

THE TRUTH ABOUT GOOD, THE BAD AND THE UGLY FATS

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It is most distressing to have read the American Heart Association/American Stroke Association's billboard entitled "Fats—The Good the Bad & the Ugly" which provides a completely wrong information

about fats. For example, on the left-hand side of the board, it states that "Good: Monounsaturated & Polyunsaturated Fats can lower cholesterol levels, can lower risk of heart disease and stroke, and can provide essential fats that your body needs

but can't produce itself". It is now well known that unsaturated fats, with at least one double bond, are hazardous to health, as they are subjected to oxidation and hydrogenation, which create free radicals and trans fats, respectively. Even

FATS THE GOOD THE BAD & THE UGLY

American Heart Association | American Stroke Association
life is why™

✓ GOOD	✗ BAD	✗ UGLY
Monounsaturated & Polyunsaturated Fats <ul style="list-style-type: none"> • Can lower bad cholesterol levels • Can lower risk of heart disease & stroke • Can provide essential fats that your body needs but can't produce itself <p>SOURCE Plant-based liquid oils, nuts, seeds and fatty fish</p> <p>EXAMPLES</p> <ul style="list-style-type: none"> Oils (such as canola, olive, peanut, safflower and sesame) Avocados Fatty Fish (such as tuna, herring, lake trout, mackerel, salmon and sardines) Nuts & Seeds (such as flaxseed, sunflower seeds and walnuts) 	Saturated Fats <ul style="list-style-type: none"> • Can raise bad cholesterol levels • Can lower good cholesterol levels • Can increase risk of heart disease & stroke <p>SOURCE Most saturated fats come from animal sources, including meat and dairy, and from tropical oils</p> <p>EXAMPLES</p> <ul style="list-style-type: none"> Beef, Pork & Chicken Fat Butter Cheese (such as whole milk cheeses) Tropical Oils (such as coconut, palm kernel and palm oils) 	Hydrogenated Oils & Trans Fats <ul style="list-style-type: none"> • Can raise bad cholesterol levels • Can lower good cholesterol levels • Can increase risk of heart disease & stroke • Can increase risk of type 2 diabetes <p>SOURCE Processed foods made with partially hydrogenated oils</p> <p>EXAMPLES</p> <ul style="list-style-type: none"> Partially Hydrogenated Oils Some Baked Goods Fried Foods Stick of Margarine

American Heart Association Recommendation

Eat a healthy dietary pattern that:

Includes good fats

Limits saturated fats

Keeps trans fats as LOW as possible

For more information, go to heart.org/fats

is the one in the middle, which states: “Bad: Saturated fats can raise bad cholesterol levels, can lower good cholesterol levels, can increase risk of heart diseases and stroke”. Among the sample provides is coconut oil! The information displayed is not subjected to scientific verification.

It is unbelievable that such information is released from such a prestigious organization. No wonder a lot of American people are suffering from heart disease at a high rate even up to the present when numerous heart doctors, drugs and hospitals are available.

Facts about Fats

Fats are organic compounds containing fatty acids whose molecules contain variable number of carbon atoms having a methyl group (CH₃) at one end and a carboxyl group (COOH) at the other end. There are two main kinds of fats, saturated and unsaturated fats.

- Saturated fats are those in which the molecules have only single bonds, thus does not subject to oxidation (which creates free radicals) or hydrogenation (which creates trans fats). Thus, all saturated fats are good fats as no free radicals nor trans fats are formed.
- Unsaturated fats are those in which the molecules have at least one double bond, thus are subjected to oxidation or hydrogenation. Thus, all unsaturated fats are bad fats.

Good Fats

Good fats are those that contain high amount of saturated fats which do not create free radicals



Coconut Oil is a Good Source of Fat

nor trans fats. Examples of good fats are animal fats, coconut oil, palm oil.

Bad Fats

Bad fats are those that contain high amount of unsaturated fats that create: (1) *free radicals* as the result of oxidation, and (2) *trans fats* as the result of hydrogenation. Examples of bad fats are vegetable oils, such as soybean oil, corn oil, safflower oil, sunflower oil, etc.

Ugly Fats

Ugly fats are trans fats derived from partial hydrogenation of unsaturated oils, in which one atom of hydrogen is switched from the *cis* position (i.e. two H atoms are on the same side) to the *trans* position (i.e. one H atom is on one side while the other H atom is on other side).

Fats and Cholesterol Levels

Fats and cholesterol are different compounds. Their levels in the artery are independent of each other. Although there is only one type of cholesterol, most people separate it into LDL cholesterol (one that carries LDL) and HDL cholesterol (one that carries HDL). LDL cholesterol is affected by diet. Knowing which

ones don't is the first step in lowering your risk of heart disease and stroke. Your body naturally produces LDL cholesterol. Eating trans fat raises your blood cholesterol level even further.

Foretts, et al. (1989) reported that those old-aged females in the nursery who have high level of cholesterol are the ones who live the longest; and death rate of the persons with low cholesterol is five times higher than those with high cholesterol. It is now accepted that high level of cholesterol is not the cause of atherosclerosis that leads to the deposition of plaque in the artery, which ends up in having heart disease. The real cause of heart disease is the injury in blood vessel leading to the heart, which is caused by various factors, such as toxin, disease, high blood pressure and stress. If the blood vessel is injured, platelets will be circulated to cure the injury and deposited there to stop bleeding. Other substances such as protein, fats (particularly unsaturated fat) and calcium also move there, but not cholesterol, in which only a small amount is circulated and deposited there to be used to constitute the membranes of the newly formed cells.

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