

## **Could You Have Heart Disease and Not Know It?**

**By Gregory S. Cohn, M.D.**

Early indicators of cardiovascular disease (CVD) may be present in your body long before you exhibit any outward signs of the disease. Multiple studies of children and young adults have documented that evidence of atherosclerosis (the build up of plaque in arteries) can be found early in life, and that this process progresses through adolescence into adulthood. Risk factors for CVD include smoking, high blood pressure, obesity/sedentary lifestyle, elevated cholesterol levels, family history, diabetes, and others. Some sobering thoughts to consider: 65% of the US population is overweight or obese, and over the last several years, the greatest increase has been seen in those who are morbidly obese. An ever-increasing number of teenagers are developing maturity-onset (Type 2) diabetes, and children born in the year 2000 will have between a 33-40% risk of developing diabetes sometime during their life. Diabetes is a leading cause of kidney failure, blindness, and non-traumatic amputations, but the vast majority of diabetics do not die from “sugar-related” problems. In fact, 75-80% of diabetics die from cardiovascular disease, with over half of them showing signs of advanced vascular disease by the time they are diagnosed with blood sugar abnormalities. **Overall, CVD remains the leading cause of death in the US.**

The link between obesity, diabetes, and CVD is an abnormality called “insulin resistance.” Specifically, being overweight in the central or abdominal area increases an individual’s risk of developing insulin resistance, high blood pressure, cholesterol abnormalities, and, at a later point in time, elevated blood sugar levels. Persons exhibiting at least 3 of these abnormalities are defined as having the Metabolic Syndrome (MBS). In addition, high levels of inflammation in blood vessels and an increased tendency to form blood clots are promoted in this metabolic stew. It is not hard to understand why those who have the MBS are at greater risk for becoming diabetic or suffering from CVD.

Depending on ethnicity and age, studies suggest that 25-35% of the US population meet criteria for having the MBS. However, it is very likely that this is an underestimation of its true prevalence, as many of these abnormalities may be subtle. As a consequence, the MBS is often **not** recognized by medical professionals.

There are a few take home messages here. First, a significant portion of the US population has the Metabolic Syndrome and is at risk for developing diabetes and cardiovascular disease. Second, a thorough exam and blood tests with your physician can help determine if you show signs of insulin resistance or the Metabolic Syndrome. Third, once recognized, the cornerstone of treatment is lifestyle modification. The key is that relatively modest changes in diet, exercise, and weight can pay big dividends. However, medications are also often necessary. Finally, prevention is the best medicine! The time to intervene is **before** the occurrence of a heart attack, stroke, or diabetes, which can result in death or permanent disability. Remember that the clock starts ticking early in life, and that the process may be well advanced by the time we reach our 40s or 50s. There is no time like the present to get started.