

THE NUTRITION EXPERT

The low-carb, no-sugar, high-protein, high-fat way of living

The revival of the carb is not something new – low-carb, high-protein diets have always been popular for quick weight loss. There is no doubt that this way of eating leads to fast weight-loss results. This is why they will always be popular. They are huge money-spinners.

Can this way of eating ever become a way of living? For those like Tim Noakes and some of the Paleo followers, it certainly can. They do it all the time, and regular training is a way of life for them. They live a healthy life, and go to great lengths to prepare good, clean food.

The problem arises when the man in the street who has a weight problem, with the related health risks, is attracted to the idea of eating large amounts of meat, butter and cream, his favourite foods. He has no problem with cutting out carbs for a period of time, because it is replaced with his favourite fatty foods.

The body now runs on fat as a fuel source and not carbohydrates, and soon, this person has cravings and starts to reintroduce carbs. Where a normal-functioning metabolism would not use carbohydrates to make fat, this person has now trained his body to use fat as preferred fuel and turn all carbohydrates to fat. This is why so many people who have followed some kind of high-protein, low-carb diet gain back all the weight, plus a few extra kilos, as soon as they eat a balanced diet again.

I personally believe that this is not a decision to take lightly and not a decision you can go back on; the risks are too high and the odds will then be against you.

Diets that are rich in starchy foods (such as grains and cereals in minimally processed forms, legumes and root vegetables) help to protect against the development of non-communicable diseases, such as heart disease, diabetes and cancer, through a variety of mechanisms. Some of the protective mechanisms include the replacement of fat, especially saturated fat (found in animal foods such as meat, butter and cream) with plant material.

Very current research published in the journal *Cell Metabolism* (March 2014) looked at more than 6 000 people ages 50 and older, and followed them for 18 years. They found that people aged 50 to 65 who ate a diet rich in animal proteins during their middle age were more than four times as likely to die of cancer during the study period than those who ate a low-protein diet.

The risks of a high-protein diet are even comparable to smoking, the researchers said. People who smoke are four times more likely to die of cancer compared with non-smokers.

MELISSA KELLY

Melissa Kelly graduated from the University of Pretoria with a B Dietetics degree and a diploma in Higher Education and Training Practices. She is a lecturer at the University of Pretoria in the subject of Nutrition Education and Counselling, and a renowned speaker on many nutrition-related topics.



“This may make you lose some weight, but it is not a good diet to increase lifespan,” said the researcher, Valter Longo, professor of biology at the University of Southern California (USC) and director of the USC Longevity Institute.

In conclusion, the scientific evidence on low-carbohydrate diets has been reviewed by several authors. They have all demonstrated that low-carbohydrate diets are not sustainable. They often do not contain sufficient dietary fibre, thiamine, folate, vitamins A, E and B6, calcium, magnesium and potassium, which may lead to ketosis, raised blood uric acid, dehydration, gastrointestinal symptoms and hypoglycaemia.

Patients in my practice who mostly follow a high-protein, low-carbohydrate diet almost always suffer from IBS (irritable bowel syndrome). The reason for this is that a diet with enough carbohydrates has a good amount of dietary fibre, oligosaccharides and resistant starch to stimulate fermentation in the colon, contributing to health by having a positive effect on stool volume and frequency, beneficial bacteria growth, the production of substances (such as butyric acid) that protect against colon cancer, the absorption of calcium and the strengthening of the immune system.

As a result of the high intake of saturated fat in high-protein, high-fat diets, potential long-term effects include detrimental changes in serum lipids (increase in LDL cholesterol and decrease in HDL cholesterol), with an increased risk of cardiovascular disease, as well as the metabolism of calcium from bones, because of the chronic metabolic acidosis and the consequent effects on bone health.

Therefore, it is unfortunate and irresponsible that low-carbohydrate diets are promoted aggressively in South Africa, especially against the background of our burden of disease. There is no good reason to limit the intake of cereals, and specifically wholegrain cereals with little added sugar, in the diets of both children and adults.

With genetic testing available, dietitians test the DNA, and can personalise diet, nutrition and exercise advice according to your unique genetic make-up. Some patients actually require a higher amount of complex carbohydrates, because according to their genetic profile, it has a protective effect against obesity. If any plan promotes a one-size-fits-all, it's already a red flag. If individuals have to follow a low-carbohydrate diet, according to their genetic profile, necessary adjustments to vegetable and dairy intake should be made in an effort to increase dietary adequacy and the protective effects against non-communicable disease. ■