

# Healthy Science™ *by Mannatech*

## Vitamins: You've Come a Long Way, Baby! Mannatech Research and Development Team



What's one way to find out whether you really need something? Well, you could throw it away and see if you miss it! Surprisingly, in the world of nutrition research, this approach has actually, and often inadvertently, driven major discoveries.

Let's take rice as an example. Scientists think that humans first started cultivating rice over 8,000 years ago, and it has steadily grown in importance as a food ever since. Over time, methods of "improving" rice were also developed. If you could afford it, polished rice (rice with the husk, bran and germ removed) became prized because it was prettier, tastier, and could be stored longer. The problem was that people who relied on this "improved"

rice as their primary dietary staple frequently developed a neurologic disorder known as beriberi.

In some towns in Asia, close to half of the babies there died from beriberi. At that time, though, people didn't connect the development of this terrible condition with their reliance on polished rice, and the idea that a nutrient could prevent a disease had never been proposed.

Then, in 1912, a Polish biochemist named Casimir Funk prepared extracts from rice polishings that prevented beriberi. Funk concluded that there was something in rice polishings that was crucial for life and that beriberi was thus a nutrient deficiency disease. He called that something a "vitamin"—from *vita* (Latin for "life") and *amine* (Latin for "a nitrogen compound") (1). About 14 years later, the vitamin responsible for preventing beriberi—thiamin—was isolated. So thiamin has the honor of being the first vitamin and the first nutrient that we didn't know we needed until we threw its source (rice bran) away.

Given what we know today, it's hard to imagine how little we knew about nutrition in the early 1900s. In those days, the USDA warned consumers that fresh fruits and vegetables were a luxury that "simply pleases the palate without properly nourishing the body"(2). Funk's discovery stimulated intense research activity over the next 35 years, during which virtually all the currently known vitamins were discovered. In the 20<sup>th</sup> century, 17 Nobel prizes were awarded for discoveries associated with vitamins (3).

Another milestone in vitamin nutrition came in the early 1930s, when a Hungarian scientist, Albert Szent-Gyorgyi, noticed that vitamin C was more effective if it was taken with another nutrient—a flavonoid—common in vitamin C-rich fruits and vegetables (4). The implications of Szent-Gyorgyi's discovery—that intake of nutrients in a combination more closely resembling whole foods can be more beneficial than single, isolated nutrients—was profoundly important, but largely ignored by the burgeoning vitamin industry. Instead, the vitamin industry focused on developing synthetic, often high-dose, vitamin supplements without regard for the other nutritional components that may accompany them in foods.

The consequence? A growing number of scientific studies suggest that intake of high-dose/isolated/synthetic supplements can be harmful (5–9). Many Americans responded to this information by tossing out their vitamins and other supplements.

But, is this wise? It's common knowledge that most Americans do not eat an adequate diet. What may not be as commonly known is that there is a better way to supplement. Mannatech paid attention to Szent-Gyorgyi and others and has long been committed to supplements based on Real Food Technology® solutions. The science behind these supplements takes into account the importance of consuming sensible amounts of nutrients in food forms.

So it seems fitting, on the 100<sup>th</sup> anniversary of the discovery of the first vitamin, which was sourced from rice bran, that Mannatech is now introducing to the marketplace NutriVerus™ powder. Enhanced with stabilized rice bran, NutriVerus powder brings together Mannatech's very best patented technologies and the culmination of years of research into the simplest and most affordable product to provide complete dietary supplementation for the whole family†.

NutriVerus powder, which can be added to virtually any food or beverage without altering the taste, provides numerous health benefits, including cellular communication and immune system and antioxidant support.\* NutriVerus powder also helps maintain energy levels and supports proper brain, organ, gland and cardiovascular function.\* It's the best solution for people who value a simple, affordable nutritional supplement based on Mannatech's best technologies.

Happy Birthday, vitamins! You've come a long way, baby!

### Reference List

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†NutriVerus powder is appropriate for adults and children 4 years and older.

**\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.**