EFFECTS OF EXERCISE ON URIs
Quoted by Gina Kolata in NY Times Article
Don't Starve a Cold of Exersise (12/25/08)
http://www.nytimes.com/2008/12/25/health/nutrition/25best.html?partner=permalink&exprod=permalink

1. Weidner TG, Cranston T, Schurr T, Kaminsky LA. The effect of exercise training on the severity and duration of a viral upper respiratory illness. Med Sci Sports Exerc. 1998 Nov;30(11):1578-83.

School of Physical Education, Ball State University, Muncie, IN 47306, USA.

PURPOSE: The purpose of this investigation was to determine whether exercise training affects the severity and duration of a rhinovirus-caused upper respiratory illness (URI). METHODS: Subjects who were rhinovirus 16 (RV 16) antibody-free completed a graded exercise test. Thirty-four individuals (ages 18-29 yr) of moderate fitness (32 mL.kg-1.min-1 to 60 mL.kg-1.min-1) were randomly assigned to the exercise group (EX) while 16 additional individuals of similar age and fitness served as a nonexercise (NEX) control group. All EX and NEX subjects were inoculated with RV 16 on 2 consecutive days. EX subjects completed 40 min of supervised exercise every other day at 70% of heart rate (HR) reserve for a 10-d period. Every 12 h, all subjects completed a 13-item symptom severity checklist and a physical activity log. Used facial tissues were collected and weighed (symptom severity measure) during these same reporting periods. RESULTS: A two group by nine measure (2 x 9) repeated measures ANOVA procedure showed no difference in symptom questionnaire mean scores and the mucous weights of the EX and NEX groups for days 2-10 of the experiment. A two measure by five measure (2 x 5) repeated measures ANOVA procedure indicated no differences between the pre- and post-exercise questionnaire means for the five sessions that EX subjects exercised. Statistical significance was set at $P < 0.05$. CONCLUSION: These results suggest that moderate exercise training during a rhinovirus-caused URI under the conditions of this study design do not alter the severity and duration of the illness.

2. Weidner TG, Anderson BN, Kaminsky LA, Dick EC, Schurr T. Effect of a rhinovirus-caused upper respiratory illness on pulmonary function test and exercise responses. Med Sci Sports Exerc. 1997 May;29(5):604-9.

School of Physical Education, Ball State University, Muncie, IN, USA.

ABSTRACT: Upper respiratory illness (URI) may cause more frequent acute disability among athletes than all other diseases combined. The purposes of this study were to determine the impact of a rhinovirus-caused URI on resting pulmonary function submaximal exercise responses and on maximal exercise functional capacity. Twenty-four men and 21 women (18-29 yr) of varying fitness levels were assigned to the experimental group (URI), and 10 additional individuals served as a control group (CRL). An initial serological screening was performed on all URI group subjects to exclude those with the rhinovirus 16 (HRV16) antibody. All subjects completed both a baseline pulmonary function test and a graded exercise test to volitional fatigue. URI subjects were inoculated with HRV 16 on two consecutive days within 10 d of completing these tests. The day following the second inoculation (peak of illness), post-inoculation pulmonary function and graded exercise tests were performed. A noninfected control group completed these same pulmonary and exercise tests 1 wk apart. ANOVA identified no significant differences ($P < 0.05$) at minutes 2, 5, and 8 for the physiological responses measured between the pre- and post-exercise tests for both the URI and CRL, groups. Furthermore, there were no significant differences between maximal exercise performance between running trials for either group. There was also no significant interaction between treatment (pre/post URI) and group for any of the pulmonary function measures obtained. In conclusion, physiological responses to pulmonary function testing and submaximal and maximal exercise do not appear to be altered by an URI.

3. Weidner T, Schurr T. Effect of exercise on upper respiratory tract infection in sedentary subjects. Br J Sports Med. 2003 Aug;37(4):304-6.

School of Physical Education, Ball State University, Munice, IN 47306, USA. tweidner@bsu.edu

OBJECTIVE: To determine if exercise training affects the severity and duration of a naturally acquired upper respiratory tract infection (URTI) in

sedentary subjects. METHODS: Subjects were sedentary volunteers (two or fewer days a week of exercise for less than 30 minutes a day for the previous three months), 18-29 years of age, with a naturally acquired URTI (three to four days of onset). All subjects were screened-for example, asthma, hay fever-by a doctor and were afebrile. Volunteers were alternately assigned to an exercise (EX) group (four men, seven women) or a non-exercise (NEX) group (three men, eight women). Subjects in the EX group completed 30 minutes of supervised exercise at 70% of target heart rate range for five days of a seven day period. For the initial screening, and every 12 hours, all subjects completed a 13 item symptom severity checklist and a physical activity log. Cold symptom scores were obtained until the subjects were asymptomatic. Significance was set at p</=0.05. RESULTS: There were no significant differences between EX and NEX group mean symptom scores for the morning and evening reporting periods. There were also no differences between the groups for the mean number of days from the baseline symptom score to when the subjects were asymptomatic. There were no differences between physical activity levels, other than what was assigned in the EX group. CONCLUSION: Moderate exercise in sedentary subjects with naturally acquired URTI probably does not alter the overall severity and duration of the illness. Previously sedentary people who have acquired a URTI and have just initiated an exercise programme may continue to exercise.