## TD Fitness Review – The Keto Diet

This is the TD Fitness Podcast with Coach T., episode number 72.

Welcome to the TD Fitness Podcast, giving you healthy living insights for your physical, mental, social, and spiritual well-being, and now, your host, certified health coach and personal trainer, Coach T.

Hey, guys. Coach T here from TD Fitness. In this episode, episode number 72, we're going to talk about the keto diet. You may have heard about it, and if so, I hope to clear up some of the confusion, and maybe answer some of the questions that you may have. If you have not heard about the keto diet, well, this should be helpful too, as you possibly look at some dietary options or solutions because there are some very valid and pertinent dietary principles that I'll cover here in this episode.

You probably know that I tend to cater my content to those who are trying to live healthy, really while living life, while dealing with that busy lifestyle that so many of us tend to have these days. Well, in our constant quest for a seemingly simple, maybe lower effort solution or approach to living healthy, we often have a tendency to jump on the diet bandwagon, particularly if it promises weight loss. That's why I've decided to dedicate this episode to the keto diet. We'll go through what the keto diet is. We'll talk about its safety, its effectiveness, and an overall assessment based on my experience as a personal trainer and health coach, but also with some information provided by the registered dieticians that I partner with it, here at TD Fitness.

What is the science behind the keto diet? I think it's important to start there, because you have to kind of understand a little bit of the science before you really can grasp what the diet is about. Ketones, also referred to as ketone bodies, are produced in the liver, and their primary function is to provide fuel for your brain. If you don't already know this, the brain essentially uses two sources of energy for fuel. The first is glucose think sugar basically, which we get from carbohydrates, and the second source is these ketones or ketone bodies, which your body generates when you don't have adequate carb or sugar intake.

You don't have adequate carb sources. Either your body doesn't have any stores available, or you're just not taking enough in. These ketones and ketone bodies come from breaking down fatty acids, so they come from fats, okay? Again, the brain either uses energy derived from carbs for energy, or energy derived from fats for energy. If you think about it, there are really two primary ways to get your body to use these ketones as a primary source of fuel over carbohydrates, because carbohydrates are always going to be the primary preference, if you will, for fuel for your body, okay? The two ways that you can kind of get into that state of ketosis, or get your body to use those ketones are to basically alter your carb intake, and/or to alter your fat intake.

When you think about it from the carbohydrate perspective, you can either limit your carbs, or your body can burn more carbohydrates, right? Think prolonged exercise without taking in any carbohydrates, so you're burning fuel from the tank, but you're not refilling it. Another way you can restrict your intake of any and all fuel, through fasting. This is part of the premise behind intermittent fasting. Then, another way is to follow a carb-restricted diet, which is typically defined as less than 50 grams a day, which is about two bananas, or maybe a single bowl of rice.

You can manage your carb intake, or restrict your carb intake, or burn more without getting more in, and essentially put your body into a state of ketosis. Another way to reach this state is to increase your intake of fats, because if you consume ketones, for example, through a supplement, typically, this is done for exercise when you're talking about some kind of physical performance, specifically for endurance training. Most of us typically don't do that, but you can also alter your diet to increase fats. When you think about these two ways to get your body into a state of ketosis, limiting carbs and increasing fats, guess what? That puts us right where the keto diet is.

That's essentially what the keto diet is. That's where the keto diet comes in. What is the keto diet? The keto diet aims to get your body into a state of ketosis, where you're burning these ketone bodies, instead of the primary carbohydrate fuel sources for fuel. Instead of relying on carbs, which are broken down into, the body breaks them down into sugars or glucose molecules, those are derived from all carbohydrates, whether you're talking grains, bread, pasta, fruits, vegetables.

All carbohydrates can produce energy in that manner. Now, the keto diet restricts your carb intake, and increases your fat intake so that your body will use these ketones produced by the liver from that stored fat. How many carbs are we talking typically on a keto diet per day? Well, carbs make up typically about five to 10% of your daily caloric intake on a keto diet. As a point of comparison, typically, you're talking about 50 to 60% in, what we would consider a normal standard diet, recommended diet based on the Dietary Guidelines for Americans.

Remember though, that's not all rice, that's not all bread. Carbs are also fruits and vegetables, so typically, over half of your intake should come from carbs. Now, on the keto diet though, it limits your carb intake to five to 10% of your daily caloric intake. What is that in layman's terms? If you consume, let's just say, a 2,000-calorie diet to make the math kind of easy, and that's typically what folks will talk about on a normal dietary intake for when you're talking nutrition, so for a 2,000-calorie diet, five to 10% of that in calories is 100 to 200 calories from carbs.

That would be the equivalent, again of eating a medium to large size banana. That's it, for your carb intake that day, okay? How much fat are you consuming on a keto diet? Well, the keto diet recommends about 60 to 70% of your calories come from fats. Again, with a 2,000-calorie diet, that's about 1,200 to 1,400 calories, which would be if we broke that down into some kind of common intakes or common types of food that you might eat.

That would be the equivalent of eating a cup of almonds, an avocado, and half of a salmon fillet for your daily intake. That's actually not a lot, right? I mean, that was eye-opening to me, as I can research this and ran through the numbers. I assumed that the quantity of intake, how much you would consume would be a lot greater on the keto diet, but as you probably know, fats contain over two times as many calories per gram as proteins or carbs, so you don't have to eat as much. You would have to eat less overall if you're keeping your caloric intake at that 2,000-calorie, for example level.

Once you do that, once you change your diet, up your fat intake, reduce your carbo intake, after about three to six days, your body is going to use up its stored carbohydrate fuel from the liver, and from blood sugar, and from the reserves in your muscles, and it's going to call in the reserves. It's going to start to break down protein, and it's going to use fat for energy. The way it uses fats for energy is by producing these ketones, so the keto diet focuses on weight loss, versus long-term health, okay? This is an important point. When you break down protein, think of it as burning muscle essentially.

You will lose weight, and probably size too. You're going to lose some muscle mass. Also, it takes the body more energy. It takes more to burn fat, to metabolize fat, so that in itself adds to the weight loss. If you remember from episode number 69, that was the caffeine versus energy episode, energy equals calories, right? If you're burning more calories, you're using more energy, okay?

Understanding all of that, you can see that, that things could get a little bit tricky, if this is the approach that you choose to take, which being the keto diet. Brief recap, getting the liver to make ketone bodies requires some deliberate effort, okay? You have to minimize your carb intake, you have to increase the percentage of fat intake, and probably have some kind of fat at every meal that you eat, but you can't eat too much protein either, because that can actually interfere with ketosis. Understand too that it typically takes a few days to reach that state of ketosis, all right? What types of foods then are you consuming on the keto diet? Well, whether you're on a diet, consisting primarily of fats or not, healthiness and quality of food still matters, right?

It's not like you can just eat French fries, and bacon, and potato chips all day long. The keto diet does allow for healthy unsaturated fats, things like nuts, seeds, avocado, even tofu or olive oil, and the saturated fat should still come from oils, palm oil, coconut oil, but they also allow for things like lard, butter, cocoa butter, and in fact, encourage them in high amounts. Now, this is based on the research that I came upon as I was researching for this episode. I do want to state that I have not tried the keto diet. I have not followed this.

I've talked to a number of people who have tried it, and again, used the information that I could gather through my research, and the information provided by the registered dieticians, and that is the information that I'm presenting here, but I want to be clear that I have not tried the keto diet. Typically, I do like to at least experiment with the things that I bring before you as topics for the episodes, but the keto diet frankly was not something that I wanted to try. That's where where we are with that. Now, protein, going back to the keto diet. What does it consist of?

Protein is part of the keto diet, but it doesn't typically discriminate between lean protein foods and protein sources that are high in saturated fats, like beef, pork, bacon. When it comes to carbs ... That's the protein portion, right? When it comes to carbs, remember, we're minimizing those carbohydrates. Well, all fruits are rich in carbohydrates, but you can have certain fruits on the keto diet in very small portions, and typically, that's done by consuming some type of berries, but again, it's not a lot.

Vegetables ... Also carbohydrates. Vegetables are rich in carbs as well, and typically, the keto diet will try to restrict those, the more leafy greens because they're on the lower end of the carbs per serving scale. If you think leafy vegetables like kale, or spinach, even a cup of broccoli only has about six grams of carbohydrates, so you can get a good amount of vegetables in actually on the keto diet, and not shoot your carbohydrate intake through the roof. All right.

The keto diet, does it work? Well, what I found based on the research is that only short-term results have really been studied, or have been attained, and those results have frankly been mixed, right? That said, when you consider it from a purely calorie in versus calorie out point of view, and I typically don't like to restrict it to just that because there's more to that equation, right? I've talked about that in previous episodes, but my training tells me that keto falls somewhere between maybe a plant-based diet, if you consider that healthy, I do, and the typical American diet, which is typically unhealthy, okay? I understand that's probably not a lot of help, so I'm going to go into some of the things that I consider with all of this, right?

One of the first questions that you should ask, not just about the keto diet, but about any diet is, "Is it safe?", because the diet that does harm to you or your body, that's a non-starter, but there are plenty of diets that aren't harmful, but that also aren't effective. To answer whether the keto diet is safe for you, I'm going to tell you that you need to consult your physician. Keto is actually, it started as a medical diet that's been used to treat seizures that stem from epilepsy, but again, in our constant quest for kind of the quick weight loss solutions, we developed this idea of using it to lose weight without giving up fatty foods, because that seems like the best of both worlds, right? Well, maybe it is. Maybe it's not.

Again, I want you to talk to your physician because you're essentially taking your body to a place where it doesn't naturally prefer to operate, i.e., burning fats all the time as a primary source of energy and brain fuel. That's why a doctor who personally knows your state of health is probably the best person to ask regarding the safety of the keto diet for you. If you have diabetes, for example, having too many ketones in your blood can make you sick. That's why talking with your doctor is important. If you're obese, you have maybe a heart condition, or maybe you have high blood pressure, any of those things, any type of health issue, you should make dietary changes prudently and slowly, so again, I want you to consult with your doctor.

Now, I will point out some of the risks that were noted in the research that I conducted, but I'll also offer some possible benefits, because I do want to provide an objective look here, and give you the information so that you can kind of make the most informed, the best informed decision for you. Risks, we'll start there. Well, the keto diet can be high in saturated fats. Now, the Dietary Guidelines for Americans, which is published every five years, the most recent publication was in 2015. I'll link to that in the show notes.

There's some great information in there, and you can check out the executive summary, and view a lot of that information. The Dietary Guidelines for Americans recommends no more than 10% of your daily caloric intake come from saturated fats. Now, historically, saturated fats have been associated with significantly increased chances of heart disease and increased levels of cholesterol. I will say that I have seen some research that counters this however, but right now, the Dietary Guidelines for Americans asks you to limit your intake of saturated fats because of the links to heart disease and higher levels of cholesterol. As I think about this practically, I mean, that kind of makes sense to me that unsaturated fats are healthier than saturated fats.

If you keep in mind that saturated fats are typically solid at room temperature, while unsaturated fats are liquid at room temperature, think about like the oils, olive oil and so forth. When you consider the stuff that clogs your arteries, I would think that you'd want to limit those hard saturated fats, okay? Some of the other risks. If you think about all of this in kind of the whole diet sense, remember that the body needs variety. When you severely limit or restrict one of the three macronutrients, those macronutrients are proteins, carbohydrates, and fats, and in this case, you're limiting carbohydrates, then you may be at risk for nutrient deficiency. There are also micronutrients, vitamins, minerals.

Those are the things that we typically refer to as micronutrients, that we need those things, and eating a variety of carbohydrates, proteins and fats, helps to provide this variety. I'll talk a little bit more about this in a minute. Another possible risk is that the liver has to work hard to metabolize all of this fat that you're consuming, so if you have any preexisting liver conditions, it could make matters worse. Again, I go back to the advice that you should should consult your physician because that's where your physician should be able to offer some pretty sound advice. I saw kidney problems also listed as a risk here, due to their role in metabolizing protein.

The concern was that they could be overloaded as well, but honestly, I don't see that since the protein intake on the keto diet is actually pretty similar to what the Dietary Guidelines for Americans recommends for normal consumption. Now, when you think about your digestion and food moving through your system, remember that carbohydrates, at least healthy carbohydrates, also provide good amounts of fiber, which helps with bowel movements. If you reduce your carbon take, there's a chance that you could get low on fiber consumption as well, and that could lead to constipation. The keto diet is typically low in those fibrous foods, so something to keep in mind. Then finally, remember we started all of this not with a weight loss discussion, but with the brain fuel discussion, right?

A lot of people would argue that the brain needs fuel from carbohydrates in order to function efficiently, so in fact, some people who have gone on the keto diet have noted fogginess or confusion, sometimes mood swings, irritability. Now, I haven't tried the keto diet again, so I can't personally attest to any of this, but I'd imagine that I'd get a little snappy if I severely cut back on the amount of carbs in my diet, but that's just me. There are some other side effects that I read about as well. Maybe not as serious, but I guess worth noting, indigestion, also what's referred to as the keto flu. I hadn't heard of this term, but that typically manifests itself through headaches, or weakness, or fatigue.

Even bad breath was one of the things that a they listed there, so just some things to consider. Now, I want to hit a couple of the benefits, at least as I assessed this, right? Many people on the keto diet do indeed lose weight, as I mentioned earlier. Keep in mind that you are severely limiting your carbohydrate intake in the ... Though this changes how your body creates energy from what you eat, it also tends to keep your blood sugar lower and more predictable.

Carbohydrate intake ... Actually, I should say unhealthy carbohydrate intake, causes a spike in insulin, and continuously elevated levels of insulin in the bloodstream have been shown to contribute to weight gain. I talk about that in episode number 29, where the topic of that episode was Body Set Point Weight and Hormones, and How Our Bodies Work Against our Weight Loss Efforts. You can go check that out. I'll link to it in the show notes.

Keto is like most low-carb diets in this regard, in that it keeps your blood sugar level low, and therefore, your insulin levels low. Ketogenetic diets also get your body in the habit of burning fat for fuel more efficiently, so the common assumption is that your body no longer needs to store excess amounts of fat, right? Well, truth be told, you're probably burning fat as the highest percentage of calories right now as you listen to this, that is if you're not exercising, because at rest and in low intensity movement, the body's primary source of fuel is stored fat, so it's not like burning fat through ketosis is something new to the body. It's just that fat or ketones become the primary source of fuel for just about all that your body does when you're on the keto diet. Another possible benefit, some studies have shown that overall cholesterol actually gets better, as in bad cholesterol levels go down, and levels of good cholesterol go up.

That seems counterintuitive. I know, especially considering that you're eating more fats, but if the data is accurate, that just goes to show that there are mixed reviews, and that all of the research does not necessarily align, so I just bring that up for consideration. Then finally, again, if you look at the diet holistically, kind of take the total caloric intake, maybe the percentage of protein, consider that, any amount of vegetables that you can consume on the keto diet. If you're smart about what you take in, this isn't all that different than a plant-based diet. I know that may seem strange to say, but you can limit your carb intake to 50 grams, and still get in a good amount of veggies on the keto diet.

Now, that said, I don't know that that is actually how most keto practitioners put this into action. I'm going to round this off by running through my ABC of dietary assessments. This is the same checklist or information that you'll find on the homepage at tdfitness.net at the time of this recording. It's called Diet Planning Principles 2.0. You can go to tdfitness.net and download that.

Basically, it's a ... I use an acronym, ABCDE, okay? A is for an assortment or an array of foods, B is for balance, C is for calorie control, D is for nutrient density, and E is for enough. This is the lens through which I will try to assess or view any type of diet when someone tells me something, a new diet that's out there or something else that they're considering trying, and I encourage you to use this technique too. Let's start with A, the assortment or array.

You need a variety in your diet to make sure you get different amounts of nutrients from different types of foods, and, oh, by the way, to make sure that you don't get bored, right? How does the keto diet stack up in the assortment, or array, or variety category? Well, carbs are extremely limited, so I'm not inclined to give it a passing score here, so I give the keto diet a thumbs down for assortment and array. Next, let's talk balance. Similarly, you need balance, just like you need variety.

The keto diet is lopsided. It's way heavy on the fat intake. Again, thumbs down for balance. Now, when it comes to calorie control, calorie control is a way of measuring whether we're eating too much, right? It's a technique we use fairly valid, but it is what it is, right?

We'll just use calorie control in this instance. The keto diet doesn't necessarily call for eating more food, so assuming you keep your calorie intake where it needs to be, based on your height, weight, gender, age and activity level, whether you're on the keto diet or not, you're going to be fine from a pure calories in standpoint, so I'll give it a thumbs up for calorie control, because the diet doesn't ask you to consume more. It just calls for consuming different amounts of each nutrient group. I'd also note that with high intakes of fat, you may actually be eating less food, while consuming the same amount of calories, because fats contain more calories per serving. This can be good or bad, depending on whether you like to eat often throughout the day, but a diet high in fat should also keep you fuller for longer because fat tends to stay in the stomach longer than carbohydrates will.

That kind of leads us into the D for nutrient density. Remember, whether you're eating all carbs, all fats or whatever, the quality of the food that you eat is still important. You can choose healthy fats on the keto diet, so don't let the fact that you're primarily eating fats prevent you from choosing healthy fats. The negative is that, as best I could tell, the keto diet doesn't necessarily discriminate between those good and bad fats, as long as they're fats, so nutrient density is essentially a measure of the amount of nutrients in a certain food, compared to the number of calories it contains, and fats, by definition are less nutrient dense and more energy dense. Remember, energy equals calories, right?

For that reason, I have to give the keto diet a thumbs down in the nutrient density category. Now, the final letter of A, B, C, D and E, E is for enough. No matter the diet, it should provide a sufficient amount of energy in the form of calories, and adequate amounts of all nutrients required for a healthy diet. The keto diet is not a starvation diet like some others on the market, so I actually will give the keto diet a thumbs up in this category. That's it, A through E, right?

Recapping, we got two two thumbs up in the calorie control and getting enough calories in every day, but also had three thumbs down in the variety nutritional balance and nutrient density category. That's my assessment. The final question though I always ask is this. If the

first question is about safety, "Is this diet safe?", the last question I will ask is, "Is it sustainable?" What I've found is that this varies from person to person.

What's completely sustainable for some, may not be sustainable for others. I want you to ask yourself, "Is severely limiting your carb intake something that you can do for the rest of your life?" Only you can answer that, but as you think about it, I want you to also consider this. Don't be tied to an all-or-nothing mentality, because lifestyle change is rarely all or nothing. For example, you could try intermittent keto, for example.

Remember that it takes a few days to reach a state of ketosis, so your periods would have to be longer than a week. You can't try the keto diet for two days, and then get off of it, and get back on it. Now, you have to give your body time to reach that state of ketosis, so I would recommend at least a week for your keto period, if you will, but that doesn't mean you have to stay on it and practice the keto diet forever, so you could very well try it out. What I want you to understand with keto and with all dietary approaches for that matter is this. Different things work for different people, and at different times of your life, different things are going to work for you or not work for you, right?

As long as the approach is safe, check with your doctor, and if it's working for you, then don't let me sway you. I simply want to make sure that you know what I know about the keto diet. Is that a deal? All right. I'm going to wrap it up here. A couple of takeaways though.

If you plan to start your keto diet, I think I've pounded this home enough, I want you to consult your doctor. If you're already on the keto diet, and you haven't consulted your doctor, I want you to consult your doctor, okay? That's the first thing. Number two, just like every body has different needs, men and women are different too, right? When you take an approach like the keto diet, one that is going to alter the way your body metabolizes nutrients, your hormones are more of a consideration, particularly for females, for the ladies, so carbs are important to balancing your hormones as a female.

Low-carb diets can boost cortisol levels, that's the stress hormone, and it can mess with estrogen and testosterone, and subsequently affect menstrual cycles, PMS, mood, energy, and appetite, so again, consult your doctor, okay? Then, the final thing I'll leave you with is this. I want you to ask yourself, "Is weight loss your goal?" That may sound like a funny question. Most people would say, "Of course, weight loss is my goal."

Well, "Is weight loss really your goal, or is your goal long-term, sustainable health or healthy living?", which could include maybe losing some weight, but think about what your real goal is, your long-term goal. The keto diet is a weight loss diet. What you probably need is a lifestyle approach, okay? If you're interested in a lifestyle approach, then I encourage you to consider my Fit Life Program. You can find out more at fitlifeprogram.com.

I'm going to leave you with the verse of the week. It's from 1 Timothy 4:4, and it says this. "Since everything God created is good, we should not reject any of it, but receive it with thanks." I want you to think about that as you consider diets that minimize or severely limit any of the major nutrients like carbs, for example. They're called nutrients for a reason.

They provide nourishment for the body, and they each have a purpose. Thank you guys for listening. Check out the show notes for this episode at tdfitness.net/072. Wherever you're watching or listening to this, do me a favor. Leave a comment, especially if you have experience with the keto diet, or you have thoughts on it, or maybe even questions.

I'm always looking to get more personal experiences as I seek to learn and educate others, okay? Have a blessed week. Coach T., signing out.