Olive oil consumption decreased total cholesterol (TC), LDL cholesterol (LDL-C), and triglycerides (TG) significantly less than other plant oils, and increased HDL cholesterol (HDL-C) significantly more than other plant oils.

**What is the effect?**

- **Decreased LDL-c**
- **Increased HDL-c**
- **Decreased Total Cholesterol**
- **Decreased Triglycerides**

**What is the quality of the evidence?**

- **10 grams of olive oil per day**
- **27 randomised controlled trials**
- Compared to another plant oil as the control
- At least 2 weeks duration

**Limitations**

- The diets consumed during intervention were not controlled and constant among all interventions, with many studies not reporting its energy and macronutrient composition.

**What to keep in mind?**

- Olive oil was less potent in lowering TC, LDL-C, and TG than other plant oils.

**What’s the bottom line?**

Olive oil was less potent in lowering TC, LDL-C, and TG than other plant oils. This difference was more evident for PUFA-rich oils, especially n-3 rich ones. However, time was an important variable. The differences in reduction of TC, LDL-C, and TG compared to other plant oils were not evident in interventions with durations higher than 30 days. Olive oil increased HDL-cholesterol to a greater extent than other plant oils, including in studies longer than 30 days.

**Key results**

- **Increase in HDL-C:** olive oil increased HDL-C significantly more vs. all other plant oils (weighted mean difference [WMD] = 1.37 mg/dl; 95% CI: 0.4, 2.36; P = 0.007) (n = 26 studies).

- **Decrease in LDL-C:** olive oil decreased LDL-C significantly less vs. other plant oils (WMD = 4.2 mg/dl; 95% CI: 1.4, 7.01; P = 0.003) (24 studies).

- **Decrease in total cholesterol:** olive oil decreased TC significantly less vs. other plant oils (WMD = 6.27 mg/dl; 95% CI: 2.8, 10.6; P = 0.001) (26 studies).

- **Decrease in triglycerides:** olive oil decreased TG significantly less vs. other plant oils (WMD = 4.31 mg/dl; 95% CI: 0.5, 8.12; P = 0.03) (25 studies).

- No effect for Apolipoprotein A (Apo A) or Apolipoprotein B (Apo B).

**What’s the bottom line?**

Olive oil was less potent in lowering TC, LDL-C, and TG than other plant oils.

This difference was more evident for PUFA-rich oils, especially n-3 rich ones. However, time was an important variable. The differences in reduction of TC, LDL-C, and TG compared to other plant oils were not evident in interventions with durations higher than 30 days. Olive oil increased HDL-cholesterol to a greater extent than other plant oils, including in studies longer than 30 days.

**Other reviews**