P23  Weight loss improves heart rate recovery in overweight and obese men with features of metabolic syndrome
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Background – Heart rate recovery (HRR) is an independent risk factor for cardiovascular disease and mortality and is inversely associated with insulin resistance and co-related metabolic risk markers.

Objective – The objective of this study was to determine the effects of weight loss on HRR and its association with traditional cardiovascular risk markers in overweight and obese men with components of the metabolic syndrome.

Design – HRR (defined as the decrease in HR from peak HR to that measured 1 minute after a standardised graded treadmill test) and a range of well-established cardiovascular risk factors, were measured in 42 overweight and obese men (BMI: 33.8±0.6 kg·m⁻²; age: 46.5±1.3 yrs) who had no symptoms of cardiovascular disease, but had components of the metabolic syndrome, before and after 12-weeks of weight loss.

Outcomes – The dietary intervention resulted in a 9% weight reduction (P<0.001). There were significant reductions in waist circumference, blood pressure, plasma triglycerides, total, LDL and HDL cholesterol, triglyceride:HDL ratio, CRP, plasma insulin, glucose and HOMA (P<0.05). Although peak heart rate remained unchanged, HRR at 1 minute improved from 33.4±1.4 to 37.0±1.2 bpm (P<0.001) after weight loss. There were no changes in either cardiorespiratory fitness (P=0.30) nor physical activity levels (P=0.67). The improvement in HRR was significantly correlated with decreases in body weight, BMI, waist circumference, plasma glucose, serum triglycerides and triglyceride:HDL ratio, but was only independently associated with changes in weight and plasma glucose concentrations.

Conclusion – In addition to improving a range of well-accepted cardiovascular and metabolic risk factors, weight loss also improves HRR after exercise, a less well-recognised risk factor.

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P24  A survey of foods marketed to children in Australia
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Background – There is a growing concern over the increasing prevalence of obesity, diabetes and dental erosion amongst Australian children. Association of the effect of marketing such as television advertising of low nutrient, high energy dense foods with childhood obesity is becoming an issue of concern for public health (1).

Objectives – The purpose of this study was to determine the nutrient content, particularly fat and sugar content, of food products marketed to children in Australia.

Design – Packaged food products (408) were purchased from supermarkets in different Brisbane regions on random days in April, June and July in 2005. A further 23 products were purchased from fast food outlets. Food products were chosen based on the marketing techniques directed at children. The food products were categorized into 17 food types. A Microsoft Access database was created to consolidate information on nutrients, labels and marketing techniques of the products evaluated. The RED category criteria tables from the Smart Choices food and drink selector (2) and the Nutrition Australia Selection Guidelines (3) were used as the benchmarks for mean energy, total fat, saturated fat, sugar and sodium levels. Statistical analyses were performed using MINITAB 14.

Outcomes – Important marketing strategies included ease-of-use packaging that is well-designed for children (88.9%), use of popular personality (63.3%) and television advertising (37.4%). Mean total fat, saturated fat and/or mean sugar content of most food types were found to be significantly higher (p <0.05) than the comparable benchmark values. The majority of the 431 food products were classified into the RED category of the Smart Choices food and drink selector ie foods that are high in energy, saturated fat, and/or added sugar and/or sodium.

Conclusion – Manufacturers use a variety of techniques to market food products to children. Most of the food products especially marketed to children used in this study are not the most appropriate and healthiest food choices.

References