

## Understanding Obesity in Youth

A Statement for Healthcare Professionals From the Committee on Atherosclerosis and Hypertension in the Young of the Council on Cardiovascular Disease in the Young and the Nutrition Committee, American Heart Association

Writing Group; Samuel S. Gidding, MD; Rudolph L. Leibel, MD; Stephen Daniels, MD, MPH; Michael Rosenbaum, MD; Linda Van Horn, RD, PhD; Gerald R. Marx, MD

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**Obesity is strongly linked to cardiovascular disease and non–insulin-dependent diabetes mellitus** through the promotion of insulin resistance and other associated physiological abnormalities, including dyslipidemia, elevated blood pressure, and increased left ventricular mass.<sup>1 2 3 4</sup> Overweight and insulin resistance have been linked to the early development of atheromata in young adults independent of other cardiovascular risk factors.<sup>5</sup> Pulmonary, skeletal, dermatologic, immunologic, and endocrinologic systems display obesity-related morbidities (Table 1 [↗](#)).<sup>6</sup> Adverse social and psychological effects of obesity have also been demonstrated.<sup>6 7 8</sup>

Obesity is a major public health problem with both genetic and environmental causes.<sup>9 10</sup> Longitudinal studies of children followed into young adulthood suggest that overweight children may become overweight adults, particularly if obesity is present in adolescence.<sup>11 12 13</sup> There is substantial evidence that obesity in childhood lays the metabolic groundwork for adult cardiovascular disease.<sup>14</sup> Studies of families and twins have clearly demonstrated a strong genetic component in the etiology of obesity.<sup>15 16 17</sup> Just as persuasively, a recent study of secular trends in anthropometry has shown an increase in the prevalence of overweight in children and young adults over the last 10 to 20 years, indicating a potent interaction between environment and genetics.<sup>18</sup> This secular trend is associated with worsening cardiovascular risk.<sup>19</sup>

This statement reviews the medical consequences of obesity in youth. Epidemiology, morbidity (especially cardiovascular), and etiology are considered and approaches to prevention and treatment presented. Areas for additional research are highlighted.