



Mushrooms: A Food For A Better Mood

There is an old adage, “You are what you eat,” and even today, it still rings true. The foods we eat help feed our whole body and that includes our brain. What we feed ourselves doesn’t just affect our physical performance, but our mental or cognitive well-being as well. Niacin, one of the B vitamins, specifically vitamin B3, helps turn the food you eat into energy the body needs. The body also converts some tryptophan, an amino acid in protein, to niacin. Niacin is part of the metabolizing process of forming serotonin from tryptophan and serotonin, and lowered serotonin levels have been connected to mood disorders such as depression. Ongoing studies are required to further identify the health benefits in relationship to our mental health.

Niacin

When looking for niacin in the grocery store, look no further than the mushroom section. Mushrooms are rich in niacin and some varieties, such as maitake, oyster, portabella and white button, are an excellent source of this important nutrient. That’s something to feel good about!

Niacin In Mushrooms

| | Serving Size | Size in Grams | Amount of Niacin Per Serving | Recommended Daily Value Percentage |
|----------------------------------|--------------------------|---------------|------------------------------|------------------------------------|
| Mushrooms, maitake, raw | 1 cup, diced | 70 g | 5 mg | 31% |
| Mushrooms, oyster, raw | 6 small oyster mushrooms | 90 g | 4 mg | 28% |
| Mushrooms, portabella, raw | 1 piece, whole | 84 g | 3.78 mg | 24% |
| Mushrooms, white, raw | 5 medium | 90 g | 3.245 mg | 20% |
| Mushrooms, brown or crimini, raw | 4 criminis | 80 g | 3.04 mg | 19% |
| Mushrooms, shiitake, raw | 4 whole | 76 g | 3 mg | 13% |

Source: U.S. Department of Agriculture, Agricultural Research Service. FoodData Central, 2019. fdc.nal.usda.gov.

¹ Niacin Fact Sheet for Consumers. March 2021. National Institutes of Health. <https://ods.od.nih.gov/factsheets/Niacin-Consumer/>

² Jenkins TA, Nguyen JC, Polglaze KE, Bertrand PP. (2016) Influence of Tryptophan and Serotonin on Mood and Cognition with a Possible Role of the Gut-Brain Axis. *Nutrients*.8(1):56. doi: 10.3390/nu8010056. PMID: 26805875; PMCID: PMC4728667.



The Thanksgiving turkey isn't the only food with tryptophan. Many items in the produce section also contain this mood-boosting amino acid. Bananas and pineapple may get the headlines, but mushrooms actually come out on top of many commonly identified tryptophan-containing foods.

Tryptophan In The Produce Section

| | Serving Size | Size in Grams | Amount of Tryptophan Per Serving |
|--|------------------------------|---------------|----------------------------------|
| Mushrooms, brown or crimini, raw | 4 criminis | 80 g | 0.045 g |
| Mushrooms, oyster, raw | 1 cup, sliced | 86 g | 0.036 g |
| Mushrooms, white, raw | 5 medium | 90 g | 0.032 g |
| Mushrooms, portabella, raw | 1 piece, whole | 84 g | 0.029 g |
| Mushrooms, maitake, raw | 1 cup, diced | 70 g | 0.025 g |
| Broccoli, raw | 1 cup | 76 g | 0.025 g |
| Onions, raw | 1 cup, sliced | 115 g | 0.016 g |
| Spinach, raw | 1 cup | 30 g | 0.012 g |
| Bananas, raw | 1 medium (7" to 7-7/8" long) | 118 g | 0.011 g |
| Pineapple, raw, all varieties | 1 cup, chunks | 165 g | 0.008 g |
| Tomatoes, red, ripe, raw, year round average | 1 medium whole (2-3/5" dia.) | 123 g | 0.007 g |
| Garlic, raw | 3 cloves | 9 g | 0.006 g |

Source: U.S. Department of Agriculture, Agricultural Research Service. FoodData Central, 2019. fdc.nal.usda.gov.

