

B-immune™ energy drink

Enhance and support your immune system

Gluten free • Lactose free • Vegetarian safe
L-Glutamine & Nutraceuticals
Probiotics • Prebiotics



**Stress • Fatigue • Cancer • TB • HIV/Aids
Diarrhoea • Candida • Flu • High Cholesterol**

Approved product on:

- National Treasury: RT9-2007PF – Supply and delivery of Nutritional Supplements
- GT/GDH/121/2008 – Supply and delivery of infant and Enteral Feeds and Supplements

Features

- Single sachet – Portion control and prevention of wastage
- High in protein
- Contains soy oil
- L-Carnitine and Taurine
- L-Glutamine – Gut integrity, decrease infectious risks
- Antioxidants
- High levels of vitamins and chelated minerals
- Improved taste, 3 flavours – Vanilla / Strawberry / Banana
- Energy source for cells in gut involved with the immune system
- Probiotics - When ingested on a regular basis as part of a prudent, balanced diet, Probiotics improve the microbial balance in the human intestines and the functioning of the digestive tract. By inhibiting the growth of harmful (pathogenic) microorganisms, assisting in the digestion of lactose, normalising bowel movement and stimulating the functions of the human immune system, they significantly improve general health.

Benefits

- Provides protein with excellent biological value to help maintain weight
- Good source of polyunsaturated fatty acids eg. Linolenic- and linoleic acid
- The added essential nutrients is important in fat metabolism to provide the needed energy (calories)
- Prebiotics are food components that escape digestion by normal human digestive enzymes and reach the large intestine where they may create conditions that will promote the growth of indigenous, intestinal bacteria, also referred to as probiotics and are considered to be beneficial.
- Play vital protective roll against cell damage caused by free radicals
- To meet increased requirements and support the immune system

Restore & maintain the balance for digestive wellbeing



*Abstract of research thesis

Effects of a micronutrient, glutamine, pre- and probiotic enriched liquid supplement on nutritional status and immunity of adults with HIV/AIDS: a pilot study

Roy D Kennedy M Nutr(Stell), RD(SA)

INTRODUCTION:

The objective of this pilot study was to evaluate the effects of a new micronutrient, glutamine, pre- and probiotic enriched liquid nutritional supplement on the nutritional status and immunity of adults living with HIV/AIDS. The study was designed as a prospective randomised double-blind placebo-controlled trial. Subjects were HIV-infected male and female adult volunteers (n = 47) from a community-based hospice centre in a peri-urban area in a resource-poor setting and were included irrespective of duration or clinical stage of HIV/AIDS. None of the subjects received antiretroviral therapy.

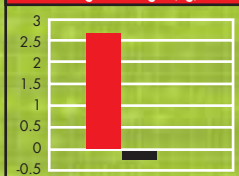
METHOD: The intervention involved the daily ingestion of 40g (200 ml reconstituted) of either the enriched test product or an isocaloric carbohydrate placebo for a period of 12 weeks. Anthropometric assessment (weight, height and triceps skinfold thickness; mid-upper arm, waist and hip circumferences) was performed at baseline and thereafter every 4 weeks (4 times). Biochemical (serum total protein, serum albumin and C-reactive protein) and haematological (full blood count and immunophenotyping) assessment was performed at baseline and again after week 12.

RESULTS: Statistical analysis of baseline values was performed with Wilcoxon two-sample tests for comparison between the supplemented and placebo groups. Outcomes were evaluated using analysis of variance with Shapiro-Wilk tests and thereafter either pair-wise t-tests or sign tests (for nonparametric data) were used. Thirty-two subjects completed the trial, 14 in the supplemented group and 18 in the placebo group. **Weight increased significantly in the supplemented group (2.73 ± 3.53 kg, $p = 0.013$).** Triceps skinfold thickness increased significantly in both the supplemented ($p = 0.047$) and placebo group ($p = 0.001$). No other significant anthropometric change was observed. **Serum albumin increased significantly in the supplemented group ($p = 0.003$)** and was associated with a **significant decline in C-reactive protein ($p = 0.028$)**. Haemoglobin decreased significantly in both groups. **A significant decline in CD4+ count was observed in the placebo group** while the decline in the supplemented group did not reach significance.

CONCLUSION: An enriched nutritional supplement was able to promote weight gain and ameliorate hypoalbuminaemia and possibly inflammation in adults living with HIV/AIDS in the short to medium term. These findings suggest that the use of an enriched nutritional supplement has a role in the nutritional management of in persons with HIV/AIDS.

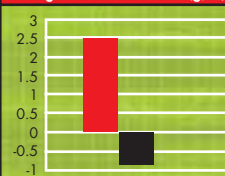


Change in Weight (kg)



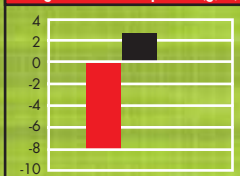
Change in Weight over a period of 12 weeks. Significant increase in supplemented group $p=0.013$ (Pairwise t-test)

Change in Serum Albumin (g/dl)



Change in Serum Albumin over a period of 12 weeks. Significant increase in supplemented group $p=0.003$ (Pairwise t-test)

Change in C-reactive protein (g/dl)



Change in C-reactive protein over a period of 12 weeks. Significant decrease in supplemented group $p=0.028$ (Pairwise t-test)

*Kennedy RD. Effects of a micronutrient, glutamine, pre- and probiotic enriched liquid supplement on nutritional status and immunity of adults with HIV/AIDS: a pilot study. Masters thesis. JS Geriatric Library, University of Stellenbosch. December 2003.



Dietary Supplement A source of L-Glutamine

Gluta-B-mine is a source of pure L-Glutamine, the most abundant amino acid in the bloodstream. During catabolic stress such as trauma, sepsis, starvation, compromised immune system and chemotherapy, the intracellular glutamine levels can decrease and it is under these circumstances that supplemental glutamine becomes necessary.

