



## **MIC/B12**

This combination medication is a fat-burning agent, also called a lipotropic medication. MIC refers to the combination of Methionine, Inositol and Choline.

**Methionine** is an essential amino acid, meaning it is not synthesized in the human body, and must be obtained by food or nutritional supplements. It is a precursor molecule to a number of other critical molecules and is essential for proper functioning of the immune system and digestive system. Methionine helps regulate metabolic processes and, important to this discussion, plays a role in the breakdown of fats.

**Inositol** is a broad term for nine form (isomers) of a sugar made in the body. One of the most important functions is the role in cell signaling in response to hormones, nerve signals and some growth factors. It is the growth factors that most significant in weight loss.

**Choline** also has multiple roles, perhaps most importantly is that of forming the membrane around cells. This membrane is made up of fats – the fats you consumed about 6 months ago! Unlike most substances in our bodies, we don't have many good shortcuts for processing and removing fat once it is stored. Choline is thought to play a role in this action.

**Vitamin B12** is more correctly called cobalamin. It is one of eight vitamins and/or nerve signaling agents designated as the B complex vitamins. B-vitamins and Vitamin C are water-soluble and are not stored in the body. By contrast, Vitamins A, D, E and K are fat-soluble and so are stored in body fat. All B vitamins must be bound to a circulating molecule to avoid being immediately removed through urine and feces. We believe the binding molecule is also important. The body prefers a carbon agent, called a methyl group, making this Methylcobalamin.

**Cobalamin** is used in 100 trillion body cells. It is required for nerve transmission, oxygen transport, cognition, memory, and synthesis of DNA (which is why it helps with weight management).