were allocated to the intervention or usual foodservice system for their length of stay (LOS) in a parallel controlled pilot study. BMI, hand grip strength (HGS), food intake and satisfaction with the foodservice were measured. Change in BMI and HGS (admission to day 14 or prior if discharge was earlier) and satisfaction were compared using χ^2, Mann Whitney U test or *t*-test.
Results: Data were available for 117 participants ($n = 59$ control, $n = 58$ intervention). The median LOS was 20 days, age was 83 years and prevalence of malnutrition was 38%. The mean changes in BMI (-0.1 ± 0.8 kg/m^2 vs. 0.1 ± 0.7 kg/m^2, $p = 0.343$) and HGS (2.4 ± 5.4 kg vs. 1.4 ± 5.7 kg, $p = 0.383$) and median scores for satisfaction (food quality 1.9 vs. 1.9, $p = 0.486$; meal service 1.7 vs. 1.7, $p = 0.805$; staff 1.0 vs. 1.0, $p = 0.877$; environment 1.0 vs. 1.0, $p = 0.137$) were not different between intervention and control groups, respectively.
Conclusions: At day 14 there was no improvement in anthropometry, but no dissatisfaction with the enhanced foodservice system. Further analyses of longitudinal and food intake data are required to fully evaluate the effects of this intervention.
Funding source(s): Commonwealth Australian Postgraduate Scholarship.

DAIRY INTAKE EFFECTS ON BONE AND MUSCLE STRUCTURE IN OLDER COMMUNITY-DWELLING WOMEN

R.L. Prince [1,2], K. Zhu [1,2], J.R. Lewis [1,2], S. Radavelli-Bagatini [1,2]. [1] *Bone and Vascular Research Group, Department of Endocrinology and Diabetes, Sir Charles Gardiner Hospital, Australia;* [2] *School of Medicine and Pharmacology, University of Western Australia, Australia*
E-mail: richard.prince@uwa.edu.au (R.L. Prince)

Background/Aims: We have shown that fractures are predicted by reduced bone and neuromuscular structure and function; however data on the role of dairy intake in improving the structure of these systems is limited.
Methods: Elderly women ($n = 564$; mean age 84.7 years) in the CAIFOS/CARES cohort completed a validated food frequency questionnaire including milk, yogurt, and cheese consumption. whole body appendicular skeletal and muscle mass were assessed by dual x-ray absorptiometry (DXA) and tibial bone mass, volume and volumetric bone density (vBMD) by peripheral quantitative computed tomography (pQCT). Women were categorized according to tertiles of dairy intake in low (< 1.5 servings/day), intermediate (1.5 to 2.2) and high (>2 .2 servings/day).
Results: Controlling for confounding factors, DXA assessment showed that compared with the higher tertiles, women in the low tertile had a 6.7% lower appendicular bone mass associated with a 3% lower bone area and thus no effect on appendicular BMD. pQCT total bone mass in the low tertile women compared to the higher tertile women were 5.2% lower principally because of a 6.2% decrease in cortical and subcortical bone mass, trabecular bone mass was not different. Further analysis suggested that low dairy calcium and protein accounted for the bone effects. DXA skeletal muscle mass was 3.8% lower not related to total dairy protein.
Conclusions: These data are consistent with a beneficial threshold effect of ≥ 1.5 serves of dairy/day. The mechanism of the muscle effect remains uncertain; bone effects involve both dairy calcium and protein.
Funding source(s): NHMRC, Dairy Health and Nutrition Consortium.

THE AUSTRALIAN PARADOX IS CONFIRMED: UPDATED EVIDENCE THAT REFINED SUGARS INTAKE IS DECLINING

J.C. Brand-Miller [1], A.W. Barclay [2]. [1] *School of Molecular Bioscience and Charles Perkins Centre, University of Sydney, Australia;* [2] *Glycemic Index Foundation Ltd, Sydney, Australia*
E-mail: jennie.brandmiller@sydney.edu.au (J.C. Brand-Miller)

Background/Aims: The specific role of refined sugars in the obesity epidemic is contentious. Up to 2009, different lines of evidence indicated a steady decline in refined sugar consumption by Australians since 1980.
Methods: In the present analysis, we updated our previous systematic literature review to include papers published between 2009 and 2014 and incorporated publications and data issued by government, academia and industry.
Results: The recent Australian National Nutrition Survey indicated a 9.5% decrease in the absolute intake of total sugars (added + naturally occurring) between 1995 to 2011, and a 3.5% decrease in the percentage of energy derived from total sugars. Added sugar from soft drinks, flavoured waters, energy and electrolyte drinks decreased from 14.4 g/day to 13.5 g/ day, although energy remained the same (2.5% of total energy). Using ABS methodology, Green Pool Commodity Specialists updated the original Australian Bureau of Statistics data series (including the sugar in imported processed food), showing that refined sugar consumption per capita fell 16%, from 50 kg/head in 1970 to 42 kg/head in 2011. Within this period, intake fell as low as 38 kg/head in 1998 but rose to 46 kg/head in 2004 before falling again. National grocery sales data showed that the refined sugar contribution from water-based beverages fell 17%, from 9.2 to 7.6 kg per person between 1995 and 2011.
Conclusions: Three independent datasets therefore confirm a decline in the intake of total sugars, refined sugars, and added sugars contributed by sugar-sweetened beverages, by the average Australian.
Funding source(s): N/A.

FISH INTAKE DURING PREGNANCY AND FOETAL NEURODEVELOPMENT – A SYSTEMATIC REVIEW OF THE EVIDENCE

P. Starling [1], K. Charlton [1], A. McMahon [1], C. Lucas [1]. [1] *School of Medicine, University of Wollongong, NSW, Australia*
E-mail: pd266@uowmail.edu.au (P. Starling)

Background/Aims: Australian women are not meeting recommended intakes for fish. Fish are a source of several nutrients important for healthy foetal development. Fish are also a potential source of contaminants including methyl-mercury; therefore, risks and benefits from fish consumption need to be considered when shaping public health messages for pregnant women. A systematic literature review critically evaluated whether fish intake during pregnancy was associated with offspring neurodevelopmental outcomes.
Methods: Peer-reviewed journal articles published between January 2000 and April 2014 were sourced from Medline, Scopus, Web of Science, Science Direct and the Cochrane Library. Eligible studies included those of healthy pregnant women with full term births, measured fish or seafood intake and assessed neurodevelopmental outcomes in offspring.
Results: Of 474 papers sourced, eight observational cohort studies were included in the final review. Due to heterogeneity in methodology and measured outcomes, a qualitative comparison was conducted. A relationship was found between consumption of 1-4 serves of fish/week and improved neurodevelopmental outcomes in offspring aged between 6 months and 9 years.
Conclusions: Moderate consumption of fish during pregnancy has benefits on neurocognitive outcomes in infants and young children. This evidence supports promotion of dietary messages to encourage fish consumption during pregnancy. These messages, however, need to be provided within the context of food safety guidelines and avoidance of methyl-mercury contamination.
Funding source(s): N/A.

ASSOCIATION BETWEEN MEDITERRANEAN DIET ADHERENCE AND MENTAL HEALTH

J. Cho [1], D. Zarnowiecki [1], A. Villani [2], A. Wilson [3], S. Bogomolova [3], K. O'Dea [1], N. Parletta [1]. [1] *School of Population Health, University of South Australia, Australia;* [2] *School of Pharmacy and Medical Sciences, University of South Australia, Australia;* [3] *School of Business and Marketing, University of South Australia, Australia*
E-mail: chojy036@mymail.unisa.edu.au (J. Cho)

Background/Aims: Depression is a leading cause of disability-adjusted life years, and is predicted to be a top contributor to global burdens of disease by 2030. Emerging evidence suggests that a Mediterranean style diet may be beneficial for improving depression and mental health. The aim of this study was to investigate associations between Mediterranean diet adherence, mental health and quality of life in individuals with depression.
Methods: This study utilised baseline data for 82 adults aged 18-65 years with depression, recruited for a Mediterranean diet intervention. Mediterranean diet adherence was measured using a 14-item questionnaire. Mental health and quality of life were assessed using the Depression Anxiety Stress Scales (DASS), Positive and Negative Affect Scale (PANAS), and Adolescent Quality of Life (AQoL) questionnaire (8D-version).