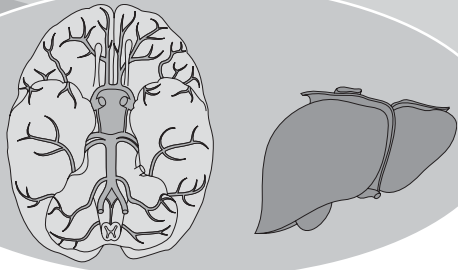


# B-VITAMIN COMPLEX

*by: Joseph Antell*



What we know as the B Vitamin Complex consists of a far reaching range of organic substances that have a dramatic effect throughout the entire body. All of the human organs and glands benefit from the B Vitamins but the two most profound are the nervous and digestive systems. The B Complex are water soluble compounds also known as coenzymes. Their primary purpose is to act as a catalytic spark plug that stimulates bio chemical reactions, improve fat, protein and amino acid metabolism and to normalize nerve function preventing stress and fatigue. In the notes that follow an outline of the function, uses and sources of the natural B vitamin complex will be arranged in two specific formats called Cataplex B and Cataplex G. Each group of these vitamin elements provides a

different range of nutrients for the body chemistry and therefore, have unique physiological effects. Dr. Royal Lee and other physicians since him have successfully defined and utilized these two groups of the B Complex nutrients for over 75 years and they work just as effectively now as they did in 1929. Even though Cataplex B and Cataplex G emphasize different factors for specific purposes, they will always exist in a food base of the complete B Complex. It is important to realize that in nature no true B Vitamin is found in isolation, they always occur together. Therefore, in all the Standard Process products that contain individual B Vitamins this principle of wholeness remains consistent. Standard Process Inc., is the only vitamin company that I know of that still honors this knowledge and wisdom. Any clinician that masters the use of these proven truths will greatly improve the results in their practice.

# General B Vitamin Facts:

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**A. B Vitamins primarily:**

Convert carbohydrates to glucose, improves fat, protein and amino acid metabolism, normalizes nerve function, prevents fatigue and stress, relaxes nervous system, brings energy to most body systems.

**B. Primary areas of influence:**

Skin, hair, eyes, liver and its hundreds of intricate processes, mucous lining from mouth to anus, muscle tone for GI tract and heart especially.

**C. B Vitamins are not stored well in the body.**

**D. B Vitamins are absorbed mainly in the small intestine.**

**E. B Vitamins are easily destroyed by:**

heat  
sunlight  
coffee  
tea (tannins)  
nicotine  
sugar  
alcohol  
the processing of food  
fasting and dieting  
imbalances of pH in the GI tract

**F. Primary food sources:**

Liver, brewers yeast (AKA), nutritional yeast, rice (bran), cereal grains (germ & bran), "raw milk," black strap, animal brains, molasses, pork, beef, brazil nuts, pecans, pine nuts, avocado, dried fruits, corn, organ meats, tongue, trout, mackerel, herring, seaweed, carrots, cucumbers, apples, figs, berries, grapes.

## PRIMARY STANDARD PROCESS PRODUCTS WITH B VITAMINS:

*For additional products with B Vitamins see primary ingredient cross reference in the back of the SP Product Guide (catalog)*

Catalyn	1929
Cataplex G	1934
Cataplex B	1934
Drenamin	1935
Choline	1947
Inositol	1948
Niacinamide	1949
Cataplex B12	1950
Trace Minerals B12	1951
Cardio Plus	1956
Vasculin	1958
B6 Niacinamide	1969
Folic Acid B12	1981
Immuplex	1984

# VITAMIN (CATAPLEX) B

*Essential corresponding minerals: calcium*

*Vasculin: (Vaso constricting formula), Cardiotrophin PMG, Cataplex B, Cataplex E, Cataplex C*

## USES:

- Metabolizes lactic & pyruvic acids through oxidation.
- Promotes motor nerve conductivity by restoring function at the myoneural junction.
- Essential in co-enzyme systems (balances acetylcholine reactions).
- Opposes vaso-dilation due to lack of arteriole-capillary tone.  
Example: fluid build up in heart failure is due to an inability of the heart to pump blood in sufficient pressure to the kidneys. The vaso constricting factors in Cataplex B will improve the tone and work capacity of the heart, raising pressure and producing physiological diuresis.
- Tonifies tissue: heart and muscles in general, also GI trac and blood vessels.

Standard Process - B Complex

Elements: Thiamine (B1)  
Anti-paralysis factor (B4)  
Pantothenic Acid (B5)  
Cyanocobalamin (B12)  
Adenine (foundational substance of RNA & DNA)

Sources (Standard Process):

Liver, yeast (nutritional) rice (bran), wheat germ, beets (root)

Cataplex B, effects of deficiency:

Beri Beri - *Discovered by Dr. Christian Eijkman, 1897*

Paralysis  
Heart Block  
Neuritis  
Arrhythmias  
Fibrillation  
Tachycardia  
Degeneration of the Islets of Langerhans

# VITAMIN (CATAPLEX) G

*Essential corresponding minerals: potassium & magnesium*

*Cardio-Plus (Vaso dilating formula), Cardiotrophin PMG, Cataplex G, Cataplex E<sup>2</sup>, Cataplex C*

## USES:

- Shortened diastolic rest period of the heart. "Coronary relaxant"
- Influences intra-cellular metabolism by aiding in the rapid reproduction of cells increasing the healing process and assisting in the recovery from viral invasion.
- Benefits the digestive process by calming hyper-peristaltic activity and allows healing of the parietal cells of the stomach and the pancreas to take place. "Enzymatic tranquilizer"
- Increases the synapse at the myoneural junction where the neurological impulse is delayed or absent especially in cases of paralysis, dystrophy or ptosis. Potassium is essential here as well. Other implicated conditions are angina pectoris, coronary insufficiency, stomach spasms and general "nervousness."

Standard Process - G Complex

Elements: Riboflavin (B2)  
Niacinamide (B3)  
Pyridoxine (B6)  
Choline  
Betaine  
Inositol  
Folic Acid (B9)  
Para-amino benzoic acid (PABA)

Sources (Standard Process):

Liver, yeast (nutritional), brain (porcine), wheat germ

Cataplex G, effects of deficiency:

Pellagra - *Discovered by Dr. Joseph Goldberger, 1915*

Mental Depression  
Disorders in fat metabolism  
vasoconstriction, i.e. coronary insufficiencies, angina  
Tissue degeneration, GI Disorders, i.e. ulcers, IBS

# BREAKDOWN OF INDIVIDUAL B VITAMINS & THEIR KNOWN FUNCTIONS

## CONTAINED IN CATAPLEX B:

**Thiamine (B1):** health of nerves, muscle tone, neurotransmitter synthesis, development of myelin sheath, known as anti “Beri Beri” vitamin, repellent of mosquitoes and flies, prevents sweet blood, rapid heart beat, stunted growth, brain degeneration, difficulty breathing, sore muscles, craving for alcohol, general body wasting (weight loss), high pitched voice, aggressive or lethargic behavior (teenagers especially), source of B4 (see Cataplex B section), low blood pressure, prevents lesions on arteries, increases metabolic index (low thyroid), aids in production of fatty acids and sterols, helps produce energy within cells.

**(B4):** the “anti-paralysis vitamin” promotes efficient conductivity of the heart tissue and maintains synchronistic and contractile rhythm of the heart muscle. Essential for accurate function of motor nerves. Prevents loss of integrity of the vascular wall (aneurysms), enlargement of the heart, atony of the intestinal tract and progressive degeneration of the nervous system causing disturbances in heart rhythm. Improves avitaminosis by providing specific nutrients for steadier and normalized nerve, muscle and vascular cells.

**Pantothenic Acid (B5):** the “anti stress vitamin,” aids in adrenal cortex function, prevents aging, grinding of teeth, useful in neuritis epilepsy and multiple sclerosis (MS).

**Cobalamin (B12):** the “omega vitamin” must have trace mineral “cobalt” to make B12 (SP source: Trace Minerals B12), “longevity vitamin,” normalizes red blood cells, prevents pernicious anemia, helps energy level, helps with Bells Palsy, senile psychosis, decreased appetite, must have adequate HCL and intrinsic factor, “stomach parehchma,” (in many SP products) to be absorbed.

## CONTAINED IN CATAPLEX G:

**Riboflavin (B2):** visual problems, i.e. eye fatigue, cataracts, burning, excessive tearing, decreased vision, blood shot eyes, sensitivity to light, dry “sandy” eyes, allergies, chemical sensitivity, skin problems, i.e. acne, dermatitis, eczema, skin ulcers, cracks in corner of mouth, prevention of and recovery during cancer treatment, headaches (especially migraines), useful for clients on antidepressants.

**Niacinamide (B3):** the “anti Pellagra vitamin,” Pellagra “three D’s,” diarrhea, dermatitis, dementia, aids in formation of red blood cells and steroids, i.e., helps in adrenal function, estrogen, progesterone and testosterone synthesis, helps with restless nerves, “restless leg syndrome,” listlessness, pain, dreams at night, metabolism of some drugs and related toxins, stimulates circulation (vasodialator), especially brain function, relaxes nervous system, essential to glucose tolerance factor, reduces cholesterol (may raise homocystien levels), inositol more effective, helps with maniere’s syndrome - hearing loss and vertigo, lowers blood pressure, lowers triglyceride levels, useful in alcoholic depression, helps with hallucinations, depression, schizophrenia, delusional thinking.

## CONTAINED IN CATAPLEX G (con't):

**Pyridoxine (B6):** the “woman’s vitamin,” helps hormone balance, i.e., premenstrual syndrome (PMS), breast soreness, emotional tension, fluid balance, pregnancy, morning sickness, eclampsia, breast cancer prevention or any increased estrogen syndromes (essential if on birth control pill), aids in hyperactivity in children, autism, also Parkinson’s, Epilepsy, increases DNA, RNA, (cell production), sulfa metabolism (detoxification), supports production of GABA, assists in amino acid metabolism, prevention of kidney stones, (used with magnesium), skin problems, i.e., dandruff, eczema, dermatitis, psoriasis, precursor to heme (iron molecule), useful for high iron levels (hemochromatosis).

**Biotin (B7):** raw eggs deplete, stops graying of hair and baldness, helps with cradle cap (no B7 in baby formulas), helps with formation of new tissue, prevents overgrowth of yeast (candida).

**Folic Acid (B9):** the “alpha vitamin” must be in balance with B12, helps in red blood cell production, cell multiplication, high homo-cystein levels, may prevent and heal dysplasia, skin ulcers in the elderly, effective in downs syndrome, premature birth, toxemia during pregnancy, birth deformities, growth problems in infants, brain function and nervous system development.

**Choline:** the “memory vitamin” preserves the integrity of the electrical transmission across the gaps between nerves, helps with nerve-muscle function, i.e., Alzheimer’s, Parkinson’s, significant in aiding in high blood pressure, utilization of fats (emulsifies them), arterial placking, liver, gall bladder detox, fatty liver degeneration, muscular twitching.

**Inositol:** the “muscle-sugar vitamin,” coffee specifically depletes, closely associated with choline, helpful in sciatica, numbness due to nerve degeneration (MS), hyperactive children (helps chemical signaling between brain cells), clients on lithium need inositol, sugar handling problems, may help with redistribution of body fat.

**Para Aminobenzoic Acid (PABA):** aids as a sunscreen should be taken with Cataplex F tablets (SP), prevents skin cancer, decreases wrinkles, stimulates hair growth, helps with vitiligo.

## Other controversial B Vitamins:

**Orotic Acid (B13):** the primary source is Jerusalem artichokes, primarily known to help in any chronic diseases, and with heart rhythm regulation.

**Pangamic Acid (B15):** the primary sources are apricot kernels, beef blood, pumpkin seeds, sunflower seeds. May help with muscle fatigue, excessive lactic acid, athletic endurance, also alcohol (hangovers), and drug addiction, brain damage, stimulation of speaking ability in stroke victims and underdeveloped children, autism and schizophrenia.

**Laetril (B17):** cancer elimination and prevention. The primary sources are apricot kernels, 10-20 daily, almonds, apple seeds (bitterness indicates significant activity), “natural cyanide.” May help with reducing side effects of chemotherapy, radiation, or side effects of cancer surgery (the spreading of rogue cells). Normal cells have an enzyme (rhodanese) that inactivate the cyanide molecule of the laetril compound. Cancer cells do not have this enzyme and actually have another enzyme that activates the cyanide which poisons the cancerous cells.

# Complied Notes on Clinical Nutritional Products

## Section 4: "B" versus "G"

### The Differences between "B" and "G"

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## "B"

Water soluble fraction

Heat stable

Natural thiamine (aneurine)  
also: B-4 (anti-paralysis factor)  
B-12

Pantothenic acid

Nerve promoting

Acts like a vasoconstrictor

Helps low blood pressure and blood vessels  
without tone

#### HEART CORRELATIONS:

bradycardia  
irregular heartbeat - atrial fib.  
heart block  
split S1 and/or S2

Mental correlations:  
increased psychotic tendencies  
apprehensive  
intolerance to noise

#### DIGESTIVE CORRELATIONS:

helps salivary glands & pancreas produce their  
alkaline enzymes  
helps overly acidotic patient  
lack of appetite  
drowsiness after meals

Helps carbohydrate metabolism

## "G"

Alcohol soluble fraction

Heat labile

Riboflavin and Niacin  
also: Folic acid  
PABA

Lipotrophic factors:  
Choline, Inositol, Betaine

Nerve relaxing

Acts like a vasodilator

Helps hypertensives

#### HEART CORRELATIONS:

tachycardia  
ventricular ectopic beats (PVCs)  
pre angina pectoris  
pre myocardial infarction  
S1 and S2 equally spaced

#### MENTAL CORRELATIONS:

excessively worried  
apprehensive  
moody, depressed  
suspicious

#### DIGESTIVE CORRELATIONS:

aids in stomach HC1 production  
helps overly alkaline patient  
spastic gall bladder

Helps fat metabolism

## "B"

### NEUROLOGICAL CORRELATIONS:

lack of vibration sense  
headaches like a tight band around the head  
increased lactic acid:  
burning in soles of feet  
tenderness in calves

### SLEEP DIFFICULTY CORRELATIONS:

frequent nocturnal urination  
awakens and cannot return to sleep  
back pain - especially at night

### SKIN CORRELATIONS:

itchy symptoms  
seborrheic dermatitis

Decreased breath holding time

Shortness of breath

Decreased respiratory rate

Frequent yawning or fatigue

Decreased body temperature

### NECESSARY FOR ESTROGEN

#### BREAKDOWN TO AVOID:

spider veins  
breast swelling  
premenstrual water retention  
long, heavy period  
short intervals between periods  
generalized bloating  
inhibition of thyroid (many hypothyroid symptoms)

Shellfish, salted herring and clams are high in thiaminase

## "G"

### NEUROLOGICAL CORRELATIONS:

helps to increase acetylcholine activity  
helps cholinesterase activity (for breaking down ACh and for recycling choline)  
restless legs - jumpy, shaky legs

### SLEEP DIFFICULTY CORRELATIONS:

whole body or limb jerks upon falling asleep  
can hear heartbeat on pillow

### SKIN AND MUCUS MEMBRANE CORRELATIONS:

cheilosis - cracking at corners of mouth  
friable skin - especially on face and neck (when shaving)  
bright red tip of tongue  
strawberry tongue (purple)  
loss of upper lip (thin upper lip)  
irritated mucus membranes:  
rectum  
vagina  
eyes (frequent crying)

Helps adrenal gland function

### VISUAL CORRELATIONS:

burning or itching of eyes  
photophobia  
blepharospasm  
blood shot eyes (circumcorneal injection)  
see only part of printed words  
pallor of temporal half of optic disc  
transient ischemia of retina - like looking through fish bowl