

## Ramen: Microgreens or Microwave?



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Ramen is both a cheap easy meal and a global culinary sensation - depending on how it is processed, prepared, and served. This Japanese-rooted dish has become almost an obsession in the United States, the largest consumer of ramen outside of Asia. [1,2,3] The traditional noodle dish was brought to Japan by Chinese immigrants in the 1800s. When the Great Kanto Earthquake of 1923 caused serious damage in Tokyo and Yokohama, where ramen shops were concentrated, many ramen chefs were forced to move, spreading the availability of ramen, and creating unique regional ramens throughout Japan. The popularity soared in Japan after World War II when rice was in short supply and the US brought in wheat flour to address the food shortages, much of which ended up in ramen.[4] The instant ramen we make today by just adding boiling water emerged in Japan in 1958 providing an alternative to the long lunchtime lines at street food stalls. Since then, demand has ballooned with global consumption exceeding 100 billion servings of instant noodles annually.[4] One hundred years after ramen chefs ventured out of Tokyo and Yokohama, this bowl of salty, slippery, chewy noodles in a flavorful broth is both a quintessential low-budget meal and competition for sushi, tempura, and sashimi as the most popular item in Japanese restaurants.[2]

### Traditional Ramen

A traditional ramen consists of five main ingredients: men (noodles), dashi (soup stock), tare (sauce), fat or oil, and toppings.[5] The noodles are made from wheat flour, water, salt, and an

alkaline solution called kansui that gives the noodles elasticity and chewiness. They vary in shape and thickness depending on the type of wheat used and how much water is added when making the noodle. The soup stock is made from different blends of meat, seafood, and vegetables. The tare, or sauce, added to flavor the soup, is made from a combination of condensed extracts from meat or fish and spices. Animal fat, vegetable oil, and seasoning oil are also used to flavor the soup. The oil forms a layer on top that prevents the ramen from cooling. Toppings ranging from eggs, tofu and cubed meats to wontons, menma (fermented bamboo shoots), nori, bean sprouts, and microgreens are carefully chosen to make each bowl of ramen unique.

### **Instant Ramen**

Instant ramen is another story. For many Americans, ramen is the ultimate convenience food - an inexpensive source of calories that is quick and easy to prepare even with limited kitchen facilities. When combined with hot water, the ramen brick expands into chewy noodles with a few dried vegetables that can be flavored with the salty seasoning packet. Instant ramen is ubiquitous in grocery stores and convenience marts. It is a mainstay in college dorms for hungry students who have little money and few cooking skills. This microwavable meal is far from the gourmet treat made by Japanese chefs who simmer fresh noodles in their signature broth and add meat, fish, soy, and vegetable toppings.

### **Traditional Benefits?**

How does ramen fit into a healthy eating pattern? The cellophane wrapped block of noodles you can buy for 30 cents does not contribute much nutritionally. This version of ramen is low in protein, fiber, and vitamins including vitamins A, C, and B12, and the minerals calcium, magnesium, and potassium.[6] The noodles are high in refined carbohydrate and often saturated fat, which is used in processing to allow the noodles to cook quickly by just adding water. Perhaps the biggest nutritional downside of packaged ramen is its high sodium content; one serving can provide well over half of the maximum amount of sodium recommended for the entire day (2300 mg). On the other hand, the fresh bowl of ramen you pay \$20 for in a Japanese eatery can be a nutritious meal. The broth in restaurant ramen is usually made by boiling bones and vegetables making it lower in sodium than the instant version. The noodles are prepared fresh and slowly simmered so do not contain the extra fat found in the instant variety. And the toppings contribute protein, fiber, vitamins and minerals to the bowl.

While the restaurant version is more nutritious, you don't have to give up the packaged convenience food. An occasional bowl will not significantly decrease the quality of your overall diet, especially if you bolster the nutritional clout of your instant ramen. Use only half of the seasoning packet to reduce the sodium. Toss in some carrots, broccoli, mushrooms, bamboo shoots, and peppers to increase the fiber, vitamins, and minerals (see Figure). Up the protein content by adding an egg, tofu, edamame, fish, seafood, chicken, beef, or pork. Enjoy some ramen, just not everyday.



## References

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