



**LIPID ACCUMULATION PRODUCT AND VISCERAL ADIPOSITY INDEX ARE ASSOCIATED WITH DIETARY PATTERNS IN ADULT AMERICANS.**

Mazidi, M, Gao, HK, Kengne, AP  
Medicine. 2018;97(19):e0322

Centrally stored body fat, or visceral adipose tissue, is associated with a higher risk of cardiovascular disease, metabolic syndrome and certain types of cancer. Higher levels of fats in the blood (triglycerides and cholesterol) have also been associated with the same conditions. This large cross-sectional study (NHANES data set) aimed to examine the association between central body fat and blood lipids, with dietary patterns.

Three different dietary patterns were examined: calorie dense diets (diets high in carbohydrates, sugars and fats); nutrient dense diets (diets high in vitamins, minerals and fibre) and healthy fat diets (diets high in mono- and poly-unsaturated fatty acids).

The study found that there were significant associations between calorie dense diets and increased blood lipids and central body fat. There were also significant associations between nutrient dense diets and lower levels of blood lipids and central body fat. The results for the healthy fats diet were less conclusive, although they were associated with lower levels of blood lipids.

**EFFECT OF 12-WEEK DAILY INTAKE OF THE HIGH-LYCOPENE TOMATO (.), A VARIETY NAMED "PR-7", ON LIPID METABOLISM: A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PARALLEL-GROUP STUDY.**

Nishimura, M, Tominaga, N, Ishikawa-Takano, Y, Maeda-Yamamoto, M, Nishihira, J  
Nutrients. 2019;11(5)

Tomatoes are a rich source of lycopene, a compound believed to have many health benefits. Researchers in Japan conducted a randomised, double-blind, placebo-controlled trial to investigate the effects of eating a type of tomato bred to be high in lycopene, on 74 healthy volunteers with raised cholesterol levels.

Participants were given 50g per day of either semi-dried high-lycopene tomato or lycopene-free tomato. Those eating the high-lycopene tomatoes significantly reduced their levels of LDL cholesterol over 12 weeks. The researchers concluded that their findings support the health benefits of eating tomatoes rich in lycopene.



**EFFECTS OF KRILL OIL AND LEAN AND FATTY FISH ON CARDIOVASCULAR RISK MARKERS: A RANDOMISED CONTROLLED TRIAL.**

Rundblad, A, Holven, KB, Bruheim, I, Myhrstad, MC, Ulven, SM  
Journal of nutritional science. 2018;7:e3

Fish consumption and supplementation with omega-3 rich fish oil has been shown to reduce the risk of cardiovascular disease. Krill oil is becoming a popular choice of fish oil for supplementation however few studies have investigated its health benefits.

This small (n=36) double blind, randomised controlled trial aimed to assess the different impacts of 8-week consumption of either: krill oil supplements (4g oil daily); 3 fish meals per week (2 oily fish, one lean fish); or placebo of sunflower oil (4g oil daily), on cardiovascular risk markers.

The results showed significant positive changes to blood glucose, lipids, phospholipids and cholesterol markers for the krill oil group, compared to the fish group and placebo. Vitamin D levels increased significantly in the fish consumption group compared to krill oil and placebo. Plasma levels of omega-3 fatty acids increased for both the krill oil group and fish consumption group. The authors conclude that krill oil supplementation and fish consumption both have positive health effects in relation to cardiovascular disease and larger studies of longer duration are needed.

