

## **Cordyceps Reduces Tumor Size in Cancer Patients**

Several clinical studies have been conducted in China and Japan with cancer patients (References 1 and 2). The studies were done with CSE (Cordyceps sinensis mycelium, identical to the KALA Health Cordyceps), using a therapeutic dose of 6 grams per day (= 4 capsules twice daily). In one study with 50 lung cancer patients administered CSE in conjunction with chemotherapy, tumors reduced in size in 46% of patients. A study in cancer patients with various types of tumors found CSE (6 g/day for over 2 months) improved subjective symptoms in the majority of patients. White blood cell counts were maintained and tumor size was significantly reduced in about half of the patients. Researchers in Japan reported that CSE enhances the general reactivity of the immune system in individuals with cancer. To discover this, they subcutaneously injected mice with cancerous (lymphoma) cells and then orally administered CSE. This led to a reduction of tumor size and prolongation of the host survival time. CSE also improved the antibody responses.

For thousands of years, Cordyceps has been highly valued in China as a tonic food and herbal medicine. Until recently, it was only available in nature as it grows in the body of a caterpillar. Thus, the fungus was rare, very expensive, and subject to contamination. Today, a potent strain of Cordyceps, CS-4, is grown in a liquid broth medium under sterile conditions, making it safe, affordable, and available for use as nutritional therapy for many conditions.

As with the other medicinal mushrooms, the anti-cancer effects of Cordyceps appear to come from its polysaccharides, as well as its sterols, lipids, nucleosides and especially in the de-oxy nucleosides, which have been found in no other source in nature. Many studies have shown this mushroom's ability to stimulate and modulate the immune system and increase red blood cells. As an immune modulator and adaptogen, Cordyceps was shown to boost depressed immune function, but not enhance a normally functioning immune system to the same degree. In published research from China, Cordyceps was reported to have anti-tumor activity against lung cancer in both mice and humans. In a number of human clinical trials and in Traditional Chinese Medicine, Cordyceps has been shown to improve liver, kidney, cardiovascular, and respiratory functioning. Since these organs and systems can be adversely affected by cancer and its treatments, Cordyceps can contribute to overall health, besides having anti-tumor effects.