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HOW DO I KNOW I AM IN KETO? BENEFITS AND SIDE EFFECTS

The keto diet has gained popularity as an ultra-low-carb eating plan that can help you lose weight quickly—but its effects on your body go beyond weight loss.

A typical keto diet consists of 70-80 percent fat, 20-25 percent protein, and only about 5 percent are carbohydrate calories. If you consume 2,000 calories per day, carbs account for only 100 of them, including healthy carbs like fruits and vegetables. When you eat this way, your body enters ketosis, which means it has used up all of its carbs and must now start using fat for energy.

This means your body undergoes many biological adaptations while on a ketogenic diet, including a decrease in insulin levels and an increase in fat breakdown. When this happens, your liver produces a large number of ketones to provide energy to your brain. However, determining whether or not you are in ketosis can be difficult. When first entering ketosis, you may notice some short term signs and then you will begin to see the long term effects and health improvements.

1. KETO FLU – SHORT TERM

Keto flu is a real condition. Cutting carbs to the bone and entering ketosis (a state in which your body burns fat for energy) can cause a slew of unpleasant symptoms such as headaches, fatigue, muscle aches, nausea, and diarrhea. According to *Kristen Mancinelli, M.S., R.D.N., author of The Ketogenic Diet*, the side effects result from your body transitioning to using fat as its primary source of energy rather than carbs. You'll start to feel better once it adjusts to the new fuel source (usually within a week)

SOLUTION: This typically can be reduced or eliminated by maintaining certain electrolytes like Sodium, Potassium and Magnesium. There are all-in-one electrolytes available at most stores or you can purchase them individually.

2. FEELING MOODY – SHORT TERM

According to *Laura Iu, R.D., registered dietitian and nutrition therapist certified intuitive eating counselor based in New York City*, a low carb diet may deprive you of the carbohydrates needed to produce serotonin, a brain chemical that helps regulate mood, as well as sleep and appetite—two other factors that can mess with your disposition.

3. YOUR EATING BEHAVIORS COULD CHANGE – SHORT TERM

Cutting out carbs causes the brain to release a chemical called Neuropeptide-Y (NPY), which tells the body that we need carbs; when we don't get those carbohydrates our bodies require, this chemical builds up and can intensify cravings, increasing the risk of developing disordered eating patterns like binge eating, *according to Iu*. "It has nothing to do with a lack of 'will power,' but rather with the body's biological response to deprivation," she explains.

4. BAD BREATH – SHORT TERM

When people reach full ketosis, they frequently complain about having bad breath. It's a fairly common side effect. Many people who follow a ketogenic diet or a similar diet, such as the Atkins diet, report that their breath smells fruity. This is due to increased ketone levels. Acetone, a ketone that exits the body through urine and breath, is the specific culprit.

While this breath is not ideal for your social life, it can be a good sign for your diet. Many ketogenic dieters brush their teeth several times per day or chew sugar-free gum to address this issue. Check the label for carbs if you use gum or other sugar-free alternatives. These may cause your blood sugar to rise and your ketone levels to fall.

5. DIGESTIVE ISSUES – SHORT TERM

A ketogenic diet often entails a significant adjustment in the types of foods you consume. In the beginning, digestive difficulties such as constipation and diarrhea are common side effects. Some of these concerns should go away during the transition phase, but it's vital to be aware of certain meals that could be creating digestive problems. Also, eat plenty of healthful low-carb veggies, which are low in carbs but high in fiber. And definitely start taking pre and pro biotics. This has a great tendency to reduce or eliminate digestive issue.

Most crucial, avoid eating a diet that is devoid of variety. This may raise your chances of having digestive problems and nutrient deficits.

6. FATIGUE – SHORT TERM

The initial transition to a ketogenic diet can be one of the most difficult challenges for new dieters. Its well-known side effects include fatigue and weakness. These frequently cause people to abandon the diet before reaching full ketosis and reaping many long-term benefits.

These are all normal side effects. After decades of running on a carb-heavy fuel system, your body is forced to adjust to a different system. As you might expect, this transition does not occur overnight. It can take 7–30 days to get into full ketosis.

You may want to take electrolyte supplements to reduce fatigue during this transition. Electrolytes are frequently lost due to your body's rapid loss of water and the elimination of processed foods that may contain added salt. When taking these supplements, aim for 1,000 mg of potassium and 300 mg of magnesium each day.

7. DECREASES IN PERFORMANCE – SHORT TERM

As previously stated, removing carbs can cause general tiredness at first. This includes a decrease in exercise performance at first. It is primarily caused by a decrease in glycogen stores in your muscles, which serve as the primary and most efficient fuel source for all forms of high-intensity exercise.

Many people who follow a ketogenic diet say that their performance returns to normal after a few weeks. A ketogenic diet may even be beneficial in certain ultra-endurance sports and events. Furthermore, there are additional advantages, the most notable of which is an increased ability to burn fat during exercise.

One well-known study discovered that athletes who switched to a ketogenic diet burned up to 230 percent more fat when exercising than athletes who did not follow this diet.

While a ketogenic diet is unlikely to improve performance in elite athletes, it should be adequate for general exercise and recreational sports once fat-adapted.

8. INSOMNIA – SHORT TERM

Sleep is a major concern for many ketogenic dieters, especially when they first begin the diet. Many people notice sleeplessness or waking up in the middle of the night when they initially dramatically reduce their carbohydrate intake. This, however, usually improves after a few weeks. Many long-term ketogenic dieters indicate that after adapting to the diet, they sleep better than before.

9. FREQUENTLY THIRSTY – SHORT TERM POSSIBLE LONG TERM

Don't be surprised if you become thirsty while on the keto diet. Excreting all that extra water will almost certainly cause a surge in thirst, so make it a point to drink plenty. There is no hard and fast rule for how much water you should drink on a keto diet. In general, aim to drink enough water to keep your urine clear or pale yellow. Increase your intake if it becomes any darker.

10. WEIGHT LOSS – SHORT TERM AND LONG TERM

Ketogenic diets, along with low-carb diets in general, are extremely effective for weight loss. As scores of weight loss studies have shown, changing to a ketogenic diet is likely to result in both short- and long-term weight loss.

Rapid weight reduction is possible throughout the first week. While some people misinterpret this as fat loss, it is the usage of stored carbohydrates and water. ***According to Becky Kerkenbush, R.D., a clinical dietitian at Watertown Regional Medical Center,*** this is because carbs hold more water than protein or fat. As a result, when you stop eating them, all of the extra H₂O is excreted through urination. As a result, the scale may read a few pounds lower, and you may appear to be a little leaner. Following the initial rapid drop in water weight, you should continue to lose body fat as long as you stick to the diet and maintain a calorie deficit.

11. APPETITE SUPPRESSION – LONG TERM

Many people report feeling less hungry while on a ketogenic diet. The reasons for this are still being researched. However, it has been suggested that this decrease in hunger may be due to increased protein and vegetable consumption, as well as changes in your body's hunger hormones. The ketones themselves may also have an appetite-reducing effect on your brain.

12. INCREASED KETONES IN THE BLOOD – LONG TERM

A ketogenic diet is distinguished by two features: a decrease in blood sugar levels and a rise in ketones. As you proceed through the ketogenic diet, your primary fuel sources will be fat and ketones.

Using a specialized meter to assess your blood ketone levels is the most reliable and precise measure of ketosis. It determines your ketone levels by calculating the quantity of beta-hydroxybutyrate (BHB) in your blood.

This is one of the most prevalent ketones in the bloodstream. According to some ketogenic diet experts, nutritional ketosis is defined as blood ketones ranging from 0.5 to 3.0 mmol/L.

The most accurate testing method is to measure ketones in your blood, which is used in most research studies. The main disadvantage is that drawing blood from your finger requires a small pinprick.

Furthermore, test kits can be costly. As a result, most people will only run one test per week or every other week. If you want to try testing your ketones, Amazon has a good selection.

13. INCREASED KETONES IN THE BREATH OR URINE – LONG TERM

A breath analyzer is another method for measuring blood ketone levels. It measures acetone, one of the three major ketones found in your blood during ketosis. Because more acetone leaves the body when you are in nutritional ketosis, this gives you an idea of your body's ketone levels.

Acetone breath analyzers are reasonably accurate, though less so than the blood monitor method.

Another effective method is to use special indicator strips to measure the presence of ketones in your urine daily.

These, too, measure ketone excretion through the urine and can be a quick and low-cost way to check your ketone levels every day. They are, however, not thought to be very reliable.

14. CLEARER SKIN – LONG TERM

Do pimples plague you? You may notice a difference in your skin on the keto diet, especially if you were a former sugar addict. Eating a lot of empty carbs is connected to worse acne. **According to a review published in the Journal of the Academy of Nutrition and Dietetics**, these meals trigger inflammation and signal the release of hormones that boost the formation of the formation pore-clogging oils. According to some studies, lowering your carbohydrate intake may aid in the resolution of these disorders, hence enhance your skin.

15. INCREASED FOCUS AND ENERGY – LONG TERM

When people start a very low-carb diet, they typically complain of brain fog, fatigue, and nausea. This is known as the "keto flu" Long-term ketogenic dieters, on the other hand, frequently report increased focus and energy. When you start a low-carb diet, your body must adjust to burning fat instead of carbs for fuel.

When you enter ketosis, a large portion of your brain begins to burn ketones instead of glucose. It may take several days or weeks for this to work properly. Ketones are a highly effective fuel source for your brain. They've even been used in clinical trials to treat brain diseases and conditions like concussion and memory loss.

As a result, it is not surprising that long-term ketogenic dieters frequently report increased clarity and improved brain function. Carbohydrate restriction can also help control and stabilize blood sugar levels. This may help to improve focus and brain function even more.

16. YOUR KIDNEYS MIGHT GET STRESSED – LONG TERM

Although, protein metabolism is vital to the kidneys, ingesting too much protein may harm renal function. While ketogenic diets are designed to be considerably higher in fat than protein, many keto eaters make the error of consuming a lot of meat and protein drinks. This is typically more problematic with other low-carb diets, since a keto diet focuses on consuming high fats, but it is essential to make sure your ratios of fats and proteins are correct. If not, you may end up eating far more protein than you require.