

Chow Line

News from the College of Food, Agricultural, and Environmental Sciences

Saturate yourself with information about oils

I'm confused about fatty acids. I know to avoid saturated and trans fats, and I've heard good things about omega-3s and unsaturated fats. But there are also oleic, linoleic and other types of fats. What does all this mean for the type of oil I should be using?

You're right. If you start digging down into the nitty gritty, information about fatty acids can get very complex very quickly.

First, know that all oils (liquid at room temperature) and fats (solid at room temperature) are really composed of a broad range of fatty acids, including saturated, monounsaturated and polyunsaturated. That said, here's some basic information.

Any fatty acid with the word "omega" in its name — omega-3 or omega-6, for example — is unsaturated. Monounsaturated fat includes oleic acid, an omega-9 fatty acid, and is the primary fatty acid in olive oil. Although many health authorities recommend olive oil as the top heart-healthy option, there's growing conversation in nutrition circles about the strength of the evidence behind that advice. Still, it remains a good option and deserves a spot in your pantry.

Both omega-6 and omega-3 fatty acids are polyunsaturated fats. Linoleic acid is the primary type of omega-6 fatty acid that we consume and is essential in our diet. Being "essential" means we need to consume linoleic acid because our bodies cannot synthesize it from other sources. Not too long ago, researchers thought linoleic acid might cause inflammation and damage arteries. But more recently, scientists have found that higher blood levels of linoleic acid are associated with less trunk fat — the abdominal fat linked to heart disease — as well as less inflammation, higher metabolism



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and a leaner body mass. (See a report about this Ohio State University research at go.osu.edu/fattyacids.) So, the thinking on linoleic acid is evolving.

Vegetable oils have traditionally been a major source of linoleic fatty acids, but in the last five years or so, many processors have changed the composition of vegetable oils, decreasing linoleic acid, or polyunsaturated fats, in favor of omega-9s, or monounsaturated fats. Most corn oil still appears to be a good source of linoleic acid. Grapeseed oil is also a good source, as are some store-brand bottled oils. Check the Nutrition Facts label: Oils higher in polyunsaturated and lower in monounsaturated fat provide more linoleic acid.

Omega-3 fatty acids, particularly long-chain ones that are most closely associated with heart health, are primarily found in cold-water, fatty fish. Most people don't get enough omega-3s in their diet, and since they are heart-healthy, the American Heart Association recommends eating at least two servings a week of fatty fish like salmon, mackerel, herring, lake trout, sardines or albacore tuna. Another type of omega-3, called alpha-linolenic acid (ALA), is found in some plant-based foods such as chia seeds, flax seeds and flaxseed oil, and to a lesser extent, in canola oil.

The bottom line? Eat more fish and other omega-3s, and try for more omega-6 linoleic acid in your diet. Look for "polyunsaturated" on oil labels.

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