

# Some Functions of B-Vitamins

Vitamin B-Complex	Name	Selected Benefits
B1	Thiamin	CFE, RDA-PMCD, NFRT, BV-HHSN, MC-OHMF, DIDWIF,
B2	Riboflavin	CFE, RDA-PMCD, NFRT, BV-HHSN, MC-OHMF
B3	Niacin	CFE, RDA-PMCD, NFRT, MC-OHMF,
B5	Pantothenate (PTA)	CFE, RDA-PMCD, NFRT, BV-HHSN, MC-OHMF, PMC
B6	Pyridoxine	CFE, RDA-PMCD, NFRT, BV-HHSN, MC-OHMF, DIDWIF, EAOV, PFKS, PMC
B7	Biotin	CFE, RDA-PMCD, NFRT, BV-HHSN, MC-OHMF, DIDWIF,
B9	Folate	CFE, RDA-PMCD, NFRT, MC-OHMF, DNABPS,
B12	Methylcobalomin   Cyanocobalomin	CFE, RDA-PMCD, NFRT, BV-HHSN, MC-OHMF, ASRBC, CHL, DNABPS

## Abbreviations:

1. CFE: Conversion of food to energy (cellular respiration—Glycolysis, {2 ATPs}, Krebs Cycle, {4 ATPs}, & Electron Transport Chain, {32 ATPs})—breaking down of sugar in the presence of oxygen)
2. RDA-PMCD: Reduces risk of depression, anxiety; prevents memory and cognitive decline
3. NFRT: Neutralize free radicals and toxins
4. MC-OHMF: Memory consolidation and other higher, mental functioning
5. BV-HHSN: Beauty vitamins for healthy hair, skin, and nails = **ALL Bs except B3 & B9**
6. DIDWIF: Deficiencies **B1, B6, & B7** lead to impaired digestion, weakness, irritability, & fatigue
7. DNABPS: Synthesis of DNA base pairs—Adenine & Thymine, or Guanine and Cytosine = **B9 & B12**
8. PMC: **B5 & B6** promotes memory and concentration
9. ASRBC: Carbon donor to hemoglobin molecule so red blood cells have an appropriate size, which prevents damage of the walls of small blood vessels that lead to anemia
10. CHL: Controlling homocysteine levels—an abnormal accumulation of homocysteine is a marker for heart disease
11. EAOV: Enhancing absorption of other vitamins
12. PFKS: Prevents formation of kidney stones by modulating the concentration of oxalate and other minerals in the urine that take part in the formation of stones

References: <http://dailyburn.com/life/health/benefits-vitamin-b-complex/>; <http://www.med-health.net/B-Complex-Benefits.html>

# Some Sources of B-Vitamins

B-Vits	A	B	C	D	E	F	G	L	M	R	W	Y
B1			X		X	X	X	X				
B2		X		X			X					
B3								X				
B5	X	X						X	X			X
B6				X		X				X		
B7					X					X	X	
B9			X				X	X				
B12			X	X	X	X	X					

## Abbreviations

- A. Avocado
- B. Broccoli
- C. Cereal, (dry, fortified)
- D. Dairy—(milk, eggs, cheese)
- E. Eggs
- F. Fish
- G. Green leafy vegetables
- L. Legumes, (Lentils and Split peas are legumes that provide B5)
- M. Mushrooms
- R. Red Meat—(lamb, beef, & pork)
- W. White meat—(salmon, tuna, & chicken)
- Y. Yogurt

Fruits, (not shown in the tables), are a source B2 & B9