



## Vegetable Oils Cause Insulin Resistance

In some recent articles, we've seen that vegetable oils cause [obesity](#), [heart disease](#), [promote male infertility](#) and [aging](#), and are just [generally bad news](#). In this article we'll look at the evidence that vegetable oils cause insulin resistance.

### **Corn oil causes insulin resistance in mice**

In [a study](#) ([full paper](#)), mice were placed on a high-fat diet, with fat at 40% of calories, which is not terribly high for humans but is for mice. One group got their fat as corn oil, the other as olive oil. The group on corn oil developed hyperinsulinemia (high blood insulin) and insulin resistance. See charts below.

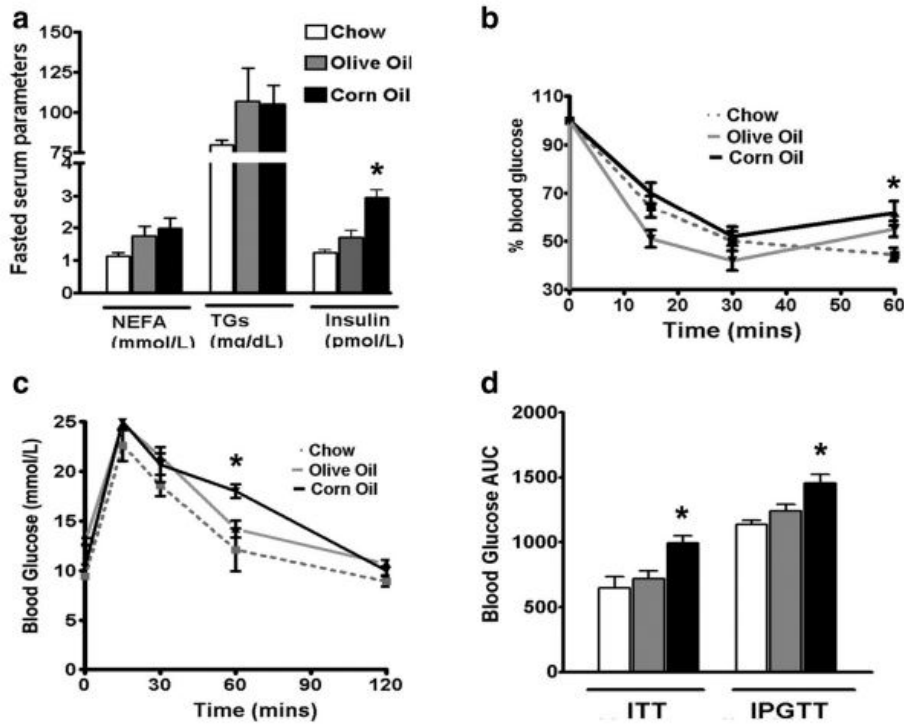


Fig. 4. Corn oil induces insulin resistance in mice. (a) Fasting serum NEFA, triglycerides and insulin; (b) ITT with blood glucose values expressed as a percentage of time 0, (c) IPGTT, (d) AUC of blood glucose values from ITT and IPGTT in mice. Data are presented as mean  $\pm$  S.E.M. Values were analyzed using one-way ANOVA with Tukey tests;  $P < .05$  ( $n = 6$ ). \* $P < .05$  versus chow-fed mice.

The corn oil diet also spontaneously decreased locomotor activity, and by a great deal. See charts below.

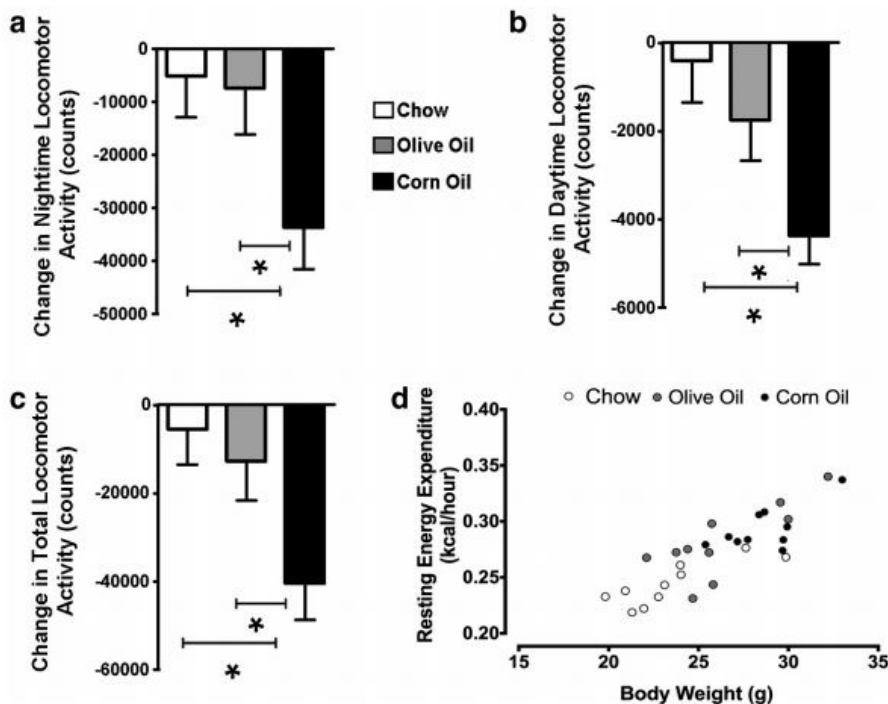


Fig. 2. Corn oil lowers spontaneous activity in mice. (a) Change in nighttime (dark phase) spontaneous locomotor activity, (b) change in daytime (light phase) locomotor activity and (c) change in total locomotor activity following 6 weeks of chow, olive-oil- and corn-oil-rich diets compared to prediet values. (d) Average REE normalized to body weight recorded from each mouse in the light phase of the day over 2 days. Data are presented as mean  $\pm$  S.E.M. Values (a-c) were analyzed using one-way ANOVA with Tukey tests ( $n = 10$ /group). (d) Analyzed using ANCOVA with Tukey test;  $P < .05$  ( $n = 10$ /group). \* $P < .05$  versus groups as indicated.

Could increasing consumption of seed oils like corn oil be partly responsible for an increase in [couch potato lifestyle](#)? Maybe people who consume a lot of this stuff don't feel like moving around much, and therefore increased seed oil consumption contributes to obesity by decreasing the amount of exercise. [Excess omega-6 consumption in mice](#) is associated with negative

metabolic and cardiovascular outcomes. Seed oils are loaded with omega-6 fatty acids.

## Decreasing seed oil consumption in humans

That's all very well for mice, but what about in humans? Does decreasing consumption of seed oils do anything for metabolism or obesity? Turns out, [it does](#). A group of 93 men with non-alcoholic fatty liver disease, which is a consequence of obesity as well as sugar and seed oil consumption, were randomized to use either olive oil, canola oil, or soybean oil for cooking, at no more than 20 g a day. The study took place in India, where there's a high consumption of seed oils in cooking – just like there is here in the U.S. The olive oil group lost weight, and compared to canola oil, decreased insulin resistance and fasting blood sugar, and increased HDL. The canola oil group improved in some measures, but not as much as the olive oil group. (Canola is a “less bad” seed oil.) No changes were seen in the soybean oil group. This study shows that a relatively small dietary change, using olive oil instead of soybean oil for cooking, can result in significant improvements in metabolism, and lends more evidence to the concept that [seed \(vegetable\) oils cause obesity](#).

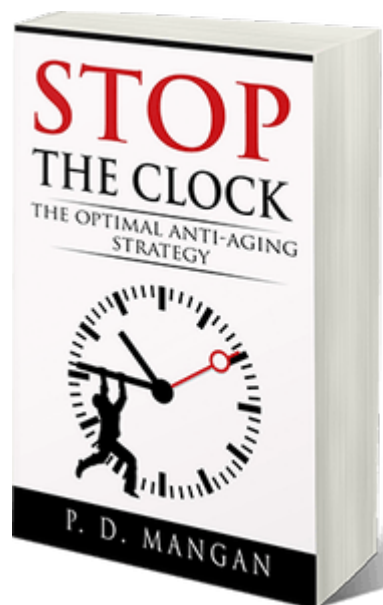
## The health establishment recommends seed oils

The American Heart Association recommends “heart-healthy” seed oils. Here's their list of “healthy” oils:

- Canola
- Corn
- Olive
- Peanut
- Safflower
- Soybean
- Sunflower

The only one on that list that's truly healthy is olive oil. The others will make you fat, diabetic, and give you heart disease. Other establishment health organizations make the same claims. Their advice is perverse. You're much better off doing the opposite. Their counsels have also fueled the obesity epidemic. The evidence they've used for their recommendations is [wrong](#). Re-analysis of studies that randomized people to polyunsaturated fats as are found in seed oils found that benefits occurred only when [omega-3 fatty acids](#) were more or less accidentally increased. When omega-6 alone was increased, death rates increased. [The evidence they've used is hopelessly biased](#). Vegetable oils are better termed industrial seed oils both for their source, which is not vegetables but seeds, and for their mode of production, an industrial process that uses high heat and organic, gasoline-like solvents. If you want to preserve or attain good health, don't use them. If you need fat for cooking, use butter, ghee, lard, tallow, or coconut oil. For cold uses, olive oil.

PS: For more on how to live longer, see my book [Stop the Clock](#).



PPS: [Check out my Supplements Buying Guide for Men.](#)