Derived from champignon mushroom or the common button mushroom (Agaricus bisporus), Champex is a special proprietary extract used for the reduction of odors in oral health and intestinal cleansing and deodorizing in both human and pet applications. It has many benefits, including an ability to stimulate immune function by increasing natural killer (NK) cells, increasing the beneficial intestinal bacteria L. bifidus through its prebiotic properties, cleansing the blood of toxins by binding with phenolic compounds contained in the mushroom, and inhibiting the growth of H. pylori (Tadao, 1997; Tamaki, 2007). In addition, it helps with slowing chronic renal failure, reducing uric acid levels that can cause gout, and neutralizing reactive oxygen species. For uses in senior care homes or inpatient clinical settings, Champex is currently formulated in a wide range of foods, including beverages, jellies, confections, and health diets for reducing the odor of bowel movements and improving GI health. It has GRAS status, which enables it to be used in numerous product applications.

One of its most important and effective uses is to neutralize offensive body odors, bad breath, and flatulence, which occur when intestinal bacteria decompose the protein component of food into odor-causing substances such as amines, hydrogen sulfide, mercaptans, ammonia, indole, and skatole. Champex works by reducing body odors in the intestines and by decreasing levels of these toxic chemicals in the intestines and blood. Champex purifies the blood of ammonia and helps maintain normal levels of uric acid.

Champex has proven toxin-eliminating effects. These products of protein breakdown such as indole and ammonia can cause renal failure, high blood pressure, and cancers (Tadao, 1997).

The effectiveness of Champex in reducing toxin formation was assessed in vitro by ammonium degradation tests using chicken liver homogenate in a petri dish at 37 degrees Celsius, where ammoniacal nitrogen was measured at 6, 12, 24, 48, and 72 hours (Koizumi, 1997). In addition, an in vivo study was done of rabbit fermentation indole byproducts derived from tryptophan given to 21 rabbits at a dose of 1 g/kg with Champex at 5 ml/kg. Suppressive effects of Champex on ammonium production were found that increased after 48 hours. The ammonia value of the control group was 109.89 mg/dl, but in animals supplemented with 4.0 ml of Champex, the value dropped to 14.41 mg/dl. The toxins indoleacetic acid and tryptamine were detected in the blood when tryptophan was orally administered to rabbits; however, they were not detected in the blood 12 hours after simultaneous administration of tryptophan and Champex (Koizumi, 1997).

In a clinical trial, Champex was given to 14 aged inpatients in a hospital setting to improve odor control from bowel movements by reducing the concentrations of the odor-causing compounds such as amines, methylmercaptan, and hydrogen sulfide. The quality of the bowel movements was also improved by positively influencing the balance of intestinal bacterial flora (Abe, 1995). The 14 elderly inpatients were each given 2 grams of Champex per day during the 30-day period, resulting in a remarkable decrease in the concentrations of fecal odor components. The ammonia levels in the blood were also decreased 10 days after Champex administration and were extremely noticeable after 30 days.
Natural killer cells are an important immune cellular defense against newly developing malignant cells and cells infected with viruses, bacteria, or protozoa. Low NK cell activity is a risk factor for cancer. After oral ingestion of 400 mg of Champex in 14 patients for 30 days, NK cell activity substantially increased, as shown in the graph below which highlights 4 of the patients’ responses. Champex was proven to be highly effective in increasing the activity of NK cells (Ricom).

Maintaining higher levels of bifidobacteria in the lower intestine produces important protective effects against cancer, immune suppression, and poor bowel function. When Champex was given to 8 volunteers in doses of 500 to 1,500 mg, the fecal bacteria populations showed substantial increases in the *Bifidobacterium* population while toxin-forming and enteritis-causing clostridia populations decreased significantly (Ricom).

Champex had amazing benefits for improving severe cases of renal failure that failed to improve otherwise with protein restriction. Decomposed, putrid substances of protein forming in the intestines and absorbed into the blood can lead to reduced kidney function and may need to be removed by hemodialysis in advanced cases. In a study of 10 severely ill renal failure patients, the level of serum creatinine (a clinical measure of the progress of renal failure) was significantly reduced, showing clinical improvement. With a dosage of 2 grams of Champex per day, two-thirds, or 6 of the 9 patients, improved while 3 did not (Shiigai, 1996).

**References**

- Ricom Champex brochure
- Tadao, H., Deodorizing Effect of Champex in Intestines and its Physiological Effect. 1997 Food Style 21 1(5).