

## UNDERSTANDING LIPOTROPIC INJECTIONS

Lipotropic, the term literally means “fat loving”! Lipotropic agents are a class of substances that play an important role in the body’s use of fat. Many substances have lipotropic properties of which choline, inositol and methionine are among the most note-worthy. Through their involvement in lipid (fat) metabolism, lipotropics help maintain a healthy liver.

- 1.They increase the production of lecithin by the liver and the term is used to refer to substances that are able to help the liver metabolize fats and carbohydrates. This helps to solubilize cholesterol, thus lessening cholesterol deposits in blood vessels and decreasing the chance of gallstone formation (gallstones are made of cholesterol).
- 2.They prevent the accumulation of fats in the liver. A fatty liver can cause sluggish liver function.
- 3.They detoxify amine (by-products of protein metabolism). This is important for people on a high protein diet.
- 4.They increase resistance to disease. They bolster the thymus gland to carry out its anti-disease function by stimulating the production of antibodies. Stimulating the growth of phagocytes, which surround and absorb invading viruses and microbes.

They also recognize and destroy foreign and abnormal tissue.

What are some of the important functions of the individual Lipotropics?

Choline & Inositol are co-enzymes that are required for the proper metabolism of fats, and have the ability to remove fat from the liver. Choline works well with inositol to utilize fats and cholesterol. The body can produce choline, with the help of vitamin B12, folic acid and methionine.

Choline: Metabolizes fat. Deficiency of choline can lead to cirrhosis and fatty degeneration of the liver and hardening of the arteries (arteriosclerosis). It is being used today for ailments such as gall bladder trouble, diabetes, Muscular Dystrophy, glaucoma, senility and memory problems (forgetfulness). Choline detoxifies amines that are the by-products of protein metabolism.

Inositol: Deficiency of inositol can lead to hair loss. It works with Vitamin E to facilitate its actions in the treatment of Muscular Dystrophy. It is used in nerve and muscle disorders such as Multiple Sclerosis and Cerebral Palsy. Caffeine may cause depletion of inositol.

Methionine: It works with choline to detoxify amines which are the by-products of protein metabolism. It acts as a catalyst for choline and inositol, opening up their function. Along with choline it aids in reducing liver fat and protects the kidney.