Vitamin D Mushrooms

A Natural Solution to Australia’s Vitamin D Problems

Greg Seymour
General Manager
Australian Mushroom Growers
Australians are in love with Mushrooms

• Per capita consumption –
  1978 - 600g/hd
  2012 – 3200g/hd

• Participation Rate -
  2002 – 34% of Aussies
  2011 - 78% of Aussies

• Many Formats
  Mushrooms are consumed as fresh, canned, dried, dietary supplements and nutraceutical products.
Australians are in love with Mushrooms but want to love them more............

After reading the information, please indicate if you believe that knowing these health and nutritional facts would influence the amount of mushrooms you would include in your diet?  (select one)

<table>
<thead>
<tr>
<th>All</th>
<th>% respondents</th>
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<tbody>
<tr>
<td>n=2,095</td>
<td></td>
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- May have a **strong** influence in increasing mushrooms in my diet: **45%**
- May have a **moderate** influence in increasing mushrooms in my diet: **32%**
- May have a **minor** influence in increasing mushrooms in my diet: **12%**
- Not likely to have any influence in increasing mushrooms in my diet: **11%**
- May influence me to include less mushrooms in my diet: **<1%**
Evolution of Life

adapted from Carroll SB. Nature 2001; 409: 1102-1109
Edible mushrooms naturally have vitamin D2

Wild: 2 - 40 mcg/100g fresh weight

2 hours in the sun:
20 mcg/100g

Food Chem 2002; 76: 293-298
J Agric Food Chem 2011; 59: 8724-8732
Mushrooms naturally have vitamin D

Ergosterol → Ergocalciferol/D2
(20 mcg/100g in light exposed mushrooms)
Bananas naturally have sugars

Starch → Ethylene → Glucose, fructose, sucrose

Diagram showing the conversion of starch to sugars in bananas.
Vitamin D in food (mcg)

Adequate Intake (AI)

- Men 2.8 mcg
- Women 2.1 mcg

Food sources:

- Egg
- Margarine 2 tspn
- Beef 100 g
- Tuna 100 g
- Akta-vite
- D milk 200 mL
- M’room 100g

AI 70+ yrs

AI 50-70 yrs

Adequate Intake 18-50 yrs
BIOAVAILABLE

SHELF STABLE

BONE

HEALTH

COOKING STABLE

J Agricultural & Food Chemistry 2009; 57: 3351-3355
British Journal of Nutrition 2005; 93: 951-955
Osteoporosis International 2012 DOI: 10.1007/s00198-012-1934-9
“D3 is approximately 87% more potent in raising and maintaining serum 25 (OH) D concentrations.”

Robert Heaney, Creighton University

“... at least when healthy adults take 1000 IU of vitamin D2, they can be assured that it is as effective as taking 1000 IU of vitamin D3.”

Michael Holick, Prof of Medicine, Boston University
20 mcg D in 100 grams
VITAMIN D MUSHROOMS
(250gm NET)

100g of mushrooms from this pack will provide the Recommended Daily Intake of Vitamin D.

To learn more visit, www.mushroomsforlife.net.au

Product of Australia

White Prince Pty Ltd - 61 Wallace Rd, Vineyard NSW 2765
A delicious new way to get your Vitamin D.

2 of our Cream of Mushroom soups made with fresh Canadian mushrooms now provide 25% of your daily value of Vitamin D. Check your local soup aisle today!
Portobello Mushroom Powder

1 teaspoon = 150% Vitamin D DV

Great in:
- Soups & Stews
- Sauces
- Casseroles
- Dressings
- Entrées
- Pasta
- Rice

Nutrition

Most vitamin D supplements derive from rendered wool grease, yeast or fish livers? Ick! By contrast, our Portobello Mushroom Powder provides an all-natural, plant-based vitamin D source that’s perfect for any diet — including vegan or raw.

- “Vegetable Vitamin D - Every Day, Naturally”
- Product of USA
- The only 100% vegan, plant-based vitamin D source available, requiring just one level tsp for 150% of your Daily Value needs
- 100% natural
- Hearty aroma and flavor
- Effective as a salt substitute
- UPC codes for both product sizes

Featured Recipe
Whole Wheat Pasta Primavera

Prep: 15 min.
Cook: 25 min.
Makes: 3 to 4 servings

1/2 pound lean ground turkey
1 red bell or yellow bell pepper, cut into 1-inch chunks
1 tablespoon paprika
1 tablespoon DOLE® Portobello Mushroom Powder
1 can (14-1/2 oz.) tomato pieces
1 can (14-1/2 oz.) chicken broth
4 ounces thin whole wheat spaghetti, broken
2 cups DOLE Broccoli florets
1 cup DOLE Cauliflower florets
1/4 cup grated Parmesan cheese
2 tablespoons chopped parsley

Cook turkey in large nonstick skillet, about 2 minutes or until browned. Stir in bell pepper, paprika and mushroom powder. Reduce heat, stirring 2 minutes longer. Stir in tomato, broth and spaghetti.

Heat to boiling. Stir in broccoli and cauliflower. Reduce heat to low; cover and simmer 20 minutes or until spaghetti and vegetables are tender.

Stir together parmesan and parsley in small bowl. Sprinkle over pasta.

Blogs
Vitamin D-Packed Mushroom Powder And Other Shocking Discoveries
Sunny Mushroom Nuggets
Sunrise Run + New Dole Products

Press Release  Download
CSIRO report (biennial)

mushroomsandhealth.com
In the beginning ...

2 fruit + 5 veg
... then came the future

2 fruit + 4 veg + 1 m’room

www.powerofmushrooms.com.au