It is time to bust the myth of physical inactivity and obesity: you cannot outrun a bad diet

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A recent report from the UK’s Academy of Medical Royal Colleges described ‘the miracle cure’ of performing 30 min of moderate exercise, five times a week, as more powerful than many drugs administered for chronic disease prevention and management. Regular physical activity reduces the risk of developing cardiovascular disease, type 2 diabetes, dementia and some cancers by at least 30%. However, physical activity does not promote weight loss.

In the past 30 years, as obesity has rocketed, there has been little change in physical activity levels in the Western population. This places the blame for our expanding waist lines directly on the type and amount of calories consumed. However, the obesity epidemic represents only the tip of a much larger iceberg of the adverse health consequences of poor diet. According to The Lancet global burden of disease reports, poor diet now overtakes a bad diet in the Food Industry as the single greatest cause of premature mortality. In the past 30 years, as obesity has rocketed, there has been little change in physical activity levels in the Western population. This places the blame for our expanding waist lines directly on the type and amount of calories consumed. However, the obesity epidemic represents only the tip of a much larger iceberg of the adverse health consequences of poor diet. According to The Lancet global burden of disease reports, poor diet now overtakes a bad diet in the Food Industry as the single greatest cause of premature mortality.

The twin rationales for carbohydrate loading are that the body has a limited capacity to store carbohydrates and these are essential for more intense exercise. However, recent studies suggest otherwise. The work of Volek and colleagues establishes that chronic adaptation to a high-fat low-carbohydrate diet induces very high rates of fat oxidation during exercise (up to 1.5 g/min)—sufficient for most exercisers in most forms of exercise —without the need for added carbohydrate. Thus fat, including ketone bodies, appears to be the ideal fuel for most exercise—it is abundant, does not need replacement or supplementation during exercise, and can fuel the forms of exercise in which most participate. If a high-carbohydrate diet was merely unnecessary for exercise it would be of little threat to public health, however, there are growing concerns that insulin-resistant athletes may be at risk of developing type 2 diabetes if they continue to eat very high-carbohydrate diets for decades since such diets worsen insulin resistance.

THE ‘HEALTH HALO’ LEGITIMISATION OF NUTRITIONALLY DEFICIENT PRODUCTS MUST END

The public health messaging around diet and exercise, and their relationship to the epidemics of type 2 diabetes and obesity, has been corrupted by vested interests. Celebrity endorsements of sugary drinks, and the association of junk food and sport, must end. The ‘health halo’ legitimisation of nutritionally deficient products is misleading and unscientific. This manipulative marketing sabotages effective government interventions such as the introduction of sugary drink taxes or the banning of junk food advertising. Such marketing increases commercial profit at the cost of population health. The Centres of Disease Control health impact pyramid is clear. Changing the food environment—so that individuals’ choices about what to eat default to healthy options—will have a far greater impact on population health than counselling or education. Healthy choice must become the easy choice. Health clubs and gyms therefore also need to set an example by removing the sale of sugary drinks and junk food from their premises.

It is time to wind back the harms caused by the junk food industry’s public relations machinery. Let us bust the myth of physical inactivity and obesity. You cannot outrun a bad diet.

Correction notice This article has been amended from the original published on 29th April 2015. The body of the text was slightly edited and a reference removed. Competing interests have been added.

Competing interests SP is a paid member of the Atkins Scientific Advisory Board and has authored books on low carby/high fat diets: New Atkins and You and The Art and Science of Low Carbohydrate Living; TN is the author of the books Love of Running and Waterlogged and co-author of The Real Meal Revolution and Challenging Beliefs. All royalties from the sale of Real Meal Revolution are donated to the The Noakes Foundation of which he is the Chairman and which funds research of insulin resistance, diabetes and nutrition as directed by its Board of Directors. Money from the sale of other books is donated to the Tim and Marilyn Noakes Sports Science Research Trust which funds the salary of a senior researcher at the University of Cape Town, South Africa (research focuses on the study of skeletal muscle in African mammals)
with some overlap to the study of type 2 diabetes in carnivorous mammals and of the effects of (scavenged) sugar consumption on free-living (wild) baboons.

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