



HIGH-INTENSITY INTERVAL TRAINING IMPROVES METABOLIC SYNDROME AND BODY COMPOSITION IN OUTPATIENT CARDIAC REHABILITATION PATIENTS WITH MYOCARDIAL INFARCTION.

Dun, Y, Thomas, RJ, Smith, JR, Medina-Inojosa, JR, Squires, RW, Bonikowske, AR, Huang, H, Liu, S, Olson, TP Cardiovascular diabetology. 2019;18(1):104

Metabolic syndrome (MetS) is associated with an eightfold increase in the risk of myocardial infarction (MI), and MI patients who have MetS have an increased risk of other cardiovascular events and recurrent MI. Exercise can improve MetS and is also recommended for patients after MI for rehabilitation.

The aim of this retrospective study was to examine the effect of supervised high intensity interval training (HIIT) on MetS and body composition in overweight patients with MI. Of 56 patients who took part in a multidisciplinary rehabilitation program, 42 had engaged in HIIT and 14 in moderate-intensity continuous training (MICT), both groups had 36 supervised sessions over 12 weeks.

Compared to MICT, the HIIT group demonstrated greater reductions in MetS. Better improvements in the HIIT group were seen in waist circumference, fasting blood glucose, triglycerides, diastolic blood pressure, body fat and lean mass, compared to the MICT group. There were no significant differences between groups in changes in BMI, HDL cholesterol and systolic blood pressure. The authors concluded that their findings support the use of HIIT to improve MetS in MI patients

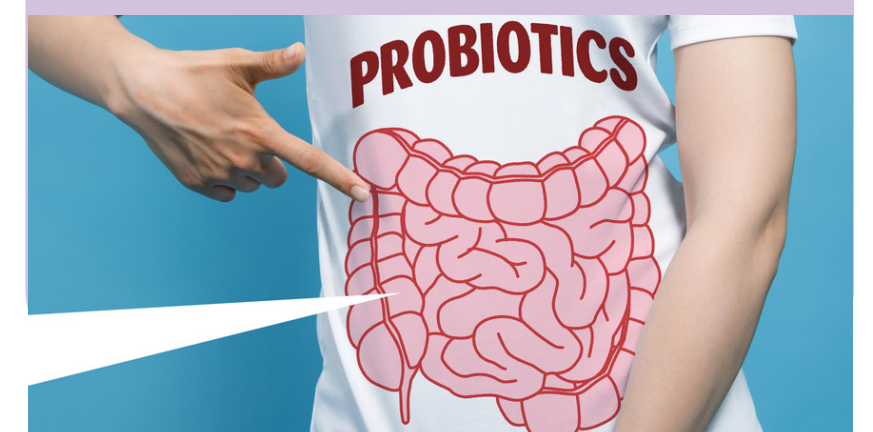
EFFECT OF PROBIOTICS ON LIPID PROFILES AND BLOOD PRESSURE IN PATIENTS WITH TYPE 2 DIABETES: A META-ANALYSIS OF RCTS.

He, J, Zhang, F, Han, Y Medicine. 2017;96(51):e9166

Type 2 diabetes mellitus (T2DM) is the most common metabolic disorder worldwide. Though many clinical studies have explored the effects of probiotics on T2DM they have concluded mixed results.

The purpose of this meta-analysis was to evaluate all current randomised controlled trials and determine the effect of probiotics on lipid profiles and blood pressure in patients with T2DM. According to the existing literature, probiotic supplementation for patients with T2DM has a positive effect by lowering total cholesterol and increasing high-density lipoproteins (HDLs).

While these beneficial effects on lipid profiles and blood pressure have been found, the authors conclude there is still a need for a multi-centre, longitudinal study to better understand the effects of probiotics on patients with T2DM.



EARLY TIME-RESTRICTED FEEDING IMPROVES INSULIN SENSITIVITY, BLOOD PRESSURE, AND OXIDATIVE STRESS EVEN WITHOUT WEIGHT LOSS IN MEN WITH PREDIABETES.

Sutton, EF, Beyl, R, Early, KS, Cefalu, WT, Ravussin, E, Peterson, CM Cell metabolism. 2018;27(6):1212-1221.e3

Studies have shown that intermittent fasting (IF) can reduce body weight or body fat, as well as a number of metabolic markers. However, it is unknown whether the metabolic benefits are solely due to the weight loss. In addition, data from circadian studies suggest that eating earlier in the day has a positive effect on metabolism.

The aim of this randomised, cross-over, controlled feeding trial was to evaluate the effects of early time-restricted feeding (eTRF) on weight and metabolic markers. eTRF was implemented as consuming all calories within a 6 hours window with the last meal no later than 3pm. 8 overweight men with prediabetes were randomized to either eTRF or a control schedule (12-hr feeding period) for 5 weeks, and later crossed over to the other schedule.

During both eating regimes the same meals and calories were consumed in both groups in a controlled environment. eTRF improved insulin metabolism, blood pressure and oxidative stress, but not glucose levels, cholesterol or inflammatory markers. No weight loss occurred either during eTRF or control period, suggesting that the observed changes are independent of weight loss. The authors conclude that eTRF improves some aspects of cardiometabolic health and that these effects are not solely due to weight loss.

