

Lighter bikes may not reduce commuting time, researcher says

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A light-weight bike that costs around £1000 may not get you to work any quicker than a similar, yet heavier and cheaper model, finds research in the Christmas issue published in the British Medical Journal today.

A keen cyclist since childhood, the author Dr Jeremy Groves, owns two [bikes](#). One a second hand 13.5 kg steel framed bike bought for £50 and the other a brand new 9.5 kg carbon framed bike that cost £1000.

When Dr Groves, a consultant in anaesthesia and intensive care at Chesterfield Royal Hospital, realised his new bike took 43 minutes to get him to work rather than the 44 minutes it took on his old bike he questioned whether the difference in cost was worth it.

Dr Groves believed the only way to be certain which bike was faster was to set up a randomised trial.

For six months (January 2010 to July 2010) the author undertook the same journey on both bikes, tossing a £1 coin to decide which bike to use before setting off from home. The trip included a dual carriageway, country lanes, farm track and an up hill trek of 400 metres.

Identical lights were used on each bike as well as appropriate clothing for the weather conditions on the day of the journey.

The average journey on the steel framed bike was one hour and 47 minutes (a round trip of 27 miles to work and back) and the average time for the new carbon framed bike was one hour and 48 minutes.

While a 30% reduction in cycle weight may seem large, concludes the author, the results show that there is no measurable difference in commuting time between his light and heavy bikes. He adds

that "a reduction in the weight of the cyclist rather than that of the bicycle may deliver greater benefit at reduced cost".

Dr Groves comments: "I bought an expensive bike for a couple of reasons. The main one was because I thought I would have a faster daily commute. The second was that, as I wasn't spending the money on a car, the new bike was essentially paying for itself. This study has shown that spending a lot of money on a bicycle for commuting is not necessarily going to get you to work more quickly. This is good news as I appreciate that £1000 for a bicycle is out of the range of many peoples pockets. Cycling for me is a great hobby. It gets me out in the fresh air, keeps me healthy, is carbon neutral and, provided I don't buy any more bikes(!), is a cost effective way to travel."

Provided by British Medical Journal

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