Neurology and Pain Management JULIAN UNGAR-SARGON, M.D., Ph.D.

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Re: The Health benefit from B1

Jerry Castello CEO USA Natural Patches Inc.

To Whom It May Concern,

I happen to know a great deal about Thiamine. I am quite comfortable sharing my in-depth knowledge. I aim to provide additional clarity as to why it is important, not only for all individuals but especially those engaged in Athletic competition.

For many years I have reviewed the benefits of B1 in various medical literature as well as from my own clinical experience with the effects of deficiency in the nervous system.

Deficiency of thiamine can affect the cardiovascular, nervous, and immune systems.

Worldwide, Thiamine deficiency is most widely reported in populations where polished rice and milled cereals are the primary food source. It is also prevalent in patients with chronic alcohol abuse.

"Dry" Beriberi presents as symmetrical peripheral neuropathy while "Wet" Beriberi presents with high-output heart failure. Wernicke-Korsakoff syndrome (WKS) can manifest with Central Nervous System symptoms such as gait changes, altered mental status, and ocular abnormalities.

It may be quite common for a doctor to only view alcohol abuse extremes and or daily foods as an explanation or safeguard to solve Thiamine deficiency. In the case of an athlete who is playing daily under tremendous physical and mental stress as well as routinely having a harmless but consistent social alcohol beverage throughout the season, Thiamine deficiency can be a surprisingly undetected league wide problem.

This water-soluble vitamin is reduced in milled rice and grains as the processing involved in creating these food products removes thiamine, therefore those may be believing they are getting more thiamine in their diets then they really are.

Additionally, certain food products such as tea, coffee, raw fish, and shellfish, contain thiaminases - enzymes that destroy thiamine.

Clearly the use of supplements to a diet deficient in Vitamin B1 is of clear medical benefit.

Lastly, transdermal technology has a solid history of delivering controlled amounts of a medicine or in this case a Vitamin and it's efficiency is becoming more and more prevalent in today's medical applications.

Respectfully,

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