

Reference

1. Bosomworth NJ. Approach to identifying and managing atherogenic dyslipidemia. *Can Fam Physician* 2013;59:1169-80 (Eng), e479-91 (Fr).

Response

As Dr Torontour suggests in his response to my article,¹ statins and statins have become our fallback position when dealing with cardiovascular risk. Damaging lifestyle choices have resulted from the environment of dietary and physical activity defaults brought about by industrialization, flawed economics, and advancing technologies. Despite this there is still good evidence that proper diet and exercise habits can be as potent as our drugs and devices.

The INTERHEART study² identified poor diet, inactivity, stress, and increased waist circumference as additional risk determinants for cardiometabolic disease in addition to, and independent of, the currently used Framingham risk factors. This study suggested that smoking, sedentary lifestyle, and low consumption of fruits and vegetables could represent 80% of population-attributable risk for cardiovascular disease.

The American Heart Association has stated that cardiorespiratory fitness is one of the most important predictors of individual risk of future cardiovascular disease.³ A large prospective cohort study over 10 years showed a benefit for exercise equal to or exceeding that from statins.⁴ The relative benefit was up to 30% and showed a dose response. The benefits from exercise and statins were additive.

The Mediterranean diet was shown in a randomized controlled trial of 7000 patients over 5 years to reduce cardiovascular end points with a hazard ratio of 0.70.⁵ This diet also reduced the effect of components of the metabolic syndrome in a meta-analysis including more than 500 000 patients.⁶ The effect was particularly potent when physical activity was included. A Cochrane review suggested modest benefit in selected randomized controlled trials.⁷

Recently published and revised American Heart Association lipid guidelines⁸ have finally dispensed with therapeutic targets and thresholds referencing low-density lipoprotein levels. These had never been evidence-based. Risk assessment is now to be based on the 10-year Framingham risk score, with a threshold for statin treatment in the population suggested to be as low as 7.5%. However, the guidelines are careful to point out that this threshold decision for the individual

patient should be made jointly by the physician and the patient. This is an opportunity to remind the patient that there are modifiable lifestyle options that might be used in place of, or in addition to, statins.

However, the argument persists that there is an increasing number of people with low Framingham scores who are at high long-term cardiometabolic risk. These patients are often obese with increased waist circumference, and they might have glucose intolerance with low high-density lipoprotein and high triglyceride levels. If an effective early commitment to diet and exercise cannot be reached, it might be appropriate to have a low threshold for institution of statin therapy.

There will be many disagreements to come regarding thresholds for statin therapy. We do, after all, have effective alternatives involving life choices. This debate is the basis of good science, and will bring further clarity to these issues over time. If the public can appreciate modifiable life choices as cardiac risk factors, we might yet see success similar to that achieved with smoking cessation.

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Competing interests

None declared

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