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

Jimmy Chun Yu Louie  
*University of Sydney, jlouie@uow.edu.au*

Tania P. Markovic  
*University of Sydney, tania_markovic@ozemail.com.au*

Deborah Foote  
*Royal Prince Alfred Hospital*

Nimalie Perera  
*Royal Prince Alfred Hospital*

Glynis Ross  
*Royal Prince Alfred Hospital*

See next page for additional authors

Follow this and additional works at: [https://ro.uow.edu.au/smhpapers](https://ro.uow.edu.au/smhpapers)  
Part of the *Medicine and Health Sciences Commons*, and the *Social and Behavioral Sciences Commons*

**Recommended Citation**  
Louie, Jimmy Chun Yu; Markovic, Tania P.; Foote, Deborah; Perera, Nimalie; Ross, Glynis; and Brand-Miller, Jennie, "A randomized controlled trial investigating the effects of a low glycemic index diet on pregnancy outcomes in gestational diabetes mellitus" (2012). *Faculty of Science, Medicine and Health - Papers: part A*. 551.  

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: research-pubs@uow.edu.au
A randomized controlled trial investigating the effects of a low glycemic index diet on pregnancy outcomes in gestational diabetes mellitus

Abstract

Disciplines
Medicine and Health Sciences | Social and Behavioral Sciences

Publication Details
Louie, J., Markovic, T. P., Foote, D., Perera, N., Ross, G. & Brand-Miller, J. 2012, 'A randomized controlled trial investigating the effects of a low glycemic index diet on pregnancy outcomes in gestational diabetes mellitus', The 16th International Congress of Dietetics,

Authors
Jimmy Chun Yu Louie, Tania P. Markovic, Deborah Foote, Nimalie Perera, Glynis Ross, and Jennie Brand-Miller

This conference paper is available at Research Online: https://ro.uow.edu.au/smhpapers/551
A randomized controlled trial investigating the effects of a low glycemic index diet on pregnancy outcomes in gestational diabetes mellitus

Jimmy Chun Yu Louie¹, Tania P Markovic¹², Deborah Foote³, Nimalie Perera², Glynis Ross², Jennie Brand-Miller¹

¹Boden Institute of Obesity, Nutrition, Exercise and Eating Disorders, The University of Sydney, Australia
²Department of Endocrinology, Royal Prince Alfred Hospital, Camperdown NSW Australia
³Department of Nutrition and Dietetics, Royal Prince Alfred Hospital, Camperdown NSW Australia

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 ± SD pre-pregnancy BMI: 24 ± 5 kg/m²) 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 ≈ 50) or a high fiber, moderate GI diet (HF, n = 49; target GI ≈ 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 ± SEM: 47 ± 1 vs 53 ± 1; p < 0.001). At birth, there was no significant difference in birth weight (LGI 3.3 ± 0.1 vs HF 3.3 ± 0.1 kg, p = 0.619), birth weight centile (LGI 52.5 ± 4.3 vs HF 52.2 ± 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.

Contact email – jimmy.louie@sydney.edu.au