

Glycemic Index, Glycemic Load and diabetes in a sample of older Australians

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Objective: To investigate the relationship between glycemic index (GI), glycemic load (GL) and diabetes in a sample of older Australians.

Design: 3654 people aged 49 years or older, representing 88% of permanent residents in the two postcode areas west of Sydney, underwent a detailed medical examination. The medical examination included a history of diabetes and associated risk factors. Fasting pathology tests, including plasma glucose, were obtained for 88% of the 3654 residents, and a 145-item semi-quantitative food frequency questionnaire (FFQ) was completed by 89% of the residents.

Outcomes: A history of diabetes was reported by 218 people (6%), including 111 (7%) men and 107 (5.2%) women. Another 66 (2.2%) people had a FBG \geq 7.0 mM, indicating they had undiagnosed Type 2 diabetes. Therefore a total of 8.2% of people had diabetes, which is slightly higher than the estimate for Australian adults determined by the AusDiab study (7.5%). In addition to this, 127 (4.2%) people had impaired fasting glycaemia. The mean (\pm SD) GI and GL was calculated from the FFQ's and determined to be 56.5 (4.2) and 133 (45.8) units respectively. Valid food frequency data was available for 164 people with diabetes. People with diabetes had significantly lower mean GI (55.4 \pm 5.05 vs 56.34 \pm 4.16, P=0.007) and GL (118.4 \pm 41.15 vs 133.98 \pm 45.91, P<0.0001) than people who did not have diabetes.

Conclusion: People with diabetes living in Australia choose a diet with a significantly lower average GI and GL than Australians who do not have diabetes.