(vegetables, legumes, wholegrains). A one SD increase in the scores on the high protein/fruit pattern was associated with decreased likelihood of preterm birth (adjusted OR 0.31; 95%CI: 0.13, 0.72; $p = 0.007$); whereas the high fat/sugar/take-away pattern was associated with increased risk for preterm birth (adjusted OR 1.54; 95%CI: 1.10, 2.15; $p = 0.011$), and was also associated with shorter gestation ($p = 0.001$) and birth length ($p = 0.004$). **Conclusions** A dietary pattern containing protein-rich food sources, fruit, and some wholegrains, is associated with reduced risk for preterm delivery, whereas a dietary pattern mainly consisting of discretionary items is associated with preterm delivery, shorter birth length and earlier gestation. Poor dietary behaviours in the periconceptional period could be altered to promote behaviour change in dietary intake to improve perinatal outcomes and the long-term health of the child.
Funding source(s): NHMRC.

GESTATIONAL DIABETES IN MARES DURING LATE PREGNANCY

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Background/Aims: In pregnancy partitioning of nutrients from maternal tissues to the foeto-placental unit ensures normal development of the foetus and is associated with decreased insulin sensitivity. Such changes can be influenced by diet and body condition. This study examined insulin and glucose responses in pregnant mares with disparate body condition **Methods**: Mares were given either a high (HE: $n = 6$) or low energy (LE: $n = 7$) diet for the last trimester of pregnancy. Body condition score (BCS) was assessed and a frequently sampled intravenous glucose tolerance test was performed on day 320 of gestation. This permitted determination of insulin sensitivity (Si), glucose effectiveness (Sg), acute insulin response to glucose (AIRg), and disposition index (DI).
Results: The BCS in HE fed mares were significantly ($p < 0.001$) higher than LE fed mares. Insulin sensitivity, AIRg and DI were significantly ($p < 0.01$) lower in LE mares. In contrast, glucose effectiveness was not different.
Conclusions: Overall the results indicate that LE fed mares became insulin resistant in late pregnancy and exhibit diminished β cell responsiveness; features characteristic of human GDM. This is the first report of equine GDM. These novel results highlight the importance of BCS in metabolic responses during pregnancy.
Funding source(s): Rural Industries Research and Development Corporation.

CHANGES IN ADDED SUGAR INTAKE AND ITS MAJOR FOOD SOURCES IN OLDER AUSTRALIANS DURING A 15—YEAR FOLLOW-UP

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Background/Aims: The aim of this study was to assess the changes in added sugar (AS) intake and its food sources during 15 years of follow-up in a cohort of older Australians.
Methods: Dietary data were collected from the participants of the Blue Mountains Eye Study (BMES), aged ≥ 49 years, using a 145-item Food Frequency Questionnaire (FFQ). AS content of FFQ items was determined using recipes, food labels and other estimation methods. Eight hundred and sixty four participants who provided usable FFQs at both baseline (1992-1994) and follow-up (2007-2009) were considered for the analysis. Paired t-tests were used to assess the changes in intake between baseline and follow-up.
Results: Mean (SD) intake of AS and percentage of energy from AS (%EAS) were 47.1 (32.3) g and 9.0% at baseline and 46.3 (28.4) g and 8.8% at follow-up, respectively. There were no significant changes in mean intake, energy adjusted mean intake or %EAS during follow-up ($p > 0.05$). The major sources of AS intake at both time points were sugar products and dishes (sugar, honey, jam and syrup) (baseline: 21.3 g, follow-up: 19.5 g), followed

by confectionery (lollies and chocolate) (baseline: 7.1 g, follow-up 7.9 g). During follow-up, the contribution of sugar products and dishes to AS intake decreased by 3.2% ($p = 0.008$), while the contribution of confectionery increased by 2.2% ($p < 0.001$).
Conclusions: Older Australians of this cohort did not decrease their AS consumption during 15 years of follow-up but their intake from food sources of AS changed.
Funding source(s): NHMRC.

PG-SGA: THE USE OF A NUTRITION ASSESSMENT TOOL FOR TRIAGE IN AN INTERDISCIPLINARY CANCER CACHEXIA CLINIC

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Background/Aims: Cancer cachexia is a wasting condition affecting 50% of cancer patients, associated with decreased response to anti-neoplastic therapy, quality of life, and survival. The study aimed to establish if the nutritional status of patients on referral, as determined by 'Patient Generated Subjective Global Assessment' (PG-SGA) could be used to identify high-risk patients attending an interdisciplinary cachexia clinic.
Methods: A retrospective study was completed for non-active patients that attended the Barwon Health clinic between January 2008 and December 2013 ($n = 142$). Patients with baseline PG-SGA scores were stratified to SGA-A: well nourished, SGA-B: suspected or moderately malnourished, or SGA-C: severely malnourished. Comparison of survival curves was carried out using the Log-rank (Mantel-Cox) test.
Results: Forty three patients (25%) survived beyond study duration. Overall median survival was 136 days from first clinical appearance. Those patients within the SGA-C range had significantly shorter median survival interval (61 days) from their first clinical appearance compared to SGA-A (280 days, $p = 0.001$) or SGA-B (183 days, $p = 0.001$). The median survival from final clinical appearance was 71 days. SGA-C patients had significantly shorter median survival interval (42 days) from their final clinical appearance compared to patients in the SGA-A (158 days, $p = 0.001$) or SGA-B range (80 days, $p = 0.01$).
Conclusions: Given ease of administration, and significant survival distinction, PG-SGA may be a useful triaging tool to identify patients in need of immediate intervention. Increasing the frequency that the questionnaire is administered would also assist in tracking the progress, and identifying patients in decline.
Funding source(s): Victorian Cancer Agency.

THE EFFECT OF A PROTEIN-ENRICHED DIET COMBINED WITH PROGRESSIVE RESISTANCE TRAINING ON QUALITY OF LIFE IN ELDERLY WOMEN

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Background/Aims: To determine the effect of a protein-enriched diet, combined with progressive resistance training (PRT), on quality of life in elderly women.
Methods: In a 4-month cluster randomised controlled trial, 100 women aged 60-90 years from 15 retirement villages participated in PRT twice a week and received either ~160 g/d (cooked) lean red meat (consumed 6 days/week; RT+Meat) or >1 serving/day carbohydrate (RT+C). Quality of life was determined by the SF-36 questionnaire at baseline and 4 months.
Results: Ninety-one women (mean ± SD age 73.1 ± 6.8 years) completed the study [RT+Meat ($n = 48$) and RT+C ($n = 43$)]. Mean ± SD protein intake was greater in RT+Meat than RT+C throughout the study (1.3 ± 0.3 vs. 1.1 ± 0.3 g/kg/d, $p < 0.05$). Exercise compliance was not different between groups, with a mean attendance for both groups of 74%. There were no significant multivariate effects for group ($p > 0.05$) or time × group ($p > 0.05$), but a significant effect for time ($p = 0.044$) Within-group analysis