

## Atkins' Diet Commentary



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The burden of lifestyle-related chronic disease is high; it is estimated to cost \$6.3 billion in health care spending and lost productivity, and cause as many as 25,000 deaths annually in Canada due to cardiovascular disease, cancer and diabetes alone. In its October 2002 World Health Report, the WHO also estimates that healthy life expectancy can be increased by over six years in countries such as Canada by addressing six health risk factors:

1. Blood cholesterol
2. Blood pressure
3. Overweight
4. Low fruit and vegetable intake
5. Smoking
6. Physical inactivity

We know from several large population-based studies that reductions in body weight are often associated with reductions in blood cholesterol, most notably LDL as well as triglycerides and so dieting for weight loss seems like a reasonable goal. Mollon presents a nice overview of two contrasting dietary approaches to losing weight in the Atkins' and AHA diets. So what to choose? One approach is to look at head-to-head comparisons of the two approaches, of which Mollon notes there are relatively few. A meta-analysis of randomized controlled trials of diet-induced weight loss and their safety and efficacy, including not only weight loss but sub-clinical markers of cardiovascular disease risk, did conclude that,

"There is insufficient evidence to make recommendations for or against the use of low carbohydrate diets... Among the published studies, participant weight loss while using low-carbohydrate diets was principally associated with decreased caloric intake and increased diet duration but not [italics added] with reduced carbohydrate content," (Bravata et al., 2003).

However, the true question is whether diets work at all? We all know that dieting can result in weight loss, at least in the short-term, but what about long-term losses? Is weight loss maintained? Is recommending a diet worthwhile? Studies of the long-term efficacy of diets are remarkably sparse; however, those that are published show a rather paltry rate of success. A meta-analysis of the long-term effectiveness of lifestyle interventional approaches in persons with type 2 diabetes in induction and subsequent

maintenance of weight loss found that the pooled weight loss for any lifestyle-based intervention, in comparison with usual care, was 1.7 kg or 3.1% of baseline body weight (Norris et al., 2004). Follow-up times ranged greatly in the study from 1 to 5 years, but the overall message is rather disappointing. In fact, at the recent 8th annual Nutrition Workshop run by Dr. David Armstrong of McMaster's Gastroenterology Unit, Dr. Ayra Sharma, a Professor in Medicine and a Canada Research Chair for Cardiovascular Obesity Research & Management, gave a thought-provoking presentation entitled "Why diets don't work." His distilled message was that obese patients, like the rest of us, can easily lose weight while dieting and in fact the majority of them do so numerous times throughout their life, but it doesn't last. Interestingly, Dr. Sharma presented what he called a very typical case report in which a 50 year old obese woman weighing 450 lbs had lost the equivalent of her body weight while on numerous weight loss diets during her lifetime. Similar experiences have to eventually force clinicians to truly evaluate whether diet-only approaches to 'treating' obesity are valuable, or even ethical - Dr. Sharma's own words. Given my views on physical activity I feel obliged to mention that while data was only available from 53 patients, that in the same meta-analysis those who received a more intense physical activity intervention lost 3.9 kg, or 3.6% of baseline body weight, more than those who received a less intense or no physical activity intervention.

What appears obvious from available data is that no one approach alone, in particular reduced energy diets like Atkins' or the myriad other schemes, is effective in the treatment of obesity. In all likelihood, a multifaceted approach involving lifestyle changes including physical activity, behavioural counseling, diet modification, and pharmacological support for appetite, mood, and other conditions, may be successful. To date, however, no trial of any one therapy, particularly reduced energy diets, has been long enough to provide data to provide an evidence-based recommendation for this approach as a treatment.

Ultimately, the realization that prevention of weight gain is much more effective rather than treatment after the fact must prevail (Avenell et al., 2004). My conclusion is based on analyses of preventable deaths and comorbidities associated with all chronic disease including obesity (7/10 of the top ten killers of Canadians are chronic diseases and are amenable to prevention) (DesMeules et al., 2004). These analyses show that prevention would cost substantially less and yield greater dividends from a health standpoint than end-stage treatment. Viewed from this perspective, the amount of resources and energy, not to mention attention, being invested in the treatment of obesity and its related complications, rather than prevention, indicates a mismatched set of priorities. No doubt, obesity is a serious health problem and one that requires substantial attention, and soon. The answer will, I predict, not be found in the Atkins' diet! **M**