

Two-thirds of deaths related to high BMI are due to cardiovascular diseases, says consensus

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The European Society of Cardiology (ESC) Clinical Consensus Statement on Obesity and Cardiovascular Disease, presented at this

year's [ESC Congress](#) (London, UK, 30 August to 2 September) summarizes current evidence on the epidemiology and etiology of obesity; the interplay between obesity, cardiovascular risk factors and cardiac conditions; the clinical management of patients with cardiac disease and obesity; and weight loss strategies including lifestyle changes, interventional procedures, and anti-obesity medications with particular focus on their impact on cardiometabolic risk and cardiac outcomes.

The Consensus Statement is co-published in the *European Heart Journal* and the *European Journal of Preventive Cardiology*.

The global prevalence of obesity has more than doubled over the past four decades, currently affecting more than a billion individuals. Beyond its recognition as a high-risk condition that is causally linked to many chronic illnesses, obesity has been declared a disease in itself, that results in impaired quality of life and reduced life expectancy.

"Notably, 67.5% of deaths related to high body mass index (BMI) are attributable to [cardiovascular disease](#) (CVD). Despite the increasingly appreciated link between obesity and a broad range of CVD manifestations including atherosclerotic disease, heart failure, thromboembolic disease, arrhythmias and sudden cardiac death, obesity has been under-recognized and sub-optimally addressed compared with other modifiable [cardiovascular risk factors](#)," says Professor Emeline Van Craenenbroeck, Consensus Statement Co-Chair, Antwerp University Hospital, Belgium.

"This Consensus Statement aims to raise awareness of obesity as a major risk factor and provide guidance for implementing evidence-based practices for its prevention and optimal management within the context of primary and secondary CVD prevention," adds Professor Eva Prescott, corresponding author, Bispebjerg Frederiksberg Hospital,

University of Copenhagen, Denmark.

While obesity adversely affects different organs and is a risk factor for several chronic diseases, the Consensus Statement highlights how obesity not only contributes to well-established cardiovascular (CV) risk factors (type 2 diabetes [T2DM], dyslipidemia, elevated blood pressure and arterial hypertension) but also has direct adverse effects on cardiac structure and function and leads to the development of CVD—both atherosclerotic and non-atherosclerotic—independently of other CV risk factors.

The Consensus Statement highlights that both genetic and biological factors influence individual development of obesity, but the worldwide obesity epidemic is largely driven by environmental/societal factors. It also notes that individuals with similar BMI may have different cardiometabolic risks. Other metrics of abdominal adiposity, including waist circumference, waist-to-height ratio and waist-to-hip ratio are useful to refine [cardiometabolic risk](#) stratification beyond BMI.

Obesity and T2DM are strongly interrelated. About 80-85% of people with T2DM are overweight or obese. Conversely, individuals with obesity are nearly three times more likely to develop T2DM than normal weight individuals (20% vs. 7.3%, respectively). In patients with established T2DM, weight loss interventions have shown positive effects on glycemic control, including remission to a non-diabetic state. Regarding hypertension, high BMI is thought to be responsible for 78% of the risk of hypertension in men and 65% of the risk in women aged 20-49 years.

The relationship between obesity and various types of CVD, including atrial fibrillation, atherosclerotic CVD (ASCVD), [heart failure](#), arrhythmias, venous thromboembolism, and valvular disease, is discussed in the Consensus Statement.

Obesity is both preventable and treatable. Comprehensive obesity treatment is based on multidisciplinary approaches, including behavioral interventions, nutrition, physical activity, pharmacological therapy, and endoscopic procedures/bariatric surgery as appropriate.

"Despite the broad range of available treatment options, obesity management has received considerably less attention compared with other modifiable CV risk factors over the past decades, particularly among cardiologists. Newer anti-obesity medications have recently emerged as additional options for marked weight loss with proven effect on CV outcomes, fueling interest in obesity as a therapeutic target," says Professor Konstantinos Koskinas, Consensus Statement Co-Chair, Bern University, Switzerland.

A significant part of the Consensus Statement is dedicated to both non-pharmacological and pharmacological treatment of obesity. Among the key points on dietary interventions are that they generally aim for a 500–750 kcal/day energy deficit, but adjustments to individual body weight and activity are needed.

And while a weight reduction in the range of 5–10% can be achieved with various nutritional and multidisciplinary approaches, maintenance of effects is a key issue. Physical activity interventions typically have modest effects on weight loss but are important for weight loss maintenance and reduction of overall CV risk.

On drugs to treat obesity, the statement highlights that orlistat and bupropion/naltrexone should be used with caution as weight-loss medications, particularly in patients with known CVD, in view of their modest effects on body weight, scarce evidence on CV safety, and concerns regarding potential long-term CV risk. However, it does highlight that glucagon-like peptide-1 (GLP-1) agonists are effective for weight loss and improvement in CV risk factors.

"GLP1-RA is effective for weight loss and improvement in CV risk factors; currently the only drug regimen with proven outcomes effect in patients with established CVD without T2DM is semaglutide 2.4 mg/weekly," says Professor Van Craenenbroeck. "Treatment effects are limited to the duration of treatment. The long-term effects and maintenance of the efficacy of weight-loss medications requires further investigation."

The authors conclude, "The global problem of obesity is unlikely to be resolved by medical, lifestyle or other interventions directed towards individuals alone. The epidemic of overweight and obesity, affecting now more than 60% of the population in Europe, results from societal and [lifestyle changes](#) and can be amended through effective public health policies. The passivity of governments while the obesity epidemic has evolved over decades is noticeable. We live in an obesogenic environment in which circumstances beyond individual control drive the obesity crisis.

"Individual treatment of obesity in patients with CVD may be cost-effective in some but currently remains out of reach for the majority of patients due to the costs to the individual as well as societal costs.

"Practicing physicians, including cardiologists, can contribute to the battle against obesity in multiple ways and at different levels, by becoming proactive in the prevention and management of obesity, as they have been for decades with other CV risk factors. They should consistently communicate the CV risk associated with obesity and stress the importance of life-long adoption of healthy lifestyles to maintain a healthy body weight throughout life.

"For patients presenting with obesity, cardiologists and related health care professionals should appreciate the paradigm shift towards combination strategies for managing [obesity](#) as a chronic disease. It

should be appreciated, however, that lifestyle interventions remain first-line treatment for weight reduction, and that the effects of pharmacologic and lifestyle interventions on [weight loss](#) and cardiometabolic factors are additive.

"Therefore, drug treatment—if applicable and locally supported—should be used as a complementary rather than substitutive treatment option; in this case, long-term adherence to a healthy lifestyle remains critical in order to potentiate and maintain the favorable drug effects."

More information: Konstantinos C. Koskinas et al, Obesity and Cardiovascular Disease: an ESC Clinical Consensus Statement, (2024). [DOI: 10.1093/eurheartj/ehae508](https://doi.org/10.1093/eurheartj/ehae508)

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