

Essential Nutrients: Amino Acids, Minerals and Vitamins

An essential nutrient is a nutrient required for normal body functioning. Many cannot be synthesized by the body and must be obtained from a dietary source. Some categories of essential nutrient include vitamins, dietary minerals, essential fatty acids and essential amino acids. Essential nutrients can be added to a scalar energy balancing project using either a radionic rate of by placing a reagent specimen in the input well along with the witness. Different species have very different essential nutrients - researchers should always test for applicability and appropriateness before adding an essential nutrient energy pattern to any balancing project.

Type	Nutrient	Rate	Purpose/Function
Amino Acid	Alanine	45.9 - 42.5	Helps shuttle muscle lactate to the liver to make glucose
Amino Acid	Arginine	18.25 - 21.5	Cell division, wound healing, immune function
Vitamin	Ascorbic acid (C)	69 - 39	Required for a range of essential metabolic reactions
Antioxidant	Bioflavonoids	30.25 - 23.5	Response modifier for allergens, viruses & carcinogens
Vitamin	Biotin (B7 and H)	62 - 55.9	Cell growth and production of fatty acids
Element	Boron	24 - 52.5	Increases cell wall integrity in plants
Vitamin	Calcitriol (D)	62.5 - 22.75	Increased blood calcium levels, reduces osteoporosis
Mineral	Calcium	95 - 66	Electrolyte; Growth of bones and teeth
Mineral	Calcium-Magnesium	30 - 31.75	Calcium uptake without gastrointestinal discomfort
Amino Acid	Carnitine	41.5 - 61	Disposal of fat in the body; fatty acid transport
Amino Sugar	Chondroitin	16.25 - 14.5	Structural component of cartilage
Element	Chromium	59.5 - 55	Sugar metabolism
Vitamin	Cobalamin (B12)	78.5 - 58.75	DNA synthesis and chromosomal replication/division
Amino Acid	Cystine	87.5 - 14	Determinant in tertiary structure of most proteins
Vitamin	Folic Acid (B9)	65 - 85.25	Production and maintenance of new cells; DNA replication
Amino Sugar	Glucosamine	60 - 53.25	Major component of joint cartilage and some proteins
Amino Acid	Glutamic Acid	78.6 - 44.6	Most abundant neurotransmitter; key in cell metabolism
Amino Acid	Glycine	35.75 - 45	Protein architecture; collagen component
Amino Acid	Histidine	34.75 - 45	Protein architecture
Vitamin	Inositol (B8)	63.75 - 43.6	Basis for several signaling and messenger molecules
Mineral	Iodine	41 - 60.25	Production of thyroid hormones
Mineral	Iron	49 - 27	Mediation of redox reactions; oxygen carrier proteins
Amino Acid	Isoleucine	19.75 - 29.75	Protein architecture
Amino Acid	Leucine	36.25 - 25	Protein architecture
Omega Fatty Acid	Linoleic Acid	70 - 84	Cellular function, wound healing
Amino Acid	Lysine	23 - 23.75	Protein architecture
Mineral	Magnesium	27 - 13	Electrolyte; Essential to DNA/RNA chemistry
Amino Acid	Methionine	13.5 - 18	Protein architecture
Vitamin	Naphthoquionoids (K)	19.5 - 30	Blood coagulation
Vitamin	Niacin (B3)	59.5 - 39	Essential metabolic role in cells
Vitamin	Pantothenic acid (B5)	26 - 96	Metabolism and synthesis of carbohydrates
Amino Acid	Phenylalanine	41.9 - 42.5	Protein architecture
Mineral	Potassium	42.8 - 100	Electrolyte - cell ion activity; plant nutrition
Amino Acid	Proline	30.75 - 26	Protein architecture
Vitamin	Pyridoxine (B6)	26 - 47	Essential for the release of glucose from glycogen
Vitamin	Retinol (A)	57 - 58	Important in vision and bone growth in animals
Vitamin	Riboflavin (B2)	44.25 - 4.5	Energy metabolism and other cellular processes
Mineral	Selenium	48 - 18	Cofactor in reduction of antioxidants
Amino Acid	Serine	57.75 - 87.25	Protein architecture
Mineral	Sodium Chloride (Salt)	23.25 - 52	Electrolyte - cell ion activity
Vitamin	Thiamine (B1)	62.25 - 56.25	Neural function; carbohydrate metabolism
Amino Acid	Threonine	14.25 - 27.25	Protein architecture
Amino Acid	Tryptophan	20.75 - 10.5	Protein architecture
Amino Acid	Tyrosine	24.25 - 29.75	Protein architecture and synthesis
Amino Acid	Valine	14 - 25.4	Protein architecture