Vitamin C and the common cold
Using identical twins as controls

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ABSTRACT: We analysed self-reported cold data for 95 pairs of identical twins who took part in a double-blind trial of vitamin C tablets. One member of each twin pair took vitamin C and the other took a well-matched placebo each day for 100 days. Vitamin C had no significant effect except for shortening the average duration of cold episodes by 19%. (Med. J. Aust., 1981, 2: 411-412)

The efficacy of vitamin C in prevention and cure of the common cold is still widely believed in Australia despite the fact that most studies to date have failed to show any consistent effects. We summarise here the results of a study using the perfect matching of identical twins in age, sex and genetic constitution to compare the effect of vitamin C and placebo treatment on colds. A full description will be published elsewhere.

Subjects and Methods
One hundred and twenty-five pairs of monozygotic (MZ) twins born between 1916 and 1965 and living in the Sydney metropolitan area volunteered to begin the trial. Zygosity was checked by typing all twins with the following antiserum (anti-A,A,B,M,N,S,S,C,E,D,E,K,Fy(a), Jk(a) and none was excluded as a dizygotic pair. One twin of a pair was assigned at random to the treatment group; the other, to the control group. The experiment was "double-blind" in that neither subjects nor experimenters knew which group was which until the experiment and the analysis were completed.

The treatment group received 1.0 g of ascorbic acid per day in the form of Redoxon® tablets (Roche Products) and the control group received a placebo with the same ingredients in different proportions but the lactose substituted for ascorbic acid. The placebo and active tablets were well-matched in taste and appearance.

Twin were asked to take their 1.0 g tablet (active or placebo) at 4.00 a.m. the day after each cold.