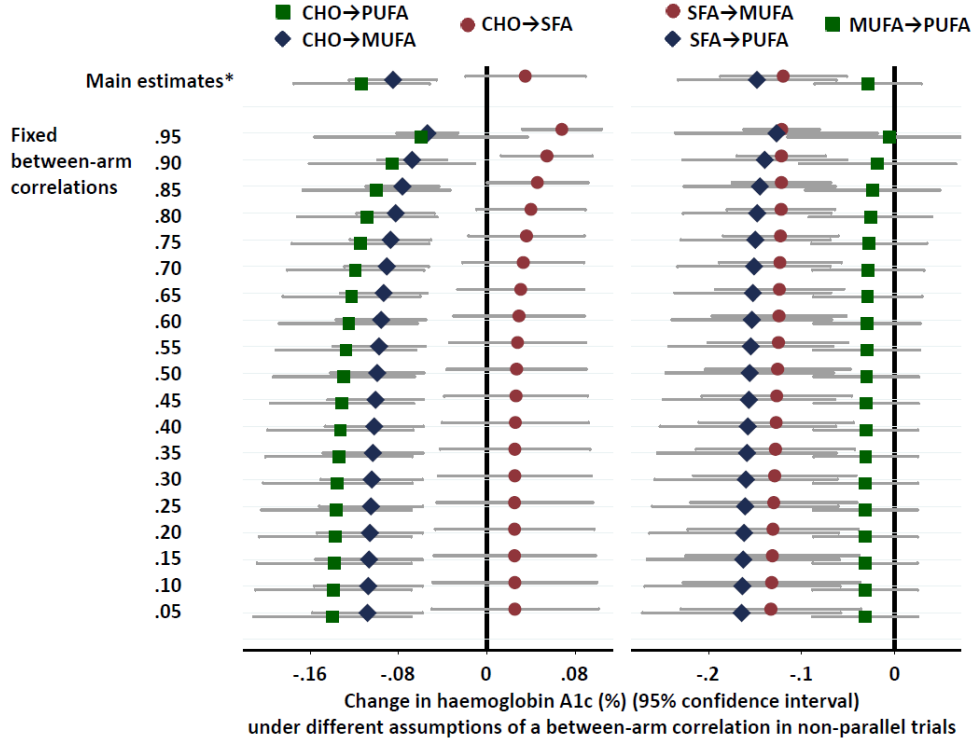
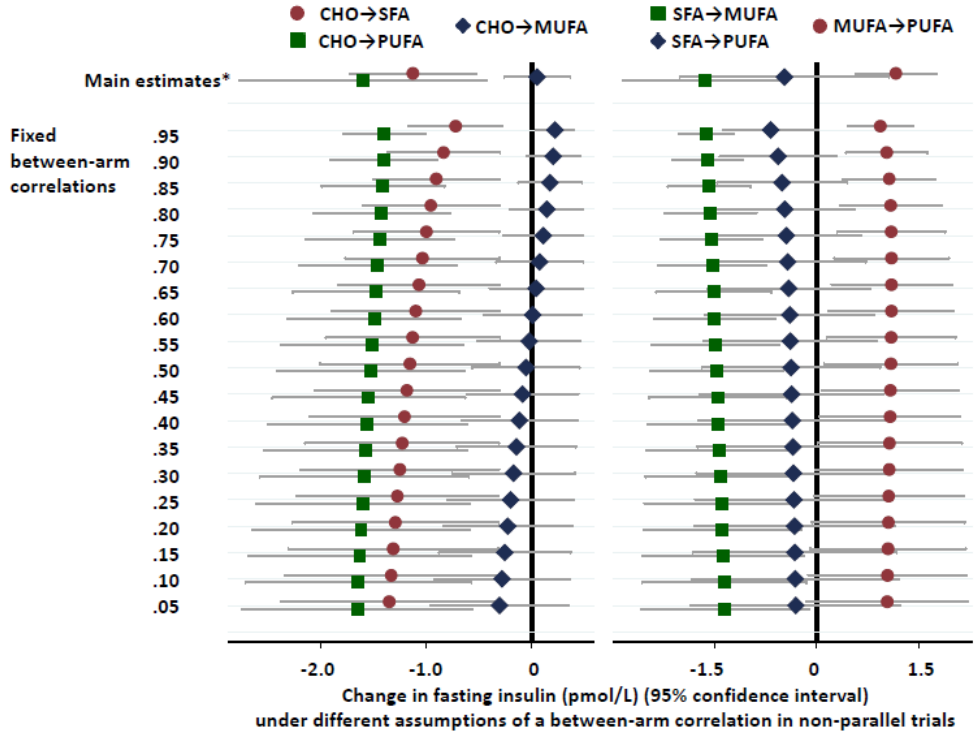


**S1 Fig.** Effects of isocaloric macronutrient exchange by 5% of total energy intake on A) fasting glucose, B) haemoglobin A1c, and C) fasting insulin under different assumption of a between-arm correlation in crossover or Latin-square trials. 1 mg/dL=0.0555 mmol/L for glucose, 1  $\mu$ U/mL=6 pmol/L, HbA1 mmol/mol=(HbA1c % - 2.15) $\times$ 10.929. In trials without a parallel design, within-person correlations of outcomes should be modelled. Many publications gave sufficient information to calculate within-person correlations ( $r$  mean=0.74), but not all. Prior to the main analyses, missing information on correlations was imputed by regression approach prior to main meta-analysis. Imputation was not likely to cause substantial impact on overall results according to sensitivity analysis presented here. This figure confirms results were generally stable, if we used a single correlation (between-arm correlations =0.05 to 0.95, as presented) in all non-parallel trials. Abbreviations: CHO, carbohydrates; MUFA, monounsaturated fatty acids; PUFA, polyunsaturated fatty acids; and SFA, saturated fatty acids.

### B. Haemoglobin A1c



### C. Fasting insulin



S1 Fig (continued).