



Research Article

Interventions for primary prevention of cardiovascular disease: umbrella review of systematic reviews

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Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

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Plain language summary

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Heart and blood vessel diseases are the top cause of death worldwide. This study aimed to compare the effectiveness of various drug-based and non-drug-based methods in preventing these diseases. We searched databases like Cochrane, MEDLINE, EMBASE and the Database of Abstracts of Reviews of Effects archive to find reviews about different ways to prevent heart and blood vessel diseases up until March 2021.

The results showed that only 1 out of 10 reviews found a possible benefit in reducing heart-related deaths, while the other 9 found no effect. Medicines that lower blood sugar levels had a positive impact on reducing major heart events, heart disease and death. However, combining dietary changes, exercise, nutritional supplements and polypills had little or no effect on reducing heart-related events, deaths due to heart disease or deaths from all causes.

This review examined the available evidence on ways to prevent heart and blood vessel diseases and identified areas where more research could be beneficial. Future studies could compare the effectiveness of different interventions using new methods and analyses.