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### A randomized controlled trial investigating the effects of a low glycemic index diet on pregnancy outcomes in gestational diabetes mellitus

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## **A randomized controlled trial investigating the effects of a low glycemic index diet on pregnancy outcomes in gestational diabetes mellitus**

### **Abstract**

Abstract of paper that presented at The 16th International Congress of Dietetics, 5-8 Sep, 2012, Sydney.

### **Disciplines**

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## **A randomized controlled trial investigating the effects of a low glycemic index diet on pregnancy outcomes in gestational diabetes mellitus**

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The prevalence of gestational diabetes mellitus (GDM) is rising. There is little evidence to demonstrate the effectiveness of one dietary therapy over another. We aimed to investigate the effect of a low glycemic index (GI) versus a conventional high fiber diet on pregnancy outcomes, neonatal anthropometry and maternal metabolic profile in GDM. Ninety-nine women (age: 26 – 42 y; mean  $\pm$  SD pre-pregnancy BMI:  $24 \pm 5$  kg/m<sup>2</sup>) diagnosed with GDM at an average of 26.0 (SD 4.2) wks gestation were randomized to follow either a low GI (LGI,  $n = 50$ ; target GI  $\approx 50$ ) or a high fiber, moderate GI diet (HF,  $n = 49$ ; target GI  $\approx 60$ ). Dietary intake was assessed by 3 day food records. Pregnancy outcomes were collected from medical records. The LGI group achieved a modestly lower GI than the HF group (mean  $\pm$  SEM:  $47 \pm 1$  vs  $53 \pm 1$ ;  $p < 0.001$ ). At birth, there was no significant difference in birth weight (LGI  $3.3 \pm 0.1$  vs HF  $3.3 \pm 0.1$  kg,  $p = 0.619$ ), birth weight centile (LGI  $52.5 \pm 4.3$  vs HF  $52.2 \pm 4.0$ ,  $p = 0.969$ ), prevalence of macrosomia (LGI 2.1 vs HF 6.7%,  $p = 0.157$ ), insulin treatment (LGI 53 vs HF 65%,  $p = 0.251$ ) or adverse pregnancy outcomes. There was no significant difference in GDM-related adverse pregnancy outcomes between low GI diet and high fiber diet. This study was registered at anzctr.org.au as ACTRN12608000218392.

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