

Industry cooperation

The Poster Announcement of Prime Shield Animal Studies

Prime Shield, Beneficial Free Radical Scavenger.

Since the mid-1980s, many epidemiological studies have implied that nutrients including vitamins, minerals and phytochemicals are effective in disease prevention and treatment. In 1989, Dr. Stephen DeFelice combined these two words, Nutrition and Pharmaceutical, to coin the term Nutraceutical. Nutraceutical emphasizes the appropriate use of nutritional supplements and consideration of unique individual requirements as a means to benefiting patient health. New Health and Dr. Simon Hsia are dedicated to advocating the Nutraceutical concept and have conducted many public conferences and medical colloquia. Furthermore, cooperation with many academic and medical units for the purpose of performing multiple-nutrient regimen studies has been established. As clinical scientific evidence grows, more and more people will recognize the benefits and importance of Nutraceutical.

Diabetes caused by abnormal metabolism results in a long term, high-glucose environment resulting in the production of large amounts of damaging reactive oxygen substances and destructive free radicals. This high oxidative stress easily results in damage at the tissue and cellular levels. Additionally, under high glucose conditions an abnormal coagulation mechanism is easily activated. High-level easy coagulation can cause macro-vascular disease (including arteriosclerosis, cardiovascular disease, stroke, and peripheral vascular disease) as well as micro vascular complications (including neuropathy, nephropathy and retinopathy). By elevating the antioxidative capability in diabetic patients, the damage and complications caused by oxidative stress, should be reduced. Studies show that antioxidant supplementation including vitamin C, E, grape seed extracts, and flavones can lower the oxidative stress caused by diseases and also inhibit thrombosis.

Previous experimental results have shown that Gluco Health is able to improve diabetic fasting glucose levels and the abnormal status inside the body induced by diabetes. Because of these positive results, Dr. Simon Hsia continues to extend diabetes research with Kung-Chi Chan, associate professor in the Department of Food and Nutrition at Providence University. The research is known as "Discussion of the risk of thrombosis to diabetic Wistar big mice induced by STZ by taking multi-antioxidant, Prime ShieldTM." These research results have been published in poster journals of the 34th Annual Meeting and Academic Colloquium held by the Taiwan Nutrition Association in 2008. This research used an antioxidant, multi-nutrient Nutraceutical product, Prime Shield, containing β -carotene, vitamin C, E, selenium yeast, green tea extract, grape seed extract, citrus bioflavonoid and other important constituents, produced by New Health to interfere with Type II diabetic mice. Forty 8-week old Wistar Big mice were divided into 5 groups, Normal control (C), Type II diabetes control (Diabetic control, DC) induced by STZ (streptozotocin), DM + low-dosage Prime Shield (L, 3 tablets Prime Shield), DM + mid-dosage Prime Shield (M, 6 tablets Prime Shield) and DM + high-dosage Prime Shield (H, 12 tablets Prime Shield). After finishing the 12 week long experiment, blood was drawn to analyze the antioxidative status including TAS, GSH, SOD, GPx and MDA, the inflammatory reaction index including CRP, IL-6 and TNF- α and the blood coagulatory activity including FVII, AT-III and vWF. Findings were:

1. Antioxidant status :

The plasma TAS concentration in the mid-dosage (M) and high-dosage (H) group is significantly higher than the Diabetic control (DC) and there is no difference between the H group and the Normal control (C). The plasma GSH concentration in the H group is significantly higher than the DC group. The plasma SOD concentration in the M group is significantly higher than the DC group and not significantly different from the C group. Kidney GPx concentration in the H group is significantly higher than the DC group. Kidney MDA concentration in the M and H group is significantly lower than the DC group and there is no difference between the H and C group. **Too many free radicals easily cause complications. Results showed that 6 tablets of Prime Shield can elevate plasma and kidney antioxidative capability and lower the oxidative stress caused by excess free radicals. High dosage supplementation can help the recovery to normal status.**

2. Inflammatory reaction index :

The plasma CRP concentration in the H group is significantly lower than the DC group and not different from the C group. The plasma IL-6 concentration in the L, M and H group is significantly lower than that of the DC group and not significantly different from the C group. The plasma TNF- α concentration in the M and H group is significantly lower than that of the DC group and not different from the C group. **Inflammation could cause damage at the tissue and cellular levels. These results showed that supplementation of Prime Shield can decrease the inflammatory condition caused by disease and Mid-dosage supplementation provides the resources to allow recovery to normal status.**

3. Blood coagulatory activity :

Plasma FVII concentration in the L, M and H group is significantly lower than the DC group and not different from the C group. The vWF concentration, the functional index condition of endothelium cells, in the L, M and H group is significantly lower than that of the DC group, and there is no significant difference between the H and C group. **Abnormal coagulation can cause atherosclerosis, a complication of thrombosis. The results demonstrated that supplementation with Prime Shield can reduce the abnormal coagulation and help the body return to normal.**

Diabetic patients usually die from complications resulting from excessive free radicals. The above experimental findings, have shown that the supplementation of Prime Shield can elevate plasma antioxidative status and antioxidative enzyme activity in the kidney significantly, lower inflammatory status, improve coagulation and the function of anti-coagulation, decrease the damage condition of endothelium cells and delay the complication of diabetes thrombosis. These experimental results demonstrate that Prime Shield, the antioxidant multi-nutrient containing β -carotene, vitamin C, E, selenium yeast, green tea extract, grape seed extract, citrus bioflavonoid and so on, produced by New Health can reduce the problems and delay diabetic complications caused by too many free radicals.