Eating your A,B,C's

Vitamins are organic chemical compounds that are needed as nutrients in every living organism. Organisms can't synthesize most of these nutrients so they must be obtained from their diets. These compounds are needed for a diverse number of biochemical functions. Metabolism and growth are dependant on vitamins. There are different class of vitamins…some serve as enzymes in thousands of chemical reactions in the body while others serve as antioxidants to protect the body from free radical damage. There are fat soluble vitamins that are stored in our body and water soluble vitamins that are easily dissolved and excreted from the body.

Vitamins were discovered when there were times of malnutrition. Deficiencies led to the discovery of vitamins due to the diseases that they caused. The word "vitamin" came from the Polish scientist Casimir Funk who combined the words "vital" and "amine" (life).

Vitamins are best obtained through a balanced diet. Imbalances can occur if you take too many of one type of vitamin. It is recommended that you get the majority of your vitamins from a diet of natural foods including fruits, vegetables, natural meats, nuts, seeds, and whole grains. It is also a good idea to take a good quality multivitamin to supplement your diet. This guide is in no way intended to diagnose or treat any disease or imbalance. If you think you have a vitamin imbalance, consult with your doctor. It is never a good idea to take individual vitamins unless supervised by your doctor or health practitioner. It is important to get the right balance of vitamins as to not cause toxicity or imbalances.

This guide will talk about the importance of each vitamin and give examples of foods that are rich in that vitamin. Eating a wide variety of foods will ensure that you get a good balance of each vitamin.

Vitamin A

Vitamin A comes from both plant sources (in the form of beta carotene…two Vitamin A's bound together) and animal sources. Animals can't make Vitamin A themselves. They get it from plant sources in the form of beta carotene. The two bound vitamin A's are split apart in the small intestine and liver by a fat splitting enzyme and bile salts. This is stimulated by the hormone thyroxin. People with hypothyroidism are usually deficient in Vitamin A due to the low hormone level.

The liver plays an essential role in the digestion, absorption, and distribution of vitamin A. 90% of this vitamin's stores, including beta carotene are found in the liver. The liver produces the enzyme responsible for splitting beta carotene. It stimulates production of bile which unleashes vitamin A and other fat soluble vitamins from fatty foods. The liver also synthesizes the carrier protein retinol binding globulin which aids in absorption of vitamin A.

Many Americans have a vitamin A deficiency due to a diet high in deep fried foods and refined vegetable oils. Deep frying and refining destroys vitamin A both in the body and in foods. This kind of diet also compromises liver functions.

Vitamin A is essential for optimal immunity. The thymus, spleen, adrenals, and thyroid all need this vitamin to function properly. Children are especially susceptible to vitamin A deficiency. A child who is constantly catching every little bug that comes along probably needs more vitamin A rich foods.

This fat soluble vitamin is also important for many functions in human tissues. It is essential for healthy epithelial tissues providing a healthy mucous membrane that protects tissues. Without proper vitamin A stores, the body will secrete keratin instead of mucous which hardens tissues. If you have any of these symptoms, you many have a deficiency. This is not intended to diagnose a vitamin deficiency but just to bring awareness that you may need to include more vitamin rich foods into your diet.

Weak or brittle nails
Brittle hair
Dry scaly skin
Bumps on back of arms
Acne on back or shoulders
Dry mouth
Night vision problems
Poor immunity

Here is a list of foods that are especially rich in vitamin A. Include as many as you can in your diet!

Carrots, broccoli, salmon (wild) halibut, swordfish, oysters, crab, peaches, whole milk, dark leafy vegetables (i.e. Spinach, parsley, swiss chard) , butter, egg yolks, sweet potatoes, tomato juice, liver, cod liver oil, asparagus, cantaloupe, and pumpkin.

Remember, variety and freshness are the key to health and vitality. Avoid processed foods and enjoy what nature intended!

Vitamin B

Vitamin B is actually a group of very important vitamins including Vitamin B-1 (thiamine), B-2 (riboflavin), B-3 (niacin), B-5 (pantothenic acid), B-6 (pyridoxine), folic acid, B-12, and biotin. Each of the compounds in this dynamic group of vitamins plays a very important role in our health.

The B-vitamins were discovered in the early 1900's when Casimir Funk, a biochemist from Poland suspected that there were trace elements in our foods that would prevent the diseases of his era, beriberi and pellagra. He isolated and identified thiamine and riboflavin from egg yolk. When synthesized, they didn't work to correct the deficiencies until it was discovered that there were other substances that worked together with thiamine and riboflavin. As always…it is always best to get our vitamins from our food because nature always provides the perfect balance. It is when we change food that the problems start.

Vitamin B-1 (Thiamine)

Vitamin B-1 or also known as thiamine. Thiamine deficiency is so common in our generation because it is easily destroyed by the way we process our foods. It is easily destroyed by cooking, processing, storage, fluorescent lighting, and even washing our foods in chlorinated water. Adding acidic substances like lemon juice or vinegar can help stabilize thiamine while cooking so things like spaghetti sauce and fish with lemon still have some stable thiamine.

Thiamine deficiency at its worst causes polyneuritis, an inflammation of the nerve sheaths throughout the body. Normal nerve functioning is dependant on thiamine. Early symptoms of deficiency can include mood changes, depression, and other mental symptoms. Alcohol destroys thiamine. Since all brain functions are dependant on thiamine, chronic alcoholics can develop a wide range of mental issues like memory loss, depression, violent behavior, and psychosis.

Here is a list of common symptoms of thiamine deficiency. While this is in no way meant to diagnose, it may help to try the list of thiamine rich foods I will list to see if some of your symptoms go away.
A few common symptoms of thiamine deficiency are:
Depression, anxiety, sleeplessness, irregular heartbeat, indigestion, leg cramps, easy to anger, heaviness in arms and legs, poor concentration, bloating after eating, ADD, ADHD, sugar cravings, headaches, stumbling, chronic backaches, low pain tolerance, cold hands and feet, sensitive to noise, and heartburn.

If you suspect a thiamine deficiency a few dietary changes could help.
Avoid raw fish and seafood. It contains an enzyme called thiaminase which splits thiamine molecules. Avoid both alcohol and sugar.

A few thiamine rich foods you can add to your diet are:
Brewer's yeast, rice polishings, red muscle meat, organ meats, rice bran, oat bran, wheat germ, sunflower seeds, pine nuts, peanuts, and sesame seeds.
Make sure you are getting a diet rich in whole unprocessed grains, nuts and seeds.
Try packing raw nuts and seeds as snacks in your child's lunches to make sure they can think clearly throughout their day!

Vitamin B2 (Riboflavin)

Vitamin B2 also known as riboflavin is part of a complex of vitamins that mainly provide energy to the body by converting carbohydrates to glucose. Riboflavin works in sync with the other B vitamins. It is needed to convert B6 and folate to their active forms. In addition to converting carbohydrates to glucose, it is also needed for the metabolism of proteins (amino acids) and fats (fatty acids).
Some of the other functions in the body include neutralizing free radicals that can damage cells and DNA, red blood cell formation, cell respiration, antibody production, and growth. It helps maintain healthy adrenal glands, hair, skin, nails, and eyes. Research shows that it can aid in the prevention of cataracts and can decrease the frequency and intensity of migraine headaches.
Deficiency of Vitamin B2 is indicated by cracks in the corners of the mouth, swelling nad soreness of the throat, inflammation of the mouth and tongue, dermatitis, dizziness, hair loss, insomnia, poor digestion, slow growth, slow mental responses, burning of the feet, and light sensitivity. Riboflavin deficiency has been seen in patients with colon cancer, heart disease, carpel tunnel syndrome, MS, and Chron's disease.
Since the B-vitamins are water soluble it is very hard to overdose on them. Your body will just eliminate them through urine if they aren't needed. The best way to take the B vitamins is in a B-complex with Vitamin C. Look for 100%-300% RDA in any multivitamin that you take. If you have a lot of stress either physical, mental, or emotional it is a good idea to make sure you are taking a B-complex. Also if you drink alcohol, take antibiotics, or birth control you want to make sure you are supplementing your B's.
It is always best to get your nutrients from your food as much as you can. Nature has an amazing way of balancing vitamins and minerals for us to work in harmony with our bodies. Eat as much variety of foods as you can to avoid deficiencies.
Great food sources of Riboflavin include organ meats, nuts, cheese, eggs, milk, lean meats, brewer's yeast, mushrooms, soybeans, spinach and all green leafy vegetables, asparagus, broccoli, wild rice, fish, and legumes.
The B-vitamins are destroyed by light and are also lost in water if you boil or soak your food. It is best to steam your veggies instead of boiling them to retain as much vitamin and mineral content as possible.

Vitamin B-3 (Niacin)

The B vitamins are actually a group of vitamins...all working together to mainly provide energy. They work to convert carbohydrates to glucose that is stored in our muscles and liver to be used as an energy source. The B-complex also helps us to metabolize fats and protein.

Vitamin B-3...is also known as niacin. Niacin is readily available in food sources so it is difficult to develop a niacin deficiency. Although certain diets can lead to niacin deficiency and was discovered due to a disease called pellagra. Pellagra is characterized by severely dry cracked and burning skin. It was caused by a corn meal based diet due to the lack of availability of the niacin in the diet. Alcoholism can also cause a deficiency leading to indigestion, fatigue, canker sores, vomiting, depression, burning in the mouth and red swollen tongue.

Niacin has a major role in skin and cell membranes. It is used to metabolize fats into fatty acids that are used to make the fat containing structures. B-3 is also used in the production of steroidal and stress hormones. The production of DNA is dependant on B-3 as a co-enzyme in the process. The B-vitamins are necessary for proper brain and nervous system function.

Niacin is used in therapeutic doses to help lower LDL (bad) cholesterol and triglycerides and help raise HDL (good) cholesterol. In doing so, it can help eliminate plaque buildup in the arteries also known as arthrosclerosis. B-3 can help skin conditions like acne, aging, and prevention of skin cancer. In the case of Type 1 diabetes another form of B-3 called niacinamide may delay the onset of insulin dependence. In type 1 diabetes, the body's immune system attacks the cells in the pancreas that make insulin. Niacinamide may help protect these cells for a time. Niacin may also help improve the symptom of arthritis and increases joint mobility.

Only take niacin for therapeutic reasons (50 mg or more) under a doctor's care as it can cause problems. Contraindications for therapeutic doses of niacin are: if you are taking cholesterol lowering drugs (it can cause damage to the liver), Type 2 diabetes (niacin can raise blood sugars causing hyperglycemia), stomach ulcers, taking antibiotics, blood thinners, or if you wear nicotine patches. Eating a balanced diet is the best way to get your daily requirements of niacin. If you feel the need to take niacin…take a B-complex so you get a balance of all the B-vitamins.

Food sources of niacin and all its forms are:
Beets, brewer's yeast, beef liver, beef kidney, fish, salmon, swordfish, tuna, sunflower seeds, peanuts, fortified breads and cereals. Any food that contains

tryptophan is a good source as the body converts it in the body to niacin.
Tryptophan containing foods are:
Poultry, red meat, eggs, dairy, pumpkin seeds, wheat, and brown rice.

Vitamin B-5 (Pantothenic Acid)

Vitamin B-5 is also called Pantothenic Acid. This vitamin is essential (can't be made in the body…must be obtained from food). It's name is taken from the Greek work "partothen" meaning "from everywhere" due to being found in an abundance of different foods.
Deficiency is uncommon in our society due to being found in such a wide variety of foods. Only in starvation do you find symptoms of deficiency such as low energy, fatigue, hypoglycemia, nausea, poor sleep, and restlessness.
Great sources of this vitamin can be found in:
Whole grains
Legumes
Eggs
Meat
Organ meats
Royal jelly
Avocado
Broccoli
Molasses
Yogurt
Cold water fish

It has been used in therapeutic doses for rheumatoid arthritis helping to reduce the duration of morning stiffness.

Vitamin B-6

Vitamin B-6 comes in 3 forms…pyridoxal, pyridoxine, and pyradoxamino. These forms were isolated in the 1930's. Vitamin B-6 must be obtained from your diet as the body can't make this essential nutrient. B-6 plays roles in over 100 essential chemical reactions in the body. It catalyzes the synthesis of serotonin from tryptophan (keeps our mood elevated), the production of glucose from glycogen (keeps blood sugars level), the synthesis of heme…the iron component of hemoglobin (red blood cell metabolism), the formation of niacin, hormone function, protein metabolism, and immune function. As you can see, it aids in the proper function of almost all areas of the body.

Severe deficiency is uncommon although alcoholics, people on certain medications and older individuals with low quality nutrition are at risk for

deficiency. Deficiency symptoms can include irritability, depression, confusion, ulcers, anemia, dermatitis, and nerve damage in the arms and legs (neuropathy).

Vitamin B-6 therapy has been shown to help with certain conditions including…Carpel tunnel syndrome, PMS, heart conditions (low B-6 can lead to increased amino acid homocysteine in blood which can cause damage to coronary arteries and increased blood clots), cognitive function in Alzheimers. Again…don't take B-6 therapeutically unless supervised by a doctor. Too much B-6 can lead to nerve damage. No more than 100mg is recommended per day.

Vitamin B-6 is readily available in a variety of foods. Make sure to eat a large array of foods to get a good balance and depend less on fortified foods and supplements.

Vitamin B-6 is found in…
Nuts
Sunflower seeds
Fortified cereals
Potatoes with skin on
Bananas
Chicken
Pork
Beef
Trout
Salmon
Avocado
Soybeans
And a variety of vegetables which should be included in EVERYONE'S diet!!!

Be creative with your diet and it will be easy to stay on track. The more variety you eat the better your odds of getting a balance of all the nutrients you need to stay healthy!

Vitamin B-7 (Biotin)

Vitamin B-7 otherwise known as Biotin is produced in our intestines from intestinal bacteria. It plays a role in the citric acid cycle which produces energy from aerobic respiration. It is needed for cell growth, productions of fatty acids, and metabolism of fats and amino acids.
Deficiency is rare due to the production in the intestines from intestinal bacteria but symptoms can include hair loss, dermatitis, depression and lethargy.
Dietary sources include:
Egg yolk
Liver
Peanuts

Vitamin B-9 (Folic Acid)

Vitamin B-9 is better known as Folic Acid. This vitamin derives it's name from the Latin word *folium* meaning "leaf". Green leafy vegetables are a primary source of this essential vitamin.
Folic acid is most known for it's prevention of neural tube defects in newborns. It is essential that women contemplating pregnancy get adequate amounts of folic acid to prevent this birth defect.
B-9 is necessary for the synthesis of DNA, repair of DNA, cell division, and cell growth. It is needed for red blood cell and white blood cell production preventing anemia.
Folic acid deficiency can result in anemia with weakness or shortness of breath, nerve damage resulting in peripheral neuropathy, pregnancy complications, mental confusion, depression, headaches, heart palpitations, irritability, diarrhea, and swollen or sore tongue. It is rare to have a folic acid deficiency since so many foods contain this essential vitamin. Grain foods like breads and cereals have also been fortified with folic acid to prevent birth defects.
Great sources of folic acid include:
Leafy vegetables like spinach, turnip greens, romaine lettuce, and bok choy
Beets
Corn
Tomatoes
Brussels sprouts
Aparagus
Legumes
Egg yolks
Sunflower seeds
Liver and kidney
Fortified grain products
Fruits like pinapple, orange, grapefruit, cantaloupe, honeydew, banana, raspberries, and strawberries.

Folic acid is sensitive to high heat and uv light so eat as many fresh fruits and vegetables!

Vitamin B-12 (Cobolomin)

Vitamin B-12 is also known as cobolamin. B-12 is one of the energy vitamins. It supports the immune system, helps folic acid to regulate the formation of red blood cells, and helps the body to use iron. It is needed for proper digestion, food absorption, carbohydrate and fat metabolism. B-12 is necessary for normal

nerve growth and development…it maintains the fatty sheaths around the nerves. It aids in circulation and adrenal hormone production.
B-12 helps support healthy moods, memory, mental clarity and concentration.

Because B-12 is mainly found in animal products and isn't easily absorbed by poor digestive function, about ¼ of the population is deficient. Vegetarians have a hard time getting enough B-12 with just vegetable sources of diet. B-12 is produced by bacteria in animals and bound to protein. Vegetarians have a risk of less that optimal functioning nervous systems and eye health due to deficiency. The older population is also at risk for deficiency due to inadequate diet and poor digestive function. Low hydrochloric acid decreases the amount of B-12 that gets released from food.

The stomach lining can lose its ability to produce intrinsic factor which is a protein that binds to B-12 to allow it to be absorbed into the small intestine. When this happens you get a deficiency syndrome called cobalamin malabsorption or pernicious anemia. This leads to fatigue, depression, and poor memory.

Vegetarians should consider supplementing with B-12. Plant sources have analogs of B-12 that are not in the correct form that provide B-12 benefits. It is important to consult with a health practitioner when supplementing with any individual supplement because over supplementation can lead to imbalances. There are oral and injectable supplimentation. Breakfast cereals, soy products, and energy bars can also be fortified to provide adequate amount of B-12 for people who don't eat animal products although I don't suggest eating an abundance of processed foods.

Lifestyle choices can lead to a B-12 deficiency. Alcohol, nicotine, oral contraceptives, and antibiotics can all lead to lower absorption of vitamin B-12.

Victor Herbert…the renowned B-12 researcher advises that multivitamins don't provide adequate B-12. Some of the ingredients in multivitamins…Vitamin C, iron, and copper when combined with the crystalline form of B-12 create analogs that can't be utilized by the body. It is best to get your B-12 from food sources.

Best sources for B-12 are:
Fish
Shellfish
meat (especially liver)
poultry
eggs
milk
cheese
liver
fortified foods

Vitamin C

Vitamin C…also known as ascorbic acid. Vitamin C became well known in the 1700's. Men out sea went months without fruits and vegetables because they couldn't be kept fresh on board the ship. These men would develop a deficiency disease known as scurvy. Scurvy led to bleeding and bruising of tissues and eventually affected the blood vessels enough to cause death. It doesn't take much Vitamin C to prevent scurvy so you don't often see it anymore. The British Navy started giving their sailors limes which prevented the disease…saving hundreds of lives while out at sea. This is why the British sailors were called "limeys".

Some mammal's bodies can make Vitamin C. Humans have lost their ability to produce the necessary nutrient so we have to include it in our diet.

Vitamin C plays many roles in the body. It is a very powerful antioxidant, protecting cells from free radical damage. It also aids in the synthesis of several vital components. The synthesis of collagen is essential. Collagen helps make bone, blood vessels, skin, tendons, and ligaments. This is why scurvy can lead to death…without collagen your tissues will fall apart.

Ascorbic acid also aids in the synthesis of norepinephrine, a neurotransmitter that is critical to brain function and mood.

The synthesis of carnitine is necessary for the transport of fat into cells where it is converted into energy. One of the first symptoms of scurvy is low energy which is probably the result of low carnitine levels.

Vitamin C supplementation can help decrease coronary heart disease; decrease the likelihood of stroke, cancer, cataracts, and gout. It helps stimulate the immune system by increasing antibodies, lymphocytes, and leukocytes. Linus Pauling researched mega doses of Vitamin C to cure the common cold. There is no concrete evidence that mega doses cure the common cold but is shown to help people who are under a lot of stress. Stress can depress the immune system so you end up catching everything that is going around. People who smoke should also make sure to take Vitamin C supplements. As with any nutrient, you have to be careful about taking too much. Nutrients are in a synergistic balance in our bodies for a reason. Too much of anything can affect other nutrients. Some people can take 1000mg or more of ascorbic acid due to other imbalances in their bodies. Too much Vitamin C in some individuals can cause copper deficiency and affect the balance of calcium in the body. More is not necessarily better.

There is no difference in the bioavailability of natural vs. synthetic Vitamin C. Vitamin C supplements come in a variety of forms. Of course…as I always say…It is better to get as many of your vitamins and minerals from your food. Getting your vitamins mostly from your food while eating a wide variety of foods will ensure that you are getting a fairly good balance of all vitamins and minerals.

Great food sources of Vitamin C include:

All citrus fruits
Strawberries
Tomatoes
Sweet red pepper
Broccoli (basically broccoli contains everything!)
Potatoes

If you eat your 5 servings of fruits and vegetables you will get about 200 mg of Vitamin C which is plenty for the average person. If you are under stress, take birth control, some prescription drugs, or smoke it is a good idea to take at least 400 mg per day. Be careful if you decide to mega dose (2000 mg or more a day). There is no known toxicity but it can create some uncomfortable symptoms like diarrhea and possibly kidney stones in those prone to them.

Vitamin D- The sunshine vitamin

Although not really a vitamin (Vitamin D is really a secosteroid), it plays a major role in our health. Vitamin D comes from two sources…the sun and our food. There are two forms of Vitamin D… Vitamin D2 called ergocalciferol and Vitamin D3 called cholecaldiferol. It is made in our skin cells with exposure of UVB light from the sun and is found in some foods.

Vitamin D is carried in the blood to the liver in the prohormone form calcidiol. There it is transformed into the active form calatriol where it is then synthesized in either the kidneys or by monocyte macrophages in the immune system. If used in the immune system it acts as a cytokine to defend the body against microbial invaders. If synthesized in the kidneys it acts as a hormone in various functions in the body.

Vitamin D helps balance the content of calcium and phosphate in blood and promotes healthy mineralization and growth of bones. A deficiency results in malformed bones which is called rickets in children and osteomalacia in adults. In adults vitamin D also works with calcium to prevent osteoporosis.

Vitamin D also plays a role in neuromuscular function. A deficiency can lead to muscle weakness, chronic pain and even periodontal disease. It helps keep inflammation down in the body. Chronic inflammation and periodontal disease have been linked to heart disease.

It is a good idea to see a doctor before you start taking any Vitamin D supplements. They are finding that the older you get, the less efficient you are at making vitamin D…even if you get a lot of sunshine. Also the marketplace has made better and better sunblocks that help guard against skin cancer but blocks the UVB rays that your body needs. Your doctor can test your blood levels and make recommendations for supplementation. Too much vitamin D can be toxic because it is a fat based steroidal compound.

There are some great natural sources of vitamin D:

Fatty fishes like salmon, catfish, sardines, tuna, mackerel, and eel
Eggs (the whole egg)
Beef liver
Fish liver oils
Mushrooms (those that have been exposed to sunlight)

Getting your daily requirement of Vitamin D will help increase your immunity, decrease risk of breast cancer and colon cancer, decrease stroke, diabetes, blood pressure and cardiovascular disease. It can also help with depression.

So get out in the sun!

Vitamin E

We have reached Vitamin E in our alphabet nutrition. Vitamin E is a family of vitamins containing alpha, beta, gamma, and delta versions of tocopherols and tocotrienols. I prefer to just say Vitamin E. The most studied of these is the alpha-tocopherol.

Vitamin E is a fat soluble antioxidant vitamin. Antioxidants help protect the body from free radical damage. The antioxidant reacts with the free radicals formed during chemical reactions in the body and removes them before further damage can occur. Free radicals, if left unchecked will damage DNA (the building blocks of all our bodies functions)

Vitamin E deficiency (which is rare) will result in poor nerve conduction, weak muscle function, anemia, decrease in cognitive function, impaired vision, and anemia due to oxidative damage to red blood cells. Immune function declines as

well as the cell signaling process in the body which is needed for all metabolic processes. Deficiency can be caused by fat malabsorption disorders since fat absorption is required for Vitamin E to be utilized.

There has been much controversy surrounding Vitamin E and the need for supplementation. There is a risk of unborn children developing congenital heart defects, so check with your doctor before supplementing Vitamin E during pregnancy. Studies have shown that too much Vitamin E supplementation could lead to hemorrhagic strokes, especially in smokers, due to its affect on platelet aggregation. Vitamin E can also react with certain medications. Again, check with your doctor before you take any vitamin supplement above and beyond the recommended allowances.

As I always say …it is best to get your vitamins from your food as it is extremely difficult to get a toxic level of any vitamin by eating. In healthy ratios, Vitamin E has been shown to decrease heart disease, lower the incidents of Alzheimer's, improve eye health, improve immunity, and metabolic functions. It may reduce cancer, especially prostate and breast cancer.

Here is your list of foods that are rich in Vitamin E:
Asparagus
Avocado
Eggs
Mild
Nuts (especially almonds and hazelnuts)
Seeds
Whole grain foods
Spinach and leafy greens
Vegetable oils (unheated)
Wheat germ
Mango
Tomato
Yams
Kiwi
And of course…broccoli which pretty much has everything in it and you should be eating every day!

Vitamin K

Vitamin K comes in 2 different forms. K-1 is found in plants and K-2 is made from bacteria in our colon. It is a very important factor in blood coagulation. Deficiencies are rare but it has become common practice to give a newborn a Vitamin K shot to prevent deficiencies until their gut colonizes with the bacteria that can produce the vitamin. Deficiencies can also occur in alcoholics due to liver damage, people with inflammatory bowel syndrome, and those with cystic

fibrosis. A deficiency can result in anemia, bruising, bleeding gums, osteoporosis, and coronary heart disease.
Good dietary sources of vitamin K:
Green leafy vegetables
Spinach
Swiss chard
Cabbage
Kale
Cauliflower
Broccoli
Brussels sprouts
Parsley
Avocado
Kiwi
Grapes
K-2 sources include:
Meat
Dairy
Eggs

Hope you enjoyed your ABC's of vitamins! Eating a wide variety of whole foods will ensure that your body gets the nutrients it needs for a healthy and vibrant life. For more information you can visit my website at www.conceptsinwellness.com

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