

Exclusive to Food & Beverage Executive

## *Vegetable Oil Processing: Are Consumers Up to Speed About the Health Risks?*

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Stroll through any supermarket and it becomes abundantly clear that Americans really like vegetable oils. Canola, corn and safflower oils and the like are remarkably popular. According to the USDA, “the dramatic success of the canola brand in North America has caused the word ‘canola’ to become synonymous with edible rapeseed in much the same way the word ‘Xerox’ is understood to be a photocopy.”

And, indeed, recent market research affirms this basic fact about American culinary life. According to a new consumer survey from Ipsos Research and [Coast Packing](#), my company, Americans regard vegetable oils as the “healthiest option” for cooking and frying. At the same time, a majority are unaware of the health risks arising from the manufacture of products like canola oil and palm oil.

The Ipsos survey is nuanced, examining not so much the nutritional properties of the various sources of these oils as the potentially toxic properties arising from chemicals used in refinement. It speaks to the purity, or lack thereof, of the products we consume. As *AncestralHealthGuy.com* recently observed, “nature doesn’t make bad fats – factories do.”

The nationwide poll of 1,000 adults, conducted in August, examined both awareness and behavior around vegetable oils and how they are processed and packaged, querying consumers about what they read, understand and believe – and how they act, based on that information. When asked “which one of the following cooking/ frying oils do you think is the healthiest option?” 51 percent named canola oil, followed by butter at 11 percent, corn oil at 9 percent, palm oil at 8 percent, beef tallow at 2 percent and lard, also at 2 percent. Another 18 percent said they didn’t know.

As the USDA notes, canola oil is used in frying and baking applications, and is an ingredient in salad dressings, margarine, and a variety of other products: “Canola oil appeals to health-conscious consumers because it has a low percentage of saturated fat and is free of artificial trans-fats. High-oleic canola varieties have been developed recently that are used in commercial high-temperature frying applications to replace partially hydrogenated oils.”

And that health message is the one that consumers have heard, as the survey indicates – to the exclusion of all others.

But vegetable oils are highly refined, a process that enlists chemicals to extract the oil from the seed -- including compounds like *n-Hexane*, a known neurotoxin that has found its way

into the food chain, where residuals have been detected. The system used to refine vegetable oils also produces “process contaminants.” These substances form during food processing -- in particular, when deodorizing vegetable oils at high temperatures. The State of California is now reviewing *n-Hexane*, with an eye toward adding it to Proposition 65’s list of chemicals known to cause cancer, birth defects, or other reproductive harm.

Recent studies have indicated that the extraction processes used in producing vegetable oils for cooking/frying foods can release various potentially unhealthy toxic agents. Survey respondents were asked to rate their awareness of the potential health risks associated with consuming vegetable oils on a 1 to 5 scale.

According to the Coast/Ipsos research, roughly half of those surveyed indicated little or no awareness of potential health risks arising from vegetable oil processing. Overall, 48 percent were unaware, 29 percent indicated they were “very aware” or somewhat aware and another 23 percent were in the middle. Millennials, men, residents of the Western states, respondents with children at home, those better educated and those employed all recorded a higher overall awareness of potential health risks.

In May, the European Food Safety Authority (EFSA), which is responsible for conducting risk analysis on the safety of food in the European Union, released its findings concerning public health risks from the intake of process contaminants called *glycidyl fatty acid esters* (GE), *3-monochloropropanediol* (3-MCPD), and *2-monochloropropanediol* (2-MCPD) esters. The EFSA found “sufficient evidence” that glycidyl esters are genotoxic – damaging genetic information within a cell, triggering mutations and potentially leading to cancer -- while the toxicity in 3-MCPD and 2-MCPD is organ-specific. The highest levels of GE, 3-MCPD and 2-MCPD were found in palm oils and palm fats, followed by other oils and fats. Intake in children under 18 -- and particularly infants -- was characterized as a possible health concern.

Squeezing oil fit for human consumption from seeds is complex and anything but natural. The science is increasingly clear. With toxic additives and carcinogenic compounds putting popular vegetable oils at risk, embracing minimally processed animal fats isn’t a fad.

By contrast, the natural makeup of animal fat shortenings like lard and beef tallow promotes health. Neither contains the [artificial trans fats](#) found in hydrogenated shortenings. Both are naturally stable and solid at room temperature. When heated, they do not release free radicals, which have been linked to cancer, as vegetable oils do. And they’re minimally processed – virtually nothing is added, and what’s already there (plenty of monounsaturates) is good for you. Given the unsavory alternative, “minimally processed” needs to be how we live.

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