



Inositol

Function:

An essential nutrient, inositol is found in cell membranes and is needed for proper function of hormones. Inositol, similar to choline, is a component of phospholipids (phosphatidyl inositols). Phosphatidyl inositols function as cell membrane components and as regulators of cell membrane transport by acting as a calcium-mobilizing system (the “PI effect”). Thus, inositol status interacts with a wide variety of hormonal and regulatory events in cells. Lipotropic activity (reduction of blood or tissue lipid levels) of inositol centers around the role of phosphatidyl inositol in lipoproteins. Since inositol is widely available from dietary sources, endogenous synthesis and gut microfloral synthesis, inositol is not classified as a vitamin. Nevertheless, inositol has been considered as a component of the B vitamin complex.

Deficiency Symptoms:

Symptoms of Inositol deficiency in humans have not been reported conclusively, but may include alopecia, eczema, insomnia, constipation and hyperlipidemia. Animals fed diets lacking Inositol develop lipodystrophies (fatty livers, fatty intestines, low blood lipoproteins).

Repletion Information:

Dietary sources rich in Inositol include:

Nutritional Supplements	Whole Grains
Nuts	Seeds
Citrus Fruits	Cantaloupes
Organ Meats	

No RDA has been established for inositol. Usual dietary intake is one gram per day. Oral doses of up to 1-2 grams daily are well tolerated.