

N-Acetylcysteine Boosts Immunity, Reduces Flu Symptoms

By Jack Challem

Supplementing with N-acetylcysteine (NAC) can dramatically reduce the frequency and severity of flu-like symptoms in elderly high-risk individuals, according to a study by Italian researchers.

Two hundred and sixty-two men and women were asked to take 600 mg of NAC or a placebo twice daily for six months covering the peak wintertime flu season. NAC is a well-absorbed and safe form of the amino acid cysteine.

Each of the subjects was given a diary and asked to make note of such symptoms as fever, muscular weakness, loss of appetite, headache, aches and pains, nasal discharge, sore throat, and cough. Researchers defined "influenza-like episodes" as when two or more of the symptoms occurred at the same time.

"The overall frequency of patients suffering from influenza-like episodes...was significantly lower in NAC-treated subjects than in placebo-treated subjects," wrote S. De Flora, MD, of the University of Genoa in the *European Respiratory Journal*. Of those subjects with laboratory-confirmed flu antibodies, only 25 percent of the NAC group developed symptoms, compared with 79 percent of the placebo group.

Similarly, of the "flu-like" cases among people taking NAC, 72 percent were mild, 26 percent were moderate, and 2 percent were severe. In the placebo group, 48 percent of the infections were mild, 47 percent were moderate, and 6 percent were severe.

"An additional criterion for evaluating the severity of influenza-like episodes was the length of time in bed which, irrespective of the age of patients, was remarkably shorter in NAC-treated subjects," De Flora wrote. "In fact, in the 10 subjects suffering from influenza-like episodes who were not bedridden, nine were under NAC treatment."

NAC also increased the activity of the immune system, encouraging a more vigorous response to infection, according to De Flora.

Reference: De Flora S, Grassi C, Carati L, "Attenuation of influenza-like symptomology and improvement of cell-mediated immunity with long-term N-acetylcysteine treatment," *European Respiratory Journal*, 1997;10:1535-1541.

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