

Last month I wrote about protein and why it is so important to get enough in our diets. This article can be viewed at www.selfhealclinic.co.nz.

Protein depletion symptoms include poor digestion, poor liver function, low red or white blood cell count, low immunity, fatigue, always being hungry, blood sugar control problems, poor exercise recovery, brittle nails and hair, low albumin or total protein in blood test, muscle aches and pains, joint aches and pains, depression, poor sleep, poor adrenal and thyroid function, hormone imbalance, oedema, anaemia, metabolic syndrome and chronic fatigue.

The current recommended daily intake (RDI) for protein currently sits at 1gm of protein per kilo of body weight for women and men. While it may seem adequate, this figure does not take in to account any difference in activity levels, metabolic rate, or the person's lean weight. It is purely designed to avoid of the worst of the deficiency signs but is a long way off that required for optimal health for a lot of people. Those who have had severe infections or surgery, or who are pregnant will require additional protein over and above the RDI, as will people who are physically active, have a high lean weight or a fast metabolism. The optimal intake can be anywhere between 1.2 and 1.5gms per kilo of body weight depending on a variety of factors, and in some instances may be even higher.

The current tendency in our society is to eat carbohydrate foods in preference to protein. Looking at the balance between protein foods and carbohydrate foods is important because too much of anything will create its own set of problems. A carbohydrate-rich and protein-poor diet will cause:

- More stress on the pancreas, especially if the food is a dense carbohydrate like white rice, bread, sugar, sweet foods or processed cereal and is consumed without adequate protein in the meal. Stress on the pancreas will often lead to Type 2 diabetes or metabolic syndrome if left unchecked.
- Fatigue, because a carbohydrate-rich meal releases into the blood stream more quickly than one with adequate protein. This will result in more insulin being produced which makes the blood sugar disappear from circulation faster, resulting in a blood sugar drop. Wanting to sleep not long after a meal is classic symptom of this problem and is a warning sign that the blood sugar control is being adversely affected.
- Sugar or carbohydrate cravings, because the fast clearance of blood sugar from the blood stream causes the desire for a quick fix. This is the result of the brain starving for glucose.
- Poor digestion, because the stomach acid is designed to work on fats and proteins not carbohydrate only. Carbohydrate-only meals provide little for the acid to work on. Because of this, there is a much greater risk that the acid will cause damage to the stomach lining.

It is also important to understand that:

- Fats and proteins are required to make us feel full and to trigger the liver function correctly. "Filling up" on carbohydrate is giving your body the wrong signals and will ultimately cause you to have lower energy, not better energy. It will also result in poor bile production which can be directly responsible for the appearance of gall stones.
- The liver requires a steady supply of certain amino acids to enable the enzyme systems to function correctly. Protein-poor diets will affect the ability of the body to clear chemicals, allergens, pollutants and toxins from the body tissues.
- Protein is required to store iron.
- More critically, protein is so important to your body that when faced with a shortfall, it will tap into your protein stores – namely your muscle. Muscle is one

of your most metabolically hungry tissue types. Losing it through having too little protein in your diet will result in a slower metabolism which means less energy, less stamina, less strength and more fat storage.

However, it is just as bad to eat too much protein and not enough carbohydrate in the form of vegetables, fruit, legumes and whole grains and this is why. Too much protein with a deficit of healthy carbohydrate will result in:

- Poor acid/alkaline balance. You need alkaline-forming vegetables and fruit to balance the protein intake in order to keep the body chemistry straight. Grain foods won't do this job because they are acid-forming, and it pays to be generous with the vegetables and to keep fruit to a small amount daily because of its high sugar content.
- Poor cell function because carbohydrate is required to get protein into your cells to do all of its jobs.
- Fatigue and brain fog, because the brain needs glucose to run properly and can't convert protein and fat to glucose like most other cells in the body.
- Poor muscle glycogen storage which will result in weak muscles, lack of stamina, muscle aches and fatigue.
- Increased osteoporosis risk because protein without a good balance of mineral-rich vegetables can cause calcium depletion. (Just as an aside, dairy foods are not the answer here. Many studies including Harvard University's landmark Nurses Health Study which followed 78,000 women over a 12-year period, have found that women who consumed the most calcium from dairy foods broke more bones than those who didn't. The calcium absorption rate from milk is approximately 30 percent, while figures for almonds, broccoli, Brussels sprouts, mustard greens, turnip greens, kale, and some other green leafy vegetables range from 40 percent to 64 percent. Dairy is high in phosphorous which inhibits the absorption of its calcium content and creates an acidic environment in the blood).

Next month I will cover what the best protein sources are, what the vegetarian options are and provide some guidelines on what the approximate ratio of carbohydrate to protein should be. **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.**