Keto Flu – Managing the Ketogenic Diet Side Effects

Many people are now familiar with the high-fat, low-carb diet, also called the ketogenic diet, and the benefits it offers those who need to lose a significant amount of weight and curb sugar and carbohydrate cravings.

The keto diet limits starch and sugar quite severely, focusing on foods that are almost entirely made up of protein or fat. Some low carb diets cut out carbohydrates entirely, while others allow one to eat a very low number each day, such as 20 grams or less.

This approach to dieting places the body in a state called ketosis, during which stored fat is broken down and converted to carbohydrates. The latter are then used as fuel for energy.

However, this type of diet has a few side effects that may be unpleasant for certain individuals. This set of symptoms is often referred to as the "keto flu," and may last anywhere from a few days to a month. Below are some essential facts about these symptoms and their underlying causes.

1. Keto Flu Symptoms

Although not all individuals experience keto flu when following a low-carb diet, most have at least a few of the symptoms. Regardless of how many side effects a person experiences, however, most dissipate within five to seven days. In certain cases, symptoms may last for as long as a month, but this is quite rare. Most side effects of the diet typically begin anywhere from 24 to 48 hours after carbs are restricted and usually include the following:

Sugar Cravings

The earliest, most common side effect of the ketogenic diet is strong cravings for sugar and starch. This is particularly true if the person was formerly in the habit of consuming substantial amounts of starchy foods and sugary snacks on a regular basis.

It is partially a physical craving, but is also a result of a reaction in the brain's reward center when it is deprived of endorphin-producing foods such as chocolate or other high-carbohydrate “comfort” snacks. This symptom is typically one of the first to cease after a few days of following the ketogenic diet, after which sugar cravings usually plummet.

Dizziness

Dizziness is a very common symptom of ketosis, and although it may be a bit scary, this side effect is almost always harmless. It has to do with the body's electrolyte balances, which are temporarily disturbed by the low-carb diet. Although it is harmless overall, those who experience this symptom should not drive or participate in any activity where good coordination is needed, as this is the best way to avoid any potential injuries resulting from losing one's balance or falling.

Poor Concentration and Focus

Poor concentration and focus, more commonly referred to as "brain fog," is simply a lack of focus that occurs when the brain is no longer being fed raw sugar and simple carbohydrates on a regular basis. This symptom usually only lasts until the body is firmly into ketosis, after which it will break down fat stores with which to supply the brain with energy.

Irritability

Virtually all diets are associated with some level of irritability as a side effect. However, this symptom is very short-lived when one is following the keto diet, and usually ceases within three to four days.

Nausea

Nausea is also a common side effect of the ketogenic diet, and is similar to the nausea felt when one becomes very hungry after not having eaten for a long period. This is because the body is feeling the deprivation of carbohydrates and sugars. Once again, after the body has reached the state of ketosis, this symptom abruptly stops.

Stomach Cramps

Stomach cramps are a less common side effect of the ketogenic diet, but are sometimes experienced on and off throughout the first week after carbs have been restricted.

Muscle Soreness

Muscle soreness is a symptom that affects approximately 50 percent of those following the ketogenic diet. Although it feels similar to the muscle soreness experienced after a vigorous workout, it usually comes and goes in a random pattern. This symptom may continue for up to a week or longer, depending on various factors.

Insomnia

Insomnia is a very common side effect of a low-carb diet, and most individuals who follow this diet usually experience this symptom for up to a week or two. Sleep is closely linked to how one's metabolism functions, and because this balance is temporarily disrupted when a person begins the ketogenic diet, his or her sleep hormones may also be affected.

2. Understanding Why Keto Flu Occurs

It is a good idea to acquire a thorough understanding of why keto flu occurs, as this helps one to understand the root of each symptom and why such side effects are not permanent.

When the body switches over to burning stored fat for energy, which is the case with a low carbohydrate diet, it means it must go through keto-adaption. This is also referred to as beta-oxidation, and it is an easier process for some people than others. This is because a person may be what is called “metabolically flexible,” or he or she may be entirely inflexible with regard to metabolic changes.

Metabolic flexibility is another term that refers to how well a person will adapt to his or her body using an alternate fuel source, such as the switch from carbs to fats that is associated with the ketogenic diet. One's level of resistance to this change typically determines the length and severity of his or her symptoms when beginning a low-carb diet.

Those with little or no metabolic flexibility almost always experience ketogenic diet side effects as their bodies adjust to this change. Although there are no specific markers for whether or not one will be flexible with regard to this process, it is believed that genetics may play a role.

Whether a person adjusts well to this change or not, when carbohydrates are restricted, the body goes through three primary metabolic changes. These changes are what lead to the common keto flu symptoms.

Sodium and Water are Flushed Out

When carbohydrates are restricted, the macronutrient responsible for the highest release of insulin is triggered. Insulin transports sugar and simple carbohydrates into cells where they can be used as fuel. In addition, this macronutrient has a specific effect on the kidneys. When insulin transmits information to the cells to let them know excess energy is available, it also sends signals to the kidneys to preserve water and sodium.

Sodium is released from the body when insulin levels drop, and it takes plenty of water with it during this process. For this reason, many people lose up to ten pounds of water weight in less than a week when following a low-carb diet.

This is also true of glycogen, which is sugar in its stored form. Water levels and glycogen are directly connected as well, as it takes approximately three grams of water to store one gram of glycogen.

During the first day of a low-carbohydrate diet, a person's main energy source becomes the glycogen stored in his or her muscles and liver. This typically results in a pound or a pound and a half of water loss the first day.

The combination of low insulin levels and glycogen loss causes the elimination of enough sodium and water to lead to gastrointestinal issues, headaches, muscle cramps, nausea, and dizziness, which are some of the most common keto flu

symptoms, as previously mentioned. As one might suspect, replenishing minerals and fluids is a good way to alleviate all or most of these symptoms, at least to some degree.

Although consuming eight, 8-ounce glasses of water per day is believed to be adequate water intake for healthy adults, those following a ketogenic diet may wish to up their water intake substantially, particularly during the first seven to ten days of the diet.

Decreased T3 Thyroid Hormone Levels

Numerous research also indicates that thyroid function is linked to carbohydrates to an even greater degree than caloric intake. One study found that carbs are an essential regulatory factor in T3 production.

T3 is the most powerful thyroid hormone made by the human body, and restricting carbohydrates to zero grams can lead to a decrease in this hormone of as much as 47 percent. T3 is five times more biologically active than T4, the latter of which is the thyroid hormone the human body produces in the greatest quantities.

When T4 levels are abnormally high, they reverse the effectiveness of T3 levels, which can lead to lower physical stamina. Therefore, allowing these levels to plummet is not recommended. However, this is thought to be exactly what happens when carbohydrates are restricted.

Nevertheless, it is important to understand that this does not mean any permanent change is taking place in the person's thyroid gland. In fact, there is no evidence to suggest that following a low-carb diet permanently affects the thyroid gland in any way. Rather, it merely leads to the initial symptoms associated with carbohydrate restriction.

Increased Cortisol Levels

When a low-carbohydrate diet is followed religiously, it triggers a “starvation” response in the body. This leads to the need for increased energy levels, which is a problem the body solves by releasing a deluge of stress hormones, including cortisol. Not surprisingly, several negative side effects are associated with this release of cortisol, such as irritability, confusion, lack of energy and in some cases, muscle pain.

Interestingly, research indicates that exercise has no impact on the increased cortisol levels associated with the first phase of a low carbohydrate diet. The most common symptoms associated with high cortisol levels are insomnia, poor quality sleep and irritability.

Once a person's body has adapted to the ketogenic diet, cortisol levels decrease. This is because stored fat becomes the body's primary source of energy. When stored fat is being burned regularly, the body no longer craves sugar and starch. Simply put, the person's body has adapted to a new metabolic function and the symptoms outlined above fade away and do not return.

3. Managing Your Symptoms

The best way to get a handle on your keto flu symptoms is to look at where they might be coming from. There is often an easy resolution for many of these symptoms and side effects to be more comfortable now. But don't forget – the keto flu symptoms only last a short period of time. Once you get past them, you will feel amazing and on your way to a permanent lifestyle change.

Here are some helpful tips for managing these symptoms:

Take a Magnesium Supplement – This is helpful for many of the side effects of the ketogenic diet, but especially when you suffer from insomnia. Take this supplement at night before you go to bed, even if you take the rest of your supplements earlier in the day.

Replenish Your Electrolytes – One of the main reasons you feel dizzy or sluggish during the 'keto flu' period is because your body is going through a lot of your electrolytes. Focus on replacing the main ones, including sodium, magnesium, and potassium.

Get More Sodium – If you still feel lightheaded or just not yourself, focus on getting more sodium into your diet. Easy ways to do this are by drinking a little pickle juice when you feel lightheaded, or having some broth.

Make Sure You Have Enough Fat – You should also focus on getting enough fat in your diet, as this is a high-fat, low-carbohydrate diet. Choose healthier fats like coconut oil, olive oil, and avocados.

4. Moving Beyond the Keto Flu

Restricting carbohydrates from one's diet is usually a healthy option, as most of today's modern carbs are nothing more than processed starch products or junk food filled with excessive amounts of sugar. Such foods cause inflammatory responses in the body that can lead to a host of illnesses and disorders, particularly later in life.

For this reason, fighting through a few initial symptoms associated with keto flu is usually well worth the results of a slimmer body, less body fat and ultimately, a healthier lifestyle.

Fortunately, because the symptoms of the keto flu last only five to seven days in most cases, they have no long-term harmful effects. In the rare case that one experiences these symptoms for a month or longer, it may indicate that person is extremely metabolically resistant and the low-carb diet is not a good choice.

However, it is estimated that only approximately ten to 12 people in every 250,000 have this extreme type of metabolic resistance. As always, anyone who plans to begin a new diet or exercise program should speak to a licensed medical professional in advance about his or her intentions.