

In Response to TIME, August 09 2009 Article, "Why Exercise Won't Make You Thin"

Dear Editor:

I recently had the pleasure of spending several hours with your reporter, John Cloud, discussing issues in preparation for his recent cover story. Unfortunately the overall message of his report became that exercise was not useful for weight loss and weight management. To write that exercise is useless in the management of body weight is sending a very confusing and counterproductive message. The preponderance of the scientific evidence based on animal models and human studies is that regular exercise is a critical component of weight loss and weight control programs. When only about 5% of the US adult population meets the current national recommendation of 30 minutes of exercise at moderate intensity five days a week, TIME is sending the wrong message. Three major issues were raised in the article to negate the importance of exercise in weight control.

First, yes it is obviously easier to induce a large energy deficit by caloric restriction than through exercise. But there are individuals who have successfully lost weight simply by increasing their energy expenditure of exercise. It can be done. We must not forget that under controlled laboratory conditions, there is a similar dose-response relation between a caloric deficit caused by caloric restriction or by exercise on weight loss. So a diet in which you restrict your intake by 300 calories will have more or less the same effect as an energy deficit resulting from an extra energy expenditure of 300 calories through exercise even though you gain many additional benefits by being physically active. It is obviously easier to achieve a high level of caloric deficit by diet rather than by exercise but it does not mean that exercise is "useless".

A second issue is that of the so-called dietary compensation following exercise. There are millions of people who are very active on a regular basis and they tend to be normal weight. They may eat more but it is commensurate with their level of expenditure. For instance, elite athletes in physically demanding sports may consume on a regular basis more than 5,000 calories per day and yet be quite lean and muscular. For the general public, the main message should be based on the preponderance of the evidence, which says that if you exercise regularly you will increase your caloric intake to meet the demand of your physically active lifestyle. I know of no credible evidence demonstrating that people overindulge in food just because they engaged in a bout of exercise. Such people can undoubtedly be found but it is a small minority among those who engage in exercise. Quite the contrary, appetite is typically depressed after a bout of vigorous exercise. As a matter of fact, regular exercise is one of the most efficient ways to help regulate caloric intake at the right level for you.

The third issue raised was that those who exercise regularly reduce their overall daily level of activity and end up expending lower levels of energy than expected based on the energy cost of exercise. There are a few studies on both sides of this issue, but on balance more studies show that such a compensation does not occur. Ironically as the TIME issue came out, an important paper was published in a leading sports medicine journal by a group of researchers from Duke University demonstrating that daily exercise was not accompanied by a compensatory decrease in nonexercise energy expenditure. Suffice it to say that the divergent results reported at times on this topic suggest that it is not only a complex problem but also that there are considerable individual differences in post exercise behavior.

Finally, for the record, Drs Hans-Rudi Berthoud, Timothy Church, Eric Ravussin and Conrad Earnest (shown in a picture but not identified) are all scientists at the Pennington Biomedical Research Center, one of the ten campuses of the LSU System. This was not clear in the article.

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