

## The role of specific dietary factors on cardiovascular disease risk

Cardiovascular diseases (CVDs) are the leading cause of death globally. An estimated 17.9 million people died from CVDs in 2019, which accounts for about one third of all global deaths. Of these deaths, 85% were due to heart attack and stroke (1). In Europe, CVDs cause 3.9 million deaths, which accounts for 45% of all deaths. Overall CVDs are estimated to cost the European Union economy 210€ billion a year (2).

The most important behavioural risk factors of CVDs are an unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol. These risk factors can lead to overweight and obesity, raised blood pressure and blood glucose as well as elevated blood lipids, i.e. high LDL-cholesterol (1).

### Study finds that one in three cardiovascular deaths is due to an unbalanced diet

A recent study (3) investigated how many deaths from CVDs in the WHO European Region were attributable to dietary risks factors by using data of the Global Burden of Diseases Study. In 2019, 1.55 million people in the WHO European Region died from diet-related CVD deaths which accounted for ca. 16% of all deaths. One in six deaths and in case of CVD, one in three deaths were attributed to an unbalanced diet. Deaths were almost equally distributed between women and men.

### Dietary factors that affected cardiovascular deaths

In this study, thirteen dietary risks were included in the assessment. These included a diet high in red meat, low in fibre, fruits, whole grains, legumes, vegetables, nuts and seeds, polyunsaturated fatty acids (PUFA), seafood omega-3 fatty acids as well as a diet high in sodium, processed meat, sugar-sweetened beverages and trans fatty acids (3).

Most diet-related CVDs deaths were caused by a diet low in whole grains with 21% of the total CVDs burden, followed by a diet low in legumes (15%) and a diet high in sodium (12.5%). All other dietary factors contributed each which less than 10% to the diet-related CVDs deaths burden.

### Conclusion

The findings of this study highlight again the impact of a heart-healthy diet in the prevention of CVDs. It further shows that a healthy diet is one of the most important factors for CVD prevention and health promotion. As CVDs are the result of a lifelong process, prevention should start early in life and individuals should be advised on health-promoting behaviours such as following a healthy diet and lifestyle.

Next to regular physical activity, not smoking and limiting the intake of alcohol, it is important to reduce the intake of animal-based foods as well as foods high in salt, sugar and fat and increasing the consumption of fruits, vegetables, legumes, grains, nuts as part of a plant-based diet pattern.

More information about a healthy diet can be found in the e-learning tutorial 'Diet at the Heart' <https://www.dietattheheart.com>, which is hosted at the EAS website.

### References

1. WHO, Cardiovascular diseases (CVDs) [https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-\(cvds\)](https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds))
2. European Society of Cardiology Cardiovascular Disease Statistics <https://www.escardio.org/The-ESC/Press-Office/Fact-sheets>
3. Theresa Pörschmann T, Toni Meier T, Lorkowski S. Cardiovascular mortality attributable to dietary risk factors in 54 countries in the WHO European Region from 1990 to 2019: an updated systematic analysis of the Global Burden of Disease Study. Eur J Prev Cardiol 2024, Apr 15: zwae136. doi: 10.1093/eurjpc/zwae136.