

# EuroPrevent 2009 – STOCKHOLM, SWEDEN

## 6 - 9 May 2009

### Press Release relating to a poster or oral session

*This press release accompanies a poster or oral session given at EuroPrevent 2009.*

<b>EMBARGO</b>	<b>10H00 FRIDAY 08 MAY 2009</b>
<b>Name</b>	Dr. Claudia Walther
<b>Abstract Number</b>	10653
<b>Hospital / Country</b>	Heart Center Leipzig, Germany

### **The cardiovascular benefits of daily exercise in school children are evident even after one year**

#### **Prevalence of obesity and overweight decreases significantly**

School children as young as 11 can benefit from a daily exercise programme in reducing their levels of several known risk factors for cardiovascular disease. An ongoing study, which began four years ago in the German city of Leipzig, shows already that children assigned to daily exercise lessons reduced their overall prevalence of obesity, improved their exercise capacity, increased their levels of HDL-cholesterol, and reduced their systolic blood pressure.

“It’s clear that children today have different lifestyles from the past,” says investigator Dr Claudia Walther from the Heart Centre of the University of Leipzig. “They’re less active, and it was our hypothesis that an increase in their exercise activity would result in fewer risks of cardiovascular disease later in life.”

The study, whose first-year results are reported at EuroPrevent 2009, randomised 188 school children with a mean age of 11.1 years (from seven classes at three different high schools) to either an active exercise programme in their school routine, or to a conventional curriculum of just two sports lessons a week. The exercise programme comprised daily supervised exercise which included at least 15 minutes of endurance training. “So it was well controlled,” says Dr Walther, “with the teachers making sure that the programme was followed.”

The first results presented here in Stockholm already show significant benefits for those in the daily exercise groups: in just one year the proportion of overweight and obese children decreased from 13% to 9%, but increased in the control group from 11% to 13%. These were statistically significant changes. Moreover, exercise capacity (as measured by VO<sub>2</sub>max) also improved significantly in the exercise groups by 29%. Similarly, levels of HDL-cholesterol and of triglycerides, and systolic blood pressure all improved in the exercise group.

“Even from these first-year results we can say that regular physical activity has a significant beneficial effect on body composition, exercise capacity and cardiovascular risk markers in children,” says Dr Walther, who adds that follow-up over the next 10-20 years will give some idea of how risk modification at this young age translates into benefit later in life.

The “most surprising” result, she says, was the effect of daily exercise on body weight, an effect not found so marked or so soon in other studies. “These are normal children,” explains Dr Walther, “so we didn’t expect such a significant reduction in the overall prevalence of obesity or excess weight.”

Such findings have also raised local interest in Germany, where the investigators hope to extend the study to other neighbouring towns, and eventually to a daily exercise programme incorporated into the basic school curriculum.

“It’s so easy,” says Dr Walther. “All it needs is a little more time allocated to exercise lessons. The teachers are there, they supervise, and they all seem enthusiastic. If we can include daily exercise in the school curriculum, I’m sure we’ll see an effect.”

- Ends -

Notes:

1. Cardiovascular responses to daily school exercise lessons in children. Claudia Walther, 8 May 2009, 11.00-12.30, Room C8.
2. Exercise is one of eight preventive measures identified by the European Heart Health Charter and features prominently in the scientific programme of EuroPREvent 2009. In new studies presented at the congress exercise is shown to improve markers of heart disease in patients following coronary artery bypass surgery (CABG), to improve event-free survival rate in coronary patients better than stent angioplasty, and to improve markers of disease in heart failure patients, a group usually thought amenable to little more than palliative care.
3. EuroPREvent 2009 takes place in Stockholm, Sweden, on 6-9 May and is organised by The European Association for Cardiovascular Prevention and Rehabilitation (EACPR), a Registered Branch of the European Society of Cardiology.
4. Cardiovascular disease is the main cause of mortality in Europe, responsible for more than 2 million deaths per year. Many of these deaths could be prevented with the full adoption and application of prevention policies.
5. The full scientific programme of EuroPREvent 2009 is available at <http://spo.escardio.org/Welcome.aspx?eevtid=30>
6. More information on EuroPREvent 2009 is available from the ESC's press office at [press@escardio.org](mailto:press@escardio.org) OR 00 33 492 94 86 27.