

SUPPLEMENTAL FILE

METHODS

Other measurements

After a 5-minute rest, blood pressure was measured on the right arm of seated participants at three one-minute intervals using a Hawksley random zero sphygmomanometer (WA Baum Company, Copaugue, NY) at baseline through year 15. At years 20 and 25, blood pressure was measured using a standard automated oscillometric blood pressure measurement device (OmRON model HEM907XL; Omron). Blood was drawn by venipuncture according to a standard protocol (1). Glucose was assayed at baseline using the hexokinase ultraviolet method by American Bio-Science Laboratories (Van Nuys, CA) and hexokinase coupled to glucose-6-phosphate dehydrogenase (Millipore, Inc, Bellerica, MA) at years 7, 10, 15, 20 and 25. The insulin measurements were performed with the use of a radioimmunoassay (Linco Research, St Charles, MO) at baseline and years 7, 10, 15 and 20, and an Elecsys sandwich immunoassay (Roche Diagnostics Corporation, Indianapolis, IN) at year 25. Diabetes was determined based on a combination of measured fasting glucose levels (≥ 7.0 mmol/l, ≥ 126 mg/dl) at baseline and years 7, 10, 15, 20, and 25; self-report of oral hypoglycemic medications or insulin (all examinations), a 2-hour postload glucose ≥ 11.1 mmol/l (≥ 200 mg/dl) at years 20 and 25; or a glycated hemoglobin $A_{1c} \geq 6.5\%$ at years 20 and 25 (2).

Standard questionnaires were used to maintain consistency in the assessment of demographic (age, sex, race, and education) and behavioral (physical activity, cigarette smoking, and alcohol use) information across all CARDIA examination visits. Education was represented as maximum years of schooling. The CARDIA Physical Activity History questionnaire queried the amount of time per week spent in 13 categories of leisure, occupational, and household

physical activities over the past 12 months (3). Total daily alcohol consumption was calculated from an interviewer-administered questionnaire. The use of antihypertensive medication was assessed by self-report at each examination.

REFERENCES

1. Friedman GD, Cutter GR, Donahue RP, Hughes GH, Hulley SB, Jacobs DR, Jr., et al. CARDIA: study design, recruitment, and some characteristics of the examined subjects. *Journal of clinical epidemiology*. 1988;41(11):1105-16.
2. Diagnosis and classification of diabetes mellitus. *Diabetes Care*. 2010 Jan;33 Suppl 1:S62-9.
3. Jacobs DR, Jr., Hahn LP, Haskell WL, Pirie P, Sidney S. Validity and reliability of short physical activity history: CARDIA and Minnesota Heart Health Program. *J Cardiopulm Rehabil*. 1989;9(11):448-59.