HEALTH CORNER





Healthy Living Healthy Eating

from Marissa Liana Certified Nutritional Practitioner/Health Coach Specialized in Applied Holistic Nutrition from the Institute of Holistic Nutrition. b.a. (Honours) in Kinesiology from UOIT. What You Should Know About

Following A Ketogenic Diet

Vhat is a Keto diet? A keto diet is a diet composed of high fat, moderate pro-

tein, and very low carbohydrates

What does this look like in terms of macronutrients? Generally, high fat means that 60-75% of calories are coming from fat. 15-30% of calories from protein, and, 5-10% of calories from carbs. The purpose of the ketogenic diet is to covert the body from using glucose from carbohydrates to provide energy, to ketone bodies which are supplied from breaking down fat and used as an alternative energy source. Free fatty acids and glucose from gluconeogenesis are the main fuel sources during ketosis

Although the emphasis is placed on little to no carbohydrates during a keto diet, there is often a misconception on how much protein you can eat while sticking to the strict keto diet. A common misconception is that protein can still be eaten in high amounts, however, this is simply not true. Here's why:

Protein can actually be converted to glucose through the process of gluconeogenesis. This is when new glucose (sugar) can be formed from substrates other than carbohydrates such as from certain amino acids (from protein), lactate and glycerol. These metabolic pathways are used to keep blood glucose levels from dropping too low (hypoglycemia), and is triggered during periods of fasting, starvation, low carbohydrate diets and during intense exercise. Is weight loss more effective on a keto diet?

Another important point to note is that people typically follow a keto diet because they have been told it is a quick and effective way to drop weight fast. Initially, this looks true but is often due to the body losing large amounts of water and glycogen (the storage form of carbohydrates). Your body can typically store about 2 pounds of glycogen, and with that comes another 7-8lbs of water bound to glycogen. This can explain why people may initially experience a somewhat rapid 8-10 pound weight loss while following a ketogenic diet, however, this is not fat loss. But won't keeping insulin low (our fat storage hormone that is spiked when we consume carbohydrates), result in weight loss? Unfortunately, carbohydrates are not the only macronutrient that spike insulin. Protein also has an insulin boosting effect. This is another reason protein should not be consumed in excess on a keto diet. Additionally, in terms of fat storage, a person can still gain fat on a ketogenic diet. This is due to the hormone, Acylation Stimulating Protein, or ASP. This hormone's role is to stimulate fat storage in a caloric surplus, so if you are eating more than you are burning off on a keto diet, your body can still gain fat.

So what ARE the benefits of a ketogenic diet?

Firstly, I want to say that ketogenic diets do a good job and promoting satiety, as fat is naturally satiating. This can be a benefit of someone looking to lose weight who may have trouble in the first place with overeating and portion control. The downside is that since ketogenic diets are often limiting in carbohydrates and protein, fibre, which is abundant in fruits and vegetables, and protein, which is limited, can also do a great job an promoting satiety. This means that we can get the same satiating effects on diets that do not limit carbohydrates and protein. Protein also has the highest thermogenic effect when eaten, meaning our basal metabolic rate is actually very much increased with protein consumption and metabolism. Another reason why a ketogenic diet may 'work' for weight loss is that it is very limiting. By removing foods that would typically trigger cravings and poor food choices, you will naturally put yourself in a calorie deficit resulting in weight loss. There are, however, specific populations that have been shown to benefit from a ketogenic diet. Literature shows that subpopulations including those with neurological conditions, those who suffer from seizures and individuals with diabetes can benefit from low insulin, ketogenic diets. Why is a ketogenic diet not for everyone?

Firstly, I should state that I am not a fan of dietary extremes, that is on any level. I believe the best diet, for the most amount of people, is one that is balanced, rich in colours, phytonutrients, and health-boosting foods. The idea behind improved energy levels from a ketogenic diet comes from the idea that you will not have sugar crashes. However, with a proper, balanced diet this should not happen.

Secondly, Ketogenic diets limit the intake of many carbohydrate-rich foods that contain a number of benefits including vitamins, minerals, phytonutrients and FIBER! Cruciferous vegetables, for example, contain indole-3-carbinol that helps to detox our liver and remove excess hormones from the body Sweet potatoes - rich in vitamin A and fibre to help boost the health of our eyes and skin. Apples - contain apple pectin that helps to lower cholesterol Blueberries - contain antioxidants that help fight free radical damage in the body, which will help slow the ageing process and wear and tear on our cells. Thirdly, Women, in particular, need to be especially careful when following a low carb or ketogenic diet, as ketogenic diets can disrupt hormonal balance and lead to infertility.

Adequate glucose is actually needed to convert our inactive thyroid hormone T4 into the active T3 form. Low carbohydrates available can also be seen as stress on the body, which of course will increase cortisol levels. Cortisol s the stress hormone that we try so hard to manage and decrease. Cortisol's job is to INCREASE blood alucose levels when they are too low, or when we are in a state of stress. This places excess stress on the adrenal glands, which over time can become fatigued and disrupt our estrogen balance, which is also produced by the adrenal glands. Lastly, Gut health is also affected, as our microbiome, or our body's internal beneficial bacteria that keep us healthy, need a VARIETY of plant fibres and nutrients to support their biodiversity. When you limit your carbohydrate intake, this is not possible, and research has shown that high-fat diets can have a negative impact on our body's microbiome. If after all of these, you are going to try a ketogenic diet, there are a few things you should take into consideration: 1) Quality vs. Quantity The problem I have with people jumping into kept diets is that some people don't understand how the QUALITY of foods affects our health, not just the quantity. People think high fat and they immediately begin eating large amounts of butter and animal fats, without considering where their food sources are coming from and what impact this is going to have on their health. The quality of these fats is way more important than the quantity of these fats. For my clients, I ALWAYS recommend grass-fed animals, free run, free of hormones and antibiotics. Grass-fed animals have been shown to have a much higher omega 3 content, which is one of the most potent anti-inflammatory fats that is extremely health-protective. If we are consuming stick loads of butter or pounds of meat from a cow that has been eating GMO grains, injected with antibiotics and hormones, this is going to be even more detrimental to our health than good! 2) Your Gut Health: why it is so important to overall health. Our gut is actually our second brain. The enteric nervous system connects our gut to our central nervous system (brain and spinal cord) and is in constant communication with each other. This explains why mood and mental disorders such as depression and anxiety are actually gut-mediated, and not brain mediated. 70% of our serotonin production actually takes place in our gut. Serotonin is our body's feel-good neurotransmitter that allows us to feel happy and satiated. If you are limiting your carbohydrate consumption, which is rich in pre-biotics, or foods that feed our gut bacteria, you may notice negative impacts on your mood and sex drive. From a health perspective, 70% of our immune system is actually in our gut! When our gut's beneficial bacteria are in balance, we are better able to break down and absorb the nutrients we consume and ward off harmful pathogens that lead to illness. A balanced gut flora comes from eating an abundance of fruits and vegetables, which supply those pre-biotic foods for our probiotics - beneficial bacteria.



I recently returned for a 68th reunion, attended lectures, and as a former student was interviewed by a film crew. At one point the inter-What are your thoughts in this robotic age of medicine?"

The Doctor Game By W. Gifford-Jones M.D. "But Roosevelt Knows How

To Be President!"

72 years ago I arrived in Boston. I'd been accepted as a stu-

His question reminded me of a comment I'd heard years ago. A White House reporter once asked an assistant working with U.S. President Franklin D. Roosevelt, "Does the President really understand all of the economic bill he's presenting to Congress?" The aide thought for a moment and replied, "Possibly not, but Roosevelt understands how to be President." He implied that some presidents never learn this important role.

Today, in an increasing electronic world, some doctors never learn to be doctors. In the computer age it's understandable. For instance, many readers have probably encountered this situation, young doctors so weaned on computers they spend more time typing reports into a screen than talking to, examining, or looking at the patient!

This lead to another question, "What did I think medicine would be like 50 years from now?" I replied that we were already witnessing a dramatic change in how medicine is practiced. Today, the average family doctor spends barely a few minutes with each patient. This is not the doctor's fault. It's the fault of the harried system.

For example, when a vastly overweight person enters the office, doctors know a number of problems are either present or imminent. There's a good chance that type 2 diabetes will occur somewhere down the road. The doctor also knows that with Type 2 diabetes, there's a 50 percent chance of heart attack.

So how can any family doctor, in a few minutes, solve that problem? The point is he or she can't. In the future, doctors will have assistants. One that will advise what's wrong with food in the patient's pantry. Another will prescribe a shopping list for good food choices. And another will arrange an exercise program in the gym. Some corporations are already paying for this new approach as they realize it will prevent tons of medical expenses later on while treating chronic disease that never should have happened.

Since I spent my medical life in surgery, I was asked what would happen in the OR down the road. Even today some surgery is done by robotics. I have no doubt this will increase and benefit patients in many ways, by reducing time and error.

I left this Harvard trip knowing the future of medical care is in good hands, but both doctors and patients will have to adapt. Patients will have to accept that computer medicine is here to stay. Doctors will hopefully learn that patients still exist who have fears and need eye to eye contact.

Harvard is educating more students who become professors and researchers. But family physicians must still have a major role. During the filming I told the story of one such case. One morning after surgery I returned to the recovery room to check on my patient. I noticed three doctors leaning over the bedside of another patient. They were worried about the patient's breathing.

The surgeon, anesthetist, and an ear nose and throat specialist had been summoned for an opinion. All believed the patient was suffering a serious respiratory obstruction and were arranging emergency tracheotomy. The family doctor suddenly arrived.

He listened to their opinion and then listened to the patient's breathing. Stepping back from the bed, he laughed. "I've known George for 40 years" he said, "and he always breathed this way." Surgery was cancelled. In this, a computer could not compete!

A return to HMS always confirms my early decision to become a doctor. I still believe it's the noblest profession of all. And that regardless of how medicine changes it must follow the advice of one of Harvard's great teachers who remarked, "The secret of caring for the patient is caring for the patient.'

We don't yet know whether the computer can learn to do that.

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Direct Answers from Wayne & Tamara **Cross Purposes**

I find it difficult to befriend other females, so my friends are mostly male. The difficulty arises when romantic feelings begin to form. In the past few years, I lost many good friends because I was not romantically interested n them, but they were in me.

Two years ago, I met Oliver. Our relationship began as friendship. I had to move across country for two months. When I returned, the courting continued for a few months until he moved away for five months, during which we continued to talk and develop

a strong friendship. I visited him, and the flame was rekindled. Because the date of his return was up in the air, I left knowing I ad to move on. When Oliver moved back to a hearby city, he was eager for a romantic relationship uncomfortable with that and told him so. But we continued to talk and see movies on the weekend, and he became one of my best friends Oliver recently said our friendship cannot continue. I either must agree to a romantic relationship or nothing, as it hurts him too much wanting to be with me. This pains me, and I am unsure what to do.

I am going to be away for two months this summer. In the fall I finish my degree, and I may need to seek work in another country. The constant uprooting has caused me to try to avoid being romantically attached. I feel it is not fair to either of us.

Each time I lose a friend it hurts more. I do not wish to lose Oliver, and a romantic relationship is possible. I don't know what part of me to listen to: the part that doesn't want to let go, or the part that says it will hurt less for both of us if we end our friendship now.

Evie

Evie, what is an ultimatum? It's a grocer's coupon or a manufacturer's rebate. This offer expires on suchand-such a date. Or think of an ultimatum as a call to action. Forty percent off if you act today.

What an ultimatum is not is love. If we answered Oliver, we would tell him, when you need to ultimatum someone, it's over. As the receiver of the ultimatum, we would tell you the same.

Even more to the point, with Oliver you didn't get struck by a thunderbolt. At most what you have is a little static electricity and the hope it might add up to more.

Take a step back. You are in school and do an unusual amount of traveling. You don't know what country you will be working in. Your life is unsettled. How do you develop a relationship with everything up in the

Your basic lament is that men confuse your desire for friendship with romantic love. Unwittingly, you've uncovered what research has proven. Men and women friends tend to be in completely different relationships. Men are far more attracted to their female friends than the female friends are attracted to those men. The men assume the romantic attraction is mutual, while the women assume their lack of romantic attraction to the man is also mutual. In addition, men generally want to act on the presumed romantic attraction. It's a little like this. Say the word "china" and a man thinks of a country. Say the word to a woman and she may think of plates and cups. That's the problem with having only male "friends."

Wayne & Tamara

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