

addition, adiponectin and *sirtuin-1* were increased after a consumption of LAGE diets.

**Conclusion:** Diets low in AGEs improve cardiometabolic profile by reducing both traditional and non-traditional cardiovascular risk factors in individuals with or without diabetes. Hence restriction in dietary AGE content may be an effective strategy to decrease diabetes and cardiovascular risk.

<https://doi.org/10.1016/j.orcp.2016.10.204>

204

### Decaffeinated green coffee extract improves cardiovascular function in diet-induced obese rats



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Decaffeinated coffee has become a major part of the market as people wish to avoid the behavioural changes associated with caffeine. While caffeine reduces body weight as well, it is important to determine whether decaffeinated coffee improves metabolic, cardiovascular and liver function. We have therefore given decaffeinated green coffee extract (DC) to fat rats as a chronic treatment to determine these changes. Rats were given a high-carbohydrate, high-fat diet to induce metabolic, cardiovascular and liver changes characteristic of human metabolic syndrome.

8–9 weeks old Wistar rats ( $335 \pm 5$  g,  $n=48$ ) were divided into 4 groups of 12 rats: corn starch diet-fed rats; corn starch diet-fed rats given DC (5% in diet); high-carbohydrate, high-fat diet-fed rats and high-carbohydrate, high-fat diet-fed rats given DC (5% in diet). All rats were fed for 16 weeks. Treatment groups were given diets for first 8 weeks and the diets were supplemented with DC for the last 8 weeks.

DC reduced body weight in high-carbohydrate, high fat diet-fed rats while slightly reducing food intake compared to high-carbohydrate, high fat diet-fed. DC treatment reversed increase in systolic blood pressure and attenuated left ventricular diastolic stiffness while reducing collagen deposition and infiltration of inflammatory cells in the heart. DC treatment also improved liver inflammation and fat deposition in the liver. While DC improved cardiovascular function, it did not induce any changes in body fat.

These results suggest that decaffeinated green coffee improved obesity-related cardiovascular and liver changes in diet-induced obese rats.

<https://doi.org/10.1016/j.orcp.2016.10.205>

205

### Growth patterns and rapid weight gain in infants of Chinese-born immigrant mothers compared with Australian-born mothers living in Victoria, Australia



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**Background:** The third largest immigrant group in Australia originate from China. School-aged children with Asian backgrounds have increased risk of overweight and obesity. Early growth patterns of these children may provide insights regarding prevention opportunities.

**Aim:** To compare infant growth from birth to 3.5 years of age and prevalence of rapid weight gain (RWG) in infants of Chinese-born mothers (CBM) and Australian-born mothers (ABM) living in Australia.

**Methods:** Anthropometric data were collected (birth, 2, 4, 8 weeks; 4, 8, 12, 18 months; 2, 3.5 years,  $n=934$  for each group) from 16 Maternal and Child Health centres. Zscores (bmi-for-age (zbmi), weight-for-age (zwei), length/height-for-age (zlen)) were calculated using WHO growth standards. RWG was defined as an increase ( $\geq 0.67$ ) in zbmi from birth to 12 months. Differences were tested using *t*-test and  $\chi^2$  ( $p < 0.05$ ). Regression analyses (adjusted demographic covariates) were performed to examine the effect of ethnicity on RWG and zbmi, zwei and zlen at 3.5 years ( $p < 0.05$ ).

**Results:** Compared with ABM, infants of CBM had a lower mean zbmi score at birth, 2 weeks, 12 months until 3.5 years, but higher zBMI scores between 4 weeks and 8 months. The same differences were observed for mean zwei except at 12 months. Infants of CBM had lower mean zlen scores at birth and 3.5 years; but higher mean zlen at 8 weeks and 4 to 12 months. Regression

analysis revealed infants of CBM had lower zBMI (Bcoeff(SE)  $-0.42(0.09)$ ), zwei ( $-0.43(0.10)$ ) and zlen ( $-0.21(0.09)$ ) at 3.5 years compared to infants of ABM. A higher proportion of infants had RWG (35.6%) from CBM compared with ABM (27.5%) but regression analysis revealed no significant effects of ethnicity on RWG in the first 12 months.

**Conclusion:** Ethnic disparities in growth patterns are apparent. Understanding these differences enables identification of key opportunities to promote optimal growth in this population.

<https://doi.org/10.1016/j.orcp.2016.10.206>

206

### Increasing the availability of healthy children's menu options in South Australia: An evidence based Code of Practice for food businesses



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In 2015, the South Australian Department of Health established a **Healthy Kid's Menu** Taskforce to increase the availability of healthy children's menu options in South Australia. Subsequently CSIRO was commissioned to develop a voluntary **Healthy Kid's Menu** Code of Practice intended for wide spread statewide adoption by clubs, hotels, restaurants and cafes.

Key sources of evidence that informed the development of the Code were:

1. Statistics derived from the National Nutrition Survey (2011/12) and Australian National Children's Nutrition and Physical Activity Survey (2007) to identify key nutrients of concern, and their food/beverage sources, with a focus on foods eaten 'at place of purchase'.
2. Insight from scientific and grey literature that described or evaluated similar initiatives from Australian or relevant international contexts.
3. Collaboration with key industry stakeholders to ensure that the outputs were clear, achievable and practical for business owners and staff.
4. Consistency with the Australian Guide To Healthy Eating.

The **Healthy Kid's Menu** Code of Practice provides standards for the provision of:

1. Healthy drinks,
2. Nutritious main meals which include at least 1 serve of vegetables or salad, are prepared using

- small quantities of healthy fats and oils, and do not include any shallow or deep fried foods, processed meats or savoury pastries,
3. Fruit/reduced fat yoghurt based desserts,
4. Healthy meal combinations.

This **Healthy Kid's Menu** Code of Practice is supported by a Guide for Business, and the program is due to be rolled out late 2016. This presentation will outline the evidence base underpinning this activity, along with a description of Code of Practice and its interpretation.

<https://doi.org/10.1016/j.orcp.2016.10.207>

207

### Sustainable Connections for Overweight and Obesity in Paediatrics (SCOOP): A clinical redesign project



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Childhood obesity is one of the NSW Premier's 12 Priorities. Overweight or obesity affects almost one in four school-aged children in Australia, with prevalence higher in Western Sydney. Yet services for affected families in this region are sparse and unco-ordinated.

The Sustainable Connections for Overweight and Obesity in Paediatrics (SCOOP) project (funded by the NSW Children's Healthcare Network—Western Region) aims to: (1) map services currently providing paediatric obesity intervention, (2) improve capacity for multidisciplinary services for children aged 2-14 years with obesity within all levels of healthcare services, and (3) increase utilisation of Weight4KIDS obesity management eLearning program by health professionals. The geographical focus is within the Nepean Blue Mountains and Western Sydney geographical areas of NSW, with a vision for its outcomes to be translated to any region.