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**Extension**



# Senior Health Line

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## What Are Phytonutrients?

We have all probably heard the words phytonutrients or phytochemicals recently, but do you know what these words mean? These two words can be used interchangeably. Phytochemicals cover a wide range of compounds that are found in fruits, vegetables, beans, grain, sand and other plant products. Each phytonutrient is unique and many help to keep the human body functioning well. There are upwards of 4,000 phytochemicals and although only a small number of them have been studied closely, scientists believe that most have unique health benefits that help to reduce inflammation in the body and many chronic diseases. Other names that refer to phytonutrients include antioxidants, flavonoids, isoflavones, flavones, catechins, anthocyanidins, isothiocyanates and polyphenols.

By eating a well-balanced diet, filled with fruits and vegetables of all different colors, you can provide your body with a variety of phytonutrients. Each time you sit down to eat, whether it be a snack or a meal, at least one half of your plate should be covered with fruits and vegetables.

Beta carotene is one of the more well-known phytonutrients. Beta carotene helps to boost our immune system, maintain our vision, skin health and bone health. Good

sources of beta carotene include pumpkin, sweet potato, carrots, cantaloupe. Think bright orange when you think of beta carotene.

Lycopene is another well-known phytonutrients. This chemical found in plants helps to reduce the incidence of some cancers and help your heart stay healthy. Tomatoes, watermelon, red peppers and pink grapefruit are all great sources of lycopene. An interesting fact about utilizing lycopene from plants is that the heating process actually makes it easier for the body to absorb lycopene.

Lutein is a phytochemical found in the eye and is strongly associated with eye health. It also reduces the incidence of certain cancers and improves heart health. Lutein is found in greens, broccoli, Brussels sprouts and artichokes.

Resveratrol is another more commonly studied phytochemical. It is known to play important roles in heart health, reducing the incidence of certain types of cancers, lung health and inflammation throughout the body. One cup of red grapes can contain over 1 milligram of resveratrol. Other good sources of this phytonutrient include peanuts and red wines.

Anthocyanidins are associated with the colors red and purple. Blueberries, blackberries, plums, strawberries, cranberries, raspberries,

red onions, red potatoes and red radishes are all good sources of anthocyanidins. This chemical compound helps with blood vessel health, keeping veins and arteries supple and able to expand and contract easily, reducing the problem of hardening of the arteries.

Chlorophyll is probably the most recognized phytonutrient. It is associated with the color green and found in green leafy vegetables, pistachios, peas, cucumbers, celery, honeydew melon, zucchini, avocados green grapes and green cabbage. This helps to protect against some types of cancers. It is also associated with the B vitamin folate and is an excellent source of vitamin K which is important in blood clotting. Isothiocyanates which are also found in green colored plants are known to stimulate enzymes in the liver that remove chemicals from the body that are known to cause cancers.

As we continue to research the chemical compounds found in plant based foods, we will most likely find more health benefits from phytochemicals. The safety of supplementing with phytonutrients is not well understood. In the amounts that are eaten in a healthy diet, phytochemicals are believed to be safe and beneficial. Do not take phytochemical supplements without consulting your health care provider first.

Fresh basil

Preheat oven to 450 degrees F. Line a sheet pan with parchment paper. Wash and trim the zucchini. Slice in half crosswise and then length wise into  $\frac{1}{4}$  inch thick slices. Sprinkle with olive oil then salt and pepper. Arrange on the parchment paper in a single layer and roast for 12 minutes. The zucchini should be slightly brown. Remove from the oven and reduce oven temperature to 375 degrees F. Spread  $\frac{1}{2}$  cup of the tomato sauce over the bottom of a 9x13 inch casserole dish. Place 1/3 of the zucchini over the tomato sauce. Spoon 1 cup of the tomato sauce over the zucchini and sprinkle with  $\frac{1}{4}$  cup of the Parmesan cheese. Repeat with two more layers of the zucchini, tomato sauce and cheese. Bake 35 minutes or until golden brown on top. Remove from oven and let sit for 10 minutes before serving. Garnish with the fresh basil.

Makes 6 servings

Nutrition Information per serving

Calories 160

Carbohydrates 16 grams

Fiber 4 grams

Protein 7 grams

Fat 8 grams

Sodium 520

milligrams



## Roasted Zucchini Parmesan

3 medium zucchini

1 Tablespoon olive oil

$\frac{1}{4}$  teaspoon salt

$\frac{1}{4}$  teaspoon black pepper

4 cups tomato sauce

$\frac{3}{4}$  cup Parmesan cheese

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