





















Vitamin Deficiency Chart

Signs And Symptoms

B COMPLEX VITAMIN DEFICIENCY	FOLINIC ACID DEFICIENCY	VITAMIN D3 DEFICIENCY	VITAMIN E DEFICIENCY	VITAMIN K1 DEFICIENCY
  <p>Periodontal Disease Dermatitis</p>   <p>Mouth Ulcers Dandruff</p>	  <p>Mouth Ulcers Periodontal Disease</p>   <p>Vitiligo Depression</p>	  <p>Psoriasis Muscle Weakness</p>   <p>Chronic Lower Back Pain Osteoporosis</p>	  <p>Cracked Skin Muscle Pain</p>   <p>Calf Tenderness Hyperkeratosis on Heels</p>	  <p>Easy Bruising Varicose Veins</p>   <p>Fracture Osteoarthritis</p>
Signs:	Signs:	Signs:	Signs:	Signs:
Dermatitis ⁽³⁻⁶⁾ ; hyperpigmentation ⁽⁴⁾ ; glossitis ⁽³⁻⁶⁾ ; cheilosis ^(3, 6, 7) ; stomatitis ^(1, 4, 6) ; mouth ulcers ^(6, 8) ; dandruff; periodontal disease ⁽³⁾	Glossitis ⁽⁴⁾ ; cheilosis ⁽⁷⁾ ; mouth ulcers ⁽⁸⁾ ; vitiligo ⁽³⁾ ; periodontal disease ⁽³⁾	Rickets; osteomalacia ^(9, 10) ; generalised muscle weakness ^(9, 10) ; psoriasis ⁽⁹⁾	Hyperkeratosis on heels; dry, cracked skin ⁽⁹⁾ ; cold peripheries	Easy bruising ^(10,11) ; fractures ⁽²¹⁾ ; varicose veins ⁽²²⁾ ; blood clotting abnormalities ⁽²³⁾
Symptoms:	Symptoms:	Symptoms:	Symptoms:	Symptoms:
Fatigue; lethargy ⁽⁹⁻¹¹⁾ ; anaemia ⁽³⁾ ; depression ⁽³⁾ ; kidney stone formation ⁽³⁾ ; peripheral neuropathy ⁽³⁾ ; convulsions in infants ⁽³⁾ ; carpal tunnel syndrome ⁽³⁾ ; premenstrual syndrome ⁽³⁾ ; headaches ⁽³⁾ ; burning feet ^(4, 3)	Anaemia ⁽³⁾ ; depression ⁽³⁾	Osteopenia; osteoporosis ⁽⁹⁾ ; cardiomegaly ⁽⁹⁾ ; chronic lower back pain ⁽¹²⁾ ; increased susceptibility to infections ⁽⁹⁾	Muscle pain; calf tenderness ⁽¹³⁾ ; haemolytic anaemia ⁽⁹⁾ ; immunological abnormalities ⁽⁹⁾ ; peripheral neuropathy ⁽⁹⁾ ; platelet dysfunction ⁽⁹⁾	Increased blood clotting time ⁽¹⁰⁾ ; hemorrhage ^(10, 12) ; osteoporosis ⁽¹⁰⁾ ; possibly accelerated cognitive decline ⁽¹¹⁾ ; osteoarthritis ⁽²⁰⁾
Treatments:	Treatments:	Treatments:	Treatments:	Treatments:
B Complex Vitamins	Folinic acid 500-1000mcg/day ⁽³⁾	Cholecalciferol 1000-4000 IU/day ⁽⁹⁾	d-alpha tocopherol: 200-1200IU/day ⁽³⁾ mixed tocopherols: 100-200mg/day	Phytomenadione 2-5mg/day ⁽¹⁵⁾

This information is for health care practitioners only (References available on request)

This chart is designed as a quick reference tool to help assess possible vitamin and mineral deficiencies. It is not designed to be a diagnostic tool. The chart is a compilation of information from traditional texts, clinical observation, as well as peer reviewed journals and texts. Where possible, references have been made.

Mineral Deficiency Chart

Signs And Symptoms

CALCIUM DEFICIENCY	COPPER DEFICIENCY	IODINE DEFICIENCY	IRON DEFICIENCY	MAGNESIUM DEFICIENCY	ZINC DEFICIENCY
 <p>Periodontal Disease</p>  <p>Brittle Nails</p>	 <p>Poor Wound Healing</p>  <p>Depigmentation of Skin</p>	 <p>Goiter</p>  <p>Scalloped Tongue</p>	 <p>Pale Lines on Palm</p>  <p>Brittle Nails</p>	 <p>Muscle Spasms</p>  <p>Headache</p>	 <p>Rashes</p>  <p>Stretch Marks/Alopecia</p>
Signs:	Signs:	Signs:	Signs:	Signs:	Signs:
Peeling, splitting, brittle nails ⁽¹⁾ ; periodontal disease; gingivitis; tooth decay; rickets; bone deformity	Depigmentation of skin; greying hair ^(2, 3) ; Menke's kinky hair syndrome ⁽⁴⁾ ; poor wound healing ⁽²⁾ ; neutropenia, leukopenia ^(2, 5)	Goiter ^(2, 5) ; tongue scalloping; cognitive disorders ⁽¹⁴⁾ ; insulin resistance ⁽¹⁴⁾ ; growth retardation ⁽¹⁴⁾	Cheilosis ⁽⁶⁾ ; glossitis ⁽⁷⁾ ; constipation ⁽⁶⁾ ; pale conjunctiva ⁽⁶⁾ ; hair loss ⁽⁸⁾ ; dry, brittle hair ⁽⁹⁾ ; brittle nails ⁽⁹⁾ ; Koilonychia (spoon shaped nail) ^(10, 11) ; pale lines on stretched palm ⁽⁶⁾	Muscle spasms; tremors ⁽¹⁶⁾ ; quivering tongue ; poor growth ⁽¹⁾ ; tongue scalloping	Stretch marks ⁽¹²⁾ ; alopecia ⁽¹²⁾ ; poor wound healing ^(1, 12) ; male hypogonadism ⁽¹²⁾ ; rough skin ⁽¹²⁾ ; rashes ⁽¹⁾
Symptoms:	Symptoms:	Symptoms:	Symptoms:	Symptoms:	Symptoms:
Hypertension ⁽⁶⁾ ; bone pain ⁽⁶⁾ ; pre-eclampsia ⁽⁶⁾ ; muscle cramps; muscle tension & soreness ⁽⁶⁾ ; dysmenorrhea, menorrhagia & PMS	Hypercholesterolemia ⁽²⁾ ; cardiac arrhythmia ⁽²⁾ ; hypochromic anaemia ^(1, 2) ; impaired immune function ⁽²⁾ ; bone fragility ⁽²⁾	Cretinism leading to mental deficiency, hearing loss, spasticity, muscular rigidity ⁽²⁾ ; spontaneous abortion; birth defects ⁽⁵⁾ ; slowed mental & cardiac function ⁽⁵⁾ ; fatigue ⁽⁵⁾ ; cold intolerance ⁽⁵⁾ ; infertility ⁽¹⁴⁾ ; weight gain ⁽¹⁴⁾	Anaemia ^(1, 6) ; fatigue, lethargy ^(1, 6) ; stomatitis ⁽⁹⁾ ; depressed mental & motor function ⁽⁶⁾ ; decreased resistance to infection ⁽⁶⁾ ; tachycardia ⁽¹⁾ ; restless legs ⁽¹⁵⁾	Cardiac arrhythmia ⁽¹²⁾ ; hypertension ^(1, 12) ; vasospasm ⁽¹²⁾ ; nausea; vomiting ⁽²⁾ ; bronchospasm ⁽¹²⁾ ; headache ^(12, 13) ; pre-eclampsia ⁽²⁾ ; Insomnia & inability to relax ^(6, 13) ; depression ⁽⁶⁾	Impaired taste acuity ⁽¹²⁾ ; night blindness ⁽¹⁾ ; sickle cell anaemia ⁽¹²⁾ ; poor resistance to infection ⁽¹²⁾ ; poor tissue repair ⁽¹²⁾ ; poor appetite ⁽¹²⁾ ; concurrent bacterial & yeast infections ⁽¹²⁾
Treatments:	Treatments:	Treatments:	Treatments:	Treatments:	Treatments:
Calcium (as citrate/orotate) Adults: 800-1300mg/day	Copper (as gluconate) 2-10mcg/day ⁽¹⁾	Iodine (as potassium iodide) 200-300mcg/day	Iron amino acid chelate Adults: 15-50mg/day Children 0.5-10yrs: 12-15mg/day	Magnesium (as citrate, orotate, aspartate, diglycinate) Adults: 300-800mg/day Children 1-3yrs: 80mg/day Children 4-6 yrs: 120mg/day Children 7-10yrs: 170mg/day Children 11-14yrs: 208mg/day	Zinc (as citrate) 15-65mg/day ^(1, 12)