SUPERIOR NUTRIENT AND MEDICATION ABSORPTION SETS THICK-IT[®] CLEAR ADVANTAGE[™] APART.

WHITE PAPER MAY 2016



THE ISSUE OF ABSORPTION

While xanthan gum-based thickening powders offer many proven advantages over starch-based powders, shortcomings remain in other xanthan-based agents currently marketed for use with dysphagia patients.

Many dysphagia patients require multiple medications and supplements for better nutrition and health. Many medications and nutritionally necessary minerals are positively charged. Xanthan powder naturally carries a negative charge, causing it to bind to positively charged materials.

While all agents bind to some degree, xanthan is a soluble fiber and passes through the body undigested. Any material that binds to the xanthan in the digestion process may be excreted without being absorbed into the bloodstream. For patients who take medications orally with a xanthan-thickened beverage or who must thicken nutritional supplements such as Ensure® or Boost,® some or all of the medication and nutrients may not be bioavailable to the patient. Several studies have shown lower than expected blood serum concentrations of nutrients and medications when administered with xanthan-thickened beverages.

Ensure® is a registered trademark of Abbott. Boost® is a registered trademark of Nestlé.



(Physician Intervention for Medication Reduction in a Nursing Home, JAMDA 2011)

The product of two years of study and research, Thick-It® Clear Advantage[™] is the newest dysphagia nutrition innovation from the trusted minds at Kent Precision Foods Group, Inc. ("KPFG"), makers of Thick-It®.



THE ADVANTAGE IS CLEAR

Dedicated to innovation in dysphagia nutrition, KPFG's Thick-It[®] team has researched a solution for this serious problem by developing a proprietary xanthan powder formulation that supports the absorption of nutrients.

By using ascorbic acid (vitamin C) to acidify the xanthan, Thick-It[®] Clear Advantage[™] reduces the likelihood that positively-charged medications and nutrients will bind to it. Medications and nutrients can dissolve and be absorbed by patients more easily than with other xanthan-based thickening powders.

These results were verified by extensive research. First, in vitro studies proved the hypothesis that ascorbic acid inhibits the bonding of xanthan powder with positive ions. Then, in vivo studies were performed at the University of Wisconsin-Stout. To test the hypothesis via blind trials, piglets were fed xanthan-thickened breast milk or formula. Researchers tested the blood to determine the levels of nutrients absorbed. Compared to plain xanthan, the acidified Clear Advantage™ formula delivered the most favorable results of several agents being studied, specifically when measuring levels of iron, calcium, and zinc. This pioneering research earned KPFG, the makers of Thick-It® Clear Advantage™, patents for both its manufacturing process and its formula.

Clearly, bioavailability of medications and nutritional supplements is a critical concern in providing nutrition and treatment for patients with dysphagia. Tested, proven and patented, Thick-It[®] Clear Advantage[™] is a xanthan-based thickener that can be used with medications and nutritional supplements to increase the absorption of active ingredients.



Blood Serum Mineral Levels (mg/L)

CLEAR ADVANTAGE[™] FORMULATION ALLOWS FOR GREATER NUTRIENT AND MEDICATION ABSORPTION

Pioneering research

earned KPFG patents

manufacturing process

for both its

and its formula.

Average of Observed Data US Patent 9,101,156 B2, August 11, 2015

GLOSSARY OF TERMS

DYSPHAGIA

Difficulty or discomfort in swallowing, as a symptom of a disease.

IN VITRO

Outside the body. Made to occur in a laboratory vessel or other controlled experimental environment, rather than within a living organism.

IN VIVO

Inside the body. Made to occur within the living. Studies that are tested on whole, living organisms.

XANTHAN GUM

A polysaccharide secreted by the bacterium Xanthamonas campesteris, used as a food additive and rheology modifier. It is composed of pentasaccharide repeat units comprising glucose, mannose and glucuronic acid.

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