

## Functional Foods

Get more out of your meals by adding functional foods. These foods help repair damaged cells and reduce inflammation. Functional foods may also play a role in protecting against some types of cancers and other chronic diseases. These colorful plant-foods contain vitamins and minerals but also have compounds to boost your health.

*See the chart below for examples and what helpful compounds they contain:*

Food source	Functional Compounds	Note
Cruciferous vegetables (broccoli, cabbage, cauliflower, and brussel sprouts)	1. Sulforaphane; 2. Isothiocyanates; 3. Flavenols; 4. Fiber; 5. Vitamin C	Microwaving and overcooking destroys key enzymes. For maximum benefit enjoy raw or steamed
Garlic, onions, scallions	1. Allicin; 2. Flavenoids; 3. Saponins	Crush or chop and allow to sit 10 minutes to allow the allicin to develop prior to cooking
Red Berries, pomegranate, cherries	1. Polyphenols; 2. Flavenoids; 3. Ellagic Acid	Fresh or frozen, these fruits pack a punch supporting memory, brain health, and decreases inflammation
Blueberries, Red/Purple grapes	1. Anthocyanins; 2. Ellagic Acid; 3. Resveratrol; 4. Flavenoids	Smaller berries will provide more nutrient-packing skin surface area per cup. Add to salads or oatmeal for an extra dose of Vitamin C
Tumeric	1. Curcumin	Studies support many benefits including glucose and fat metabolism as well as brain health. This potent anti-inflammatory is best absorbed in combination with black pepper and fat. Add to egg dishes, beans, stews, and lean turkey chili.
Spinach, Kale, Dark leafy greens	1. Carotenoids; 2. Flavenoids; 3. Potassium; 4. Magnesium	Frozen, fresh and cooked these green vegetables are a great source of several minerals, Vitamin K, and fiber and can help reduce inflammation
Flaxseed	1. Lignans; 2. Omega 3 fatty acid; 3. Magnesium; 4. Fiber	This phytoestrogen source can decrease less active forms of estrogen and prostate specific antigen (PSA). Grind before eating. Store opened packages of ground or milled flax in the refrigerator. Add to smoothies, oatmeal, yogurt and other whole grains.

# Patient Education

Apples with skin	1. Quercetin; 2. Triterpenoids; 3. Epicatechins; 4. Fiber	The peel provides the highest amount of protective compounds. Choose firm apples with intact stems. Keep apples in the refrigerator for up to 3 weeks.
Green Tea	1. Polyphenols; 2. Flavenols; 3. Catechins	Some studies have shown the EGCG polyphenols may directly inhibit the development of various cancers and stimulate enzymes to slow cancer progression. Some studies indicate that 3 cups per day may provide benefit; steep in boiling water for 4 minutes.
Dry beans and peas	1. Lignans; 2. Saponins; 3. Triterpenoids; 4. Flavenoids; 5. Fiber; 6. Magnesium	Packed with protein, minerals, and fiber, beans are rich in many anti-inflammatory compounds. Before cooking dry beans, soak for 8-12 hours, drain and rinse to help reduce gas. For extra flavor, cook with 3-4 bay leaves. Adzuki beans are a good option for gas-sufferers. Rinsing canned beans is also a good way to enjoy this functional food.
Walnuts	1. Ellagic Acid; 2. Omega 3 fatty acids; 3. Tocopherols; 4. Polyphenols; 5. Melatonin; 6. Phytosterols	Animal studies are showing promise in this potent anti-inflammatory in reducing some cancers. Walnuts also show benefits for persons with diabetes, metabolic syndrome and cardiovascular disease. Choose walnuts that do not look shriveled and do not smell rancid or bitter. Store in the refrigerator to keep fresh.
Carrots	1. Carotenoids; 2. Falcarinol; 3. Luteolin; 4. Fiber	Falcarinol appears to reduce DNA damage and in animal studies have shown anti-tumor activity. Steaming whole carrots can boost their falcarinol content. Cut after steaming. Consuming with a small amount of fat will increase the absorption of the carotenoids. Sweet potatoes and winter squash also contain healthy carotenoids.
Fatty fish: Mackerel, Salmon, Sardines, Tuna	1. Omega 3 fatty acids; 2. Vitamin D (variable); 3. Selenium; 4. B Vitamins	Some farm-raised fish may be exposed to greater amounts of toxic industrial pollutants and bacteria; therefore wild-caught may be a more appealing option. See the "Resources" section below to help you find the best seafood selection in your state.

## Resources

### **Environment Work Group**

[www.ewg.org/foodnews.index.php](http://www.ewg.org/foodnews.index.php)

The environmental Work Group provides information to help consumers choose foods to limit harmful pesticide exposure

### **Monterey Bay Aquarium Seafood Watch Consumer Guides for Buying Fish**

[www.seafoodwatch.org/seafood-recommendations/consumer-guides](http://www.seafoodwatch.org/seafood-recommendations/consumer-guides)

This organization helps consumers understand the difference between farm-raised, wild-caught, and safe imported sources. Their consumer guides give advice on which seafood items are best choices or good alternatives. Refer to the website and /or download their app for current information