

Unlocking the power of amino acids for “Nutrition Without Compromise” to improve the quality of life of people worldwide



The Ajinomoto Group is addressing the increase in health issues worldwide caused by diets and lifestyles, such as lifestyle-related diseases and nutritional deficiencies, by focusing on the key areas of promoting “delicious salt reduction” (using umami to enhance the flavor of food while decreasing the intake of salt) and optimizing protein intake to support delicious and nutritionally balanced diets.

Social issues related to nutrition

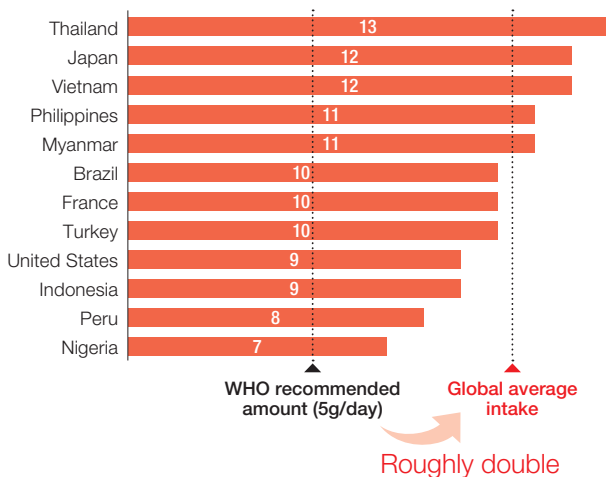
The excess intake of salt is increasing the risk of high blood pressure and heart disease worldwide. Some 20% of the world’s population is estimated to suffer from high blood pressure. Salt intake in Thailand, Japan, Vietnam, and other countries where the Group has major businesses is far above the amount recommended by the WHO.

Physical frailty due to nutrition deficiency is also increasingly common in elderly people. The WHO estimates that about 20% of the elderly people worldwide do not have sufficient intake of essential nutrients, such as

protein, that are needed to maintain and increase muscle mass and strength. These conditions increase the number of people requiring nursing care, which is a major factor affecting healthy life expectancy. In addition, number of individuals approaching elderly status who may become frail and suffer from metabolic syndrome is increasing.

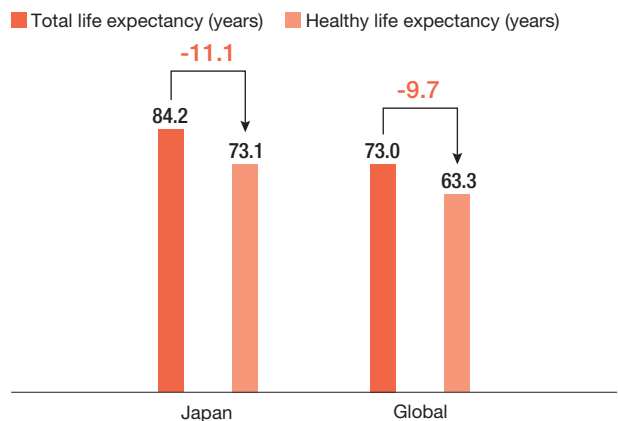
With lifestyle-related diseases predicted to become more common as populations age, companies providing the food that people consume in their daily diets will be increasingly expected to fulfill their social responsibility.

Salt intake
(g/day, 2010)



Source: WHO, “Noncommunicable diseases country profiles”

Total life expectancy and healthy life expectancy
(at birth in 2017)



Source: WHO, “World Health Statistics - Life expectancy and Healthy life expectancy, Data by country”

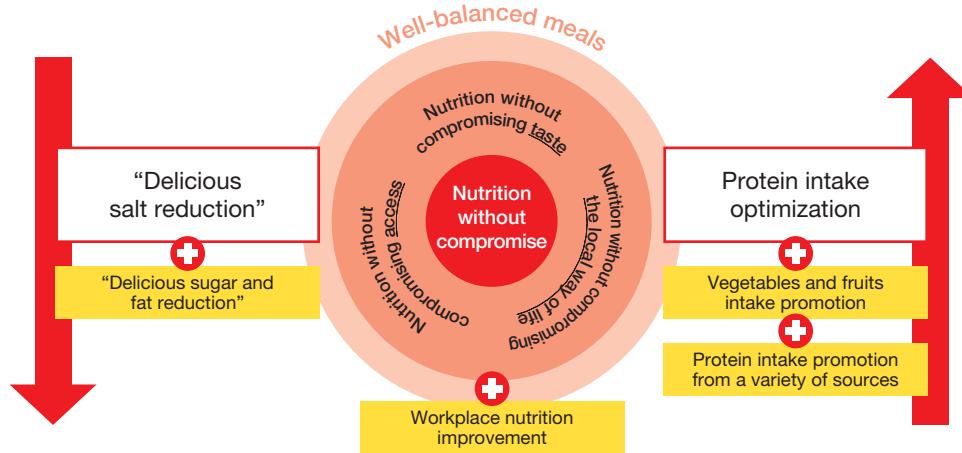
“Nutrition Without Compromise” – Basic policy on our approach to nutrition

The Ajinomoto Group’s approach to addressing nutrition issues is to provide products and solutions under the commitment of “Nutrition Without Compromise” based on three pillars. The first is “taste,” where we will use our founding technology to unlock the power of amino acids to provide health value, such as with reduced salt, as well as deliciousness. The second pillar is “food access.” Aware that food availability is an issue for many people around the world, we will strive to ensure that everyone has access to healthy and nutritious foods through measures ranging from offering quality products and ingredients to improving distribution and convenience. Finally, we will focus on “local way of life.” We will adapt our operating models to respect the customs, food

preferences, resources, ingredients, and stakeholders of each local market. We will also emphasize addressing social issues and creating individualized responses to diverse values related to food.

Primary priority in our nutrition strategy will be given to “delicious salt reduction” and “protein intake optimization.” We will also pursue four additional priorities of “delicious sugar and fat reduction,” “vegetables and fruits intake promotion,” “protein intake promotion from a variety of sources,” and “workplace nutrition improvement.” By advancing these initiatives along with our efforts to unlock the power of amino acids, we will help maintain delicious and nutritionally balanced diets and improve the quality of life of people around the world.

Ajinomoto Group approach to nutrition



Primary priorities	“Delicious salt reduction”	The Ajinomoto Group’s technologies put us in a uniquely advantageous position to address the excess consumption of salt. We will use our leading-edge bioscience and fine chemical technology to promote reduced-salt foods that retain their deliciousness.
	Protein intake optimization	The underprivileged and the elderly suffer from insufficient dietary protein and lack of access to high-quality protein. We are dedicated to improving the intake of protein through our unique approach of providing amino acids, which make up the proteins in our body, to complement lower-quality protein sources, as well as seasonings which enhance the flavor of proteins in meals.
Additional priorities	“Delicious sugar and fat reduction”	We are focusing on developing alternative sweeteners and recipes to reduce the sugar and saturated fat content of our products and the products of our business customers.
	Vegetables and fruits intake promotion	We are supporting nutritionally balanced meals by promoting the consumption of vegetables and fruits, which are sources of abundant vitamins and minerals. Our promotion activities include printing recipes that include vegetables and fruits on our packages.
	Protein intake promotion from a variety of sources	The Ajinomoto Group is promoting the use of sustainable and diverse protein sources that help maintain planetary health. We are supplementing plant-based proteins with amino acids to enhance nutritional quality.
	Workplace nutrition improvement	The Ajinomoto Group considers employee health to be of utmost priority and is focused on improving workplace nutrition and raising nutrition literacy among employees.

► For details, please see the Ajinomoto Group Sustainability Data Book 2020. <https://www.ajinomoto.co.jp/company/en/ir/library/databook.html>

The Ajinomoto Group Nutrient Profiling System

Introducing a common evaluation standard for nutritional value

In April 2020, we became the first Japanese company to introduce a system for evaluating food nutrient content—ANPS-P (for Product). ANPS-P is a tool for collecting and analyzing data on nutrient content of our current and future products.

Using the calculation method of the Health Star Rating System used in Australia and New Zealand, ANPS scientifically evaluates the nutritional value of food products based on the quantity of nutrients they include that are health promoting and that excess intake should be avoided.

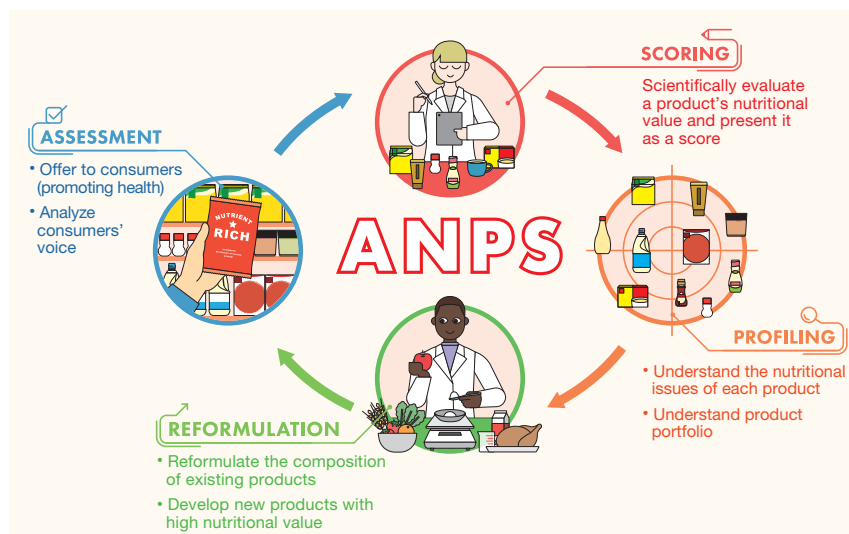
Our first step is using ANPS-P to evaluate and score roughly 500 products from nine of our group companies in seven countries, including Japan, and identifying the nutrition issues of each product and the portfolio of the whole products. We will then apply the results to reformulate and adjust the products and to develop products with high nutritional values. After product launch, we will assess consumer

feedback for further product revision. Through this cycle, we will contribute to promoting the health of consumers and improve our product portfolio.

We plan to develop and introduce a nutrient profiling system for meals made with the Group’s seasonings as part of our goal to provide comprehensive support for nutritionally balanced diets.

► For details, please see the Ajinomoto Group Sustainability Data Book 2020. <https://www.ajinomoto.co.jp/company/env/ir/library/databook.html>

The Ajinomoto Group nutrient profiling system



U20 Healthy Umami Research Project

Ajinomoto Group recommendations for addressing the high sodium diets worldwide

Numerous academic journals and organizations have recognized MSG as a key ingredient for enhancing umami that helps dishes with reduced salt become more flavorful. However, because MSG contains sodium, it has been identified by international organizations, including the United Nations Food and Agriculture Organization (FAO) and WHO, as well as the EU and other governments as a risk ingredient that contributes to the excess intake of sodium. Although the same international organizations have attested to the safety of MSG consumption as seasoning, persisting misunderstandings from the past continue to affect the reputation of MSG.

The Ajinomoto Group intends to focus on MSG for the development of foods with reduced salt content but that taste delicious and will continue to gather and organize scientific evidence for the usefulness and safety of MSG, which we will submit to international organizations and governments worldwide.

The U20 Healthy Umami Research Project was launched

in fiscal 2020 to further this initiative. The project, following recommendations on the reduction of salt intake by the WHO action plan* to combat lifestyle-related diseases, aims to provide evidence about the value of MSG for public nutrition worldwide. We plan to announce our research results at international conferences and share the results with influential public health and nutrition specialists around the world.

The umami concept was discovered in Japan. The Group linked umami with the improvement of nutrition and the commercialization of MSG as the world’s first seasoning designed to offset the trend of undernutrition. The Group has continued to work for the enhancement of deliciousness and nutrition of meals around the world. Now, over a century after the discovery of umami, the Ajinomoto Group believes it has the responsibility to make the world aware of the potential of MSG to help combat the current problem of excess salt intake.

* The WHO's Global Action Plan for the Prevention and Control of Noncommunicable Diseases (NCDs) calls for reducing salt intake by 30% by 2025.

Dispelling the misconception about MSG

Highlighting MSG safety and umami research to eradicate the misunderstanding

In the 1970s, doubts began to appear in the United States about the safety of MSG. An anecdotal report that MSG was the cause of what was called the “Chinese restaurant syndrome”^{*} led many people to be concerned about consuming MSG. To this day, many restaurants and food makers in the United States and Europe still put up signs to ensure customers that they do not use MSG.

During the 1980s and 1990s, to clarify this misunderstanding, a lot of studies were performed about umami. After these studies, international organizations, including the US Food and Drug Administration, verified and publicly reported that MSG is safe. Following the 2000s, the Ajinomoto

Group proceeded with research on the physiological functions of umami, and this led to the discovery of umami and glutamic acid receptors, the identification of umami as one of the five basic tastes, and the understanding of its role in the digestion and absorption of food. Today, we continue to highlight the safety and usefulness of MSG through events and social media.

^{*} Symptoms such as numbness, weakness, and palpitations that occur after eating Chinese food

► For details, please see the Ajinomoto Group Sustainability Data Book 2020. <https://www.ajinomoto.co.jp/company/en/ir/library/databook.html>

► For more information about MSG, please see below site. <https://www.whyusemsg.com>

The Consumer Goods Forum

Discussing solutions for environmental and social issues in the consumer goods industry

The Consumer Goods Forum (CGF) is an industry network of about 400 consumer goods manufacturers and retailers around the world that is engaged in various activities in the sustainability field. Takaaki Nishii, President and CEO of Ajinomoto Co., Inc. is a member of the CGF Board working to promote and spread awareness about the CGF initiatives.

At the June 2019 board meeting of the CGF Global Summit 2019 held in Vancouver, Canada, the board members discussed the environmental and social sustainability of the industry as a whole. The Ajinomoto Group introduced its initiatives related to amino acids and shared information about umami. At the summit meeting, the initiatives called the “Coalitions of Action” were adopted, and companies resolve to take steps to work quickly to fulfill specific goals. The Ajinomoto Group participates in Collaboration for Healthier Lives (CHL), which is one of the activity coalitions, and co-chairs the Japanese branch, called CGF Japan CHL. The branch is collaborating with government offices, regional

administrations, universities, and research institutions to solve health and nutrition issues in Japan. CGF Japan CHL plans to expand the successes it has solving issues in Japan to develop initiatives to address worldwide issues.

The Ajinomoto Group is working with various stakeholders to actively promote activities on the global level that will raise the quality of life of people around the world.



The CGF Global Summit 2019