



Eating for ageing

TEAGASC research looked at functional foods for healthy ageing and asked: do older adults want them?

Are anti-ageing foods the future?

As we get older, we may swap our usual skincare products for ones marketed as having “anti-ageing” properties, but should we do the same for our food? Staying healthy as we age is fundamental to making the most of the extra 30 years of life expectancy we have gained in the past century. Good nutrition is a key ingredient for healthy ageing, and as we get older our nutritional needs change. For example, our skin becomes less efficient at making vitamin D from sunlight, so older people are advised to consume more vitamin D through food and supplements. We become less effective at building new muscle, so eating enough protein becomes increasingly important. In addition, as we age our risk of diseases like heart disease and osteoporosis rises. Therefore, foods that help older adults to achieve their nutritional needs and reduce their risk of disease could help to support healthy ageing.

What are functional foods?

Functional foods are those that have been reformulated to deliver additional or enhanced health benefits over and above their basic nutritional value. This can be achieved through: 1) adding a beneficial ingredient that would not normally be present (e.g., spreads with added cholesterol-lowering plant sterols and stanols);

2) adding more of an existing beneficial ingredient (e.g., milk with an increased calcium content); or, 3) removing a potentially harmful ingredient (e.g., reduced salt in soup). Unlike dietary supplements provided as pills and powders, these functional foods deliver health-enhancing ingredients in a convenient and tasty form. Functional foods for healthy ageing represent an exciting opportunity for food innovation due to the rapidly expanding older adult market and growing consumer interest in health.

Do older adults want functional foods?

In order to create useful and successful functional food products, new product development must match real-world consumer needs and demands. To gain insight into middle-aged and older consumers’ attitudes to diet and functional foods, researchers at Teagasc recently conducted a survey in over 500 men and women living in Ireland aged between 45 and 81 years. In the survey, participants were presented with a range of different functional foods and asked to indicate on a scale of one (strongly disagree) to seven (strongly agree) their willingness purchase these products. In general, participants were most interested in foods to improve heart and bone health, followed by foods developed to increase energy,

manage health conditions (e.g., high cholesterol) and improve mental performance. There was slightly less interest in foods nutritionally developed for their age group and least interest in healthy and convenient ready meals.

Profiling participants based on their responses regarding functional foods revealed three distinct groups of consumers: those with a high interest in buying functional foods (33 % of participants); those with a medium interest (42 %); and, those with a low interest (25 %). Further analysis found a number of key differences between the groups with low, medium and high interest in using functional foods. At one end of the spectrum, the high interest group were the most highly motivated by health when making food choices; they paid the most attention to food labels and advertising, and made the most conscious effort to eat healthily.

Despite this, they still believed that their diet was not healthy enough and could be improved. At the other end of the spectrum, the low interest group were more motivated by taste when making food choices compared to the high interest group.

They were also the most involved in cooking, used the least convenience foods, and were more inclined to believe that their diets were healthy enough and did not need to change.

Although this survey did not directly determine the reasons why the low interest group were less interested in functional foods, it is possible that those individuals believe that functional foods are a less tasty or perhaps less natural option, and/or that they are not motivated to increase the healthiness of their diets.

Acceptance of functional foods did not differ by sociodemographic characteristics but rather by health attitudes. This emphasises the importance of promoting the health attributes when marketing new functional food products to consumers.

Trusted sources for nutrition information?

In order to market health-promoting functional foods to ageing consumers, another critical consideration is who they trust for their nutrition information. In this survey, participants ranked doctors, closely followed by friends and family, as the most trusted sources of nutrition information. The next most trustworthy sources were health promotion and food safety authorities, followed by food manufacturers, while newspapers and magazines were seen as the least trustworthy.

Conclusion

This study provides important information for food companies with an interest in developing functional foods targeting healthy ageing. The most attractive functional foods were those developed to improve bone and heart health, suggesting that these could be good targets for functional food innovation. Acceptance of functional foods did not differ by sociodemographic characteristics but rather by health attitudes. This emphasises the importance of promoting the health attributes when marketing new functional food products to consumers. Finally, our study shows that ageing consumers place a lot of trust in the nutrition information provided by their doctors, friends and family. Therefore, communicating the benefits of functional foods designed for healthy ageing should be directed at these trusted groups, as well as at the older consumers themselves.

Acknowledgements

This research was supported by the Department of Agriculture, Food and the Marine (DAFM) Food Institutional Research Measure Grant (Nutrimal 14F822). Caoileann Murphy has received funding from the Research Leaders 2025 programme cofunded by Teagasc and the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement number 754380.

Authors

Caoileann Murphy

Marie Skłodowska Curie/Teagasc Research Leaders 2025 Fellow, Agrifood Business and Spatial Analysis, Rural Economy and Development Programme, Teagasc Food Research Centre, Ashtown, Dublin 15

Sinead McCarthy

Research Officer, Agrifood Business and Spatial Analysis, Rural Economy and Development Programme, Teagasc Food Research Centre, Ashtown, Dublin 15
Correspondence: sinead.mccarthy@teagasc.ie

Helen Roche

Full Professor of Nutrigenomics, Director of UCD Conway Institute of Biomolecular and Biomedical Sciences, University College Dublin

Clare Corish

Associate Professor in Clinical Nutrition and Dietetics, School of Public Health, Physiotherapy and Sports Science, University College Dublin

