Is canola oil toxic or is this another urban legend? [1]

Dear Alice,

I recently received an alarming e-mail regarding the dangers of eating Canola oil. Apparently it is made from rapeseed, which is supposedly highly toxic and has been shown to develop cancer in rats. The e-mail also referred me to an article by a Tom Valentine called "The Canola Oil Report." I located the report, read it, and quite frankly, threw out the remaining canola oil I had in the kitchen. Is there any truth to this article? And if there is, surely this is criminal.

Thank you,
— Confused

Answer

Dear Confused,

It can be hard to distinguish fact from fiction when searching the internet, so your confusion is valid. Because of the continuous research and different nutritional needs of individuals, the advice around nutrition can vary significantly and therefore be difficult to follow. To address your question in brief, canola oil, like other vegetable oils, is generally considered a safe and healthy form of fat that may have the potential to decrease blood cholesterol levels and heart disease risk. However, there are some greasy details to keep in mind, so keep on reading!

To start, in may be helpful to discuss where canola comes from and how it's made, as this process is part of what contributes to safety concerns. Canola oil is extracted from the seeds of the canola plant. Most of the misinformation about canola oil’s potential adverse health effects stem from the rapeseed plant (from which the canola plant was bred) because its oil contains high levels of erucic acid, which can be toxic to humans. The canola plant was created by the plant breeding of the rapeseed, but the resulting oil has very little erucic acid. Therefore, the standard consumption of canola oil during cooking and eating is likely not enough to pose any harm to human health.

Another common concern with canola oil (and vegetable oils in general) is that they’re extracted with hexane. This is another substance that can be toxic to humans. However, the amount of
hexane ingested when cooking with or eating canola oil is much lower than the daily intake from other sources, such as inhaled gasoline fumes. Therefore, the trace levels of hexane in canola oil, and other vegetable oils, aren't likely to cause health concerns. The process has also been modified to reduce the production of trans fats, which was also a concern for some.

In terms of potential benefits, canola oil is very low in saturated fat and high in monounsaturated fats. The benefits of this profile include lowering low density lipoproteins (LDL), increasing high density lipoproteins (HDL) in your body, and potentially lowering the risk of future heart disease. It's also critical to note that canola oil is typically refined, which removes some of its nutrients, such as essential fatty acids, antioxidants, and vitamins. Most studies that found benefits related to heart disease and cholesterol used unrefined canola oil, which is similar to extra virgin olive oil. Most of the canola oil on the market is refined and therefore it's unclear whether the reduction in heart disease still holds true.

While more research is still needed to completely understand how canola oil may impact health, there are alternative cooking oils that you may want to try in the meantime. Whether you're planning to cook in high heat or use it for salad dressings, olive or avocado oil may be an option for you. It's difficult to say which one is better — it's usually dependent on preference for taste, consistency, and the type of food you're making. By the time you get through a bottle of that, there may be more evidence supporting the safety of canola oil and you may want to give it another taste!

Alice!

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