



Feed Your Immune System: Taking a Closer Look at Nutrients Found in Mushrooms

The immune system is made up of a network of cells, tissues and organs that work together to protect the body against infection and maintain overall health. Mushrooms, like other fruits and vegetables, can play a positive role in supporting a healthy immune system.

The 2015-2020 Dietary Guidelines for Americans¹ emphasizes the importance of creating a healthy eating pattern to maintain health and reduce the risk of disease. Suggestions include:

- Make half your plate fruits and vegetables.
- Move to low-fat and fat-free milk or yogurt.
- Make half your grains whole grains.
- Focus on whole fruits and vary your vegetables.
- Drink and eat less sodium, saturated fat and added sugars.
- Vary your protein routine.

Nutrients Important for Overall Wellness

There are a variety of micronutrients, as identified by the Linus Pauling Institute at Oregon State University², that are important for supporting a healthy immune system including selenium and vitamins D and B₆, which can be found in mushrooms.

	The Facts	Nutrients in Mushrooms ⁴
Selenium³ RDA (Adults): 55 mcg/day	Selenium is an essential trace mineral which means your body must get this mineral in the food you eat. Selenium helps your body make special proteins, called antioxidant enzymes. These play a role in preventing cell damage. ⁵	EXCELLENT SOURCE <ul style="list-style-type: none"> • 4 crimini mushrooms: 20.8 mcg 38% RDA • 1 piece whole portabella: 15.6 mcg 28% RDA GOOD SOURCE <ul style="list-style-type: none"> • 5 medium mushrooms: 8.35 mcg 15% RDA
Vitamin D⁶ RDA (Adults): 20 mcg/day	Vitamin D helps build and maintain strong bones by helping the body absorb calcium. Vitamin D is available via diet, supplements and sunlight, which is why it is also referred to as the “sunshine vitamin.” Vitamin D has other roles in the body, including modulation of cell growth, neuromuscular and immune function, and reduction of inflammation ⁵ .	EXCELLENT SOURCE <ul style="list-style-type: none"> • 5 medium mushrooms, exposed to UV light: 23.6 mcg 118% RDA • 4 crimini mushrooms, exposed to UV light: 25.52 mcg 128% RDA • 1 piece whole portabella, exposed to UV light: 23.9 mcg 120% RDA • 1 cup diced maitake mushrooms: 19.7 mcg 99% RDA
Vitamin B₆ (Pyridoxine)⁷ RDA (Adults): 1.3 mg/day	Vitamin B ₆ helps convert food into usable energy and assists in the formation of neurotransmitters, red blood cells, proteins and DNA. ⁸	GOOD SOURCE <ul style="list-style-type: none"> • 4 whole shiitake mushrooms: 0.224 mcg 13% RDA

1. <https://www.dietaryguidelines.gov/current-dietary-guidelines/2015-2020-dietary-guidelines> 2. <https://pi.oregonstate.edu/mic/health-disease/immunity>. Written in March 2016 by: Giana Angelo, Ph.D. Linus Pauling Institute, Oregon State University. Reviewed in February 2017 by: Catherine Field, Ph.D. Professor of Nutrition, Department of Agricultural, Food and Nutritional Science, University of Alberta. This link leads to a website provided by the Linus Pauling Institute at Oregon State University. The Mushroom Council is not affiliated or endorsed by the Linus Pauling Institute or Oregon State University. 3. <https://ods.od.nih.gov/factsheets/Selenium-HealthProfessional/> 4. U.S. Department of Agriculture, Agricultural Research Service. FoodData Central, 2019. fdc.nal.usda.gov. 5. U.S. National Library of Medicine. Selenium in Diet. <https://medlineplus.gov/ency/article/002414.htm> 6. <https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/> 7. <https://ods.od.nih.gov/factsheets/VitaminB6-HealthProfessional/> 8. <https://pi.oregonstate.edu/mic/health-disease/immunity#micronutrients>. This link leads to a website provided by the Linus Pauling Institute at Oregon State University. The Mushroom Council is not affiliated or endorsed by the Linus Pauling Institute or Oregon State University.

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Marinated Mushroom Bowls With Lentils and Wild Rice

Total time: 40 minutes
Makes 4 servings



Nourish your body with this flavorful bowl packed with nutrient-rich ingredients like mushrooms, lentils, purple cabbage, sesame and extra-virgin olive oil. Lentils and wild rice are great pantry staples and if you don't have purple cabbage on hand, any shredded leafy green (kale, spinach, romaine) will work.

Ingredients:

Marinated Mushrooms

- ¼ cup extra-virgin olive oil
- 2 tablespoons unseasoned rice vinegar
- 1 tablespoon low-sodium soy sauce
- 2 teaspoons dark sesame oil
- 1 teaspoon chili oil
- 1 green onion, thinly sliced
- 1 tablespoon chopped fresh cilantro
- 1 teaspoon sesame seeds
- 8 ounces crimini mushrooms, thinly sliced

Bowls

- 2 cups thinly sliced purple cabbage
- 1 tablespoon fresh lime juice
- Pinch of salt
- 2 teaspoons low-sodium soy sauce
- 2 cups cooked French lentils
- 1 cup cooked wild rice
- 1 cup chopped cucumber
- *Garnishes:* chopped cilantro, sliced green onions, black sesame seeds, lime wedges

Directions:

1. To marinate the mushrooms, whisk together the olive oil, rice vinegar, soy sauce, sesame oil, and chili oil in a shallow bowl. Stir in the green onion, cilantro, and sesame seeds. Add the mushrooms and gently toss in the marinade. Cover and let rest for 30 minutes.
2. Place the cabbage in a bowl and toss with the lime juice and pinch of salt. Set aside.
3. Stir in 1 teaspoon of soy sauce each to the lentils and the wild rice.
4. To serve, arrange equal amounts mushrooms, cabbage, lentils, wild rice, and cucumbers in each bowl. Drizzle with any remaining marinade and garnish with cilantro, green onions, and black sesame seeds. Serve with lime wedges. Enjoy room temperature or cold.

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