

## Sources of Nutrients and Deficiency diseases

By definition, a nutrient is any substance that is absorbed and either provides you with energy or enables growth, repair or proper functioning of your body. There are seven main classes of nutrients that the body needs. These are carbohydrates, proteins, fats, vitamins, minerals, fibre and water.

It is important that everyone consumes these seven nutrients on a daily basis to help them build their bodies and maintain their health. Deficiencies, excesses and imbalances in diet can produce negative impacts on health, which may lead to diseases. This list of nutrients, their sources, constituents and deficiency diseases will help you prepare for the Competitive Examination.

### List of Nutrient Sources and their Deficiency diseases

Nutrients	Constituent	Deficiency Diseases	Sources
Vitamin A	Retinol, Retinoic Acid, Beta-Carotene	Night-blindness, Healing epithelial cells, Normal development of teeth and bones	Carrots, Papaya, Milk, Cheese, Fish Liver Oil, Green Vegetables etc.
Vitamin B1	Thiamine	Beriberi	Brewer's Yeast, Whole Grain, Oatmeal, Legumes, Peanuts, Dried Soybean, Sunflower Seeds etc.
Vitamin B2	Riboflavin	Ariboflavinosis	Beef Liver, Lamb, Milk, Mushroom, Spinach, Almonds etc.
Vitamin B3	Niacin or Nicotinic Acid	Pellagra	Tuna, Chicken, Turkey, Mushrooms, Bacon, Broccoli, Veal etc.
Vitamin B5	Pantothenic Acid	Acne, Paresthesia	Chicken Liver, Sunflower Seeds, Salmon, Avocados, Corn, Broccoli, Mushroom etc.
Vitamin B6	Pyridoxine, Pyridoxal, Pyridoxamine	Dandruff-like eruptions, Pink eye, Epilepsy	Potatoes & other starchy vegetables, Fruit (other than citrus) etc.

Vitamin B7	Biotin	Growth & Neurological Disorders in Infants	Raw Egg Yolk, Liver, Peanuts, Yeast, Whole-wheat Bread, Cheddar Cheese, Pork etc.
Vitamin B9	Folic Acid	Macrocytic Anaemia, Birth Defects	Dark Leafy Greens like Spinach, Asparagus, Broccoli, Citrus Fruits, Beans, Peas, Lentils, Avocados etc
Vitamin B12	Various Cobalamins	Macrocytic Anaemia, Memory Loss, Pernicious Anaemia, Mania, Psychosis, Paralysis	Seafood, Beef, Chicken, Eggs etc.
Vitamin C	L-Ascorbic Acid	Scurvy	Amla, Guava, Chillis, Kiwi, Broccoli, Orange, Papaya, Lemon, etc.
Vitamin D	Calciferol (D2) & Cholecalciferol (D3)	Rickets, Osteomalacia, Needed for absorption of calcium from small intestines, Calcification of the skeleton	Sunlight, Mushrooms, Alfalfa, Fish Liver Oils, Cooked Egg Yolk, etc.
Vitamin E	Tochopherols & Tocotrienols	Red Blood Cell Destruction, Ataxia, Retinopathy, Peripheral Neuropathy, Reproductive Failure	Wheat Germ Oil, Canola Oil, Sunflower Oil, Almond Oil, Hazelnuts, Peanuts etc.
Essential Fatty Acids	Omega 3 (Alpha Linolenic Acid) and Omega 6 (Linolenic Acid)	Several bodily processes afflicted, Skin Ailments	Fish Oils, Flaxseed Oil, Hemp Oil, Olive Oil, Pumpkin Seeds, Leafy Vegetables etc.
Vitamin K	Phylloquinone (K1), Menaquinone (K2)	Lack of Clotting of Blood, Lack of Tissue Renewal	Green Leafy Vegetables etc.
Iron		Anaemia, Arrhythmia	Red Meat, Seafood, Egg Yolk, Bananas, Apple, Green Vegetables, Broccoli, Beans, Pumpkin Seeds etc.

Potassium		High Blood Pressure, Arrhythmia, Muscle Weakness, Myalgia, Muscle Cramps, Constipation, Respiratory Depression, Paralysis	Meat, Milk, Fruits, Vegetables, Whole Grains etc.
Calcium		Osteoporosis, Hypocalcemia, Osteopenia	Milk and Milk Products, Eggs, Wheatgrass etc.
Magnesium		Deterioration of Metabolism & Cellular Functioning, Heart Attacks, Insulin Resistance	Nuts and Seeds, Green Vegetables, Dark Chocolate, Whole Grains etc.
Sodium		Cognitive Impairment, Headaches, Nausea, Seizure, Coma, Electrolytic Imbalance	Salt, Fish, Meat, Vegetables etc.
Chlorine		alkalosis	Salt, Milk, Meats, Vegetables etc.
Phosphorous		hypophosphatemia , rickets in children and osteomalacia in adults	Meat, Fish, Poultry, Eggs, Milk, Bananas etc.
Iodine		Goitre, Cretinism, Deterioration of Metabolism & Cellular Functioning,	Iodised Salt, Sea Food, Green Vegetables, Raw Milk, Eggs etc.
Protein		Kwashiorkor	Meat, Seafood, Eggs, Pulses & Legumes, Milk & Milk Products etc.
Protein-Energy		Marasmus	Grains, Pulses & Legumes, Meat, Milk & Milk Products, Eggs, Seafood etc.