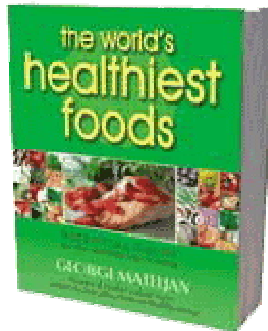


**Training about value of plums**  
Open talks coordinated by Corina Cace



**Description**

Eating Healthy

Health Benefits

How to Select and Store



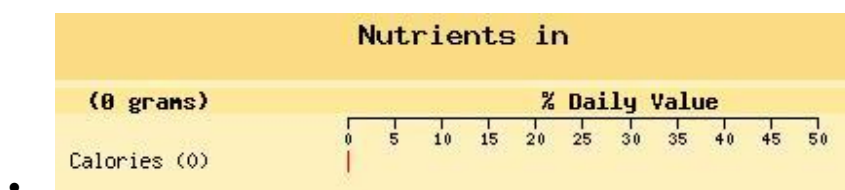
Cooking Healthy

How to Enjoy

Feeling Great

There are few fruits that come in such a panorama of colors as the juicy sweet tasting plum. The plum season extends from May through October with the Japanese varieties first on the market from May and peaking in August followed by the European varieties in the fall.

Plums belong to the *Prunus* genus of plants and are relatives of the *peach*, *nectarine* and *almond*. They are all considered "drupes," fruits that have a hard stone pit surrounding their seeds. When plums are dried, they are known as prunes.



This chart graphically details the %DV that a serving of Plums provides for each of the nutrients of which it is a good, very good, or excellent source according to our Food Rating System. Additional information about the amount of these nutrients provided by Plums can be found in the Food Rating System Chart.

## History

With the large number of plums available, it is not surprising that the various types have different heritages and places of origin. The European plum is thought to have been discovered around two thousand years ago, originating in the area near the Caspian Sea. Even in ancient Roman times, there were already over 300 varieties of European plums. European plums made their way across the Atlantic Ocean with the pilgrims, who introduced them into the United States in the 17th century.

While Japanese plums actually originated in China, they derived their name from the country where much of their cultivation and development occurred. Japanese plums were introduced to the U.S. in the late 19th century. Today, the United States, Russia, China and Romania are among the main producers of commercially grown plums.

## Nutritional Profile

Plums are a very good source of vitamin C. They are also a good source of vitamin A, vitamin B2 and potassium. In addition, plums are a good source of dietary fiber.

## In-Depth Nutritional Profile

In addition to the nutrients highlighted in our ratings chart, an in-depth nutritional profile for Plums is also available. This profile includes information on a full array of nutrients, including carbohydrates, sugar, soluble and insoluble fiber, sodium, vitamins, minerals, fatty acids, amino acids and more.

## Introduction to Food Rating System Chart

In order to better help you identify foods that feature a high concentration of nutrients for the calories they contain, we created a Food Rating System. This system allows us to highlight the foods that are especially rich in particular nutrients. The following chart shows the nutrients for which this food is either an excellent, very good, or good source (below the chart you will find a table that explains these qualifications). If a nutrient is not listed in the chart, it does not necessarily mean that the food doesn't contain it. It

simply means that the nutrient is not provided in a sufficient amount or concentration to meet our rating criteria. (To view this food's in-depth nutritional profile that includes values for dozens of nutrients - not just the ones rated as excellent, very good, or good - please use the link below the chart.) To read this chart accurately, you'll need to glance up in the top left corner where you will find the name of the food and the serving size we used to calculate the food's nutrient composition. This serving size will tell you how much of the food you need to eat to obtain the amount of nutrients found in the chart. Now, returning to the chart itself, you can look next to the nutrient name in order to find the nutrient amount it offers, the percent Daily Value (DV%) that this amount represents, the nutrient density that we calculated for this food and nutrient, and the rating we established in our rating system. For most of our nutrient ratings, we adopted the government standards for food labeling that are found in the U.S. Food and Drug Administration's "Reference Values for Nutrition Labeling."

Plum						each grams
1.00						
66.00						
36.30 calories						
Nutrient		Amount	DV (%)	Nutrient Density	World's Healthiest Foods Rating	
vitamin C		6.27 mg	10.4	5.2	very good	
vitamin A		213.18 IU	4.3	2.1	good	
dietary fiber		0.99 g	4.0	2.0	good	
vitamin B2 (riboflavin)		0.06 mg	3.5	1.8	good	
potassium		113.52 mg	3.2	1.6	good	
World's Healthiest Foods Rating		Rule				
excellent		DV>=75%	OR	Density>=7.6	AND	DV>=10%
very good		DV>=50%	OR	Density>=3.4	AND	DV>=5%
good		DV>=25%	OR	Density>=1.5	AND	DV>=2.5%

## A. Health Benefits

The fresh version (plums) and the dried version (prunes) of the plant scientifically known as *Prunus domestica* have been the subject of repeated health research for their high content of unique phytonutrients called *neochlorogenic* and *chlorogenic acid*. These substances found in plum and prune are classified as *phenols*, and their function as antioxidants has been well-documented.

### **1. Significant Antioxidant Protection from Phenols**

These damage-preventing substances are particularly effective in neutralizing a particularly destructive oxygen radical called *superoxide anion radical*, and they have also been shown to help prevent oxygen-based damage to fats, such as the fats that comprise a substantial portion of our brain cells or *neurons*, the cholesterol and *triglycerides* circulating in our bloodstream, or the fats that make up our cell membranes.

### **2. Better Iron Absorption Plus More Antioxidant Protection from Vitamin C**

The ability of plum and prune to increase absorption of iron into the body has also been documented in published research. This ability of plum and prune to make iron more available may be related to the vitamin C content of this fruit. Our food ranking system qualified plums as a very good source of vitamin C.

In addition to assisting with absorption of iron, vitamin C is needed in the body to make healthy tissue and is also needed for a strong immune system. Getting a little extra vitamin C around cold and flu season is a good idea, and may also be helpful for people who suffer from recurrent ear infections. Vitamin C also helps to protect cholesterol from becoming oxidized by free radicals. Since oxidized cholesterol is the kind that builds up in the arteries and causes damage to blood vessels, some extra vitamin C can be helpful for people who suffer from atherosclerosis or diabetic heart disease. In addition, vitamin C can help neutralize free radicals that could otherwise contribute to the development or progression of conditions like asthma, colon cancer, osteoarthritis, and rheumatoid arthritis, so vitamin C may be able to help those who are at risk or suffering from these conditions. Owing to the multitude of vitamin C's health benefits, it is not surprising that research has shown that consumption of vegetables and fruits high in this nutrient is associated with a reduced risk of death from all causes including heart disease, stroke and cancer.

### **3. Protection against Macular Degeneration**

Your mother may have told you carrots would keep your eyes bright as a child, but as an adult, it looks like fruit is even more important for keeping your sight. Data reported in a study published in the *Archives of Ophthalmology* indicates that eating 3 or more servings of fruit per day may lower your risk of age-related macular degeneration (ARMD), the primary cause of vision loss in older adults, by 36%, compared to persons who consume less than 1.5 servings of fruit daily.

In this study, which involved over 110,000 women and men, researchers evaluated the effect of study participants' consumption of fruits; vegetables; the antioxidant vitamins A, C, and E; and carotenoids on the development of early ARMD or neovascular ARMD, a more severe form of the illness associated with vision loss. While, surprisingly, intakes of vegetables, antioxidant vitamins and carotenoids were not strongly related to incidence of either form of ARMD, fruit intake was definitely protective against the severe form of this vision-destroying disease. Three servings of fruit may sound like a lot to eat each

day, but plums can help you reach this goal. Add diced plums to your morning cereal, lunch time yogurt or green salads. For a beautiful and delicious brown rice, add chopped plums and pistachios. Need to grab a snack? What could be better than a cool, sweet, juicy plum on a summer's day?

Our food ranking system also qualified plums as a good source of vitamin A (in the form of beta-carotene), vitamin B2, dietary fiber and potassium.

## **B. Description**

One of the unique things about plums is that there are so many varieties available. Not only do over 2,000 varieties of plums exist, but over 100 are available in the United States alone. So, if you are looking for a juicy, sweet tasting fruit that comes in a panorama of colors, plums are for you.

Plums are classified into six general categories-Japanese, American, Damson, Ornamental, Wild and European/Garden-whose size, shape and colors vary. Although usually round, plums can also be oval or heart-shaped. The skins of plums can be red, purple, blue-black, red, green, yellow or amber, while their flesh comes in hues such as yellow, green and pink and orange-a virtual rainbow.

Plums belong to the *Prunus* genus of plants and are relatives of the peach, nectarine and almond. They are all considered "drupes," fruits that have a hard stone pit surrounding their seeds. When plums are dried, they become the fruit we know as prunes.

The scientific name for plums is *Prunus domestica*.

## **C. How to Select and Store**

If you want to purchase plums that are ripe and ready to eat, look for ones that yield to gentle pressure and that are slightly soft at their tip. While you can also purchase plums that are firm and ripen them at home, avoid those that are excessively hard as they will be immature and will probably not develop a good taste and texture profile. Good quality plums will feature a rich color and may still have a slight whitish "bloom," reflecting that they have not been overhandled. They should also be free of punctures, bruises or any signs of decay. Plums are generally available in the marketplace from May through the early fall.

Plums that are not yet ripe can be left at room temperature. As this fruit tends to mature quickly, check on them in the next day or two to ensure that they do not become overripe. Once they are ripe, plums can be stored in the refrigerator for a few days. While plums can be frozen, to ensure maximum taste remove their stone pits before placing them in the freezer.

For the most antioxidants, consume plums when fully ripened:

Research conducted at the University of Innsbruck in Austria suggests that as fruits fully ripen, almost to the point of spoilage, their antioxidant levels actually increase.

Key to the process is the change in color that occurs as fruits ripen, a similar process to that seen in the fall when leaves turn from green to red to yellow to brown— a color change caused by the breakdown and disappearance of chlorophyll, which gives leaves and fruits their green color.

Until now, no one really knew what happened to chlorophyll during this process, but lead researcher, Bernard Kräutler, and his team, working together with botanists over the past several years, has identified the first decomposition products in leaves: colorless, polar NCCs (nonfluorescing chlorophyll catabolytes), that contain four pyrrole rings - like chlorophyll and heme.

After examining apples and pears, the scientists discovered that NCCs replace the chlorophyll not only in the leaves of fruit trees, but in their very ripe fruits, especially in the peel and flesh immediately below it.

"When chlorophyll is released from its protein complexes in the decomposition process, it has a phototoxic effect: when irradiated with light, it absorbs energy and can transfer it to other substances. For example, it can transform oxygen into a highly reactive, destructive form," report the researchers. However, NCCs have just the opposite effect. Extremely powerful antioxidants, they play an important protective role for the plant, and when consumed as part of the human diet, NCCs deliver the same potent antioxidant protection within our bodies.

## **D. How to Enjoy**

### **1. Tips for Preparing Plums:**

Plums are delicious eaten as is. If the plums have been in the refrigerator, allow them to approach room temperature before eating them as this will help them attain the maximum juiciness and sweetness. If you want to first remove the pit before eating or cooking, cut the plum in half lengthwise, gently twist the halves in opposite directions and then carefully take out the pit.

Plums can also be used in a variety of recipes and are usually baked or poached. If you want to remove the skin, this process can be made easier by first blanching the plum in boiling water for 30 seconds. Once you remove the fruits from the water, quickly run them under cold water before peeling to stop the blanching process and allow for easier handling.

## **2. A Few Quick Serving Ideas:**

Make pizza with a twist by broiling sliced plums, goat cheese, walnuts and sage on top of a whole wheat pita bread or pizza crust.

For a delightful dessert, poach plums in a red wine and serve with lemon zest.

Bake pitted plum halves in a 200°F(93°C) oven until they are wrinkled. Then mix them into a rye bread recipe for a scrumptiously sweet and hardy bread.

Blend stewed plums and combine with yogurt and honey for wonderful cold soup.

Add plum slices to cold cereal.