Heart Disease in South Asia: A Collision of Culture, Biology, and Public Health Gaps

Currently, the world's top cause of mortality, cardiovascular disease (CVD), is especially prevalent in South Asia. Mortality rates are still disproportionately high, and people in this area frequently get heart disease 10-20 years earlier than people in Western populations. Lifestyle variables alone cannot account for this issue; rather, cultural practices, genetic predispositions, and deficiencies in health policy and infrastructure come together to cause it. Addressing what has turned into South Asia's cardiac disaster requires an understanding of these interrelated factors.
Cultural and lifestyle contributors

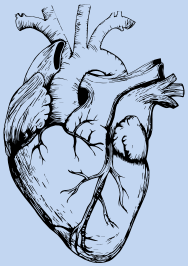
Traditional South Asian diets have changed due to rapid urbanisation, which has reduced possibilities for physical activity and replaced them with refined carbs, processed oils, and sugary foods. Smokeless and other kinds of tobacco use are nevertheless common, and stress from city life increases the risk. Additionally, many people are predisposed to diabetes and metabolic syndrome at younger ages due to the "thin-fat" phenotype, which is characterised by lean appearance but visceral fat due to early-life undernutrition followed by adult caloric excess.

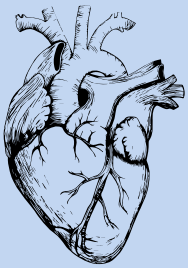
Genetic and biological susceptibility

South Asians also display unique biological risk profiles that magnify the effects of these lifestyle factors. Higher rates of insulin resistance, central obesity, and atherogenic lipid patterns-low HDL, elevated triglycerides, and small dense LDL particles-accelerate atherosclerosis. Inherited risk markers such as elevated lipoproteins further elevate susceptibility, meaning that even modest lifestyle risks can lead to severe and early-onset CVD.

Policy and health-system gaps

Despite high need, health systems in the region remain underprepared. Screening for hypertension, diabetes, and cholesterol is patchy, leading to late diagnoses. Preventive care and risk-factor management are underfunded, while treatment costs often fall on individuals, limiting access. At the same time, structural issues like air pollution, poor urban design, and inadequate emergency cardiac services worsen outcomes. Together, these systemic weaknesses ensure that the region’s biological and lifestyle risks translate into high mortality and disability.





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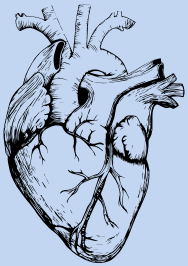
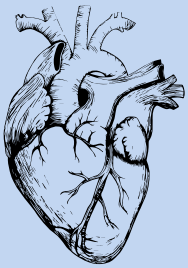
Inequality & Social Disruption

South Asia's disproportionate heart disease burden is not the product of one factor but the intersection of culture, genetics, and systemic neglect. The combination of unhealthy lifestyle shifts, inherent biological vulnerability, and weak public health infrastructure has created a perfect storm for cardiovascular disease. Addressing this catastrophe requires a coordinated response: stronger primary prevention and screening, aggressive tobacco and pollution control, culturally sensitive lifestyle interventions, and more equitable access to emergency and long-term care. Without such measures, South Asia will continue to face an epidemic of premature and preventable heart disease.





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CITATIONS

Gupta, K., et al. “The Pandemic of Coronary Heart Disease in South Asia: What Clinicians Need to Know.” Current Atherosclerosis Reports, vol. 25, no. 7, 2023, pp. 359–372. SpringerLink, 1.Wikipedia. Digital twin. https://en.wikipedia.org/wiki/Digital twin

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