

# Cardiovascular Disease in African Americans

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[*Rev Cardiovasc Med. 2004;5(suppl 3):S1-S2*]

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**C**ardiovascular disease (CVD) is America's number one killer and, despite encouraging declines over the past three decades, CVD mortality rates remain unacceptably high. Even more troubling is the fact that mortality rates among African Americans continue to exceed those of the general population.<sup>1-2</sup> Whereas cardiovascular death rates have declined in the general American population over the past decade, death rates for African Americans have remained constant. African American women are at particular risk,<sup>3</sup> with coronary heart disease (CHD) mortality rates 35.3% higher and stroke rates 71.4% higher than rates for white women. In short, African Americans die younger, more suddenly, and more often than the general population.

In order to reduce these disturbing disparities, the problem must be attacked on a number of different levels. Research, education, and advocacy are crucial to this effort, as is a better understanding of the true nature of CVD in the African American community. In this supplement we will attempt to shed light on these problems and lend additional insight into the state of cardiovascular disease in African Americans. Though many aspects of heart disease are similar among different races, uniquely differentiating aspects clearly exist. The preliminary findings from the African-American Heart Failure Trial (A-HeFT) illustrate this point. This randomized clinical trial tested the effects of isosorbide dinitrate plus hydralazine on top of standard medications in African Americans with New York Heart Association class 3 to 4 heart failure. The study was halted early, after a significant survival benefit emerged among patients receiving the isosorbide

dinitrate treatment, raising the intriguing possibility that nitric oxide deficiency is a major contributor to adverse heart failure outcomes in African Americans. This underscores the vital need for additional knowledge regarding CVD in the African American community.

Dr. Laurence Watkins leads off this supplement with a comprehensive perspective on CHD in African Americans, beginning with observations from the 1980s and continuing through to a discussion of present-day findings. Dr. Topol and I follow with a discussion of ethnic and racial differences in the pathobiology of

atherosclerosis. Drs. Albert and Ridker next survey the field of inflammatory biomarkers as they affect African Americans and potentially contribute to CVD. Drs. Ferdinand and Clark discuss the epidemics of diabetes and the metabolic syndrome in African Americans and provide possible strategies to reduce these risks. Dr. Wilson summarizes currently available risk algorithms and their applicability in African American populations. Finally, Dr. Fonarow and I highlight potential strategies to close the knowledge, treatment, and outcome gaps between African Americans and the general population.

In summary, this supplement provides a broad view of the state of knowledge regarding cardiovascular diseases in African Americans. It raises as many questions as it answers but will hopefully spark thought, interest, and consideration of this enormously important topic. ■

### References

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