

# How Does a Ketogenic Diet Work?

If you are thinking that calculating calories is how does a Ketogenic diet work, I have some news for you. Ketogenic diet's work doesn't depend on caloric intake like other diets. It depends on creating a physiological state called ketosis to lose weight. So, what is ketosis? And how does it make ketogenic diet work?

Ketogenic diet has created a huge buzz the last couple of years! It is a very unique diet as it doesn't depend on caloric counting, it is a high fat diet! Yes, it depends on fats where up to 75% of your daily energy intake comes from fat, 20% on proteins and less than 5% of your energy intake comes from carbohydrates! The jackpot is that you cut carbs completely but you still feel full with no cravings! Yeah and you lose weight quickly in the process too!

But in order for the keto diet to be successful you have to understand how it works!

## How does a ketogenic diet work?



Before diving into the mechanism of ketogenic diet, we just need to go back a few steps and understand how our body gets its energy from food.

## **The process where body gets its energy. what is metabolism?**

Every cell / tissue/ organ /system in our body needs energy to survive and work properly. The main source of energy comes from the foods we eat. After food mixes up with the stomach enzymes and acids, it is broken down into smaller molecules (mainly carbohydrates, proteins and fats). In the small intestine these molecules are absorbed and then released into the bloodstream in a very complicated system.

Carbohydrates are the favorites for our body energy, as it breaks down into GLUCOSE!

Glucose is the simplest form of sugar, and all organs in the body loves it especially the brain as it is easily taken up by

the cells with the help of insulin (the hormone secreted by the pancreas).

## **But what if there is too much glucose?**

If there is too much glucose in the bloodstream, insulin takes the excess glucose and stores it as glycogen to be used later! For example, if you have a heavy meal and your body got what it needs off it, then insulin will take up this unwanted glucose convert it into a larger molecule called glycogen and store it the liver, muscles or fat tissue to be used when needed.

This process happens on daily basis, so if you keep on eating food more than your body needs, the more the glycogen will be stored, the larger the fat cells become, leading to weight gain!

In most diets, all you have to do to lose weight is to eat less than your body needs, forcing the body to use its stores of extra glycogen to obtain its glucose (energy source) and eventually you will lose the extra weight.

## **Why doesn't it work?**

For some people, these diets are not efficient at all , as it requires a lot of calculations, like what is your Basal Metabolic Rate, what is your Body Mass Index, how many kilos do you want to lose, what is your daily caloric expenditure , how many calories do you need to cut down so your body would start using the fat deposits? And so on. ([calculate your calories here](#))

But its main fallback, you feel hungry all the time! In the process of losing weight, your brain isn't receiving enough glucose (it is the only sugar that can pass the blood brain barrier) so your brain always feels that it needs more food to function properly! Forcing you mentally to fail your diet! In these diets you have to hold a very strong will and as they

say " Mind over Matter"!

## **But in ketogenic diet, your brain is your friend not your enemy. How?**

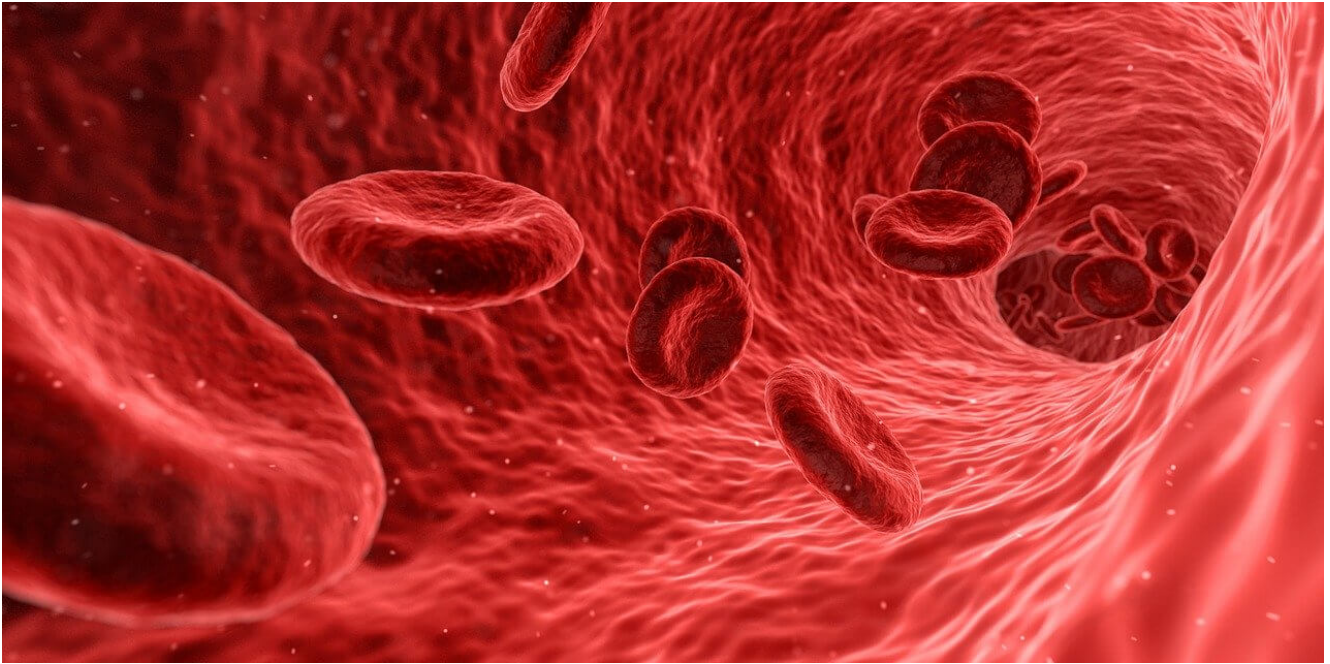
In ketogenic diet, your diet depends mainly on fats and you cut carbs completely! When you don't eat carbohydrates at all, this means a huge fall in your blood glucose levels.

So, the body is forced to seek energy from other molecules! Your liver can help by getting the glucose from your protein intake (amino acids) but this process known as gluconeogenesis can never meet up the needs of your brain and body!

So, the body starts finding quick sources of energy from breaking down fat molecules be able to function properly, during this process by-products are produced known as ketone bodies (hence, the word ketosis).

### **What are ketone bodies?**

ketone bodies are mainly acetoacetate, beta hydroxybutyrate and acetone. They are produced in the liver and are released into the blood to help fuel the body especially the brain! They act as effective energy sources for the brain because they can pass the blood brain barrier like glucose!



Sometimes this process occurs naturally, like when you fast for a whole day or if you are pregnant. But your body quickly follows up when you eat carbs again.

In ketogenic diet, you have to maintain this low carb, high fat diet for at least three days to force your body into excessive breakdown of fatty acids to achieve “ketosis”!

When your body achieves this state, it loses weight efficiently, quickly and your brain is satisfied!

As the brain is receiving its energy, it doesn't force you to think that you are hungry! This helps you lose weight without the tragedy of craving or losing concentration or feeling tired all the time!

But some people need more than 3 days to achieve ketosis, so what are the signs to seek to know that you are on the right track for losing weight using ketogenic diet?

## **Signs of Ketosis:**

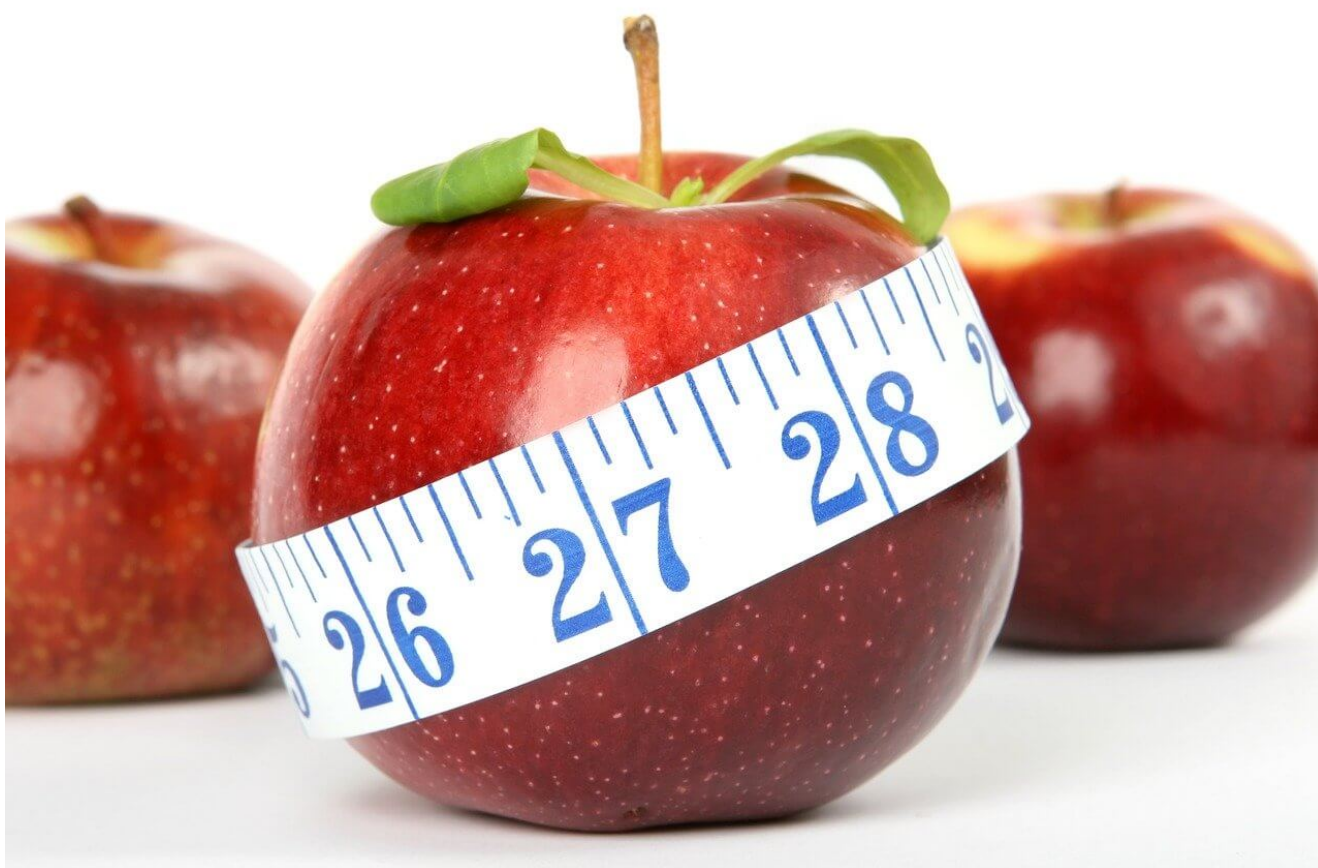
- 1. Smell of acetone in your breath “bad breath”**



Although bad breath is considered a side effect of ketogenic diet. but this means that the ketone bodies are in excess and are excreted mainly from the kidneys but some molecules especially acetone exit the body through our breath. This gives your breath a fruity odor which is not as fresh as it smells.

Will you give up the goal of your ideal weight because of that? Of course not! All you need to do is go on with your diet, brush your teeth several times a day and you can use sugar free gums to overcome the smell! Buy those here.

## 2. Weight loss:



This sign is easy, right? When you start to lose the extra weight, this means the diet is working! But remember in the first week. weight loss is mainly water and stored carbs. Checking your scale after the second week of ketogenic diet and seeing the numbers go down pound by pound, feel proud as

these pounds are almost pure fat loss.

### **3. Not feeling hungry all the time like before:**

Yes! When you feel that your appetite is not as strong as before, congratulate yourself on reaching a new milestone of ketogenic diet! As this diet helps suppress hunger hormones by feeding your brain healthy fats and your body feeds on healthy vegetables and proteins, making you full with no cravings!

Go Keto!

### **4. Feel focused:**

When you reach full ketosis, you feel focused and alert! What other diet does that?! Some studies suggest that keto diet enhances our cognitive function and may offer some neuroprotective effects!

### **5. Ketosis tests:**

There are some tests to be 100% sure that you have reached a full ketosis state. These tests include:

- Blood test: If your blood ketone levels lies between 0.5 and 3 millimoles per liter it means “nutritional ketosis” . It is 100% accurate but it is an invasive technique, expensive and needs a professional to perform it.( visit this lab for accurate testing)
- Breath analyzer: this is an easy test; all you need to do is breathe into an analyzer to detect ketone levels in your breath that may be indicative of these levels in your blood. It is simple, noninvasive but not everyone can put their hands on a breath analyzer.(get yours here)
- Urine indicator strips: using a urine sample, and an

indicator that changes color when it detects ketone bodies in your urine. It is easy, available and affordable but not 100% accurate.( get yours here)

## **Dietlife advice:**

The ketogenic diet is an effective diet to lose weight focusing mainly on excess fat without feeling tired or craving sugar all the time. But how does a ketogenic diet work effectively in helping us lose weight?

What is the exact mechanism behind it? Depending on fat and cutting carbs in your diet forces your body into a state called nutritional ketosis. Where your brain depends on fatty acids breakdown byproducts known as ketone bodies.

For Ketosis to work, You have to maintain this state for 3-7 days to start losing weight and benefit from the diet. Signs of a successful ketonic state like include fruity breath, weight loss, increased focus and feeling full most of the time!

Most importantly, Always consult with your nutritionist to make sure you are following the keto diet effectively and to measure your ketone bodies levels in your blood, breath or urine.

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<https://dietlife.com/ketogenic-diet-plan/>

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