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MailOnline

Children who walk to school 'are less stressed in exams'

By [Claire Bates](#)

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Those who walk to school have lower stress levels later in the day compared to those who are given a lift, a study has found

Walking to school in the morning reduces stress in children during the school day, according to a study.

A one-mile stroll was found to curb increases in heart rate and blood pressure that can lead to cardiovascular disease later in life, U.S researchers said.

They found children who were given a simulated ride to school experienced a rise in blood pressure three times higher than those who took a simulated walk when taking a short exam later in the day.

Stress levels were about twice as high for the passive commuters compared to the active children.

Lead researcher Professor James Roemmich, from the University of Buffalo, said: 'The cardiovascular disease process begins in childhood, so if we can find some way of stopping or slowing that process, that would provide an important health benefit.'

'We know that physical activity has a protective effect on the development of cardiovascular disease, and one way it may be doing so is by reducing stress reactivity.'

Tony Armstrong, Chief Executive of Living Streets, told Mail Online: 'This new research is more ammunition for what we have been saying all along- walking really does work.'

'Walking is one of the greenest, cheapest forms of exercise you can do and not only can it impact your physical health, it is good for children's learning.'

'Previous research from the Department for Transport found that 9 out of 10 teachers reported that children who walk to school are more alert and ready to work once they reach the classroom.'

Professor Roemmich and his team studied a group of 20 boys and 20 girls aged 10 to 14.

Half of them were seated in chairs and watched a 10-minute slide show of images of a residential area ending with an image of a school.

The other half performed a one-mile walk on a treadmill at a self-selected pace, wearing a book bag containing 10 percent of their body weight. As they walked, the images of a neighborhood were projected onto a screen.

Following a 20-minute rest period all the children took a Stroop test, which asks subjects to correctly identify the colour of colour names printed in the wrong hue.

On average, during this activity, heart rate increased by about three beats per minute in children who walked, compared with about 11 beats per minute in children who 'rode' to school. Blood pressure and stress levels were similarly affected.

'The perception of a stressor as a threat is the beginning of the stress reactivity process, so if you can dampen that initial perception, then you reduce the magnitude of the fight-or-flight response,' Professor Roemmich said.

'This results in lower heart rate and blood pressure responses to the stressor. Exercise helped dampen even the initial response.'

Professor Roemmich said because it's not known how long the protective effect of a bout of exercise lasts, parents and educators should promote active play time throughout the day.

The author said his study, published in the latest issue of *Medicine & Science in Sports & Exercise*, is the first to show that moderate exercise can reduce children's cardiovascular reactivity during later, stressful activities.

However, Mr Armstrong warned that the number of children walking to school has been steadily declining over the past two decades.

'A shocking 43 per cent are now being driven to school in cars, even though the majority of primary aged school children still live within a 20 minute walk from the school gates,' he said.

'If we are to avoid the Government's prediction of a quarter of our children being obese by 2050, we need to take action now.'

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This is true, my petit shoe.

- Mark, Dartford UK, 11/8/2010 17:11

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I wouldnt want to sit an exam in this day and age then, the room would be over run with stressed kids.

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