

## **The effect of multifactorial lifestyle interventions on cardiovascular risk factors: A systematic review and meta-analysis of trials conducted in the general population and high risk groups**

**Sisti LG, Dajko M, Campanella P, et al. Prev Med. 2017 Dec 29**

Review: Multifactorial lifestyle interventions reduce some cardiovascular risk factors in healthy and at-risk groups at 6 and 12 mo.

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Cardiovascular diseases (CVDs) are the leading cause of premature mortality and disability accounting for one third of all deaths worldwide with considerable impacts on economics and on the quality of life. The evidence suggests that a multifactorial lifestyle intervention might have a role in the CVDs risk reduction, especially in the risk populations, nonetheless the effects on modifiable CVDs risk factors have not been completely explored. Our work aimed at evaluating the impact of multifactorial lifestyle interventions on cardiovascular risk modification, both in the general and risk population. A systematic review and meta-analysis of the randomized controlled trials (RCTs) were performed by including articles published up to April 16th, 2016. RCTs were selected if they had investigated the impact of multifactorial lifestyle interventions on lipids, blood pressure, BMI and waist circumference, smoking and physical activity. Changes in the level of modifiable risk factors from baseline were evaluated. Search resulted in 19,847 studies, of which 36 were included in the analysis. Compared to a usual care the multifactorial lifestyle intervention is able to lower the blood pressure, total cholesterol, BMI and waist circumference, at both 6 and 12months, and to increase physical activity at 12months. Better results were obtained in primary prevention and in moderate and high risk groups. Multifactorial lifestyle interventions clearly represent a valid tool for reducing the cardiovascular risk factors and should be implemented in the risk groups and in primary prevention.