

White Paper

Weight Loss as an Effective, Noninvasive, Nonpharmacological Obesity Treatment for Patients with Cardiovascular Risks

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Cardiovascular disease (CVD) is the leading cause of mortality worldwide,¹ and in the United States someone dies every 36 seconds from CVD.² Despite advanced knowledge of the disease and its risk factors and having the medical and technological treatments to help prevent it, incidents of heart failure have been on the rise since 2012 after a 30 year decline. The key factors contributing to this reversal? Obesity and diabetes.³

Both epidemics themselves, obesity and diabetes, are closely linked and collectively responsible for about a million deaths each year.^{4 5} Because both are significant cardiometabolic risk factors, a diagnosis of overweight or obesity and a candid discussion of weight loss and maintenance strategies is critical as early on in the physician-patient relationship as reasonable.

In addition to diabetes, hypertension⁶ is another primary health issue associated with obesity, as is atrial fibrillation,⁷ and dyslipidemia, which affects approximately 60 to 70 percent of patients who are obese.⁸ Dyslipidemias, congestive heart failure and insulin resistance are further linked through lipotoxicity, a metabolic syndrome in which triglyceride accumulation in the muscles (especially cardiac myocytes), liver, kidneys, and pancreatic beta cells lead to hepatic insulin resistance, decreased myocardial function and loss of beta cell insulin release.¹

The risks associated with any one of these conditions can have serious health implications, but when multiple comorbidities are present, which is likely with patients with obesity, health risks can become mortality risks. According to The Cardiovascular Disease Lifetime Risk Pooling Project, the absence of hypertension, obesity and diabetes during mid-life (45 to 55 years) can result in a 73 to 86 percent lower risk for incident heart failure compared to those having all three. Avoiding these risk factors by the ages of 45 and 55 can substantially prolong heart failure-free survival and reduce heart failure-related morbidity.⁹ Greater emphasis on prevention of cardiovascular risk factors is critical.

Despite general knowledge of the risk factors, little improvement to lifestyle has been made. Recent updates to the multi-generation Framingham Heart Study, which initially found a strong link between risk for heart failure and overweight and obesity, still report a prevalence of poor cardiovascular health among their current middle-aged generational sample.¹⁰ Similarly, current research confirms clear, causal associations between obesity-related traits and coronary artery disease (CAD), with body mass index, hip circumference, waist circumference and waist-hip ratio among the most notable contributors.¹¹

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WEIGHT LOSS: THE BEST OPTION

Given that obesity is such a significant contributing factor to cardiovascular and related conditions, it is no surprise that weight loss is among the most effective solutions for far-reaching health benefits. Weight loss improves cardiac and other health functions and can be seen with even a modest reduction in the range of five to 10 percent of body weight.^{12 13}

Although there is no one-size-fits all approach to weight loss, Very Low Calorie Diets (VLCD) have evolved to overcome serious scrutiny over the past several decades to be deemed consistently “safe and effective” for treating obesity, with or without related conditions, when used under **medical supervision**.^{14 15} The landmark Look AHEAD (Action for Health in Diabetes) Trial was among the first to support the benefits of weight loss through meal replacements. Its findings of multiple health improvements included improved blood pressure, reduced need for diabetes medication, improved lipids and glucose biomarkers, improved quality of life, and reduced overall health costs.¹⁶

Other studies support positive health outcomes. In a recent study of overweight and obese women who followed an energy-restricted diet with and without meal replacements, only the group using meal replacements continued to experience significant reductions in metabolic syndrome and metabolically unhealthy abdominal obesity after six months.¹⁷

DIAGNOSIS AS THE FIRST STEP TO CARDIOVASCULAR CARE

Although weight loss is a clear solution, it is not an easy one. It requires more focused attention on weight as a medical disease worthy of acknowledgement and treatment, rather than merely as a contributing factor to other diseases and conditions. This means general practitioners must become more comfortable formally diagnosing obesity and spending time identifying realistic options for programs that support each patient’s needs and abilities. This is particularly important because medical supervision and a team approach are critical components to long-term weight loss and adherence to program. The amount of weight lost in the first year of a three-year VLCD program has been found to be significantly associated with the percentage of weight loss for each of the subsequent years.¹⁸

The continued rise in obesity means a parallel rise in cardiovascular disease, diabetes, hypertension, dyslipidemia, orthopedic injuries and more. Weight loss and lifestyle change is a safe alternative and early diagnosis and treatment yields the best results. A shift in how obesity is diagnosed, discussed and treated is needed if there is to be any hope of slowing the rate of obesity and related poor health outcomes.

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