

Furthermore, significant reduction of liver fat was observed in all subjects (AP: -43.6%, $p < 0.001$; PP: -37.1%, $p < 0.001$). In the PP group we observed significant reduction of plasma creatinine (-7.79 $\mu\text{mol/l}$, $p < 0.01$) and also enhancement of glomerular filtration rate (from 75.95 to 88.15 ml/min/1.73m^2 , $p < 0.001$) which was not seen in the AP group. Moreover, significant reduction of the HbA_{1c} was observed in all subjects (AP: -0.58%, $p < 0.05$; PP: -0.41%, $p < 0.001$).

Conclusions: A 6-week high-protein diet leads to improvement of glucose metabolism and liver health in subjects with type 2 diabetes. Unexpectedly, high-protein diet had no adverse effects on kidney parameters, moreover plant protein showed even favourable impact.

Protocol Registration: clinicaltrials.gov, in process

Funding: Federal Ministry of Food and Agriculture (funding reference number, 313-06.01-28-1-54.071-10)

Short Oral Abstract 4 - A Randomized Crossover Trial Of Walking After Eating And Standard Physical Activity Advice In T2DM: Impact On Glycemia (Andrew Reynolds, New Zealand)

Andrew N Reynolds^{1,2*}, Bernard J Venn¹, Sheila Williams³, Jim I Mann^{1,2,4}

¹ Department of Human Nutrition, University of Otago, Dunedin New Zealand; ² Edgar National Centre for Diabetes and Obesity Research, Dunedin New Zealand; ³ Department of Preventive and Social Medicine, University of Otago, Dunedin New Zealand; ⁴ Faculty of Medicine, University of Otago, Dunedin New Zealand

Email: andrew.reynolds@otago.ac.nz

Objective: To compare the effects of standard physical activity advice and postprandial physical activity on glycemic control in people with T2DM.

Methods: Forty-one T2DM adults (HbA_{1c} 58.9 mmol/mol) completed interventions of a 30-min walk per day and walking for 10-mins after each main meal for two-weeks, with a four-week washout. Continuous glucose monitors were worn to calculate the incremental area under the curve (iAUC) for each meal and sum of total meals, and blood tests were taken pre- and post interventions.

Results: After adjustment for intervention order iAUC ($\text{mmol/L} \cdot \text{min}$) was significantly lower for total meal iAUC (508 vs. 453, $P = 0.03$) when walking after eating, driven by a highly significant difference in iAUC from the evening meal (537 vs. 424, $P < 0.001$). Despite no significant difference between interventions (CI -0.15, 0.82), glycemic control as measured by glycated albumin (%) was reduced after the 30-min walk (CI -1.08, -0.60). Change in fasting plasma glucose (mmol/L) did not reach conventional levels of significance due to the 30-min (CI -1.06, 0.05) or walking after eating interventions (CI -1.06, 0.88).

Conclusions: Walking for 10-mins after each meal improved postprandial glycemic response. Modest improvement in some measures of glycemic control occurred following both walking regimens. The 30-min walk intervention improved glycated albumin, potentially due to a lowered fasting plasma glucose level.

Protocol Registration: Australian New Zealand Clinical Trials Registry: ACTRN12613000832774

Funding: The New Zealand Artificial Limbs Service (NZALS)

Short Oral Abstract 5 - The Effect of Glycemic Index and Glycemic Load on Liver Enzyme Activity (Laura Chiavaroli, Canada)

Laura Chiavaroli^{1,2}, Livia SA Augustin², Christopher Ireland², Arash Mirrahimi¹, John L Sievenpiper^{1,2}, Cyril WC Kendall^{1,2} and David JA Jenkins^{1,2}. ¹Nutritional Sciences, University of Toronto, Toronto, Ontario, Canada and ²Clinical Nutrition and Risk Factor Modification Centre, St. Michael's Hospital,