

FEBRUARY IS HEART HEALTH MONTH

Cardiovascular disease remains the major health problem for Americans. Heart attacks and strokes occur primarily as a result of atherosclerotic plaque that develops on the arteries in the body and specifically in the heart (coronary arteries) and those that supply the brain (especially carotid arteries). But, it is increasingly recognized that the number one root cause for developing cardiovascular disease at an earlier age is obesity.

Really? Well, obesity in its simplest form represents an excess of fat storage on the body. We think of fat as simply extra pudginess and extra pounds, but really fat must be thought of as an important organ in its own right. Fat, even though it is distributed around the body, produces important secretory hormones and plays an important role in our metabolism.

Excess body fat creates extra resistance in the arterial circulatory pathway and it causes a rise in the body's systemic blood pressure, hypertension. Excess fat is also closely associated with increased circulating cholesterol and increased circulating triglycerides, both of which are important recognized risk factors for heart attacks and strokes.

Excess body weight is more than a problem on the aching, weight bearing joints like the knees and ankles. It produces a direct and severe strain on the heart and exacerbates the development of atherosclerotic plaques. In short, obesity is a fast-track to heart attacks, strokes and cardiovascular deaths.

As if this weren't bad enough, obesity also leads to type 2 diabetes through a different mechanism that involves resistance to the body's circulating insulin. The excessive fat cells become less and less interested in what the circulating insulin hormone has to say and this causes the serum blood sugar to rise and triggers a whole host of other harmful developments predominantly in the cardiovascular system. Small arteries, particularly those in places like the feet, the retina and the kidneys shut down and close off causing severe damage to these organs. The diabetes causes the same sort of damage to the small blood vessels in the heart and brain, which leads to more heart attacks and strokes.

So what we often have is the excess body fat leading to a perfect storm in which elevated blood pressure, elevated lipids and atherosclerotic plaques often combine with the small vessel disease of obesity related type 2 diabetes to create early and severe cardiovascular disease.

The effects of obesity on heart health are dramatic and often happen quite early in life. While obesity shortens life expectancy in many ways, the top avenue stems from increased cardiovascular mortality. This is the primary reason why the current generation of young people, with two-thirds of them either overweight or obese, will be the first generation that does not outlive its parents. The hard-won gains in life expectancy over the last one hundred years, brought about through great improvements in sanitation, public health, accident prevention and cancer and cardiovascular disease treatments, are being quickly reversed by the obesity epidemic.

So while there are many important things that should be noted during a month devoted to heart health, this year, and likely for many years to come, the single most important item on our to-do

list is lose weight. The amazing good news is that with significant weight loss, much of the cardiovascular damage and risk is reversed.