

A controlled trial of a high dietary fibre intake in pregnancy--effects on plasma glucose and insulin levels.

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Abstract

Non-obese women in the second half of pregnancy were randomised into a control group receiving standard dietary advice and a group advised to make high fibre whole-food substitutions in their diets at every opportunity. Glucose and insulin profiles were performed over 24-h periods at 29 and 35 weeks gestation when the diets were equivalent in available carbohydrate, protein and fat, but the control group ingested 12.4 g dietary fibre/24 h and the high fibre group 51.4 g/24 h. Glucose homeostasis was similar in both groups but there was a significant attenuation of post-prandial insulin secretion in the high fibre group. It is suggested that the characteristic post-prandial peaks of plasma insulin observed in Western pregnant women are an unphysiological response to dietary fibre depletion.