

Active and healthy ageing: The importance of nutrition to add healthy life years

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The Joint Research Centre (JRC), the [European Commission's in-house science service](#), has published a science and policy report highlighting the importance of diet and nutrition in increasing [healthy life years](#), and promoting Active and Healthy Ageing (AHA). The report describes the main factors of AHA, focusses on under-nutrition in the elderly as both a cause and consequence of functional decline, and highlights the main research gaps.

The European population is ageing – the proportion of people older than 65 is projected to increase from 17.4% to nearly 30% by 2060. The number of people 80 years and over will triple during the same period. Supporting AHA is critical to improving the quality of life in the elderly, ensuring that individuals continue to contribute to society later in life. In this context, 'healthy' refers to physical, mental and social well-being and 'active' is the continuation of participation in civic, cultural, economic, physically active, social and spiritual affairs.

Determinants of active and healthy ageing

By critically examining the contribution of diet and nutrition in AHA, and its importance in the ageing process, several determinants of AHA were identified. The determinants of AHA consist of economic, social and behavioural factors.

Economic factors include income, social and work protection, with people on low incomes being at higher risk of illnesses and disabilities. This is because nutritious foods, health care and housing are less affordable and accessible to people with limited financial means. The health and social service system in a country also plays a major role in healthy ageing and should put special effort into health promotion and disease prevention, e.g. via vaccination programmes or regular screening for malnutrition and frailty. Physical and social environments also influence ageing. Cities, communities and neighbourhoods could adapt their structures and services to older people with varying needs and capacities. Social support and social interaction can also greatly affect the elderly's health and well-being. Behavioural factors play a crucial role in AHA. Adopting positive lifestyle behaviours throughout life is crucial, which include a well-balanced diet, engaging in physical activity, avoiding smoking, excessive alcohol consumption and appropriate use of medications.

Under-nutrition and functional decline

Undernutrition is also a major issue amongst the elderly. In the European Union more than 20 million older people are at risk of being malnourished, which costs European health and social care systems around 120 billion euros per year.

The report highlights that functional changes with ageing, including both physical and physiological changes (particularly neurological), can greatly impact food intake and the degree of under-nutrition in older people. Limitations in movement due to disorders such as [sarcopenia](#) (loss of muscle mass and strength), [arthritis](#) and [osteoporosis](#) are likely to affect accessibility to food and subsequently food consumption. Sensory changes, in particular taste and smell, can decrease motivation to eat and interest in food, while oral health issues such as loss of teeth and reduced saliva production can lead to avoidance of hard-to-chew foods, e.g. fruits and vegetables. Ageing is also associated with a general loss in appetite, caused by alterations in the release of specific gut hormones that regulate appetite. Cognitive diseases can impact on food intake in elderly, as people with dementia or Alzheimer's disease often forget to eat or drink.

The role of the diet

The report further addresses micronutrient supplementation as a strategy to overcome undernutrition, pointing out that evidence to date has not yet conclusively demonstrated a health-promoting effect of micronutrient supplementation in the elderly. Another suggested approach is to maximise intake of essential vitamins, minerals and bioactive compounds from natural food sources. In particular the commonly-referred to Mediterranean diet is suggested as a possible approach to support healthy ageing, due to its association with a lower risk of mortality and cardiovascular disease. There is also an increasing body of evidence that the Mediterranean diet lowers the risk of cognitive decline. Whether this approach of delivering a wholesome diet is feasible for those affected by physiological changes linked to ageing, remains to be determined.

Finally, the report suggests potential areas for future research, such as the study of the inter-relationships of various social, economic and environmental factors with dietary behaviours. Also mentioned are the identification of the most effective strategies to reach out to the older population for health promotion and studying ageing from a life-course perspective by following people from pregnancy and birth through to old age, the identification of the best measures and markers for AHA. More research in these areas will support the [European Innovation Partnership on Active and Healthy Ageing](#), launched by the European Commission in 2012, in its venture to narrow the gap between an increasing life expectancy and healthy life years.

For further information please see:

[European Commission DG Joint Research Centre \(2014\). JRC Science and Policy Reports: The Role of Nutrition in Active and Healthy Ageing. For prevention and treatment of age-related diseases: evidence so far. European Union, Luxembourg.](#)