



### **Clinical Studies on the Effects of Sambucol – a Review**

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**Sambucol, a standardized elderberry extract, was evaluated in several clinical studies:** [Summary omitted here.]

1) A placebo-controlled double blind study was carried out on a group of individuals living in an agricultural community (kibbutz) during an outbreak of an outbreak of influenza B/Panama in 1993. Fever, feeling of improvement, and complete cure were recorded during 6 days. Sera obtained in the acute and convalescence phases were tested for the presence of antibodies to influenza A, B, respiratory syncytial and adenoviruses. Convalescent phases serology showed higher mean hemagglutination inhibition (HI) titers to influenza B in the group treated with Sambucol, than in the control group. A significant improvement of symptoms, including fever, was seen in 93.3% of the cases in the Sambucol treated group within 2 days, where as in the control group 91.7% of the patients showed an improvement within 6 days ( $p < 0.001$ ). A complete cure was achieved 2 to 3 days in nearly 90% of the Sambucol-treated group and within at least 6 days in the placebo group. Considering the efficacy of the extract *in vitro* on all strains of influenza virus tested, the clinical results, its low cost, and absences of side effects, this preparation could offer a possibility for safe treatment for influenza A and B.

2) The efficacy and safety of oral elderberry syrup for treating influenza A and B was tested. Sixty patients suffering from influenza-like symptoms for 48 h or less, were enrolled in this randomized double-blind, placebo-controlled study during the influenza season of 1999-2000 in Norway. Patients received 15 ml elderberry or placebo syrup four times per day for five days, and recorded their symptoms using a visual analogue scale. Symptoms were relieved on average four days earlier and use of rescue medication was significantly less in those receiving elderberry extract, compared with placebo. It was concluded that the Elderberry extract offered an efficient, safe and cost-effective treatment for influenza.

3) The effects of Sambucol treatment on flu like symptoms in chimpanzees were evaluated, and a reduction in those symptoms and the duration of illness was reduced in the treated primates.

A Symposium Note by Christopher J. Patton, MA, MBA

Sambucol is one of the oldest, and most researched, commercially produced line of European elderberry products. In case #1, 27 kibbutz patients were used. In case #2, in Oslo, Norway 60 patients (age 18-54 years) suffered from influenza A or B. Patients experienced quick relief of aches, pains and coughs and slept better without the use of painkillers and nasal decongestants. In both cases #1 & #2, patients completely recovered in about 4 days with elderberry versus 8 days without. In case #3, the chimpanzees were housed in the Jerusalem zoo. Barga published this study in **Zoo News** some in 1999. The chimps were given 1 tablespoon of Sambucol per day for the purposes of disease prevention. Blood tests showed that interferon gamma was stimulated as well as the production of macrophages and lymphocytes. The elderberry-taking chimpanzees experienced 5-6 times fewer observable/measurable cold/flu symptoms than the control group.