

Can the prize of the perfect body be heart breaking?

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Background: High protein diets aimed at weight loss and body building is a huge money industry for companies. It has grown from €2.5 million in 2007 to an expected figure of €358 million by 2017. This is driven by the widely accessible products. The most notable part of the growth is a shift in marketing to ordinary people. But for some, this well advertised healthy way of achieving the “perfect body” may actually have devastating health consequences. The ordinary person is allured by the aura of healthiness that hovers over the word ‘protein’ and it gives you the promise of feeling fuller for longer. We chose to examine the effects of this diet on the cardiovascular system. There is scant research examining the link between high protein diets and cardiovascular decline. Various substances added to protein supplements have known physiological effects to the cardiovascular system. The substance 1,3-dimethylamylamine (DMAA) is a synthetically made drug. It is often added to whey protein supplements to the unsuspected consumer to help improve workout performances. It can cause rapid heart rates and increase in blood pressure, which in turn can have detrimental effects on the cardiovascular system.

Purpose: To examine the effects of protein supplements on the cardiovascular system.

Methods: An observational case study was chosen on a young 32 year old professional body-builder who presented to our local cardiology department for an ECG as part of the work up for fistula insertion. A comprehensive health history was carried out, which revealed his daily habitual usage of protein supplements. An echo and coronary angiogram was performed. A diagnosis of dilated cardiomyopathy with an EF10% was confirmed. He was enrolled in the heart failure service.

Results: Despite education and consequently deteriorating health, it took over 12 months for him to accept that to attain the ‘perfect body’ was too high a price to pay. This gentleman has now end stage renal disease and requires dialysis four times a week. He is currently on the renal transplant list, but this is delayed due to his ongoing issues with heart failure.

Conclusion: High protein supplements can have a devastating effect on the cardiovascular system due to the additives the protein supplement may contain. The general public need more knowledge about these supplemental diets and the risk they carry. More governance is needed over how they are purchased and the media advertising of them.