Farm to Health Series

MAXIMIZE YOUR NUTRIENTS FROM: ASPARAGUS

Asparagus is very nutritionally diverse, and contains considerable levels of vitamins C, K and A, folate, thiamin and iron. Its levels of vitamin K are very high, with 35% of the daily value in only a ½ cup of asparagus. It also contains the carotenoids beta-carotene, lutein and zeaxanthin and several phenolic compounds. Saponins and inulin are also found in asparagus, but at lower levels than some other foods.

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HOW IT IMPROVES HEALTH

- While few human studies examine its health benefits, there is pilot data on the phytochemicals it contains.
- Saponins and phenolics both have anti-inflammatory benefits, and vitamin C and beta-carotene have antioxidant activity.
- Inulin is a type of dietary fiber and a prebiotic. It can lower plasma glucose and cholesterol, and helps fuel healthy bacteria in your colon to improve overall digestive health.
- The combination of compounds in asparagus suggests a potential to protect against cardiovascular diseases, type 2 diabetes, and age-related cancers.

NUTRIENT AND PHYTOCHEMICAL CHANGES

Fresh asparagus has a shorter shelf-life compared to other vegetables – it should be consumed within 2 days of purchase. There is no need to peel asparagus – peeling causes nutrients to be lost. Asparagus is best consumed from fresh or frozen and with only light cooking. Steaming is best because it does not submerge the asparagus in water nor does it employ the high temperatures associated with roasting.

	Fiber/ Inulin	Vit C	Vits A and K	Folate & Thiamin	Iron	Caroten-oids	Phenolics
Extended refrigerated storage	=	↓↓	= or ↓	= or ↓	=	↓	=
Cooking:							
Lightly sautéed or steamed	=	↓	=	=	=	=	↑
Roasted or grilled	=	↓↓	=	↓	=	↓	NA
Boiled and drained	=	↓↓	=	↓	↓	=	↓
Freezing:							
Blanched before freezing (suggested)	=	↓	=	↓	↓	=	↑
During frozen storage	=	=	=	=	=	=	=
Canning:							
Drained	=	↓	=	↓	↓	=	↓
Liquid consumed	=	↓	=	↓	=	=	=

↓: decrease, ↓↓: large decrease, = : no change, ↑: increase, ↑↑: large increase

Recipe: Asparagus and Scallion Soup w/ Almonds

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To maximize nutritional value, this recipe uses fresh or frozen asparagus and does not involve draining the cooking liquid.

Ingredients:

- 1⁄4 cup sliced almonds, for garnish
- 1 Tbsp. olive oil
- 2 medium leeks, white part only, thinly sliced
- 6 scallions, thinly sliced, 2 reserved for garnish
- 2 cans (14 oz. each) fat-free, reduced sodium chicken broth
- 1⁄2 tsp. dried thyme, to taste
- Salt and white pepper, to taste
- 1 1⁄2 lb. fresh or frozen asparagus, thinly sliced
- 1 can (15 oz.) white beans, rinsed and drained
- *1 cup evaporated skim milk (optional)

6 servings. Per Serving: 146 calories, 3 g total fat (<1 g saturated fat), 24 g carbohydrate, 9 g protein, 5 g dietary fiber, 304 mg sodium, 13 mg vitamin C (22% DV), 283 µg vitamin K (350%), 1669 IU vitamin A (33% DV), 129 µg folate (32%), 0.3 mg thiamin (20%), 4.4 mg iron (24%)

Directions:

- Place almonds in saucepan over medium heat. Toast nuts until golden, shaking pan occasionally to prevent burning, about 5-6 min. Transfer nuts to paper towel and set aside.
- In same pan, heat oil over medium heat. Add leeks and 4 chopped scallions. Cook, stirring occasionally, until tender, about 5-6 min. Add broth, thyme, salt and pepper, and bring to boil. Add asparagus and beans.
- Bring back to boil, then immediately reduce heat and simmer, partially covered, until vegetables are soft, 12-15 min. Remove from heat and cool slightly.
- Purée soup in blender. Pour back into saucepan over medium heat. Heat through. Ladle into serving bowls. Garnish with toasted almonds and remaining scallions.
- *For a creamier soup, stir in 1 cup evaporated skim milk after puréeing and pouring back into saucepan. Heat before ladling into serving bowls.

OTHER FOOD SOURCES OF KEY NUTRIENTS AND PHYTOCHEMICALS:

- Vitamin K
  - Dark leafy greens
  - Broccoli
- Lutein & zeaxanthin
  - Egg yolk
  - Corn

For more information or how to maximize nutrients in other fruits and vegetables, see http://localfoods.osu.edu/maximizenutrients.

This information is not meant to diagnose, treat, cure, or prevent any disease. This project is made possible by funding through OSU CARES - an initiative of OSU Extension and the OSU to expand faculty, staff and student partnerships with communities throughout Ohio.

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