



Beneficial Japanese Seasoning Sprinkle (Furikake) Leading to Satisfactory Cuisine and Life

Masahiro Bando^{1,2}, Hiroko Ogawa³, Hiroshi Bando^{1,2,3id*}

¹Shikoku Division of Integrative Medicine Japan (IMJ), Tokushima, Japan

²Medical Research/Tokushima University, Tokushima, Japan

³Shuseikai Medical Corporation, Yoshinogawa Hospital, Tokushima, Japan

Corresponding Author: **Hiroshi Bando** [ORCID ID](#)

Address: Tokushima University /Medical Research, Nakashowa 1-61, Tokushima 770-0943, Japan;

Email: pianomed@bronze.ocn.ne.jp

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Abstract

Japanese cuisine revolves around rice as a staple, accompanied by various innovations. Among these, Japanese seasoning sprinkle (furikake) has garnered attention due to its rich history, delightful taste, versatility in cooking applications, clinical nutrition, and research contributions. Furikake is crafted from ingredients such as fish, seaweed, eggs, meat, beans, sesame seeds, fermented soybeans (natto), vegetables, fruits, and others.

There are four main types of furikake: dry, soft, freeze-dried, and oil-based. It also plays a role in research, particularly in improving taste abnormalities. In Japanese nursing homes, residents frequently pair furikake with rice, supplying essential trace elements like Fe, Zn, Mg, and Mn, thereby promoting both physical and mental health.

Keywords

Japanese Seasoning Sprinkle, Furikake, Fermented Soybeans (Natto), Seaweed, Japanese Food Cuisine

Commentary

Japan boasts a rich and distinctive history and culture that spans many years, with its people known for their talent and warm-heartedness. The country has gained recognition for its outstanding achievements in academics, art, lifestyle, and cuisine. In the realm of Japanese food culture, rice stands out as the staple food, and numerous innovations have emerged over the years [1]. In this commentary, we will delve into some fascinating aspects related to Japanese food.

From the perspectives of nutrition and cuisine, one remarkable Japanese culinary seasoning has captured

attention, known as Furikake [2]. The term itself, derived from "furi" (swing, cast) + "kake" (scatter, pour), signifies "sprinkle" or "cast away." With a long history as a dry seasoning sprinkled over cooked rice, Furikake has become a popular and versatile element in Japan's rice-based cuisine. Originally invented in 1913 by pharmacist Suekichi Yoshimaru in Kumamoto prefecture on Kyushu Island, Furikake came into being due to concerns about calcium deficiency among the Japanese population. Yoshimaru created a powder from dried fish bones, sesame seeds, and seaweed, flavored with soy sauce at that time.

Afterward, furikake evolved into a luxury seasoning

during the early Showa period in Japan (1926-). It was marketed at a higher price and assessed for satisfaction by affluent customers. Subsequently, it found use as a popular gift item for special occasions. Following World War II, furikake became more accessible and affordable to the general public, gradually expanding its varieties and flavors, produced from ingredients such as fish, vegetables, eggs, meat, seaweed, and other foods [3]. In 1959, the National Furikake Association was established, and the term "furikake" gained widespread recognition.

In terms of nutritional elements, furikake is rich in protein, calcium, iron, and dietary fiber, depending on the ingredients used. It can also supply various essential vitamins and minerals, such as vitamin B, C, iodine, and zinc [4]. Furikake has the ability to enhance the taste and appearance of plain rice, as well as other dishes, including pasta, salad, toast, popcorn, and meat. Additionally, it can serve as a topping, filling, or coating for various foods and ingredients.

In Japan, furikake has been produced differently in various regional and local situations. Seasonal diversity has been observed through the use of a variety of ingredients and flavors, depending on local availability and preferences. For instance, some regions utilize beans, vegetables, fruits, or cheese as the main ingredients, while others opt for fish, seaweed, eggs, and meat [3]. Considering the aspects of daily life, enjoyment, and creativity for the Japanese people, furikake is associated with a wide range of flavors and brands. Moreover, individuals can create their own furikake at home based on creative cooking ideas. From a psychological standpoint, furikake can contribute to expressing one's personality, mood, or preferences, as well as conveying messages or emotions to others.

Furikake originated in Japan, and various products have been developed over the years using a wide variety of materials. The representative ones are illustrated in **Fig-1**, with main ingredients including a) egg and sea lettuce [5], b) tuna, c) salmon, d) chicken. For noteworthy and recent ingredients, e) showcases Hijiki seaweed associated with 7.5 mg of iron and

637 mg of calcium per serving per person, and f) is a recently developed protein-rich sprinkle, including fermented soybeans (natto), created under the supervision of Kagawa Nutrition University (KNU), Saitama, Japan [6] (**Fig-1**).

There are four main types of furikake that can be sprinkled over rice, each with distinct characteristics. Among them, the features of the dry type, soft type, freeze-dried type, and oil type are described as follows:

1. "Dry type" is convenient in powder or particulate form, boasting a long shelf life and the broadest variety in the culinary world.
2. "Soft type" closely resembles the original texture of the material. Despite being a mere sprinkle, soft furikake appears to consist of the same ingredients as side dishes. For example, salmon flakes are particularly popular [7].
3. "Freeze-dried type" maintains a dry state while preserving the flavor and texture of the ingredients. When sprinkled on rice, you can savor the sensation of consuming real ingredients. A representative example is fermented soybeans (natto), providing a natural stickiness.
4. "Oil type" is sold in a bottled state soaked in oil. Beyond consumption, it can be spread on bread or used as a seasoning to enhance the flavor of various dishes, characterized by a diverse range of applications.

What is the popularity of furikake outside Japan? In the U.S., furikake was already known in Hawaii due to its Romanized Japanese term. As Japanese foods have long-standing popularity, Hawaiian poke became well-known on the mainland, and furikake was subsequently sprinkled on rice in poke bowls [8]. Furikake gained recognition in the *New York Times* in 2021, with featured recipes in the food section that garnered popularity among online readers. It ranked 11th among the top 20 seasonings, particularly praised for enhancing dishes like the dill salmon and ginger [9]. Additionally, in Las Vegas, Bachi Burger served special hamburgers with Japanese furikake sprinkled on top, resembling

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Fig-1: Popular kinds of Japanese sprinkles (Furikake)

Main ingredients are a) egg and sea lettuce, b) tuna, c) salmon, d) chicken, e) Hijiki seaweed, and f) fermented soybeans (natto).

the flavors of Japanese beef patties [10]. A novel and useful application of furikake-flavored popcorn was published in the *Atlanta Journal-Constitution* [11].

Furikake has proven valuable in nutrition research. For instance, a furikake variant involving monosodium salt of L-glutamate (MSG) was used in a clinical trial aimed at improving taste abnormalities in healthy young individuals [12] and in cancer patients with taste abnormalities caused by anti-cancer drugs [13]. In Japanese nursing homes, residents often gather around a table to share meals. A large furikake bottle is frequently placed on the table, allowing everyone to

use it freely [14]. This provides elderly individuals with trace elements such as Fe, Zn, Mg, and Mn, contributing to increased appetite, fostering mutual conversation, and promoting both physical and mental health.

In summary, this discussion has centered around Japanese seasoning sprinkle (furikake), highlighting its association with the beneficial effects of clinical research, cuisine, and our daily lives. This report aims to serve as a reference for nutrition, Japanese cuisine, and medical practice research.

Conflict of Interest

Commentary

The authors have read and approved the final version of the manuscript. The authors have no conflicts of interest to declare.

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