

Protein – the building blocks of all life.

With more than half of the adult population being considered to be overweight or obese, New Zealand is now considered to be amongst the fattest nations on earth. As the weight of our population has increased, so has our incidence of a number of chronic diseases including diabetes, cardiovascular disease, osteoarthritis and some cancers. How has this come about? I believe a lot of it has to do with A) years of dietary misinformation revolving around the merits or risk factors of fats versus carbohydrates with little mention of protein and B) an explosion in the availability of processed carbohydrate-dense foods and the way these have become a normal part of most people's diet. Now days, most people have diets which are unbalanced and heavily slanted towards carbohydrate foods and are often chronically low in quality protein. This has certainly been borne out by what I see everyday in people's food diaries in the clinic.

For a lot of people it's not that they don't want to know what a healthy diet is, it's just so jolly difficult getting straight forward, sensible, well balanced dietary advice which is grounded in a good understanding of how the body works. There is a veritable plethora of diet books out there and many diet regimes. Many of these have some value, but are not balanced and still leave the person with little understanding of how food is working in their body. The foods we choose to eat can change the type of appetite hormones that are produced, can change body composition even without exercise and will have a large bearing upon the expression of various genetic tendencies we may have.

There is a growing body of evidence suggesting that an increased protein to carbohydrate ratio in the diet may not only lead to weight loss, but can improve body composition (fat to muscle ratio) and minimized weight regain following weight loss. These effects are due to increased satiety, a better metabolic rate, the sparing of muscle protein loss, improved glucose and insulin use and improved blood fat levels. Out of all the foods we eat, protein also has the highest thermic value. This means that when we eat it, our metabolism automatically lifts by 20-30%. Carbohydrates and fats by comparison will only lift the metabolism by 6% and 12% respectively.

Protein and carbohydrate have the same calorie density – that is, they have the same energy value. However, because protein has the higher thermic value, eating it will stimulate the metabolism 4-5 times more effectively than carbohydrate foods.

Having protein in a meal has a huge impact on the amount of insulin produced for that meal because it slows the release of glucose from the carbohydrates into the blood. Reducing the insulin response is one of the most important factors in maintaining a healthy level of body fat, and protein is required to prevent muscle loss. Muscle is one of your most hungry tissue types, so keeping more of it means you burn more calories even when not exercising.

I should point out here that you don't have to look overweight to be carrying an unhealthy level of body fat. We get a lot of people through the clinic which you could describe as "skinny fat people" because they have a body fat percentage above 25-30% and lower muscle mass than they should have for their sex, age and height. Lower muscle equals a slower metabolism, which equals lower energy and more fat storage. To protect muscle tissue you must eat adequate protein, and to reduce fat storage you need to eat protein and carbohydrate in a balanced way.

Our genetic structure has not changed a lot in the past 10,000 years, but our diet has. Research tells us that the diet our early ancestors ate consisted of around 60% protein with the rest being plant foods. That diet also contained about 400 different unrefined foods and was a lot more nutrient-dense when compared with the 50-60 basic food types that make up most people's diets today. Our teeth and the types of digestive enzymes we

produce tell us that physiologically we were designed to eat both animal foods and plant foods.

The primary key to getting people well is to get them working with what they put into their bodies and then addressing any nutrient short falls specific to that person. This involves looking at their unique nutrient requirements, improving the nutrient density of their food and getting the right balance between the protein foods and the carbohydrate foods.

I'd like to share with you three excerpts from emails I've received recently from patients. These are typical of the feedback I get once people start to understand how food, and specifically protein, can work for them.

"....I'm just checking in to let you know that I feel much stronger, am sleeping better, less brain fog, but still experiencing the clumsiness/lack of coordination in my legs which is worse in the morning. I eat protein (in balance) all day long now, and it's clearly making a difference".

"...Keeping on top of the protein, and noticing further improvement every few days. Less unstable on my feet, so walked Marine Parade yesterday."

"....Just a quick E-Mail to let you know how I've been getting on. I seem to be going from strength to strength and my body is responding well to exercise, so well in fact that I was fit enough to complete a two and a half days walk/climb in Nelson Lakes National Park over the weekend. By making sure I had a mixed carbohydrate and protein snack every time we took a break I managed to keep my energy levels fairly constant throughout the whole trip and walking 7-8 hours a day with a 20kg pack was no problem! Standing on the summit of Mt Cupola (2260m) it was hard to believe that only 10 months ago I was so run down and my legs so weak that I struggled to do anything more than a 30 minute walk at snail pace! I never dreamed I would be back doing the activities I love so soon and so I thank you..."

These are from people who came to me with low immune function and chronic fatigue. Looking into their dietary habits revealed various nutrient depletions, a shortfall in protein and an excess of carbohydrate foods. All of them are intelligent people who had some idea of what a healthy diet looks like, but had not got the balance right through a lack of quality information.

Each of them now understands that as a vital part of nutrition, protein is second only to water in the body's physical composition. It is the primary component of muscle, skin, hair, the very fibre that hold all of our organs in place and the organs themselves, the heart, the nerves, the brain, the blood, the immune system, the lenses of our eyes, and the living structure of our bones. It is also the primary building block for all of our hormones, neurotransmitters, digestive and liver enzymes, cell membranes, DNA, gut lining and the transport molecules which allow stuff to get in and out of our cells. If your diet is carbohydrate-rich and protein-poor, you will be supplying your body with a lot of fuel but not maintaining the structure which burns it.

Some may think that I am advocating the Atkins-type diet, but this is not the case. Human beings are prone to extremes, and it is vital to remember that every nutrient type must be eaten in balance with other complementary nutrients. Those of you who have read my previous articles or who have been to see me will know that I don't believe in "diets", I believe in balance. Next month I will continue to explain the balance between carbohydrates, fats and proteins and how much protein the average person versus an athlete (for example) should be eating.

If you have any queries regarding the information in this article or would like to address some health issues of your own, we encourage you to call us on 06 304 8177. The dispensary is open 9.30am – 4pm Tuesday, Thursday, Friday and 10.30am – 4pm Saturday. Previous articles can be viewed at www.selfhealclinic.co.nz .