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Introduction

- Cycling to Work gets you healthy
 - New research from Belgium by Bas De Geus doctoral series of 3 papers
- 2. Belgian Public Health
 - Scientific Consensus Paper on Physical Activity
- 3. European Union funds bike projects in 8 countries
- "LIFE CYCLE: Promotion of healthy mobility behaviour using a life long approach to cycling"



« Basic Ideas »

- Every adult should be physically active, preferably all days of the week, for at least 30 minutes
- Physical activity should be integrated into the daily life routine
- Cycling to work is a promising way of increasing the total daily amount of physical activity

Determining the intensity and energy expenditure during commuter cycling

B. de Geus, S De Smet, J Nijs, R. Meeusen

Vrije Universiteit Brussel, Brussels, Belgium

British Journal of Sports Medicine



What we already know

 people cycle to work at an intensity that corresponded to 68-75% of HRmax



Research QUESTIONS

1. What is the intensity and energy expenditure of commuter cycling?

2. Does cycling to work at your own speed correspond with recommendations for health improvement and for fitness improvement?



WHO & WHAT

- 18 healthy, untrained middleaged adults, who did not cycle to work
- exercise tests (maximal HR and VO2).

- Subjects were asked to cycle to their work
- for at least <u>3 times a</u> week
- minimum 2 kilometres (each way)



RESULTS & CONCLUSION

- The intensity was more than 75% of their maximal aerobic capacity.
- Men consumed significantly more energy per hour than women.

- Cycling to work at your own speed meets the recommendations for
- 1. health improvement &
- 2. for improvement of cardio-respiratory fitness.

Commuter cycling: effect on physical performance in untrained men and women in Flanders: minimum dose to improve indexes of fitness

B. de Geus, J. Joncheere, R. Meeusen Vrij Universiteit Brussel, Brussels, Belgium

Accepted for publication 19 December 2007

Scandinavian Journal of Medicine & Science in Sports

QUESTION

• What is the effect of commuter cycling at a self-paced intensity on physical performance?





WHO & WHAT

- Healthy, untrained men & women, who did not cycle to work
- 1 year intervention
- (N=65): asked to cycle to work at least 3 times a week
- (N=15) were asked not to change their habits (controls)

- MEASURES
- at 0, 6 & 12 months
- Physical performance
- blood samples
- blood pressure (BP)
- SF-36 Health Status

RESULTS

- 1 year cycling to work improves physical performance in untrained middle-aged males & females.
 - frequency and duration (ACSM)
 - unsupervised intervention study
- Exercise can be divided in 2 daily bouts. It does not reduce the training effects.
- 25 km is the minimum distance (per week) to improve health, when cycling at least 3 times a week



To improve physical fitness women need to do less WORK at cycling and spend less TIME cycling than men.

MAYBE!



Cycling to work: influence on indexes of health in untrained men and women in Flanders. Coronary heart disease and quality of life

B. de Geus, E. Van Hoof, I. Aerts, R. Meeusen Vrije Universiteit Brussel, Brussels, Belgium

Accepted for publication 24 July 2007

Scandinavian Journal of Medicine & Science in Sports

QUESTIONS

- Does a 1-year lifestyle intervention study (cycling to work)
 - influence coronary heart disease (CHD) risk factors

influence health-related quality of life,

in untrained healthy adults?



RESULTS & CONCLUSION

- Cholesterol & Blood Pressure improved in the Intervention group.
- IMPROVEMENTS in WELL-BEING:
- "Vitality": men & women
- "Physical Functioning": only women

- Cycling to work has a positive influence on health-related quality of life in previously untrained healthy adults
- It is likely to improve CHD risk factors.

SCIENTIFIC CONSENSUS PAPER on PHYSICAL ACTIVITY IN BELGIUM

APRIL 2008

Authors:

Ilse De Bourdeaudhuij (Ghent University) Pierre Bizel (Observatoire de la Santé du Hainaut)



CONSENSUS PAPER on PHYSICAL ACTIVITY IN BELGIUM

- Telling people about the link between behaviour and health is not enough.
- But basic knowledge is needed.

- Make clear that all kinds of physical activity are good,
 - e.g. walking, cycling, going up and down stairs, etc.
 - The more you do, the better for your health.



CONSENSUS PAPER on PHYSICAL ACTIVITY IN BELGIUM

- Integrate physical activity into daily life
- this makes it easier to find the time for physical activity
- Everyone can do Physical Activity –
 - (elderly, out of shape)

- Choose an activity you like, and can do with friends (if you like)
- If people choose activities they like, they will persevere longer



LIFE CYCLE

European Union funds cycling projects

- Bicycle organizations, (ECF, CTC, FBB), Mobility consultancy, Public Health & Transport agencies
- Austria, Belgium, Portugal, Hungary, Poland, Germany, UK, Slovenia
- LIFE CYCLE:
 "Promotion of
 healthy mobility
 behaviour using a
 life long approach
 to cycling"
- funded by DG Public Health
- **2008-2011**



Interventions

KindergartensAdults , Schools and **Families**

Slovenia, Portugal, Poland & Austria



Belgium, Germany, Slovenia, Hungary, **Poland & Austria**

Senior citizens

UK, Slovenia, Portugal, Poland & **Austria**



Cycling for Health (UK)

- partnership with local health authorities, called Primary Care Trusts
- target group people lacking physical activity
- people returning to exercise after a health crisis

- advised by doctors to attend cycling activities sessions.
- 10 sessions during10 weeks.



Bike to shop

- Make people cycle more in daily life.
- Local retailers included
- Based on a lottery, with people cycling to shops having the chance to win.

- Other areas of daily life, like cycling to
 - Church
 - Restaurant
 - Visit friends and family
 - Events



Bike to work

- promote cycling tomain incentives work & university
- Employees build teams at each workplace
- One month
 - Spring 2009 ^②

- - Health
 - Fun
 - Competition
 - Lottery





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