



## High life expectancy confirms low risk in cycling

### Introduction

The promotion of cycle helmets and the enactment of helmet laws implies that cycling is an especially unsafe activity. Why else would cyclists need to wear helmets when they are not worn by people engaged in other common activities?

However, there is very strong evidence that people who cycle regularly live significantly longer, on average, than people who do not. Moreover, to cycle has been shown to be the most effective action a person can take to increase their lifespan, even if they already undertake other physical activity.

**Clearly, if cyclists live longer than non-cyclists, they cannot possibly be especially vulnerable to any form of life-threatening injury.** Whatever risks there may be in cycling, there are clearer more in not doing so!

Below are described some of the studies that bear witness to the long lives enjoyed by cyclists and the safeness of cycling.

### Danish study confirms benefits of cycling to work

Andersen, Schnohr, Schroll and Hein, 2000

This study, based in Copenhagen, looked at physical activity and mortality from all causes in 13,445 women and 17,441 men. It was specifically concerned with identifying the independent benefits of cycling to work and participation in sports.

Self-reported physical activity included general questions of leisure time physical activity and physical activity at work, sports participation and cycling to work. Adjustments were made for blood pressure, total cholesterol, triglyceride, body mass index, smoking and educational level.

Over an average monitoring period of 14.5 years, 2,738 women and 4,672 men from the sample died. These deaths were correlated with each person's history of physical activity and whether they had cycled to work. In both sexes and in all age groups, there was a lower mortality in the physically active compared to the inactive. However, physical inactivity at work was only a benefit to women.

Those who used the bicycle as transportation to work (20% to 28% of the sample, according to educational status) experienced a much lower mortality rate even after adjustment for leisure time physical activity and sports participation. That is, cycling provides additional benefits in enhancing longevity even to people who are already physically active in other ways. After adjustment for other risk factors including leisure time physical activity, those who did not cycle to work experienced a 39% higher mortality rate than those who did.

The proportion of Danish adults who wore helmets at the time of the research was around 3% or less.

### Study of Chinese women

Matthews et al, 2007

67,143 women from Shanghai, with no pre-history of heart disease, stroke or cancer, were monitored for an average of 5.7 years. During this time 1,091 of the women died, including 537 deaths from cancer and 251 from cardiovascular diseases. Information about physical activity and other relevant data were obtained by interview. The deaths were subsequently analysed with regard to each's woman's history of both deliberate exercise activities and the incidental physical activity gained from cycling and walking (both as transportation), household activity and climbing stairs. Over 75% of the women cycled, so the sample for this element of the research was strong.



Women exercising regularly or those cycling for transportation were found to be at 20% to 50% lower risk of mortality than other women. Walking was only weakly and non-significantly associated with lower mortality. Benefits were evident for cardiovascular diseases, cancer, diseases of the endocrine glands (mostly diabetes related), respiratory diseases and genitourinary diseases.

Few, if any, of the women studied are likely to have worn helmets.

### **Other studies**

Morris, 1990 presented data on cycling and heart attack from a study of civil servants at a one day conference in 1990. Seven percent reported cycling, and those who cycled most experienced only half the heart attacks of those who did not cycle at all.

### **References**

#### **Andersen, Schnohr, Schroll and Hein, 2000**

Andersen LB, Schnohr P, Schroll M, Hein HO, 2000. All-cause mortality associated with physical activity during leisure time, work, sports, and cycling to work. Arch Intern Med 2000 Jun 12;160(11):1621-8.

#### **Matthews et al, 2007**

Matthews CE, Jurj AL, Shu Xo, Li HL, Yang G, Li Q, Cao YT, Zheng W, 2007. [Influence of exercise, walking, cycling and overall nonexercise physical activity on mortality in Chinese women.](#) American Journal of Epidemiology 2007 165(12):1343-1350. **External Link**

<http://aje.oxfordjournals.org/cgi/content/abstract/165/12/1343>

#### **Morris, 1990**

Morris JN, 1990. Cycling and health. Friends of the Earth conference proceedings, London pp 14-19.

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The Bicycle Helmet Research Foundation (BHRF), an incorporated body with an international membership, exists to undertake, encourage and spread the scientific study of the use of bicycle helmets. Also to consider the effect of the promotion and use of helmets on the perception of cycling in terms of risk and the achievement of wider public health and societal goals.

BHRF strives to provide a resource of best-available factual information to assist the understanding of a complex subject, and one where some of the reasoning may conflict with received opinion. In particular BHRF seeks to provide access to a wider range of information than is commonly made available by those that take a strong helmet promotion stance. It is hoped that this will assist informed judgements about the pros and cons of cycle helmets.

For more information, please visit [www.cyclehelmets.org](http://www.cyclehelmets.org).

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