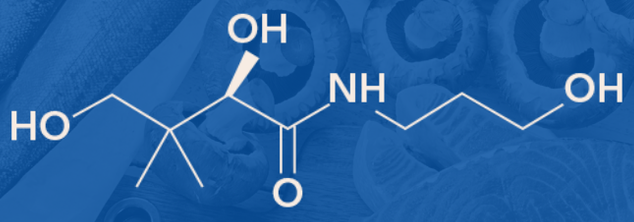
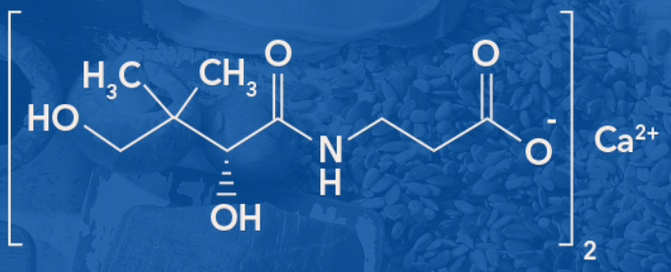
Vitamin **B5**

Vitamin B5 (PANTOTHENIC ACID) is one of 8 vitamins in B complex, it is a combination of pantoic acid and ß-alanine. Pantothenic acid is essential to all forms of life. It is reported as pantothenic acid as well as calcium pantothenate determined by HPLC with PDA detection.

Pantothenic Acid



Calcium Pantothenate



Functions/Health effect:

All animals require pantothenic acid in order to synthesize coenzyme A (CoA) – essential for fatty acid metabolism, and acyl carrier protein, which is also involved in building fats.

Vitamin B5 is critical to the manufacture of red blood cells, as well as sex and stress-related hormones. In addition, vitamin B5 helps the body use other vitamins, particularly B2, and contributes to maintaining a healthy digestive tract and healthy skin.

Sources:

The best sources are brewer's yeast, corn, cauliflower, kale, broccoli, tomatoes, avocado, legumes, lentils, egg yolks, beef (especially organ meats such as liver and kidney), turkey, duck, chicken, milk, split peas, peanuts, soybeans, sweet potatoes, sunflower seeds, whole-grain breads and cereals, lobster, wheat germ, and salmon.
Bacteria in the gut can also produce some pantothenic acid but not enough to meet dietary needs.

Did you know that?

Milling grains to make white rice or white flour removes much of the pantothenic acid, as it is found in the outer layers of whole grains.

The most commonly used form of vitamin B5 is calcium pantothenate because of its chemical stability, and hence a longer shelf life. D-panthenol (alcohol related to pantothenic acid) is usually used in liquid pharmaceutical preparations and in cosmetics.

Mice deficient in pantothenic acid develop skin irritation and graying of the fur, which is reversed by pantothenic acid intake. However, there is no scientific evidence that taking pantothenic acid as supplements or using shampoos containing pantothenic acid can prevent or restore hair color of humans.

Food
division