Cardiovascular Disease and Obesity: What's the Connection?

About cardiovascular disease (CVD) and obesity

Heart disease is the leading cause of death in the United States.¹

Over the last century, heart disease and stroke continue to be cited among the top causes of death in the US.²

Between 1999 and 2020,

obesity-related CVD deaths tripled in the US.³ Obesity is an epidemic in the US.⁴ More than

1 in 3 (41.9%) US adults

live with obesity,⁵ which is one of the leading risk factors for CVD, such as heart disease and stroke.⁶

Obesity increases the risk of developing high blood pressure, high blood cholesterol, and type 2 diabetes, all contributing factors to CVD.⁷

Independently of other CVD risk factors, obesity leads to the development of CVD and CVD mortality.⁴ Despite these statistics, obesity continues to be a misunderstood, underdiagnosed, and an undertreated chronic disease.⁸

The growing impact of CVD

With the global prevalence of obesity predicted to reach

over 1.5 billion adults by 2035,

increased CVD prevalence might follow.9-10

Sedentary behavior has paralleled the increase in prevalence of chronic diseases, including obesity and CVD.¹¹

Heart disease and stroke cost the US healthcare system an estimated

\$216 billion per year and cause \$147 billion in lost productivity

on the job.¹²

Residual cardiovascular risk in patients with CVD and obesity

Despite the current standard of care, residual risk for patients with obesity and CVD persists and therefore remains an unmet medical need.¹³

Residual risk of future cardiovascular events exists even after treating modifiable risk factors, including high blood pressure, high blood cholesterol, and high blood glucose.^{4,14}

High blood pressure cholesterol glucose Identifying and addressing residual risk in patients with obesity and CVD is critical to improve outcomes.⁴



References

- 1. Centers for Disease Control and Prevention. Leading causes of death. January 17, 2024. Accessed February, 2024. https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm.
- 2. Martin SS, Aday AW, Almarzooq ZI, et al. 2024 heart disease and stroke statistics: A report of US and Global Data from the American Heart Association. Circulation. 2024;149(8). doi:10.1161/cir.00000000001209.
- 3. Raisi-Estabragh Z, Kobo O, Mieres JH, et al. Racial disparities in obesity-related cardiovascular mortality in the United States: Temporal trends from 1999 to 2020. *Journal of the American Heart Association*. 2023;12(18). doi:10.1161/jaha.122.028409.
- 4. Powell-Wiley TM, Poirier P, Burke LE, et al. Obesity and cardiovascular disease: A scientific statement from the American Heart Association. *Circulation*. 2021;143(21). doi:10.1161/cir.00000000000973.
- 5. Centers for Disease Control and Prevention. Adult obesity facts. May 17, 2022. Accessed February, 2024. https://www.cdc.gov/obesity/data/adult.html.
- 6. Centers for Disease Control and Prevention. Heart disease and stroke. September 8, 2022. Accessed February, 2024. https://www.cdc.gov/chronicdisease/resources/publications/factsheets/heart-disease-stroke.htm.
- 7. National Institute of Diabetes and Digestive and Kidney Diseases. Health risks of Overweight & obesity. Accessed February, 2024. http://www.niddk.nih.gov/health-information/weight-management/adult-overweight-obesity/health-risks.
- 8. Kaplan LM, Golden A, Jinnett K, et al. Perceptions of barriers to effective obesity care: Results from the National Action Study. *Obesity*. 2017;26(1):61-69. doi:10.1002/oby.22054.
- 9. World Obesity Federation. World obesity atlas 2023. Accessed February, 2024. https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2023.
- 10. Heidenreich PA, Trogdon JG, Khavjou OA, et al. Forecasting the future of cardiovascular disease in the United States: a policy statement from the American Heart Association. *Circulation*. 2011;123(8):933-944. doi:10.1161/-CIR.0b013e31820a55f5.
- 11. Henson J, De Craemer M, Yates T. Sedentary behaviour and disease risk. BMC Public Health. 2023;23(1). doi:10.1186/s12889-023-16867-2.
- 12. Centers for Disease Control and Prevention. Health and economic costs of chronic diseases. March 23, 2023. Accessed February 29, 2024. https://www.cdc.gov/chronicdisease/about/costs/index.htm.
- 13. Khafagy R, Dash S. Obesity and cardiovascular disease: The emerging role of inflammation. Frontiers in Cardiovascular Medicine. 2021;8. doi:10.3389/fcvm.2021.768119.
- 14. Dhindsa DS, Sandesara PB, Shapiro MD, Wong ND. The evolving understanding and approach to residual cardiovascular risk management. Frontiers in Cardiovascular Medicine. 2020;7. doi:10.3389/fcvm.2020.00088.



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