

VITAMINS

VITAMIN	BEST FORM	DEFICIENCY	EXCESS
Vitamin A	Beta-carotene.	Rare.	Doses of beta-carotene above 33,000– (beta-carotene) 50,000 IU may increase the risk of lung cancer in smokers.
Biotin	Biotin.	Rare unless a person eats raw egg whites frequently.	Excess is excreted.
Folic acid/ folate	Found in supplements as folic acid. In food, it is found as folate.	Rare, but inadequate intake among women of childbearing age raises the risk of certain birth defects.	Excess masks a vitamin B ₁₂ deficiency and might interfere with certain medicines.
Niacin	Niacin.	Rare. Niacin is found in protein-rich foods.	Flushed skin, rashes, liver damage.
Pantothenic acid	Pantothenic acid.	Rare.	Excess is excreted though large amounts may cause diarrhea; water retention may result.
Vitamin B ₁ (thiamine)	Thiamine.	Rare.	Excess is excreted.
Vitamin B ₂ (riboflavin)	Riboflavin.	Rare except in those who are severely malnourished.	Excess is excreted.
Vitamin B ₆ (pyridoxine)	Pyridoxine.	Rare.	Large doses over time can cause nerve damage.
Vitamin B ₁₂	Cobalamin.	Vegans and the elderly are at risk.	Excess is excreted.
Vitamin C	Ascorbic acid.	Rare.	Excess is excreted, though very large amounts (over 1,000 mg/day) may cause diarrhea and stomach upset.
Vitamin D (D ₃ or cholecalciferol)	D ₃ or cholecalciferol.	Low levels are more common in people who do not get much exposure to sunlight as well as the elderly.	Excess is stored in the body and can be toxic. Quantities above 5,000–10,000 IU/day can cause hypercalcemia, hypercalciuria, kidney stones, and soft tissue calcifications.
Vitamin E	Supplements that contain a mix of tocopherols and tocotrienols.	Very rare unless fat absorption is a problem.	Few side effects have been noted even in high doses, but some recent studies have suggested that it is safest to consume less than 400 IU daily in supplement form.
Vitamin K	Phylloquinone, phytonadione, menadione.	Rare.	Few side effects noted though excess intake isn't recommended.