

Mushrooms: an integral ingredient in the Japanese diet

Japan's humid climate has resulted in approximately 5,000 varieties of mushrooms. Of these, about 100 are edible, and around 20 are eaten in large, commercial quantities. There were nine varieties of mushrooms on the local supermarket shelves shown in the attachment to our previous blog.

Mushrooms are normally harvested from nature in the autumn.

However, farmers have been introducing techniques to break the link with nature. 300 years ago, farmers introduced small logs with pre-prepared fungus spores. ⁽¹⁾ Today's factory-controlled environments have enabled, with the one exception of matsutake mushrooms, fresh, cheap mushrooms available throughout the year.

After introducing the most popular mushrooms in Japan, we focus on their potential health benefits.

Fig.1 1. Shiitake:



Note: a meaty firm texture (reflecting a low water content), with a rich umami flavor

Source: Author's photo, Conceptasia, September 2023

Fig.2 2. Matsutake



Note: Having not transitioned to factory production, it is an expensive, autumn delicacy. It grows on pine, fir forest floors.
Source: Author's photo, Conceptasia, September 2023

Fig.3 3. Maitake



Note: a rich fragrance, and a hearty flavor
Source: Author's photo, Conceptasia, September 2023

Fig.4 4. Shimeji on the left; 5. Eringi on the right



Note: Shimeji – firm, with a mild unami flavor when cooked. They prefer wet environments. Eringi – cultivated in Japan since 1993. Firm, with a savory flavor.

Source: Author's photo, Conceptasia, September 2023

Fig.5 6. Enokitake, white cultivated type on the left, brown wild type on the right



Note: Enokitake are cultivated in the dark leading to the white color, Wild enokitake are brown. Crisp texture

Source: Author's photo, Conceptasia, September 2023

Fig.6 7. Nameko



Note: A natural gelatin results in a slippery surface. Mild, but earthy taste.

Source: Author's photo, Conceptasia, September 2023

Fig.7 Typical uses of different mushroom types

1.	Shiitake	Nabe (hot pot), tempura, sukiyaki, soups, sautés
2.	Matsutake	Steamed in broth, clear soup, grilled, cooked with rice, tempura
3.	Maitake	Nabe, tempura, pasta, sautés, soups
4.	Shimeji	Sautés, soups, nabe, pasta, tempura
5.	Eringi	Pan grilled or in a foil, sautés
6.	Enokitake	Nabe, sukiyaki, aemono (dressed salads), soups
7.	Nameko	Nameko miso soup, aemono (dressed salads)
Note: <i>Mushrooms: A Staple of the Japanese Table</i> , by Nippon.com, November 19, 2021:		
Source: Nippon.com ⁽¹⁾ (note above), Conceptasia, September, 2023		

Other popular mushrooms: 8. Brown beech shimeji, 9. Hohohotake, 10. Hiratake, 11. Kikurage, 12. Fukurotake, 13. Mukitake, 14. tamagotake

Fig.8 8. Brown beech shimeji, on the left; 9. Hohohotake, on the right



Source: Author's photo, Conceptasia, September 2023

Health benefits of mushrooms

The body's gut microbiome is healthier with a diverse diet, and in Japan people consume a variety of mushrooms. In addition, different types of mushrooms have different potential health effects, Fig.9. UCLA Health ⁽²⁾ proves detail on potential benefits such as:

- a) Decrease the risk of cancer
- b) Promote lower cholesterol
- c) Protect brain health
- d) Stimulate a healthier gut microbiome
- e) Support a healthy immune system

Fig.9 Potential health benefits		
		Potential benefits
1.	Shiitake	Immune system, vitamin D (helps the body absorb calcium), minerals
2.	Matsutake	Dietary fiber, vitamin B
3.	Maitake	Lower blood pressure, possibly anti-cancer
4.	Shimeji	Low fat, dietary fiber
5.	Eringi	Low calories, possibly lowers cholesterol levels
6.	Enokitake	Antioxidants, vitamin B, minerals
7.	Nameko	Selenium (possible cancer fighting properties)
Note: 12 Types of Japanese Mushrooms & Health Benefits, by It's Japanese ⁽³⁾		
Source: Various, in particular note above, Conceptasia, September 2023		

For a review of the clinical research, please see *Medicinal Mushrooms: Bioactive Compounds, Use, and Clinical Trials*. ⁽⁴⁾ To quote that paper: "The medicinal properties of mushrooms are due to the numerous and diverse secondary compounds and metabolites present in the mycelial and/or carpophore structures, which can act, in a synergistic or non-synergistic manner, on various biological functions of the human organism." Research is ongoing.

References:

- 1) *Mushrooms: A Staple of the Japanese Table*, by Nippon.com, November 19, 2021:
https://www.nippon.com/en/japan-glances/jg00131/?cx_recs_click=true
- 2) *7 health benefits of mushrooms*, by UCLA Health, January 2022:
<https://www.uclahealth.org/news/7-health-benefits-of-mushrooms>
- 3) *12 Types of Japanese Mushrooms & Health Benefits*, by It's Japanese, August 15, 2023,
<https://www.itsjapanese.com/food/types-of-japanese-mushrooms/>
- 4) *Medicinal Mushrooms: Bioactive Compounds, Use, and Clinical Trials*, by Giuseppe Venturella, Valeria Ferraro, Fortunato Cirilincione, and Maria Letizia Gargano, January 2021