

# Impact of intensive lifestyle change on CV burden studied

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(HealthDay)—Intensive lifestyle modifications, the cornerstones of atherosclerotic disease management, are associated with a decrease in coronary and carotid atherosclerotic burden, according to a review published in the Jan. 15 issue of *The American Journal of Cardiology*.

Sunny Jhamnani, M.D., of the Yale University School of Medicine in New Haven, Conn., and colleagues conducted a [systematic review](#) of the literature and performed a meta-analysis of data for 1,343 lesions from 14 randomized, controlled trials to assess the association between [lifestyle modifications](#) and atherosclerotic burden in coronary arteries (340 patients) and carotid arteries (919 patients).

The researchers found that, overall, modifications in lifestyle with diet and exercise were associated with a decrease in the burden of coronary atherosclerosis of  $-0.34$  percent stenosis for standardized mean

difference (SMD), with no significant publication bias and heterogeneity ( $P = 0.21$ ;  $I^2 = 28.25$ ). A similar decrease was observed in the burden of carotid atherosclerosis, with a decrease in carotid intimal-medial thickness in millimeters by  $-0.21$  and  $-0.13$  for SMD before and after accounting for [publication bias](#) and heterogeneity ( $P = 0.13$ ;  $I^2 = 39.91$  and  $P = 0.54$ ;  $I^2 = 0$ ), respectively.

"We believe this to be the first systematic review and meta-analysis combining data from available [randomized controlled trials](#) to evaluate the overall effect of lifestyle modifications (i.e., dietary changes and regular exercise) on atherosclerotic burden," the authors write. "Results of our study showed regression of atheroma burden in participants in the lifestyle modification group compared with the control. Moreover, these analyses demonstrate that lifestyle modifications can affect two different vasculature systems, that is, coronary and carotid, similarly."

**More information:** [Abstract](#)  
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