

# Introduction

It is estimated that in the United States, 1 in 3 people (~79 million) have cardiovascular disease (CVD) and ~2500 will die each day from this disease.<sup>1</sup> CVD accounted for more deaths than any other single or group causes of death in every year for approximately the past century.<sup>1</sup> The National Center for Health Statistics reports that eliminating all forms of major CVD would raise life expectancy by almost 7 years.<sup>2</sup> However, this epidemic shows no signs of slowing as there is an alarming increase in unattended risk factors in the younger generations.<sup>1</sup> The burden of this disease is economic as well. In 2007, the estimated direct and indirect cost of CVD was \$431.8 billion.<sup>1</sup>

Managing patients with or at high risk for CVD requires the assessment and treatment of several modifiable cardiometabolic risk factors: tobacco use, physical inactivity, dyslipidemia (low serum concentrations of high-density lipoprotein cholesterol and elevated serum triglyceride levels), abdominal obesity, high blood glucose concentrations, and insulin resistance. These cardiometabolic risk factors are associated with an increased risk of diabetes,<sup>3</sup> and a diminished health-related quality of life.<sup>4,5</sup> Studies have shown that appropriate screening and diagnosis for CVD risk can reduce, delay, and prevent cardiometabolic risk.<sup>6</sup> The articles in this issue will examine these strategies.

The first article by Christopher Cannon, MD, reviews the impact of several risk factors such as obesity, hypertension, dyslipidemia, insulin resistance, and type 2 diabetes on CVD outcomes and discusses the magnitude of CVD risk reduction that may be achieved by modification of these factors.

Louis Aronne, MD, and Kathy Isoldi, MS, RD, CDE, next discuss the obesity epidemic in both adults and children and their association with increased cardiometabolic risk. A

small reduction in body weight of only 5% to 10% improves lipid profile, insulin sensitivity, and endothelial function, and reduces thrombosis and inflammatory markers. The authors discuss new treatment options that promote small but significant weight loss and urge clinicians to take an active role in addressing obesity in their patients.

Derek LeRoith, MD, PhD, reviews dyslipidemia and glucose dysregulation in the next article in this issue. He examines the endocannabinoid system and its role in regulating metabolism through effects on food intake and body composition through peripheral effects on adipose tissue. A discussion of reducing risk factors in obese and overweight patients through lifestyle modification and pharmacologic therapy concludes this article.

Type 2 diabetes mellitus and its association with cardiometabolic risk factors is the topic of the next article by John Gerich, MD. He examines the additive effects of individual risk factors and presents guidelines and treatment strategies for minimizing cardiovascular risk factors in patients with type 2 diabetes.

The final paper in the issue by James Early, MD, reviews methods for assessing patient cardiometabolic risk using a variety of formal risk assessment tools. He examines lifestyle modifications which can be effective in managing cardiovascular risks and pharmacotherapy which can be used to manage specific targets such as obesity or insulin resistance.

The articles presented in this issue offer clinicians strategies for reduction and management of cardiometabolic risk, including lifestyle changes and novel pharmacological therapies.

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Guest Editor

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## REFERENCES

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