

# Nutricheck



## Vitamin/Mineral Symptom Guide

### The B-Complex Vitamin Family

Please Note: This *B-Complex Vitamin Family Symptom Check* is not intended to be a recommendation for self-medication, or to replace medical services.

## **THE B-COMPLEX VITAMIN FAMILY**

*USE ONLY UNDER THE GUIDANCE OF A HEALTH PRACTITIONER*

### **THIAMINE (B1)**

**Deficiency of Thiamine may be associated with the following clinical signs and symptoms:**

Apathy, confusion, emotional lability, depression, fatigue, insomnia, irritability, nervousness, headache, memory-loss, muscle weakness, increased pain-sensitivity, numbness/burning in the hands or feet, increased sound-sensitivity, indigestion, loss of appetite, constipation, sluggish metabolism, palpitations, shortness of breath and heart-failure.

**Supplemental Dosage:**

Require 1 mg/ day : Increased need with high sugar/alcohol intake.

**Natural Sources:**

Wheat germ, rice bran, yeast, bran, lean pork, liver, poultry, egg-yolk, fish, legumes such as dried-beans and peas.

**Therapeutic Dosage:**

100 -200 mg per day : Injections may be required if problems with impaired digestion or intestinal absorption are present.

**Signs of Toxicity:**

Anaphylactic shock has occurred with injections. Dizziness, palpitations, flushing, itching, hives and angio-oedema have all been reported after high-dose thiamine treatment.

### **RIBOFLAVIN (B2)**

**Deficiency of riboflavin may be associated with the following clinical symptoms and signs:**

Insomnia, dizziness and depression, light-sensitivity, red-itchy-burning eyes, blurred vision, cataracts, magenta-hued tongue, cheilosis (Cracks/soreness in corners of mouth), oily/scaly skin (especially around mouth and nose), dyssebacea (whiteheads and blackheads), acne, excessive hair loss.

**Supplemental Dosage:**

Require 1 mg/day : A higher dose may be required if Vit B6 is being taken in high doses.

**Natural Sources:**

Milk, cheese, liver, organ meats, yeast, lean meat and breads.

**Therapeutic Dosage:**

Up to 500 mg/day have been prescribed without side effects.

**Signs of Toxicity:**

There are no known toxicity effects.

## NIACIN AND NIACINAMIDE (B3)

### **Deficiency of Vit B3 has been associated with the following clinical symptoms and signs:**

Fearful feelings, anxiety, excessive worry, suspiciousness, feelings of gloom, depression, fatigue, irritability, insomnia, muscle tension/soreness, headaches, anorexia/nausea, abdominal discomfort/pain, flatulence/wind, bloating, halitosis, diarrhoea, muscle weakness, burning sensation in tongue & limbs, sensory dysperception, dementia, cognitive disorders, strawberry-tip tongue, white-coated tongue, mid-line cracks in tongue, dental-indentations at tongue margins, sore mouth, swollen/painful gums, dermatitis (localised scaly pigmented rash).

Some patients with schizophrenia respond well to Niacin therapy.

### **Supplemental Dosage:**

Require up to 20 mg/day : Stress increases requirements.

### **Natural Sources:**

Lean meats, poultry, fish, peanuts, brewer's yeast, liver and wheat germ.

### **Therapeutic Dosage:**

100 -10,000 mg used in schizophrenia and also to lower cholesterol.

### **Signs of Toxicity:**

Flushing-burning sensation (Niacin), mental-confusion, depression, elevated uric acid, liver-damage, photodermatitis.

## PYRIDOXINE (B6)

### **Pyridoxine deficiency has been associated with the following clinical signs and symptoms:**

Nervousness, agitation, anxiety, emotional-upset, mood swings. Irritability, insomnia, depression, fatigue, poor dream-recall fluid-retention, premenstrual-tension, low blood sugar, low blood pressure, dizziness, acne (espec. post-adolescence), facial oiliness dandruff, hair-loss, cheilosis (cracks in mouth corners) sore tongue, anorexia and nausea, anaemia, numbness/tingling in hands/feet, impaired wound healing, arithitis (espec. in finger/toe joints).

### **Supplemental Dosage:**

Require up to 2 mg/day : increased with pregnancy, ageing, illness, stress and hormone therapy. Increased requirement with isoniazid and other drugs.

### **Rich Natural Sources:**

Meats (espec organ meats), fish, whole wheat, breads, soybean, avocados, peanuts, walnuts, fresh fruit (especially bananas).

### **Therapeutic Dosage:**

100 to 1000 mg/day : toxicity reactions above 2000 mg/day.

### **Signs of Toxicity:**

Sensory neuropathy (numbness in hands/feet).

## **PANTOTHENIC ACID (Calcium Pantothenate -B5)**

### **The following signs and symptoms have been associated with a deficiency of Pantothenic Acid:**

Fatigue, exhaustion, depression, adrenal-exhaustion, anorexia, nausea/vomiting, abdominal bloating/discomfort, constipation burning feet, numbness/tingling in hands/feet, aching mid-back, impaired coordination, low blood pressure, Low blood sugar, recurrent infection, excessive hair-loss.

### **Supplemental Dosage:**

Require up to 20 mg/day : Increased with pregnancy, stress, allergy and chronic illness.

### **Rich Natural Sources:**

Eggs, kidney, salmon, sardines, liver, yeast and natural foods.

### **Therapeutic Dosage:**

500 to 2000 mg/day.

### **Signs of Toxicity:**

No known toxicity effects.

## **COBALAMIN (B12)**

### **Deficiency of Vit B12 is associated with the following signs and symptoms:**

Impaired memory, poor concentration, impaired learning, fatigue, depression, mood swings, mental illness leading to hallucinations, confusion, paranoia, psychosis, dizziness, numbness/tingling in hands/feet, unsteady gait and/or balance, red-sore-smooth tongue, poor digestion, abdominal discomfort.

### **Supplemental Dosage:**

Require approximately 3-4 micrograms daily.

### **Rich Natural Sources:**

Liver, kidney, muscle-meats, poultry, fish, eggs, dairy produce.

### **Therapeutic Dosage:**

Hydroxycobalamin 1000 micrograms by injection 1-2 times/ week. Up to 5000 ugm every 2 days in Chronic Fatigue Syndrome.

### **Signs of Toxicity:**

No toxicity reactions known.

## **FOLIC ACID (Folacin Folate)**

### **Folic acid deficiency has been associated with following signs and symptoms:**

Mental sluggishness, poor memory and concentration, apathy, fatigue, depression, paranoid-thinking, cheilosis, sore-red tongue, anorexia, poor digestion, constipation, shortness of breath, irritability, insomnia, restless legs.

Folic acid deficiency in pregnancy is associated with foetal neural tube defects (Spina Bifida).

**Supplemental Dosage:**

Require 40 micrograms/day : Up to 5mg in pregnancy and lactation.

**Rich Natural Sources:**

Leafy green vegetables.

**Therapeutic Dosage:**

2 to 20 mg daily.

**Signs of Toxicity:**

Overexcitability leading to excess euphoria (mania), increased mental instability, irritability, restless sleep, vivid dreaming, abdominal distension, anorexia, flatulence, nausea, malaise.

NOTE: high dose supplement may worsen epilepsy control.

## CHOLINE

**The following signs and symptoms have been associated with a deficiency of choline:**

Poor fat digestion, nausea/squeamish with fatty-foods, gallstones gastric ulcers, fatty infiltration of liver (kidney and Liver damage in rats), impaired memory and concentration, high blood pressure.

**Supplemental Dosage:**

1 Tblspn lecithin : Also requires methionine, B12 and Folate.

**Rich Natural Sources:**

Lecithin, egg yolk, brewer's yeast, fish, soybeans, peanuts, beef liver and wheat germ.

**Therapeutic Dosage:**

Up to 10 -16 g/day : to treat Tardive Dyskinesia and Alzheimer's disease -phosphotidyl-choline is preferable.

**Signs of Toxicity:**

No toxicity reactions known.

## INOSITOL

**A deficiency of Inositol has been associated with the following signs and symptoms:**

Excessive hair loss, constipation, eczema, high-cholesterol. Diabetics lose inositol in the urine leading to the peripheral nerve damage of diabetes: Inositol supplements prevent this.

**Supplemental Dosage:**

500 mg/day.

**Rich Natural Sources:**

Lecithin, beef, brain, heart, wheat germ, Bulgar rice, brown rice molasses, brewer's yeast, nuts, citrus fruit.

**Therapeutic Dosage:**

Up to 3 g daily.

**Signs of Toxicity:**

No known toxic reactions.

## BIOTIN

**Biotin deficiency has been associated with the following signs and symptoms:**

Drowsiness, lassitude, apathy, depression, anorexia, nausea, muscle pains, excessive sensitivity to touch, skin rash (flaking, itchless, grey-toned skin), anaemia, high cholesterol, hair-loss, pale-smooth tongue.

**Supplemental Dosage:**

Require approximately 300 ug/day. Supplementation is usually unnecessary unless eating raw egg white which contains the protein Avidin which destroys biotin.

**Rich Natural Sources:**

Egg yolk, organ meats, yeast, legumes and nuts.

**Signs of toxicity:**

No known toxic reactions.

## PABA (Para-Aminobenzoic Acid)

**There are no definitive signs and symptoms associated with a deficiency of PABA:**

PABA may be useful as a sunscreen. May possibly be of benefit in prolonging life. It may reverse greying of hair.

**Supplemental Dosage:**

Unknown.

**Rich Natural Sources:**

Liver, yeast, wheat germ, molasses.

**Therapeutic Dosage:**

2 g/day may be useful in treating problem schizophrenics.

**Signs of Toxicity:**

Can cause rashes and hives.

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