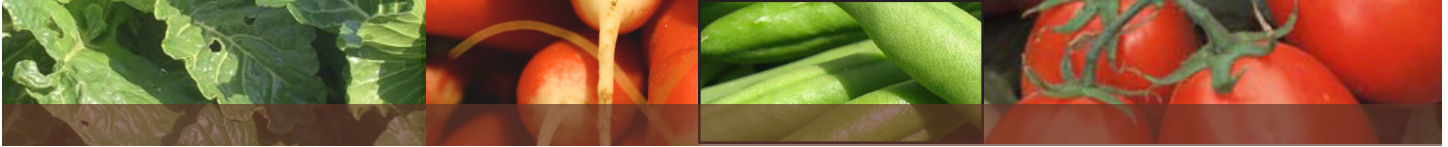




# 2 VEGETABLE COMPONENT



## LEEK

*(Allium ampeloprasum porrum)*

**Origin & History** - Leeks were prized by the ancient Greeks and Romans and were especially revered for their beneficial effect upon the throat. The Greek philosopher Aristotle credited the clear voice of the partridge to a diet of leeks, while the Roman emperor Nero supposedly ate leeks everyday to make his voice stronger. The Romans are thought to have introduced leeks to the United Kingdom, where they were able to flourish because they could withstand cold weather. Leeks have attained an esteemed status in Wales, where they serve as this country's national emblem. The Welsh regard for leeks can be traced back to a battle that they successfully won against that Saxons in 1620, during which the Welsh soldiers placed leeks in their caps to differentiate themselves from their opponents. Today, leeks are an important vegetable in many northern European cuisines and are grown in many European countries.

**Nutrients** - Leeks are very good source of manganese and a good source of vitamin C, iron, folate and vitamin B6.

**Health Benefits** - Leeks help to lower LDL (bad) cholesterol while raising HDL (good) cholesterol. They may also reduce the risk of prostate and colon cancers and possibly protect against ovarian cancer. The combination vitamin B6, vitamin C, folate, and iron make leeks particularly helpful in stabilizing blood sugar, since they not only slow the absorption of sugars from the intestinal tract, but help ensure that they are properly metabolized in the body.

## ONION

*(Allium cepa)*

**Origin & History** - Onions are native to Asia and the Middle East and have been cultivated for over five thousand years. Onions were highly regarded by the Egyptians who used them as currency to pay the workers who built the pyramids and placed them in the tombs of kings, such as Tutankhamen, so that they could carry these gifts bestowed with spiritual significance with them to the afterlife. Onions have been revered throughout time not only for their culinary use, but also for their therapeutic properties. As early as the 6th century, onions were used as a medicine in India. While they were popular with the ancient Greeks and Romans, they were often dressed with extra seasonings since many people did not find them spicy enough. It was their pungency that made onions popular among poor people throughout the world which could freely use this inexpensive vegetable to spark up their meals. Onions were an indispensable vegetable in the cuisines of many European countries during the Middle Ages and later even served as a classic healthy breakfast food. Christopher Columbus brought onions to the West Indies where their cultivation spread throughout the Western Hemisphere.

**Nutrients** - Onions are a very good source of vitamin C, chromium and dietary fiber. They are also a good source of manganese, molybdenum, vitamin B6, folate, potassium, phosphorus and copper.

**Health Benefits** - All members of the onion family offer some protection against heart disease. Research suggests that oils in onions (as well as other members of the onion family) help to lower LDL in the blood stream while increasing HDL levels.

Onions are also a good source of chromium, a mineral that helps cells respond appropriately to insulin. Onions contain flavonoids which have been shown to halt the growth of tumors in animals and protect colon cells from the damaging effects of certain cancer-causing substances. Cooking meats with onions may help reduce the amount of carcinogens produced when meat is cooked using high heat methods. Certain flavonoids found in onions have been linked to a reduction in the risk of ovarian cancer, as well. Anti-inflammatory agents in onions make them helpful in reducing severity of osteo- and rheumatoid arthritis symptoms. Mature, dry onions are also a good source of fiber. Only scallions and green onions contain vitamin A.

## SHALLOT

*(Allium escalonium)*

**Origin & History** - Shallots are thought to have originated from Ascalon, an ancient Palestinian city. They were first introduced to Europeans during the 12th Century by the Crusaders who brought them home as “valuable treasure” from Ascalon.

**Nutrients & Health Benefits** - Shallots are high in vitamin C, potassium, fiber, folic acid, calcium, iron and a good source of protein. Shallots contain two types of sulphur compounds Allypropyldisulphine (APDS) and flavonoids such as quercetin. People who consume a lot of flavonoids have been shown to have a reduced chance of developing cancer, heart disease and diabetes, due to the wonderful antibacterial properties they process. As an added benefit they are also anti-inflammatory, antiviral, and anti-allergenic. Shallots are especially good at helping the liver to eliminate toxins from the body, which is essential in the chemically processed foods that the masses enjoy, as well as helping to process alcohol. Shallots also contain saponins which have been shown to inhibit and kill cancerous cells in the body.

## COMMON GARLIC

*(Allium sativum)*

**Origin & History** - Native to central Asia, garlic is one of the oldest cultivated plants in the world and has been grown for over 5000 years. Ancient Egyptians seem to have been the first to cultivate this plant that played an important role in their culture. It was given to the slaves who built the pyramids to enhance their strength and endurance. Greek and Roman athletes ate garlic prior to sporting events and soldiers consumed it before going to war. In the past few years, garlic has gained popularity as research has confirmed its health benefits.

**Nutrients** - Garlic is an excellent source of manganese as well as a very good source of vitamin B6 and vitamin C. In addition, garlic is a good source of protein and thiamin (vitamin B1), the minerals phosphorous, selenium, calcium, potassium, iron and copper.

**Health Benefits** - Garlic’s cardiovascular benefits have been documented, and it is known to prevent atherosclerosis and diabetic heart disease, as well as reducing the risk of heart attack or stroke. Garlic’s numerous beneficial cardiovascular effects are due to not only its sulfur compounds, but also to its vitamin C, vitamin B6, selenium and manganese. Garlic is a very good source of vitamin C and vitamin B6, compounds that inhibit or reduce inflammation of osteoarthritis and may protect against many forms of cancer. It may also protect against drug-resistant strains of bacteria and may promote weight control.

## CELERY

*(Apium graveolens Dulce)*

**Origin & History** - The celery that we know today was derived from wild celery, thought to have its origins in the Mediterranean regions of northern Africa and southern Europe. The initial mention of the me-



dicinal properties of celery leaves dates back to the 9th century B.C. The Ancient Greeks used the leaves as laurels to decorate their renowned athletes, while the ancient Romans used it as a seasoning. Celery's use expanded beyond medicine in the Middle Ages and it became popular during the 18th century in Europe. Celery was introduced in the United States early in the 19th century.

**Nutrients** - Celery is an excellent source of vitamin C and a very good source of dietary fiber, potassium, folate, molybdenum, manganese and vitamin B6. It is also a good source of calcium, vitamin B1, vitamin B2, magnesium, vitamin A, phosphorus and iron.

**Health Benefits** - Celery contains vitamin C and several other active compounds that promote health, including pthalides, which may help lower cholesterol, and coumarins, that may be useful in cancer prevention. Rich in potassium and sodium, celery can act as a diuretic and regulate fluid balance.

## PARCEL

*(Apium graveolens Zwolsche Krul)*

Parcel is a culinary herb version of celery which closely resembles flat leaf parsley in appearance but has a celery aroma and taste and combines the nutritional values of parsley and celery. *Asparagus officinalis* - Asparagus

**Origin & History** - Asparagus has been prized as an epicurean delight and for its medicinal properties for almost 2000 years. Originating in the eastern Mediterranean region, it has become naturalized throughout much of the world. It was thought to be cultivated in ancient Egypt with varieties discovered in northern and southern Africa. Falling into relative obscurity in the Middle Ages, asparagus was "rediscovered" and popularized in the 18th century by Louis XIV. Today, asparagus is cultivated in most subtropical and temperate parts of the world.

**Nutrients** - Asparagus is an excellent source of vitamin K, the B vitamin folate, vitamin C, vitamin A. Asparagus is also a very good source of numerous B vitamins-including vitamins B1, B2, B3 and B6-as well as dietary fiber, manganese, copper, phosphorous, potassium and protein.

**Health Benefits** - Asparagus is a good source of folate, essential for a healthy cardiovascular system. It also contains a special kind of carbohydrate called inulin that we do not digest, but the health-promoting friendly bacteria in our large intestine, such as Bifidobacteria and Lactobacilli, do. Asparagus is a birth defect fighter: asparagus supplies folate, a B-vitamin essential for proper cellular division because it is necessary in DNA synthesis. Without folate, the fetus' nervous system cells do not divide properly.

## BEET

*(Beta vulgaris)*

**Origin & History** - The wild beet, the ancestor of the beet with which we are familiar today, is thought to have originated in prehistoric times in North Africa and grew wild along Asian and European seashores. In these earlier times, people exclusively ate the beet greens and not the roots. The ancient Romans were one of the first civilizations to cultivate beets to use their roots as food. The tribes that invaded Rome were responsible for spreading beets throughout northern Europe where they were first used for animal fodder and later for human consumption becoming more popular in the 16th century.

**Nutrients** - Beets are an excellent source of the B vitamin, folate, and a very good source of manganese and potassium. Beets are a good source of dietary fiber, vitamin C, magnesium, iron, copper and phosphorus. The greens are also incredibly rich in nutrients, concentrated in vitamins and minerals as well as carotenoids such as beta-carotene and lutein/zeaxanthin.

**Health Benefits** - Beets are excellent cancer fighters: betacyanin, the pigment that gives beets their rich, purple-crimson color, is also a powerful cancer-fighting agent. Beets' potential effectiveness against colon cancer, in particular, has been demonstrated in several studies. Beets may also protect against heart disease due to their protective antioxidant activity: in studies, total cholesterol dropped 30%; triglycerides dropped 40% and HDL (beneficial cholesterol) level increased significantly. Beets may also protect against birth defects: they are particularly rich in the B vitamin folate, which is essential for normal tissue growth.

## SWISS CHARD

*(Beta vulgaris var. cicla)*

**Origin & History** - Swiss chard is not native to Switzerland, but the Swiss botanist Koch determined the scientific name of this plant in the 19th century and since then, its name has honored his homeland. The actual homeland of chard is in the Mediterranean region, and in fact, the Greek philosopher, Aristotle wrote about chard in the fourth century B.C. The ancient Greeks and Romans honored chard for its medicinal properties.

**Nutrients** - Swiss Chard is a good source of Vitamin K, vitamin A, vitamin C, magnesium, manganese, potassium, iron, vitamin E, and dietary fiber; copper, calcium, vitamin B2, vitamin B6, protein, phosphorous, vitamin B1, zinc, folate, biotin, niacin and pantothenic acid.

**Health Benefits** - Both the leaves and the roots of Swiss chard have been the subject of numerous health studies. The phytonutrients and fiber in this food appear to be particularly effective in preventing digestive tract cancers. Several research studies on chard focus specifically on colon cancer, where the incidence of precancerous lesions in animals has been found to be significantly reduced following dietary intake of Swiss chard extracts or fibers. Both vitamin A and beta-carotene are important vision nu-

trients and may help to protect against certain forms of cancer, particularly epithelial or skin cancers. Preliminary animal research also suggests that Swiss chard may have a protective effect on the kidneys of those with diabetes and the vitamin K provided is important for maintaining bone health. Swiss chard is also an excellent source of vitamin A due to its concentrated beta-carotene content. The vitamin C in chard is vital for the proper function of a healthy immune system and is good for preventing colds and may be helpful in preventing recurrent ear infections. Both vitamins C and E are also associated with reduced severity of inflammatory conditions, such as asthma, osteoarthritis, and rheumatoid arthritis. Chard is also a good source of potassium, which is essential for maintaining normal blood pressure and heart function, as well as iron, which enhances oxygen distribution throughout the body, keeps the immune system healthy and helps the body produce energy. Vitamin E has also been shown to reduce the risk of colon cancer, aid in the prevention of cardiovascular disease and help decrease the severity and frequency of hot flashes in women going through menopause, and help reduce the development of diabetic complications. Because of its ability to reduce blood glucose, chard is one of the medicinal herbs used by diabetics in Turkey.

## MUSTARD GREEN

*(Brassica juncea)*

**Origin & History** - Mustard greens originated in the Himalayan region of India and have been grown and consumed for more than 5,000 years. Mustard greens are a notable vegetable in many different cuisines, ranging from Chinese to Southern American. Like turnip greens, they may have become an integral part of Southern cuisine during the times of slavery, serving as a substitute for the greens that were an essential part of Western African diets.

**Nutrients** - Mustard greens are an excellent source of many vitamins including vitamin A, vitamin C, fo-

late, and vitamin E. They are also an excellent source of the mineral manganese and dietary fiber.

**Health Benefits** - One of the unique features of mustard greens is that they are an excellent source of three notable antioxidants: vitamin E, vitamin C and vitamin A (through their concentration of beta-carotene). These three nutrients team up to combat free radicals, which not only cause damage to the molecules with which they interact, but have been linked to a host of different diseases and health conditions. Vitamin E helps to lower the risk of developing asthma and may lessen the severity in individuals who already have symptoms. Magnesium helps to smooth muscle cells, like those lining the bronchial tubes and lungs, which also aid those with asthma. Vitamins E and B6, combined with folic acid and magnesium, also contribute to healthy cardiovascular systems. Mustard greens' calcium also support bone health and may be helpful in reducing symptoms of menopause. Like other members of the Brassica family (broccoli, Brussels sprouts, cabbage, etc.) mustard greens also contain the phytonutrients known as glucosinates, which are believed to contribute the cancer prevention. The vitamin E found in mustard greens also slows the loss of mental function.

## COLLARD GREEN

*(Brassica oleracea acephala)*

**Origin & History** - Grown by the Greeks and Romans, they traveled to Britain by 400 B.C., where they were called coleworts. They were made into cures for dim eyesight, palsy, animal bites and gout.

**Nutrients** - Collard greens are an excellent source of vitamins A and C, manganese, folate, dietary fiber, and calcium. In addition, collard greens are a very good source of potassium, vitamin B2 and vitamin B6, and a good source of vitamin E, magnesium, protein, omega-3 fatty acids, vitamin B1, vitamin B5, niacin, zinc, phosphorous, and iron.

**Health Benefits** -Collard greens are rich in health-promoting phytonutrients, which help protect colon cells from cancer-causing chemicals. Collards also help prevent the bone loss that can occur as a result of menopause or certain conditions such as rheumatoid arthritis. They can also help prevent migraine headaches in those who suffer from them and reduce PMS symptoms.

## KALE

*(Brassica oleracea acephala)*

**Origin & History** - Like broccoli, cauliflower and collards, kale is a descendent of the wild cabbage, a plant thought to have originated in Asia Minor and to have been brought to Europe around 600 B.C. by groups of Celtic wanderers. Curly kale played an important role in early Europe, having been a significant crop during ancient Roman times and a popular vegetable eaten by peasants in the Middle Ages. English settlers brought kale to the United States in the 17th century. Ornamental kale, originally a decorative garden plant, was first cultivated commercially as in the 1980s in California. Ornamental kale is now better known by the name salad Savoy.

**Nutrients** - Considered to be one of the most highly nutritious vegetables, kale is an excellent source of vitamin A, vitamin C (one cup of kale provides nearly 90% of the daily requirement) and manganese. It is also a very good source of dietary fiber, copper, calcium, vitamin B6 and potassium.

**Health Benefits** - Although there are over 100 different glucosinolates in plants, the 10-15 present in kale and other Brassicas appear able to lessen the occurrence of a wide variety of cancers, including prostate, colorectal, breast and ovarian cancers. Exactly how kale's phytonutrients prevent cancer is not yet fully understood, but several researchers point to its ability to activate detoxifying enzymes in the liver that help neutralize potentially carcino-

genic substances. Kale's carotenoids act like sun-glass filters and prevent damage to the eyes from excessive exposure to ultraviolet light. Studies have shown the protective effect of these nutrients against the risk of cataracts. Kale's vitamin A may help to protect against lung inflammation while vitamin C is associated with a reduced risk of colon cancer and is vital for a healthy immune system. Kale is also a very good source of fiber and calcium, necessary for healthy bones, research has shown that its vitamin E may slow the loss of mental performance that normally declines with age. Like other cruciferous vegetables, kale also has cardiovascular benefits due to the phytonutrient indole's ability to lower the liver's secretion of the main carrier of LDL cholesterol to tissues.

## CAULIFLOWER

*(Brassica oleracea Botryti)*

**Origin & History** - Cauliflower traces its ancestry to the wild cabbage, a plant thought to have originated in ancient Asia Minor, which resembled kale or collards more than the vegetable that we now recognize. The cauliflower went through many transformations and reappeared in the Mediterranean region, where it has been an important vegetable in Turkey and Italy since at least 600 B.C. It gained popularity in France in the mid-16th century and was subsequently cultivated in Northern Europe and the British Isles. Cauliflower was first grown in North America in the late 1600s.

Cheddar cauliflower was first discovered in the Bradford Marsh in Canada in 1970. Cheddar was smaller and less tasty than white cauliflower, but the color was alluring. Over the years, using conventional breeding techniques, it was crossed with a white variety to create a delicious, high vitamin content cauliflower which contains 25 times more beta carotene than white cauliflower.

Purple cauliflower (Graffiti) resulted from the discovery of a purple colored spontaneous mutant plant in a cauliflower field in the late 1980s. The purple

color is due to formation of anthocyanins also found in red cabbage and in red wine. Purple Cauliflower contains approximately 200 times more anthocyanin than a white cauliflower exhibiting "pinkings".

**Nutrients & Health Benefits** - Cauliflower contains compounds that may help prevent cancer by stopping enzymes from activating cancer-causing agents in the body and they increase the activity of enzymes that disable and eliminate carcinogens. Cruciferous vegetables contain both glucosinolates and thiocyanates, compounds that increase the liver's ability to neutralize potentially toxic substances.

## CABBAGE

*(Brassica oleracea Capitat)*

**Origin & History** - Cabbage has a long history of use both as a food and a medicine. It was developed from wild cabbage, a vegetable that was closer in appearance to collards and kale since it was composed of leaves that did not form a head. It is thought that wild cabbage was brought to Europe around 600 B.C. by groups of Celtic wanderers. It was grown in Ancient Greek and Roman civilizations that held it in high regard as a general panacea capable of treating a host of health conditions. While it is unclear when and where the headed cabbage that we know today was developed, cultivation of cabbage spread across northern Europe into Germany, Poland and Russia, where it became a very popular vegetable in local food cultures. The Italians are credited with developing the Savoy cabbage.

**Nutrients** - Cabbage is an excellent source of vitamin C. It is also a very good source of fiber, manganese, folate, vitamin B6, potassium, and omega-3 fatty acids. Cabbage is also a good source of thiamin (vitamin B1), riboflavin (vitamin B2), calcium, potassium, magnesium, vitamin A, and protein. Cabbage also contains phytochemicals called indoles and sulforaphane, the breakdown products of compounds called glucosinolates.



**Health Benefits** - For about 20 years, researchers have known that many phytonutrients work as antioxidants to disarm free radicals before they can damage DNA, cell membranes and fat-containing molecules such as cholesterol. Now, new research is revealing that phytonutrients in crucifers, such as cabbage, work at a much deeper level. These compounds actually signal our genes to increase production of enzymes involved in detoxification, the cleansing process through which our bodies eliminate harmful compounds. Research has shown that cultures eating the most cruciferous vegetables have a much lower risk of prostate, colorectal and lung cancer-even when compared to those who regularly eat other vegetables. Cabbage's role as a staple vegetable in Polish cuisine may be why the breast cancer risk of Polish women triples after they immigrate to the U.S.

Red cabbages contain significantly more protective phytonutrients than white cabbages; in fact, the vitamin C equivalent of red cabbages is six to eight times higher than that of white cabbage. Crucifers' well known cancer-fighting properties are thought to result from their high levels of active phytochemicals called glucosinolates, which our bodies metabolize into powerful anti-carcinogens called isothiocyanates. Isothiocyanates offer the bladder, in particular, significant protection, most likely because the majority of compounds produced by isothiocyanate metabolism travel through the bladder en route to excretion in the urine.

## BRUSSEL SPROUTS

*Brassica oleracea Gemmifer*

**Origin & History** - Brussels sprouts are descended from wild sea kale, a weedy, loose-leaved herb that grows along the Mediterranean coast. While the origins of Brussels sprouts are unknown, the first mention of them can be traced to the late 16th century. They are thought to be native to Belgium, specifically to a region near its capital, Brussels, after which they are named. They remained a local crop in this area until their use spread across Europe during

World War I. Brussels sprouts are now cultivated throughout Europe and the United States.

**Nutrients & Health Benefits** - Higher in vitamin C than orange juice, Brussels sprouts have three times the vitamin A of cabbage. They are also an excellent source of vitamin K; very good source of numerous nutrients including folate, manganese, dietary fiber, potassium, vitamin B6 and thiamin (vitamin B1); and a good source of omega-3 fatty acids, iron, phosphorus, protein, magnesium, riboflavin (vitamin B2), vitamin E, copper and calcium. This vegetable also contains numerous disease-fighting phytochemicals. Sulfur-containing phytonutrients reduce DNA damage, which may translate to a reduced risk of cancer since mutations in DNA allow cancer cells to develop. The folates present in Brussels sprouts are birth defect fighters, as well.

## BROCCOLI

*(Brassica oleracea Italaca)*

**Origin & History**- Broccoli is a cultivar of wild cabbage which originated along the northern and western coasts of the Mediterranean, where it was domesticated thousands of years ago. It spread throughout the Near East where it was appreciated for its edible flower heads and was subsequently brought back to Italy where it was further cultivated. Broccoli was introduced to the United States in 1806 by Italian immigrants, but it did not become popular until the 1920s. **Nutrients**- Broccoli is rich in vitamins A and C and is a good source of potassium, phosphorus, magnesium, the vitamins B6 and E, as well as fiber. It possesses cancer-fighting qualities due to the production of phytochemicals such as sulforaphane, which stimulate the body to make enzymes that counteract carcinogens.

**Health Benefits**- Like other cruciferous vegetables (kale, collards, cauliflower, cabbage, turnips, mustard seeds, canola, etc.), broccoli can help lower the risk of bladder, ovarian and certain prostate cancers. Early tests have indicated that broccoli and tomatoes-both recognized for their cancer-fighting



capabilities-may be even more successful against prostate cancer when eaten together in the daily diet.

## RUTABAGA

*Brassica rapa*

**Origin & History** - Rutabagas are a cross between cabbage and turnip. The earliest records of rutabaga's existence are from the seventeenth century in Southern Europe where they were first eaten as well as used for animal fodder. It is curious that throughout history animals were often fed the healthiest foods, foods thought to be inappropriate for human consumption. Because rutabagas thrive best in colder climates, they became popular in Scandinavia, but especially in Sweden, the country that earned them the name "swedes." In Europe, rutabagas are still called swedes. In America, rutabagas were first cultivated in the northern parts of the country in the early 1800s. Nutrients- Rutabaga has a good mineral content including calcium, magnesium, phosphorus, potassium and manganese. It is low in saturated fat and relatively high in sugars. It also provides some fiber and vitamins A, B1, B6 and C.

**Health Benefits** - Rutabagas contain phytochemicals (plant compounds that may have health benefits but are not considered essential nutrients) including flavonoids, which have been associated with a reduction in the risk of cardiovascular disease. In addition to its antioxidant benefits, the vitamin C in rutabagas aids in the production of collagen, a tissue needed for healthy bones, teeth, gums and blood vessels. Vitamin B6 is important to nervous system function, red blood cell formation and hormone production. B1 (thiamin) is required by the body to break down carbohydrates, fats and proteins, while folate is required for the synthesis of new cells and serves to protect against a congenital malformations including neural tube defects in developing fetuses. Manganese is essential for cartilage and bone development, while magnesium is important in the structure of bone and cell membranes.

## TURNIP

*(Brassica rapa)*

**Origin & History** - Turnips grow wild in Siberia and have been eaten since prehistoric times. One of the oldest cultivated vegetables, the turnip is thought to have originated in northern Europe about 2000 B.C. from a variety of bird rape. Not officially a root, the turnip is rather a swollen base of the stem of the plant, and selection and breeding have produced many different larger varieties. Before the spread of potatoes, the highly nutritious turnip was among the most important staple foods for man and beast.

**Nutrients**- Turnips are an excellent source of vitamin C, fiber, folic acid. Turnips are a "starch" vegetable, but they provide only one third of the amount of calories as an equal amount of potatoes. Turnip greens are an excellent source of many vitamins including vitamin A, vitamin C, vitamin E, vitamin B6 and folate. They are also an excellent source of the minerals calcium, copper and manganese. In addition, turnip greens are an excellent source of dietary fiber.

**Health Benefits** - Turnip greens are supercharged with so many different nutrients, their consumption can help prevent or heal a wide range of health conditions. Since turnip greens are an excellent source of vitamin A (through their concentration of carotenoids such as beta-carotene), vitamin C, vitamin E, vitamin B6, folate, copper, calcium, and dietary fiber, three examples of conditions for which they may be of special importance are rheumatoid arthritis, colorectal cancer and atherosclerosis.

Turnips have diuretic properties and their Vitamin C (11 mg for 100 g of turnip and 30 mg for 100 g of turnip greens) is a powerful antioxidant, meaning that this vitamin quenches free radicals and neutralizes destructive oxidation reactions. Vitamin C also promotes the absorption of iron. Turnip is therefore an interesting vegetable for vegetarian since they always strive to meet their need in this mineral.

Turnips are also a good source of calcium, phosphorus and magnesium. Turnip greens provide larger amounts of these vitamins and minerals and are especially rich in folic acid. This vitamin is essential for the normal growth and maintenance of all cells and vital for the reproduction of those cells within the fetus.

## BOK CHOY

*(Brassica rapa chinensis)*

**Origin & History** - Also called pak-choi or pac choy as well as celery cabbage, Chinese white cabbage, and Chinese mustard cabbage, bok choy is one of the oldest and most adaptable greens. Bok choy was introduced to Europe in the 1800s, and is now readily available throughout North America, but other cuisines have been slow to embrace it. Bok choy is widely popular in the Philippines, where large numbers of Chinese immigrated following Spain's conquest of the islands in the 1500s.

**Nutrients & Health Benefits** - As a member of the cabbage family, bok choy offers many of the same nutritional benefits as other cabbages. It is high in vitamins A and C and is a good source of folic acid. Its dark green leaves make it a good source of beta carotene as well. Bok Choy also contains glucosinolates, which may prevent cancer and folates, essential for a healthy cardiovascular system.

## WATERMELON

*(Citrullus lanatus)*

**Origin & History** - Originating in Africa, watermelons were first cultivated in Egypt where they were recorded in hieroglyphics painted on building walls and placed in the tombs of many Egyptian kings. It is not surprising that watermelon played such an important role in this country, and subsequently in countries in the Mediterranean region, since water was often in short supply in these areas, and people could depend upon watermelon for its thirst-quench-

ing properties. Watermelons were brought to China around the 10th century and then to the Western Hemisphere shortly after the discovery of the New World. In Russia, where much of the commercial supply of watermelons is grown, there is a popular wine made from watermelon.

**Nutrients** - Watermelon is an excellent source of antioxidants, vitamin C and vitamin A, in the form of disease fighting beta-carotene. Research suggests that the red pigmented foods provide this protection. Lycopene and beta-carotene work in conjunction with other plant chemicals not found in vitamin/mineral supplements. Potassium is also available, which is believed to help control blood pressure and possibly prevent strokes.

**Health Benefits** - Pink watermelon is an excellent source of lycopene, which can significantly reduce a man's risk of developing prostate cancer, as well as lowering the inflammation that may cause hypertension and heart disease. It is also rich in the B vitamins necessary for energy production.

## MELON

*(Cucumis melo)*

**Origin & History** - The exact origin of melons is unclear, although they are thought to have originated in India, Africa or ancient Persia and have been cultivated in these lands since ancient times. Historical texts from Greek and Roman times note that these ancient civilizations enjoyed cantaloupes. They were introduced to the United States during colonial times but were not grown commercially until the very late 19th century.

**Nutrients** - Melons such as cantaloupe are an excellent source of vitamin A and vitamin C as well as a very good source of potassium and a good source of dietary fiber, vitamin B3 (niacin), vitamin B6 and folate.

**Health Benefits** - Melons are an excellent source

of vitamin A due to their concentrated beta-carotene content. Both vitamin A and beta-carotene are important vision nutrients and melon can help to lower the risk of age-related macular degeneration (ARMD), the primary cause of vision loss in older adults. Their vitamin C is vital for good immune function and is associated with a reduced risk of death from all causes including heart disease, stroke and cancer.

## SQUASH

*Cucurbita pepo, C. maxima, C. moschata and C. mixta*

**Origin & History** - Modern day squash developed from the wild squash that originated in an area between Guatemala and Mexico. While squash has been consumed for over 10,000 years, they were first cultivated specifically for their seeds since earlier squashes did not contain much flesh and what they did contain was very bitter and unpalatable. As time progressed, squash cultivation spread throughout the Americas, and varieties with a greater quantity of sweeter-tasting flesh were developed. Christopher Columbus brought squash back to Europe from the New World, and like other Native American foods, their cultivation was introduced throughout the world by Portuguese and Spanish explorers.

The term “summer” and “winter” for squash are only based on current usage, not on actuality. “Summer” types are on the market all winter; and “winter” types are on the markets in the late summer and fall, as well as winter. Thus, the terms “summer” and “winter” are deceptive and confusing, but back to a time when the seasons were more crucial to man’s survival than they are now. “Good keepers” became known as winter vegetables if they would “keep” until December.

## SUMMER SQUASH

*(Cucurbita pepo, C. maxima, C. moschata and C. mixta)*

Because summer squash is immature, they are considerably lower in nutritional value than their winter

counterparts. Generally, there is little variation in nutritional value between varieties. The peel is where many of the nutrients hide, so never peel summer squash.

**Nutrients & Health Benefits** - Summer squash is an excellent source of manganese and vitamin C. It is also a very good source of magnesium, vitamin A (notably through its concentration of carotenoids, including beta-carotene), dietary fiber, potassium, copper, folate, and phosphorus. In addition, summer squash is a good source of omega-3 fatty acids, vitamin B1, vitamin B2, vitamin B6, calcium, zinc, niacin, and protein.

Many of the nutrients in summer squash have been shown in studies to be helpful for the prevention of atherosclerosis and diabetic heart disease. Summer squash’s magnesium has been shown to be helpful for reducing the risk of heart attack and stroke. Together with the potassium in summer squash, magnesium is also helpful for reducing high blood pressure. The vitamin C and beta-carotene found in summer squash can help to prevent the oxidation of cholesterol. Since oxidized cholesterol is the type that builds up in blood vessel walls, these nutrients may help to reduce the progression of atherosclerosis. The vitamin folate found in summer squash are needed by the body to break down a dangerous metabolic byproduct called homocysteine, which can contribute to heart attack and stroke risk if levels get too high. Finally, summer squash’s fiber has been shown to lower high cholesterol levels, which can help to reduce the risk of atherosclerosis and diabetic heart disease.

The nutrients in summer squash are useful for the prevention of other conditions as well. High intakes of fiber-rich foods help to keep cancer-causing toxins away from cells in the colon, while the folate, vitamin C, and beta-carotene help to protect these cells from the chemicals that can lead to colon cancer. The antioxidants vitamin C and beta-carotene also have anti-inflammatory properties that make them helpful for conditions like asthma, osteoarthritis, and



rheumatoid arthritis, where inflammation plays a big role. The copper found in summer squash is also helpful for reducing the painful symptoms of rheumatoid arthritis.

## WINTER SQUASH

(*Cucurbita pepo*, *C. maxima*, *C. moschata* and *C. mixta*)

Winter squash differs from summer squash in that it is harvested and eaten in the mature fruit stage, when the seeds within have matured fully and the skin has hardened into a tough rind. When ripened to this stage, fruits of most varieties can be stored for use throughout the winter.

**Nutrients & Health Benefits** - Winter squash is as an excellent source of vitamin A, a very good source of vitamin C, potassium, dietary fiber and manganese. In addition, winter squash is also a good source of folate, omega-3 fatty acids, vitamin B1, copper, vitamin B6, niacin, vitamin B3 and pantothenic acid.

The orange-fleshed squash is an excellent source of beta carotene. As a general rule, the deeper the orange color, the higher the beta carotene content. Beta carotene is converted to Vitamin A in the body. Vitamin A is essential for healthy skin, vision, bone development and maintenance as well as many other functions. Beta-carotene is able to prevent the oxidation of cholesterol in the body. Since oxidized cholesterol is the type that builds up in blood vessel walls and contributes to the risk of heart attack and stroke, getting extra beta-carotene in the diet may help to prevent the progression of atherosclerosis. Finally, beta-carotene's anti-inflammatory effects may help to reduce the severity of conditions like asthma, osteoarthritis, and rheumatoid arthritis, which all involve inflammation.

Studies have also shown that diets high in fiber-rich foods have been associated with a reduced risk of colon cancer. The folate found in winter squash may help to prevent certain birth defects if taken

by women before and during pregnancy. Folate is also needed by the body to break down a dangerous metabolic byproduct called homocysteine, which can directly damage blood vessel walls. Folate has also been shown to help protect colon cells from the effects of cancer-causing chemicals. In fact, diets high in folate-rich foods are associated with a significantly reduced risk of colon cancer, especially in people who have a history of alcohol use.

## CUCUMBER

(*Cucurbitaceae cucumis sativus*)

**Origin & History** - Native to Africa and Asia, cucumbers were cultivated in India as long as 3,000 years ago. They were probably introduced to other parts of Europe by the Romans. Cucumber cultivation appeared in France in the 9th century, England in the 14th century, and in North America by the mid-16th century.

**Nutrients** - The flesh of cucumbers is primarily composed of water but also contains ascorbic acid (vitamin C) and caffeic acid, both of which help soothe skin irritations and reduce swelling. Cucumbers' hard skin is rich in fiber and contains a variety of beneficial minerals including silica, potassium and magnesium. Cucumbers are also rich in vitamins K and A, vitamin B6, thiamin, folate, pantothenic acid, phosphorus, copper and manganese.

**Health Benefits** -The silica in cucumbers is an essential component of healthy connective tissue, which includes muscles, tendons, ligaments, cartilage, and bone. Cucumber juice is often recommended as a source of silica to improve the complexion and health of the skin, plus cucumber's high water content makes it naturally hydrating. Cucumbers are also used topically for various types of skin problems, including swelling under the eyes and sunburn. Two compounds in cucumbers, ascorbic acid and caffeic acid, prevent water retention, which may explain why cucumbers

applied topically are often helpful for swollen eyes, burns and dermatitis. They also contain sterols, which have been shown to lower cholesterol in animals and the potassium, magnesium and fiber may help lower blood pressure.

## CARROT

*(Daucus carota sativas)*

**Origin & History** - The wild ancestors of the carrot are likely to have come from Afghanistan. In early use, carrots were grown for their aromatic leaves and seeds, not their roots. The first mention of the root in classical sources is the 1st century CE. The modern carrot appears to have been introduced to Europe in the 8-10th centuries. The carrot was introduced into the North American colonies where the carrot became the first vegetable to be canned in the early 1800s.

**Nutrients & Health Benefits** - Carrots are high in vitamins A, C and K, dietary fiber and potassium. They are an excellent source of beta-carotene (carotenoids), fat-soluble compounds that are associated with a reduction in a wide range of cancers, as well as reduced risk and severity of inflammatory conditions such as asthma and rheumatoid arthritis. Carrots' antioxidant compounds help protect against cardiovascular disease and also promote good vision, especially night vision. Foods such as carrots that are rich in carotenoids may also be beneficial to blood sugar regulation. Although best known for their high content of beta carotene, carrots also contain a phytonutrient called falcarinol that may be responsible for the recognized association between frequently eating carrots and a reduced risk of cancers, particularly colon cancer.

## ENDIVE

*(Escarole cichorium endivia)*

**Origin & History** - Genuine endive is deeply rooted in Belgian history, where it was accidentally discovered by a farmer in 1830. At the time, chicory roots were used as a coffee substitute. The farmer stored them in a cellar, forgot about them and, when he came back to pick up the roots, discovered that they had sprouted white leaves, which he found to be tender, moist and crunchy. A Belgian botanist developed the endive we know today, and it spread quickly after WW I.

**Nutrients** - Endive is a good source of potassium, calcium, vitamins B, C and E, magnesium, iron, zinc and selenium. It is also a source of beta-carotene, which the body converts into Vitamin A. Beta-carotene, is widely regarded as an effective antioxidant and immune system booster. Eating foods rich in beta-carotene has been associated with a lower risk of both cataracts and macular degeneration.

**Health Benefits** - Endive helps to maintain the digestive system's metabolic balance and help prevent the absorption of cholesterol in the blood stream, slow the metabolism and thus keep blood sugar in balance, detoxify the body, promote intestinal regularity, and strengthen the immune system. It is also a good diuretic, laxative and may even help to dissolve kidney stones.

## FENNEL

*(Foeniculum vulgare)*

**Origin & History** - The ancient Greeks knew fennel by the name "marathron"; it grew in the field in which one of the great ancient battles was fought and which was subsequently named the Battle of Marathon after this revered plant. Fennel was also awarded to the runner who delivered the news of

the Persian invasion to Sparta. Greek myths also hold that knowledge was delivered to man by the gods at Olympus in a fennel stalk filled with coal. Fennel was revered by the Greeks and the Romans for its medicinal and culinary properties. Fennel has been grown throughout Europe, especially areas surrounding the Mediterranean Sea, and the Near East since ancient times.

**Nutrients** - Fennel is an excellent source of vitamin C. It is also a very good source of dietary fiber, potassium, manganese, folate, and molybdenum. In addition, fennel is a good source of niacin as well as the minerals phosphorus, calcium, magnesium, iron, and copper.

**Health Benefits** - In addition to the anti-cancer and anti-inflammatory characteristics of its phytonutrients, fennel bulb is an excellent source of vitamin C, which is the body's primary water-soluble antioxidant and is critical to proper function of the immune system. As a very good source of fiber, fennel may also aid in reducing elevated cholesterol levels. It is also a very good source of potassium, which can help to lower blood pressure.

## SWEET POTATO

*(Ipomoea batatas)*

**Origin & History** - Sweet potatoes are native to Central America and are one of the oldest vegetables known to man. They have been consumed since prehistoric times as evidenced by sweet potato relics dating back 10,000 years that have been discovered in Peruvian caves.

**Nutrients** - Sweet potatoes are an excellent source of vitamin A (in the form of beta-carotene), vitamin C and manganese, and a good source of copper, calcium, protein, vitamin B6, potassium and iron.

**Health Benefits** - Sweet potatoes have healing properties as an antioxidant food. Both beta-carotene and

vitamin C are very powerful antioxidants that work in the body to eliminate free radicals. Free radicals are chemicals that damage cells and cell membranes and are associated with the development of conditions like atherosclerosis, diabetic heart disease, and colon cancer.

Sweet potatoes have as much beta-carotene as carrots, which help combat chronic diseases like cancer and heart disease, as well as diseases related to inflammation, such as asthma and rheumatoid arthritis. In addition, sweet potatoes contain carotenoids that appear to help stabilize blood sugar levels and lower insulin resistance, making cells more responsive to insulin, which can ultimately promote a healthy metabolism.

## LETTUCE

*(Lactuca sativa)*

**Origin & History** - Lettuce most likely originated on the Mediterranean rim on rocky wasteland or woodland clearings. This ancient wild relative of modern lettuce can still be seen all over Europe and the more temperate parts of Asia. Wild lettuce contained a narcotic similar to opium. The Romans took advantage of this property eating lettuce at the end of a meal to induce sleep. Other medicinal uses included using the sap of wild lettuce for its anodyne, antispasmodic, digestive, diuretic, hypnotic, narcotic and sedative properties.

**Nutrients & Health Benefits** - Lettuce is a fat free, low calorie food. It is a valuable source of vitamin A and folic acid and potassium. Among the various types of lettuce, romaine lettuce is very nutritious. It is an excellent source of vitamin A (notably through its concentration of the pro-vitamin A carotenoid, beta-carotene), vitamin K, folate, vitamin C, manganese, and chromium. Romaine lettuce is also a very good source of dietary fiber and 6 vitamins and minerals.



## TOMATO

*(Lycopersicon lycopersicum)*

**Origin & History** - Native to South America, the Spanish conquistadors brought tomatoes back with them to Spain. Tomatoes arrived in Europe with much skepticism and were considered poisonous by many. The French sought tomatoes for their supposed aphrodisiac qualities. The Italians, however, were the first to incorporate tomatoes into their recipes.

**Nutrients & Health Benefits** - Tomatoes are rich in vitamins C, A and K, potassium, and fiber. They are a good source of calcium, iron, phosphorus, sulfur and potassium. The health benefits of tomatoes include prevention of cancer, heart disease and high cholesterol.

Tomatoes contain the vital anti-oxidant, lycopene, which helps in the fight against cancerous cell formation as well as other kinds of health complications and diseases. Cancers such as prostate cancer, cervical cancer, colon cancer, rectal cancer, and cancers of the stomach, mouth, pharynx, and esophagus have all been proven to be staved off by high levels of lycopene.

Lycopene is not a naturally produced element within the body and the human body requires sources of lycopene in order to make use of this powerful anti-oxidant. While other fruits and vegetables do contain this necessary health ingredient, no other fruit or vegetable has the high concentration of lycopene that the tomato takes pride in. The tomato variety, Health Kick, contains 50% more lycopene than other tomatoes.

## PARSNIP

*(Pastinaca sativa)*

**Origin & History** - The parsnip was first cultivated in the Mediterranean region during Roman times. Tastier and fleshier varieties were developed during

the Middle Ages, and although a variety of wild parsnip grew over much of Central and Southern Europe and has been introduced into the British Isles and Northern Europe, the cultivated varieties are sweeter and appear plumper.

**Nutrients** - Parsnips are high in fiber, folic acid, calcium and potassium, as well as vitamins B1, B2, B3, vitamin C, iron and zinc.

**Health Benefits** - Unlike their carrot cousins, parsnips lack beta-carotene, but are richer in vitamins and minerals. Because they are high in soluble fiber, parsnips help lower cholesterol and to regulate blood sugar. Folic acid helps reduce the risk of certain disabling birth defects and also plays a role in reducing heart disease and may help prevent dementia and osteoporosis bone fractures. Parsnips also have high levels of potassium, which helps to regulate blood pressure.

## GREEN BEAN

*(Phaseolus vulgaris humilis)*

**Origin & History** - Green beans and other beans, such as kidney beans, navy beans and black beans all derived from a common bean ancestor that probably originated in Peru. From there, they were spread throughout South and Central America by migrating Indian tribes. They were introduced into Europe around the 16th century by Spanish explorers returning from their voyages to the New World, and subsequently were spread through many other parts of the world.

**Nutrients** - Green beans are an excellent source of vitamin C, vitamin K and manganese. They are also a very good source of vitamin A (notably through their concentration of carotenoids including beta-carotene), dietary fiber, potassium, folic acid and iron. In addition, green beans are a good source of magnesium, thiamin, riboflavin, niacin, copper, calcium, phosphorus, protein, and omega-3 fatty acids.

**Health Benefits** - The vitamin K in green beans is important for maintaining strong bones, while vitamins C and A offer anti-oxidant protection against heart disease and stroke. Magnesium and potassium work together to help lower high blood pressure and fiber can help lower cholesterol levels and promote colon health. Vitamin B and beta-carotene have strong anti-inflammatory effects and can reduce the severity of diseases such as asthma and osteo- and rheumatoid arthritis. Riboflavin has been shown to decrease the frequency of migraine attacks, and iron is an essential part of hemoglobin, which transports oxygen throughout the body. Vitamins C and A and zinc contribute to good immune function and stimulate cells to fight infection.

## TOMATILLOS

*(Physalis philadelphica)*

**Origin & History** - A well-established South of the border immigrant, the tomatillo was an important part of Aztec culture. It is even possible that the tomatillo, which means little tomato in Spanish, came from Central and South America and was cultivated in Mexico by the Aztecs before the tomato arrived. Some people call it a jamberry, while others refer to it as a husk tomato.

**Nutrients & Health Benefits** - Tomatillos contain more nutrients than regular red tomatoes. They are rich in vitamins C and A, and folic acid, as well as potassium. One medium raw tomatillo contains only 11 calories, but provides significant amounts of potassium, vitamin C, calcium, folic acid, and vitamin A.

## RADISH

*(Raphanus sativus)*

**Origin & History** - Radishes probably originated in China, and made their way across Asia, into the Middle East, then into Europe. Europeans introduced them into Central America around 1500; the British

brought them to North America when they settled here. European radishes used to be much larger in general, more like the Asian ones. There is no written record of the small ones until the 1500s. In France, radishes were served at the beginning of a meal, to clean the palate and prepare it for the rest of the meal.

**Nutrients & Health Benefits** - Radishes are moderately high in Vitamin C and contain properties that appear to be beneficial for symptoms of colds, flu, fever, cough, respiratory problems, and digestive disorders. The roots stimulate the appetite and digestion, having a tonic and laxative effect upon the intestines and indirectly stimulating the flow of bile. The plant is used in the treatment of intestinal parasites. The radish plant contains raphanin, which is antibacterial and antifungal. It inhibits the growth of *Staphylococcus aureus*, *E. coli*, streptococci, Pneumococci and also shows anti-tumor activity.

## SCORZONERA

*(Scorzonera hispanica)*

**Origin & History** - Originating in the Mediterranean area, scorzonera and salsify were foraged and used by the ancient Romans as well as the Greeks. People never thought to cultivate them until sometime around the 1500s. They were then used for ornamental, medicinal, and culinary purposes. In the Middle Ages, scorzonera was considered a powerful tonic and snakebite cure — hence the name viper's grass. Salsify came to America in the 1700s and was at one time a popular root crop.

**Nutrients & Health Benefits** - Salsify is grown primarily for its edible root which has a flavor like that of oysters. It is usually peeled and can be used like carrots and parsnips. Salsify is similar to parsnips in nutritive value being a little higher in protein and only half the calories. One cup of cooked salsify supplies 40 calories, 3.5 grams of protein, 3.8 grams of fiber, 20.4 grams of carbohydrate, 60

mg calcium, 19 mg magnesium, 1.7 mg iron, and 251 mg of potassium. It has very little vitamin A, B, C, or E. Flower stalks which develop the second year can be cut and cooked like asparagus if they are harvested before they get woody.

## BELL PEPPER

*(Solanaceae capsicum annuum)*

**Origin & History** - Like their relatives, the chili peppers, bell peppers originated in South America with seeds of a wild variety dating back to 5000 BC. Like many other foods native to this region, sweet peppers were carried throughout the world by the Spanish and Portuguese explorers who traveled through this continent. Due to the fact that bell peppers are very adaptable plants and versatile foods, their cultivation and adoption into varying cuisines spread rapidly throughout many parts of the world. They have become a staple in central Europe where they are dried for paprika, a necessity for the flavor of Louisiana Creole dishes, and an integral ingredient in both Mexican and Portuguese cuisines.

**Nutrients & Health Benefits** - Peppers are rich in vitamin C and vitamin A, B6 and folic acid and red peppers are rich in lycopene. Peppers provide colorful protection against free radicals, reduce the risk of cardiovascular disease and promote lung health. The red variety also supplies the phytonutrients lutein and zeaxanthin, which have been found to protect against macular degeneration.

## CHILI PEPPER

*(Solanaceae capsicum annuum)*

**Origin & History** - Chili peppers can trace their history to Central and South America, regions whose cuisines are renowned for their hot and spicy flavors. Chili peppers have been cultivated in these regions for more than seven thousand years, first as a decorative item and later as a foodstuff and medicine. It

was not until the 15th and 16th centuries that chili peppers were introduced to the rest of the world. Christopher Columbus encountered them on his explorations of the Caribbean Islands and brought them back to Europe where they were used as a substitute for black pepper, which was very expensive since it had to be imported from Asia. Explorer Ferdinand Magellan is credited with introducing chili peppers into Africa and Asia, continents that have since incorporated them into their cuisines and pharmacopeias. Chili peppers are now grown on all continents.

**Nutrients** - Red chili peppers are a very good source of vitamin A, vitamin C and dietary fiber. They are also a good source of iron and potassium. Chili peppers contain a substance called capsaicin, which gives peppers their characteristic pungency, producing mild to intense spice when eaten. Capsaicin is a potent inhibitor of substance P, a neuropeptide associated with inflammatory processes. The hotter the chili pepper, the more capsaicin it contains. Capsaicin is being studied as an effective treatment for sensory nerve fiber disorders, including pain associated with arthritis, psoriasis, and diabetic neuropathy. Topical capsaicin is now a recognized treatment option for osteoarthritis pain. Red chili peppers, such as cayenne, have been shown to reduce blood cholesterol, triglyceride levels, and platelet aggregation, while increasing the body's ability to dissolve fibrin, a substance integral to the formation of blood clots.

Cultures where hot pepper is used liberally have a much lower rate of heart attack, stroke and pulmonary embolism. Capsaicin not only reduces pain, but its peppery heat also stimulates secretions that help clear mucus from stuffed up noses or congested lungs. Chili peppers' bright red color signals its high content of beta-carotene or pro-vitamin A. Often called the anti-infection vitamin, vitamin A is essential for healthy mucous membranes, which line the nasal passages, lungs, intestinal tract and urinary tract and serve as the body's first line of defense against invading pathogens. Capsaicin has also been shown to be effective in stopping



**Origin & History** - Chili peppers can trace their history to Central and South America, regions

## EGGPLANT (*Solanum melongena esculentum*)

**Origin & History** - The ancient ancestors of eggplant grew wild in India and were first cultivated in China in the 5th century B.C. Eggplant was introduced to Africa before the Middle Ages and then into Italy, the country with which it has long been associated, in the 14th century. It subsequently spread throughout Europe and the Middle East and, centuries later, was brought to the Western Hemisphere by European explorers. Once considered poisonous, the eggplant was used by some cultures strictly for its decorative qualities. It only became widely accepted after new, less bitter varieties were developed in the 18th century.

**Nutrients**- Eggplant is a very good source of dietary fiber, potassium, manganese, copper and thiamin (vitamin B1). It is also a good source of vitamin B6, folate, magnesium and niacin. Eggplant also contains phytonutrients such as nasunin and chlorogenic acid.

**Health Benefits** - In addition to featuring a host of vitamins and minerals, eggplant also contains important phytonutrients, many which have antioxidant activity. Phytonutrients contained in eggplant include phenolic compounds, such as caffeic and chlorogenic acid. Benefits attributed to chlorogenic acid include antimutagenic (anti-cancer), antimicrobial, anti-LDL (bad cholesterol) and antiviral activities. The nasunin in eggplant helps to reduce cholesterol in blood, artery walls and the aorta. Nasunin also assists by preventing the build-up of unneeded and potentially harmful excess iron, which has been associated with an increased risk of heart disease and cancer.

## POTATO (*Solanum tuberosum*)

**Origin & History**- Potatoes originated in the Andean mountain region of South America. Researchers estimate that potatoes have been cultivated by the Indians living in these areas for between 4,000 and 7,000 years. Unlike many other foods, potatoes were able to be grown at the high altitudes typical of this area and therefore became a staple food for these hardy people. Potatoes were brought to Europe by Spanish explorers who “discovered” them in South America in the early 16th century. Since potatoes are good sources of vitamin C, they were subsequently used on Spanish ships to prevent scurvy. Although many felt that it was poisonous like some other members of the nightshade family, it was finally accepted and brought to the United States in the early 18th century by Irish immigrants.

**Nutrients**- Potatoes are a very good source of vitamin C. They are also a good source of vitamin B6, copper, potassium, manganese, and dietary fiber.

**Health Benefits**- Although the potato has a reputation as a high-carb food, potatoes also contain a variety of phytonutrients that have antioxidant activity. Among these important health-promoting compounds are carotenoids, flavonoids, and caffeic acid. Vitamin B6 has blood-pressure lowering potential and contributes to cardiovascular protection, and is also required for the production of the neurotransmitters serotonin (a lack of which can lead to depression), melatonin (needed for sleep), and epinephrine and norepinephrine, hormones that help us respond to stress. B6 is also a key to athletic performance and endurance.

## SPINACH (*Spinacia oleracea*)

**Origin & History**- Spinach was cultivated over 2,000 years ago in Iran. Cultivation of spinach began during the Greek and Roman civilizations. In 647 A.D. spinach was introduced into China and was then

transported to Spain in 1100. The prickly seeded form was known in Germany in the 13th century and the smooth seeded form was not described until 1552. It is the smooth seeded form that is used today in commercial production. By 1806, spinach had become a popular vegetable and was listed in American seed catalogs. In the 1920s the U.S. pushed spinach commercially, with Popeye the Sailor cartoon being a great advocate in spinach consumption.

**Nutrients & Health Benefits** - Although ninety-one percent of spinach weight is water, spinach contains large amounts of minerals and vitamins, especially vitamin A, calcium, phosphorus, iron and potassium. Spinach also has high levels of protein. Spinach contains Vitamin A, and C, thiamin, riboflavin, and niacin, and studies show that people who eat foods high in vitamin C, beta-carotene, and/or folate are at a much lower risk of getting colon cancer than those who don't. Studies have also shown an intake of spinach to be inversely related to incidence of breast cancer. Calcium, phosphorus, iron, sodium, and potassium are also found in spinach greens. Spinach is high in fiber and is a rich source of plant-based omega-3s and folate, which help reduce the risk of heart disease, stroke, and osteoporosis. It is packed with lutein, a compound that fights age-related macular degeneration. In addition, the magnesium and riboflavin in spinach, two nutrients of which it is an excellent source, may help to reduce the frequency of migraine attacks in people who suffer from them.

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