

by Tolulope Obasuyi



As Nigerian children, the first vitamin we all got to know is vitamin C and our favorite is always the yellow one because, yes, it's the sweet one. However, vitamins are a class of food on their own needed by the body in small quantities. Due to the essential roles they play in boosting immunity and maintaining daily body functions among others, it is vital to learn basic facts about them, the roles they play, and the food they are gotten from. Let us explore five things you need to know about vitamins.



There exist only 13 vitamins



These are grouped into water-soluble and fat-soluble. Water soluble vitamins get dissolved easily and so are not stored by the body system while fat soluble vitamins are those dissolved by fats and the body is able to store them for as long as 6 months. Fat-soluble vitamins are absorbed easily when eaten with foods high in fats such as fatty fish. An acronym for fat-soluble vitamins is ADEK standing for vitamins A, D, E, and K. The following table further illustrates all the vitamins and their sources.

Vitamins	Food source	Importance
Vitamin A (Retinol)	Egg, Milk, Oily fish. Yogurt, Carrot. Sweet potato, Red pepper, Mango	Enhances night vision; Minimizes wrinkles; Prevents acne; Glow and healthy skin; Reduces hyperpigmentation caused by acne and sun exposure.
Vitamin B1 (Thiamine)	Bananas, Orange, Whole grain, Pork Nut, Beef, Yeast	Boosts immunity; Helps in breakdown of carbohydrate to produce energy; Regulate the proper functioning of the brain, heart and nervous system.
Vitamin B2 (Riboflavin)	Milk, Egg, Cheese, Plain yogurt, Mushroom, Spinach, Beef, Liver	Reduces the severity of migraine; Red blood cell production; Release of energy from proteins.
Vitamin B3 (Niacin)	Turkey, Peanut, Avocado, Fish, Beef, Brown rice, Chicken	Converts nutrients into energy; Reduces cholesterol level; Keeps the skin healthy.
Vitamin B5 (Pantothenic acid)	Dairy milk, Avocado, Beef, Legumes, Mushroom	Prevents hair loss; Manufacture of red blood cells; Breaks down fat and carbohydrate for energy.
Vitamin B6 (Pyridoxine)	Banana, Avocado, Chicken, Carrot, Beans, Orange, Milk	Boosts immune system; Ensure proper cell function; Creates neurotransmitters such as dopamine; Reduces risk of heart disease.
Vitamin B7 (Biotin)	Sweet potatoes, Egg, Liver, Bananas, Spinach, Yeast, Tomatoes	Controls blood sugar level; Promotes healthy hair and growth; Prevents hair loss and dandruff; Regulates sleep.



Vitamin B9 (Folate or Folic acid)	Liver, Broccoli, Spinach, Peanut, Egg, Banana	Maintains proper function of the brain; Treatment of depression.
Vitamin B12 (Cobalamin)	Milk, Yogurt, Egg, Fish, Turkey, Clam, Soya milk	Prevents major birth defect; Promotes healthy hair and growth; Reduces the risk of dementia
Vitamin C	Pepper, Orange, Potatoes, Broccoli, Kiwi, Red cabbage	Boosts immunity; Prevents iron deficiency; Prevents hyperpigmentation in skin care products
Vitamin D	Egg yolk; Milk' Liver, Salmon, Orange juice, Soy milk	Improves mood; Aid in weight loss; Boosts immune system; Prevent type 1 and 2 diabetes
Vitamin E	Peanut, Avocado, Kiwi, Hazelnuts, Carrots, Tomatoes	Prevents cardiovascular diseases; Protects against some cancers; Improves skin health.
Vitamin K	Cabbage, Lettuce, Okra, Avocado, Green beans, Sinach	Builds strong bone; Improves memory in older adults; Helps in the clotting of the blood

The human body can only synthesize 3 of these vitamins

As important as these vitamins are, the body is only able to synthesize Niacin, Vitamin K and Vitamin D. The rest are obtained mainly from food or supplements. The right amount of Vitamin D is produced when a person is exposed to intense sunlight, especially midday sun for about 30 minutes to prevent the absorption of too many ultra-violet rays which damage the skin. Contrary to popular beliefs, the intensity of the early morning sun is not enough to give us the right amount of vitamin D that we need.

Folic acid deficiency can cause miscarriage and birth defects in babies

Folic acid is strongly recommended to women before pregnancy and through till the 12th week of pregnancy. This is because a deficiency could result in miscarriage or a birth defect known as a neural tube defect which usually occurs in the early stage of pregnancy even before a woman knows she is pregnant. Anencephaly is an example of a neural tube defect



when a baby is born with an underdeveloped brain or incomplete skull.

Avitaminosis

Avitaminosis is a condition whereby a person is chronically deficient in one or more vitamins. Though needed in small amounts, deficiency of vitamins can result in dire consequences ranging from mouth ulcers due to vitamin B12 deficiency, to blindness in children due to vitamin A deficiency and cardiac death due to vitamin D deficiency.

Multivitamin pills cannot replace vitamins in diet

Except for supplemental folic acid (vitamin B9) for women with childbearing potential, taking multivitamins does not reduce the risk of heart disease, cancer, memory loss, and other chronic diseases which vitamins combat against. This is why it is essential for each person to follow a healthy diet and for food companies to carry out analyses on their products since the only sure way to get vitamins is through food.

At *MicroBiotics* we specialize in food enhancement, providing complete analyses for foods and food products. Click <u>here</u> to request a vitamin content analysis of your food product.

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