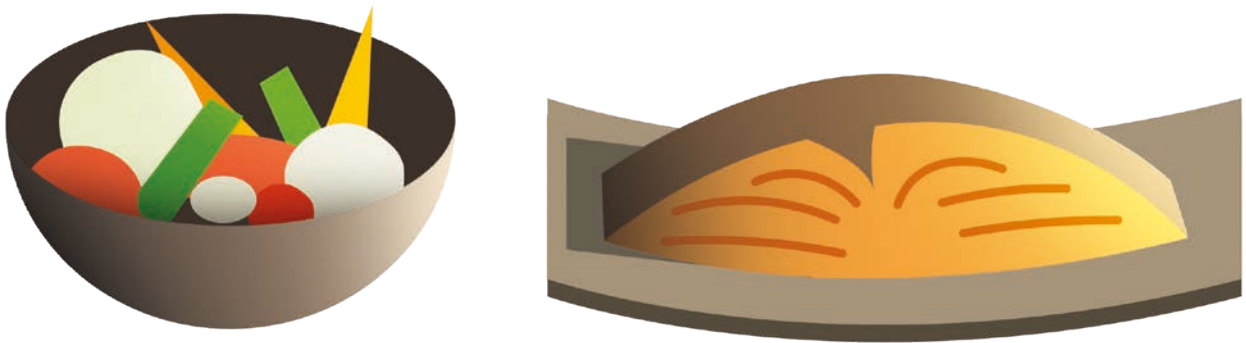




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THE TRADITIONAL JAPANESE DIET MAY HAVE LESSONS FOR MODERN LIFE

The traditional Japanese diet may support a long healthy life and have a low environmental footprint, but many ingredients are now sourced elsewhere, which threatens its sustainability.

In 1945, Japan faced widespread malnutrition and its population had a life expectancy of only 45 years. In 2020, that figure hit a new record of 87.74 years for women and 81.64 years for men, the highest among G7 countries. Many researchers believe it's the result not only of general declines in heart disease, cancer and other illnesses, but also a direct result of the Japanese diet. What can Japanese food (*washoku*) teach us about leading long, healthier lives? And are there lessons in the traditional food culture of Japan that can help transform the global food system?

Food plays a central cultural role in Japan and challenges to production influence how food is prepared, consumed and appreciated. Japan is mountainous with few natural resources so it's no wonder that seafood, and rice grown in paddies on limited flat land, have been staples for millennia.

A healthy balance

On Japanese menus, rice and fish have been traditionally complemented by *ichiju-sansai* or one soup, three dishes: miso soup and vegetables, including potatoes and pickled giant radish. The protein and carbohydrates in the staples with the minerals and fibre in the sides creates a healthy balance. In a nation famous for fermented products such as soy sauce, miso and *nattō* (fermented soybeans), the national enthusiasm for pickles is seen as beneficial, with many fermented foods acclaimed as 'superfoods' that support a healthy microbiome. Researchers are only recently exploring the potential effects of microbiome dysbiosis, with associations being made with Parkinson's disease, Alzheimer's and a range of gut conditions.

The health merits, seasonal qualities and diversity of ingredients were internationally recognized in 2013, when UNESCO decided that *washoku* is an intangible cultural heritage. "The Japanese diet is special because of the nature of the islands, the associated food culture, and the societal characteristics generated over the centuries," says

Fumiaki Imamura, scientist at the University of Cambridge's MRC Epidemiology Unit. "There is no single cause."

"Typical Japanese diets are characterized by plant-based food, such as rice, vegetables and soybeans, and seafoods," says Shoichiro Tsugane, director of the National Institute of Health and Nutrition. "Non-sugary beverages such as green tea are mainly consumed during and between meals. In my opinion, such a dietary habit makes Japanese healthy."

Elements of the *washoku* diet fit well with an idealized food system, such as the emphasis on fresh, local and seasonal ingredients, plus the importance of the community-building rituals associated with eating together. But it's not all positive.

The "traditional" Japanese diet is changing over time — before the late nineteenth century, eating beef and bread was basically unknown, but it is ubiquitous today. This mix of foreign and domestic foodstuffs has led to a hybrid cuisine: a typical Japanese office worker might have *washoku* for breakfast and dinner but curry or pasta for lunch. One reason for the shift in diet is greater international trade, which became essential to feed Japan's growing population. This has come at a cost to the nation's food self-sufficiency ratio — the proportion consumed through domestic production — which was only 38% in 2019, down from 41% in 2008.

An important reason for scrutinizing the Japanese food system is the need to reduce the environmental impact of food production and consumption, explains Steven R. McGreevy, visiting associate professor at Research Institute for Humanity and Nature (RIHN) and leader of the FEAST project, which was inaugurated as a non-profit organization in 2021.

Researchers in the FEAST project found that the Japanese traditional diet had a footprint on par with or smaller than a vegetarian diet, but it faces risk from climate change. The team also suggests that the overall diet

in Japan is increasingly dominated by imported and processed foods, with a larger environmental footprint for aged and urban populations than for rural populations. The researchers concluded that, in order to be sustainable, all aspects of food regulation, from government departments to land-use policies, must be integrated, and that domestic food production, which is in decline, must shift away from an industrial, monoculture-intensive production model to decentralized operations.

A commons not a commodity

"Japan should focus on making regional and local food systems stronger and prioritize and support diverse ways of food production that align with diversified lifestyles to secure a base of domestic production and increase food self-sufficiency," says McGreevy. "Seeing food as 'a commons' rather than a commodity would signify the kind of shift in values we need to build a food system that feeds us instead of seeking to make a profit."

For Imamura, who has studied diabetes risk across a wide range of populations, an additional important challenge is ensuring that consumers are well informed. He notes the plethora of food and diet fads assailing consumers, some of which are based on flawed information and may be promoted by "experts" with dubious credentials.

A collaborative effort by government, industry and academia is crucial to ensure that consumers receive reliable information, says Imamura. "Some regulatory actions need to take place to control infodemics — excessive amount of incorrect or exaggerated information — and so reduce the public's exposure to harmful information.

"I understand many people are trying to improve their health behaviours, but we now need collective evidence to indicate if, and to what extent, certain types of diet-related information damage public health and what actions can prevent it," says Imamura. "Otherwise, further policy actions will be ineffective." ●