

# Exercise prevents fructose-induced hypertriglyceridemia

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(HealthDay)—Moderate aerobic exercise prevents fructose-induced hypertriglyceridemia in healthy males, according to a study published online May 14 in *Diabetes*.

Léonie Egli, from the University of Lausanne in Switzerland, and colleagues examined the effects of exercise on circulating lipids in eight healthy males fed a weight-maintenance, high-fructose diet. Participants were assessed after four days of a diet low in fructose with no exercise (C); a 30 percent fructose diet with no exercise (HFr); or a 30 percent fructose diet with moderate aerobic exercise (HFrEx). On the fifth day, [ $^{13}\text{C}$ ]palmitate in triglyceride-rich lipoprotein (TRL)-triglycerides (TG) was measured using a nine-hour oral fructose loading test.

The researchers found that HFr correlated with increased [fasting glucose](#), total TG, TRL-TG concentrations, and apolipoprotein B48 concentrations, as well as with increases in post-fructose glucose, total TG, TRL-TG, and [ $^{13}\text{C}$ ]palmitate in TRL-TG, compared with C. Fasting and post-fructose TG, TRL-TG, [ $^{13}\text{C}$ ]palmitate concentration in TRL-TG, and apolipoprotein B48 concentrations were completely normalized with HFrEX. Compared with HFr, HFrEX correlated with increased [lipid oxidation](#) and plasma non-esterified fatty acid concentrations.

"These data indicate that exercise prevents the [dyslipidemia](#) induced by high fructose intake independently of energy balance," the authors write.

One author disclosed financial ties to Nestle and Ajinomoto Co.

**More information:** [Abstract](#)  
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