Vitamin	Role in the body	Sign of deficiency	RI or AI*	Sign of excess or toxicity	UL**
A	Vision, skin, mucosal, reproductive health; cell growth; antioxidant	Night blindness, dry eyes and skin; delayed growth, reproductive issues; increased infections	700 mcg- ekv	Liver damage, nausea, dizziness, headaches, bone loss, birth defects	3000 mcg
D	Bone, immune, mood, mental, heart health; hormonal, metabolic balance; muscle strength	Bone weakness; frequent infections; muscle weakness; depression, mood changes; hair loss; slow wound healing	10 mcg	Kidney stones, hypercalcaemia, nausea, vomiting, cardiovascular issues	4000 IU, 100 mg
E	Eye, cardiovascular, neurological, skin, immune, reproductive health; hormonal balance; antioxidant	Muscle weakness; nerve damage; vision problems, Weakened immune function; dry skin; balance issues	10 mg	Increased bleeding risk; increased stroke risk; digestive upset	300 mg
К	Blood clotting; bone, vascular, brain health; cell growth, repair	Excessive bleeding, bruising; heavy menstrual periods; bleeding gums; osteoporosis; calcification of blood vessels	60-65 mcg	Excessive blood clotting; jaundice; liver damage; hemolysis	Not known
В1	Energy metabolism; nervous system, brain and muscle function; heart health	Fatigue, weakness; mood changes, irritability, nerve damage; muscle weakness; memory problems; beriberi	0,9-1,2 mg	Very high doses: nerve damage; hypotension	Not known
B2	Energy metabolism; red blood cell formation; skin, hair, nail, eye health; nervous system; antioxidant support	Cracks & sore lips; swollen red tongue; dry flaky skin; light sensitivity, eye issues; fatigue, mouth ulcers; anemia, poor iron absorption	1,6-2 mg	Bright yellow urine from a supplement; digestive upset	Not known
В3	Energy metabolism; DNA repair; cell function; skin, heart, brain, nervous system health; anti- inflammatory	Pellagra (dermatitis; diarrhoea; dementia; death); fatigue, headaches; dizziness; irritability; depression; red swollen tongue	13-20 mg- ekv	Skin flushing, itching; liver toxicity, digestive issues	10 mg- as niacin
В4	Choline. Energy production; DNA, RNA synthesis; cellular metabolism; brain function; immune system support	Fatigue, weakness; cognitive issues; slow cell repair, growth; weakened immune function	400-520 mg	Nausea, diarrhoea, dizziness, headache, kidney strain, liver stress	Not known
B5	Energy metabolism; hormone production; skin, hair health; brain and nervous system support; fatty acid metabolism, cholesterol synthesis; red blood cell formation	Fatigue, weakness, irritability; burning feet, digestive issues, headaches, brain fog; muscle cramps; nausea, vomiting, sleep disturbances	5-7 mg	Diarrhoea; digestive upset	Not known
В6	Amino acid, protein metabolism; red blood cell formation; immune support; neurotransmitter production; heart, skin, hair, nervous system, cognitive health	Fatigue, weakness; depression, anxiety, irritability; cracks, sores in mouth, dry lips, red swollen tongue; skin rashes, dermatitis; tingling, numbness; anemia; weakened immune system; brain fog	1,6-1,9 mg	Nerve damage (numbness, tingling, loss of coordination); sensory neuropathy	12 mg
В7	Energy metabolism; hair, skin, nail health; nervous system function; blood sugar regulation, fatty acid synthesis; DNA repair	Hair loss, skin issues, brittle nails, fatigue, weakness, neurological symptoms; tingling, numbness; muscle pain, cramps	40 mcg	May interfere with lab tests, leading to misdiagnosis of thyroid or heart conditions	Not known
В9	DNA, RNA synthesis; red blood cell formation; heart health; immune system support; brain, nervous system function; fetus development	Fatigue, weakness; brain fog, memory problems; depression, mood disorders; megaloblastic anemia; mouth sores; swollen tongue; poor immune function; neural tube defects in babies	330-600 mcg	Masks B12 deficiency, leading to nerve damage; increased cancer risk	1000 mcg
B12	Energy production; heart, brain, nervous system health; DNA synthesis; red blood cell formation	Fatigue, weakness; shortness of breath, dizziness; megaloblastic anemia; cognitive decline; neurological symptoms; mood changes, pale, jaundiced skin	4-5,5 mcg	May worsen acne and cause mild dizziness	Not known
С	Brain, cardiovascular, immune health; wound healing; collagen synthesis; iron absorption; antioxidant	Fatigue, weakness; bleeding gums, loose teeth; skin issues; poor wound healing; joint, muscle pain; anemia; mood changes	95-155 mg	Diarrhoea, bloating, kidney stones	Not known
Katrin Peo- nutrition counselling and health coaching * RI (recommended) and AI (adequate)) as a two-week average per day UI- Upper limit for grownups per day					