

## VITAMIN A

### BENEFITS OF VITAMIN A

Vitamin A essential for healthy eyesight, helps with the reproduction of cells, important for immune system function, needed for embryo and fetus development, promotes health of the skin, and also plays a role in healing of wounds and formation of bone.

### VITAMIN A DEFICIENCY SYMPTOMS

Deficiency of vitamin A can result to blindness, an early symptom being night blindness, otherwise known as nyctalopia. Other symptoms are a weakened immune system, dysfunction of the thyroid, and a skin condition known as phryoderma.

## VITAMIN B5

### BENEFITS OF VITAMIN B5 (pantothenic acid)

Vitamin B5 is needed for breaking down fats and carbohydrates to be used as energy, needed by the body for synthesizing cholesterol, is critical for manufacturing red blood cells, also important for the adrenal gland production hormones related to stress and sex, used for manufacturing the neurotransmitter acetylcholine, and important for the health of the digestive system. Vitamin B5 supplements have been proposed for stress, sports performance enhancement, and treating rheumatoid arthritis.

### VITAMIN B5 DEFICIENCY SYMPTOMS

Vitamin B5 deficiency symptoms can result in insomnia, fatigue, depression, vomiting, irritability, burning feet, stomach pains, and upper respiratory infections.

## VITAMIN B7

### BENEFITS OF VITAMIN B7 (biotin)

Vitamin B7, formerly called vitamin H, is commonly known as biotin. It's required for metabolizing energy from food and assisting four enzymes essential for the breaking down of fats, carbohydrates, and proteins. It's also vital for normal embryonic growth, which makes it an important nutrient in pregnancy. Biotin is also important for the health of the hair, skin and nails.

### VITAMIN B7 DEFICIENCY SYMPTOMS

B7 deficiencies can result to fatigue, loss of appetite, dry scaly skin, hair loss, magenta colored painful and swollen tongue, cracked mouth corners, dry eyes, depression and insomnia.

## VITAMIN B9

### BENEFITS OF VITAMIN B9 (folate)

Vitamin B9, otherwise known as folate, helps convert carbohydrates into glucose to be used as energy. Vitamin B9 is important for the function of the brain and plays a part in emotional and mental health. It assists with DNA and RNA production, and is especially important in pregnancy, infancy and adolescence when rapid cell growth is taking place. Vitamin B9 and vitamin B12 help with proper red blood cell function. Vitamin B9 also works together with vitamin B12 and vitamin B6 for homocysteine level control, an amino acid associated with heart disease.

### VITAMIN B9 DEFICIENCY SYMPTOMS

Vitamin B9 deficiency can result in inflammation of the tongue, gingivitis, poor growth, loss of appetite, forgetfulness, mental sluggishness, diarrhea, shortness of breath and irritability. More folate is needed in pregnancy for reducing neural tube birth defect risk.

## VITAMIN B12

### BENEFITS OF VITAMIN B12

B12 is an important vitamin for healthy nerve cell maintenance. Vitamin B12 assists with DNA and RNA production. Vitamin B12 and vitamin B9 together help with red blood cell manufacture and also with S-adenosylmethionine (SAME) production, a compound associated with mood and immune function. Vitamin B12 also works together with vitamin B6 and vitamin B9 for homocysteine level control, an amino acid associated with heart disease.

### VITAMIN B12 DEFICIENCY SYMPTOMS

Vitamin B12 deficiency can result to symptoms of tingling sensation in the toes and fingers, fatigue, nervousness, shortness of breath, numbness, diarrhea, and severe deficiency can result in nerve damage.

## VITAMIN C

### BENEFITS OF VITAMIN C

Vitamin C is an antioxidant, which helps prevent damage from free radicals. Vitamin C is important for repairing and the growth of the body's tissues. Vitamin C helps with collagen manufacture, a protein made use of for making blood vessels, cartilage, ligaments, tendons and skin. Vitamin C is required for wound healing, as well as for teeth and bone repair and maintenance.

### VITAMIN C DEFICIENCY SYMPTOMS

Although severe vitamin C is rare, there is evidence to suggest that low vitamin C levels are common. Vitamin C deficiency can result to symptoms of gingivitis, dry hair, dry and scaly skin, easily bruised, slower healing of wounds rate, greater susceptibility to infection, and nosebleeds. A severe deficiency of vitamin C can result in scurvy.

## VITAMIN D (OUR #1 DEFICIENCY)

### BENEFITS OF VITAMIN D

Vitamin D works with calcium to help build strong bones as well as maintaining the health of the bones. Vitamin D also helps with regulating the immune system. Lower vitamin D levels are linked to conditions such as depression, high blood pressure, colon, breast, and prostate cancer, and obesity.

### VITAMIN D DEFICIENCY SYMPTOMS

Vitamin D best known for building bones and preventing rickets. It has recently been shown to lower the risk of diabetes, hypertension, multiple sclerosis, osteoporosis, memory loss and several types of cancer.

Among African Americans we are in a vitamin d deficiency epidemic. This is because vitamin d is produced by sun exposure and our melanin blocks the sun. This along with the fact that today's lifestyles keeps people indoors or making a conscious effort to avoid the sun.

### COVID & VITAMIN D

Several studies have shown that COVID-19 patients who are deficient in vitamin D are more likely to experience serious illness, severe complications and increased risk of death. And one study showed that when hospitalized COVID-19 patients took oral vitamin D supplements as part of their treatment, they were significantly less likely to be admitted to the intensive care unit than COVID-19 patients who didn't receive vitamin D supplements.

## VITAMIN E

### BENEFITS OF VITAMIN E

Vitamin E is an antioxidant, which helps prevent damage from free radicals. Vitamin E helps to make red blood cells. Vitamin E also helps the body to make use of vitamin K.

### VITAMIN E DEFICIENCY SYMPTOMS

Although severe vitamin E deficiency is uncommon, low vitamin E levels are quite common. Symptoms of severe deficiency include loss of muscle mass, problems with vision, muscle weakness, and unsteady walking. Kidney and liver problems can result from long-term deficiency.