




Understanding The Difference Between **Vitamins** And **Minerals**

BOTH are needed for optimum functioning



Vitamins

Minerals

<ul style="list-style-type: none">✔ Vitamins are organic compounds obtained from plants and animals.	<ul style="list-style-type: none">✔ Minerals are elements that originate in the Earth and cannot be made by living organisms.
<ul style="list-style-type: none">✔ Vitamins are needed to supplement where we are not getting adequate levels from our diet.	<ul style="list-style-type: none">✔ Minerals are obtained from the soil and water, and so if our soils and waters were healthy we should not need supplementation.
<ul style="list-style-type: none">✔ Vitamins can be water-soluble or fat-soluble. If they are fat soluble, it is important not to take too many of them.	<ul style="list-style-type: none">✔ Minerals are divided into macro minerals and trace minerals.
<ul style="list-style-type: none">✔ Vitamins are destructible and can be destroyed while cooking due to heat or chemical agents. This means it is tougher to shuttle vitamins from food into your body.	<ul style="list-style-type: none">✔ Minerals are indestructible and are not vulnerable to heat or chemical reactions or sunlight. That means the minerals in soil and water easily find their way into your body through the plants, fish, animals, and fluids you consume.
<ul style="list-style-type: none">✔ All Vitamins are needed in the body.	<ul style="list-style-type: none">✔ Not all minerals are needed in the body.
<ul style="list-style-type: none">✔ Vitamins release energy from the food, develop red blood cells, help in blood clotting and help in maintaining healthy skin, eye, and hair.	<ul style="list-style-type: none">✔ Minerals help in bone and tooth formation, blood coagulation and muscle contraction.

Eat your vitamins and minerals!

Vitamin/mineral	Other name	Good for	Deficiency causes	Vitamin A is fat-soluble, meaning it sticks in your body much longer than water soluble vitamins such as C	Daily intake	Get it from
A	Retinol	Eyesight, bone growth, reproduction, appetite and taste, regulating the immune system	Night-blindness		Men: 900 mcg (one millionth of a gram) Women: 700 mcg	Liver, cod liver oil, carrots, green leafy vegetables, egg yolks, enriched margarine, milk products, yellow fruits
B₁	Thiamine	Nervous system, digestion, muscles, heart, alcohol-damaged nerve tissues	Tingling in fingers and toes, confusion, difficulties in maintaining balance, loss of appetite, exhaustion and weakened powers of concentration		Men: 1.2 mg Women: 1.1 mg	Liver, yeast, egg yolk, cereal, red meat, nuts, wheat germ
B₂	Riboflavin	Growth, skin, nails, hair, eyesight, breakdown of protein, fat and carbohydrates	Itchy irritated eyes, itchy mucous membranes (nose, mouth, throat) and cracked corners of lips		Men: 1.3 mg Women: 1.1 mg	Milk, liver, yeast, cheese, green leafy vegetables, fish
B₆	Pyridoxine	Preventing skin conditions, nerve problems, helping the body absorb protein and carbohydrates	Skin inflammation	Fortifying flour with folic acid in Canada has resulted in a dramatic decrease in neuroblastoma, an early and very dangerous cancer in young children	1.3 mg (seniors and pregnant women should aim higher)	Fish, bananas, chicken, pork, whole grains, dried beans
B₉	Folic Acid	Production of red blood cells, essential in first three months of pregnancy to prevent spina bifida, cleft palate or cleft lip	Tiredness due to anemia and red tongue		400 mcg (pregnant women should aim for 600 mcg)	Carrots, yeast, liver, egg, yolks, melon, apricots, pumpkin, avocado, beans, rye and whole wheat, green leafy vegetables
B₁₂	Cobalamin	Making red blood and the formation of the nerves	Tiredness and fatigue, tingling and numbness in hands/feet, memory problems and anemia		2.4 mcg	Eggs, shellfish, poultry, meat, liver, milk, cheese, fortified cereal
C	Ascorbic acid	Immune defence system, protection from viruses and bacteria, healing wounds, reducing cholesterol, cell lifespan and preventing scurvy	Tiredness, bleeding gums and slow-healing wounds	Sunscreen absorbs ultraviolet light and therefore decreases the skin's ability to produce Vitamin D	Men: 90 mg Women: 75 mg	Citrus fruits, kiwi fruit, berries, tomatoes, cauliflower, potatoes, green leafy vegetables, peppers
D	None	Strong bones and teeth	Unhealthy teeth, weakening of bones, rickets in children		600 IU (international units)	Sunlight (our bodies manufacture vitamin D when sun contacts skin), cod liver oil, sardines, herring, salmon, tuna, milk, milk products
E	Tocopherol	Fighting toxins, protecting cells from damage, supporting immune function, DNA repair and metabolic processes	Weak muscles and fertility problems		15 mg	Nuts, soya beans, vegetable oil, broccoli, sprouts, spinach, whole meal products, eggs
Ca	Calcium	Strong bones and teeth, nerve function, muscle contraction, blood clotting	Poor teeth and brittle bones		1,000 mg	Milk, cheese, butter, yogurt, green leafy vegetables
Fe	Iron	Red blood cells and muscle function, white blood cells and the immune system	Tiredness, irritability, difficulties concentrating		Men: 8 mg Women: 18 mg (Vegetarians need double)	Lean red meat, oily fish, egg yolks, green leafy vegetables, nuts, whole grains, whole wheat
Mg	Magnesium	Converting energy from food, cell repair, building strong bones, teeth and muscles and regulating body temperature	Muscle spasms, and has been associated with heart disease, diabetes, high blood pressure and weak bones		Men 19-30: 400 mg; 31+: 420 mg Women 19-30: 310 mg; 31+: 320	Green leafy vegetables, whole grains, nuts
Zn	Zinc	Immune system, the breakdown of protein, fat and carbohydrates	Lesions on skin, eyes and in throat, loss of taste and smell, hair loss, diarrhea, slow healing of wounds and growth problems in children	High doses of zinc (over 100mg) can lead to stomach cramps, nausea and vomiting	Men: 11 mg Women: 8 mg	Meat, shellfish, milk, brown rice, whole grains