

Changing Lifestyle in Children - All Change: Can This Reduce Cardiovascular Risk?

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Background

The process of atherosclerosis resulting in cardiovascular (CV) disease is likely to be influenced by childhood environmental factors. In our own previous study of 200 children we detected significant vascular risk in approximately 20%. This study evaluates the hypothesis that significant beneficial changes in early CV risk may result from targeted lifestyle changes developed as a package of interventions appropriate for the cultural and social setting of children and their families. We plan to enrol 180 children from Primary 5 classes from 4 schools in Fife, and evaluate 2 contrasting school-based lifestyle change strategies, using pre and post markers of dietary intake and growth, and biochemical and physiological markers of CV risk. The latter will include non-invasive assessments of arterial compliance, intima-media thickness and blood sampling to assess endothelial activation/behaviour and insulin resistance. The demonstration that intervention alters CV risk will provide robust data on the need to alter lifestyle early in life.

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