

crisp3prd 1.0



Abstract

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Project Title: CARDIOVASCULAR HEALTH IN CHILDREN AND YOUTH (CHIC III)

Abstract: *This continuation of the Cardiovascular Health in Children and Youth Study (CHIC III) will investigate the childhood development of several risk factors for cardiovascular disease (CVD) and the aggregation of those risk factors over time. One recognized aggregation, or cluster, of risk factors is commonly linked to Type 2 diabetes and CVD in adults. This aggregation is called the insulin resistance syndrome and consists of related metabolic abnormalities including dyslipidemia (high triglyceride and low high density lipoprotein cholesterol [HDL-C], hypertension, hyperinsulinemia, and glucose intolerance). Obesity is thought by some to also be a part of the syndrome. At this time, little is known about the prevalence or development of the insulin resistance syndrome during childhood and adolescence. In addition, no studies have examined insulin resistance in youth with regard to eating habits, physical activity and maturational level, all of which can affect various risk factors, particularly those in the insulin resistance syndrome. Using an accelerated, longitudinal (cohort-sequential) design, CHIC II subjects and additional adolescent and preadolescent children will be followed through all stages of puberty. CVD risk factors as well as aggregation of specific factors into the insulin resistance syndrome will be studied. The contribution of obesity, heredity and environmental factors (broadly defined), as well as a newer risk factor (lipid particle subclass profiles), will also be examined to determine their effects on the emergence, aggregation and developmental course of risk factors for CVD. Youth in three cohorts, aged 8-18, will be evaluated annually for risk factors of CVD for 4 years or until they graduate from high school. We will measure: blood pressure; body mass index; skinfolds; waist and other circumferences; insulin, glucose, and lipids via venipuncture; CV fitness;*

eating habits; physical activity; and smoking to examine the emergence, aggregation and developmental course of risk factors across all stages of puberty. We will also store all blood for possible future genetic studies as well as gather data from parents on the family history of CVD and their personal health habits. This is a cost effective way to obtain these data, as we will be able to capitalize on the data already collected for CHIC II subjects. Major analysis will include general linear models and latent class models.

Thesaurus Terms:

adolescence (12-18), atherosclerosis, cardiovascular disorder epidemiology, cardiovascular disorder prevention, disease /disorder proneness /risk, health behavior, middle childhood (6-11), noninsulin dependent diabetes mellitus blood pressure, cholesterol, exercise, family genetics, high density lipoprotein, insulin sensitivity /resistance, longitudinal human study, low density lipoprotein, nursing care, obesity, prognosis, socioenvironment, syndrome behavioral /social science research tag, clinical research, health services research tag, human subject

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