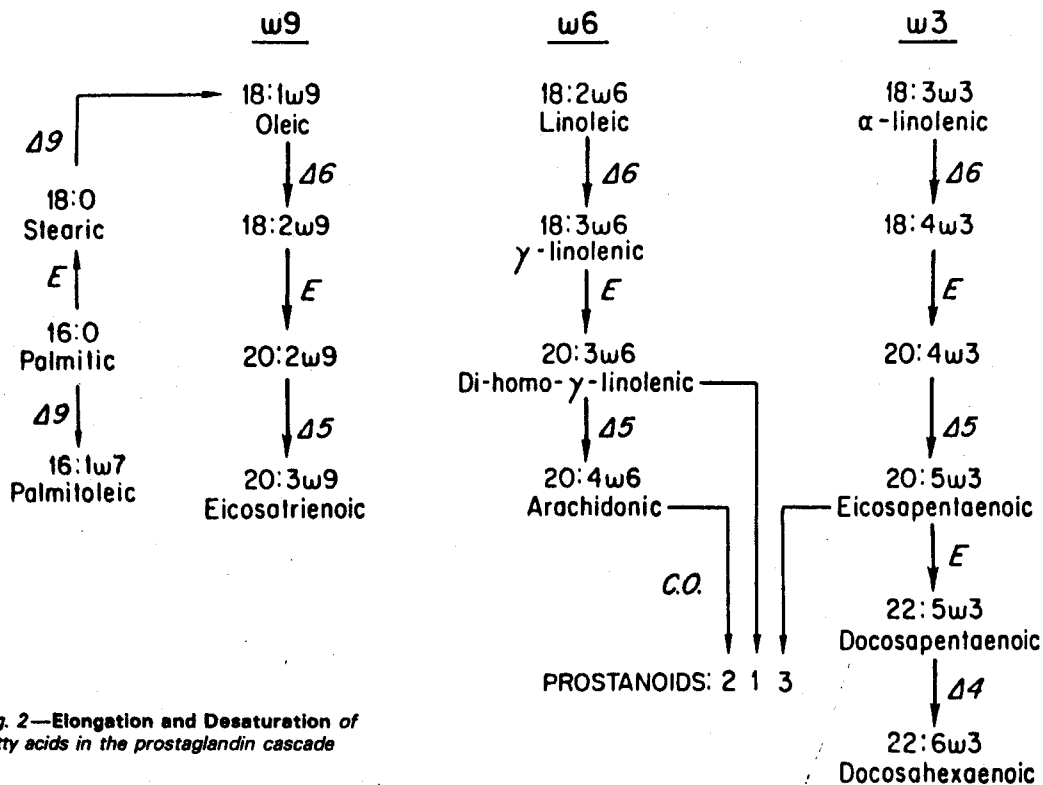


Fig. 2—Elongation and Desaturation of fatty acids in the prostaglandin cascade

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### All Fats Are Not the Same

Scientists, lipid chemists, physicians, and responsible FDA officials who have the facts and the knowledge have presented a balanced evaluation on fats and oils and the use of coconut oil and the other "tropical oils" at the congressional hearings (Glickman and Waxman hearings on the Tropical Oils). Commissioner Frank E. Young sent a statement to Congress that such labeling as prepared by House Bill 2148 is

misleading and unfair. The simplistic and flawed concepts concerning saturated fats must be reexamined and the differentiation made between medium-chain and long-chain saturated fatty acids. Educators have been writing essays and letters to editors of journals to clarify the false image that all saturated fats are bad and all polyunsaturated fats are good.

To make meaningful progress in improving our health and nutrition, we should educate the public to consume a diet consid-

tent with the recommendations of the Surgeon General's Report. An example of responsible reporting recently appeared in a special supplement of the *Journal of Parenteral & Enteral Nutrition* (Vol. 12, No. 6, Nov.-Dec. 1988) on the role of lipids. Responsible education information can bring some sense and light to the public instead of the nonsense and confusion one reads and hears these days by people who may mean well but really do not help the situation.