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# Effect of dietary myo-inositol supplementation in pregnancy on the incidence of maternal gestational diabetes mellitus and fetal outcomes - a randomized controlled trial. Abstract only

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OBJECTIVE: To test the hypothesis that dietary myo-inositol may improve insulin resistance and the development of gestational diabetes mellitus (GDM) in women at high risk of this disorder.

DESIGN: A prospective, randomized, double-blind, placebo controlled clinical trial, pilot study.

PARTICIPANTS: Non-obese singleton pregnant women with an elevated fasting glucose in the first or early second trimester were studied throughout pregnancy.

INTERVENTION: Supplementation with myo-inositol or placebo during pregnancy.

MAIN OUTCOME MEASURE: Development of GDM on a 75 g oral glucose tolerance test at 24-28 weeks' gestation. Secondary outcome measures were increased in BMI, need for maternal insulin therapy, macrosomia, polyhydramnios, neonatal birthweight and hypoglycemia.

RESULTS: Thirty-six women were allocated to receive myo-nositol and 39 placebo. The incidence of GDM in mid-pregnancy was significantly reduced ($p = 0.001$) in women randomized to receive myo-inositol compared to placebo (relative risk 0.127). Women randomized to receive myo-inositol also required less insulin therapy, delivered at a later gestational age, had significantly smaller babies with fewer episodes of neonatal hypoglycemia.

CONCLUSIONS: Myo-inositol supplementation in pregnancy reduced the incidence of GDM in women at high risk of this disorder. The reduction in incidence of GDM in the treatment arm was accompanied by improved outcomes.