

Episode 27 – Calories and Weight Loss – What to Really Expect... The ‘Eat Less, Move More’ Fallacy

This is the TD Fitness Podcast with Coach T. Episode Number 28.

Welcome to the TD Fitness Podcast, giving you ways to live a healthy lifestyle without giving up the things that make life worth living. And now your host, certified health coach and personal trainer, Coach T.

Welcome back to the TD Channel. This is Episode Number 28 and in this episode we're talking about calories. We're talking about calorie control, calorie burn, does it even matter when it comes to weight loss. And what can you really expect. And why is the simple instruction of eat less and move more, while so very well intentioned, why is it just not cutting it for those who seek to lose weight.

Well, I want to start with a hypothetical. Although you may find that this hits pretty close to home. So you have a desk job. You're moderately active. You exercise maybe once or twice a week. And you use an online calculator that tells you, you need to eat 1800 calories per day based on your gender, your height, your weight, your activity level and your age.

And it also tells you that in order to lose weight at a moderate weight, you should create a negative calorie balance of 200 calories a day. And that will get you to lose about a pound and a half to two pounds per month. So, you can either cut 200 calories from your diet. You can burn 200 extra calories through exercise and activity or you can do some combination of the two.

So you do that, consuming as little as 1500 calories per day on some days and increasing the amount of exercise you do. And you see a couple of pounds come off. Maybe even five or ten pounds. But then something strange happens. The weight loss stops and you start to creep back up to your previous weight. And at the end of the year, if you're even able to stick with it for that long. You get on the scale and you're heavier than when you started. What is going on? You should be 20 pounds lighter by now.

So you talk to a friend who has had similar problems in the past losing and gaining the same ten pounds over and over again. So you decide to join the juice cleanse challenge. Well, that's an episode for another day. I'd like to think of a better ending to the story where you and your friend decide to enroll in the Fit Life Program and you develop an approach that gives you an understanding of behavior change and teaches you how to incorporate healthy habits, fitness and nutrition habits into your life for good and gives you some accountability.

And at the end of that program you find yourself looking better. Actually living that elusive goals of being healthier and raving to your friends about how your entire outlook has changed. That's what I want for you but I digress, right.

So let's look back on the story. Why didn't your initial efforts work? I mean you followed what it said. You limited your calories. You started burning more calories and the math said it would work. Well, here's the deal. It's not just how much you eat. It's not even what you eat and when you eat. Yes, those

things weigh into the equation but there's more to it than that. More than we even realize. So how did we get to the oversimplified mantra of, eat less and move more.

In order to understand that, I'll refresh you on the history of how we came to believe that calorie control is the magic bullet, if you will, of weight loss. If you listen to Episode Number 14, that one was called "Making Nutrition Work for You. How to Never Struggle with Diets Again." You may remember my abbreviated explanation of the history.

So in that episode I described how fat was inaccurately determined to be the culprit of bad health back in the 1950s and how because of that we not only cut fat from our diets as a society but we also cut protein because many proteins contain fat as well. And remember there are only three macronutrients. There are proteins, carbs and fats and each of them are important for different reasons. And if you take one of two of them out of the equation, then you're gonna have to increase the third.

This meant that with proteins and fats reduced significantly from our diets then our diets primarily consisted of carbohydrates. And guess what? You probably don't even have to guess. Because you may have lived it. As a society, we gained more and more weight over time, even though we cut out the proteins and the fats. And so now there's confusion right because carbs are good, right? Carbs themselves aren't bad. I mean vegetables are carbohydrates. Fruits are carbohydrates. But the problem is that many of the carbs we were consuming tended to be the highly processed and highly refined carbs. Think of the breads, the pastas, the rice and the other refined carbs.

And what made matters worse was that the government nutrition guidance actually recommended that over half of our diet should consist of grains. So those carbs. So there had to be a new culprit right? Because we were still gaining weight. We had to figure out some way to describe why people were still gaining weight. And since carbs were the good macronutrient, I put that in air quotes. The good nutrient of the three. Proteins, carbs and fat. Yet, consumption of some carbs caused weight gain. Nutrition experts adopted the belief that carbs weren't necessarily fattening but rather it was the excess calories that were the culprit and that is when the calorie counting began.

So that's kind of the brief historical snapshot. But here are the facts, and a lot of this comes from a report I read that was produced by Precision Nutrition. The first is that doctors and fitness professionals, the government and many so-called experts have been preaching the calorie deficit theory for a while now. Yet, we're still in an era where obesity rates are at an all time high. In fact, obesity rates have tripled since 1975. And for the first time ever, overeating is a larger problem than starvation among the world's overall population.

Millions of people who try to lose weight, who aren't successful in losing weight or even worse, they lose weight only to regain that weight back or to regain more weight. That's so prevalent. And in 2013, the American Medical Association actually declared obesity as a disease requiring treatment. That's how prevalent it is. Now I've read a lot about this topic. I had studied it through my initial education in the health and fitness field through multiple certifications and courses that I've taken as continuing education requirements.

And I'll tell you that most of the literature still states that if you want to lose weight, you should take in fewer calories than you burn or you should burn more than you consume. And most experts agree with this. This issue, and what I want to point out in this episode, is that is a super simplified version of what

you need to know. It's not the whole story. That simplified version is needed because we all need a tagline, right? Something we can remember. A simple rule to focus on and I can appreciate that. Believe me.

We don't have a lot of time to understand the full story right? Just give me the headline. But because you're here right now, because you're listening to this or watching this or reading this. I know that you're making the time to listen and understand it right now. And what that means is that you're serious about understanding this concept. You're serious about living healthier. You're serious about making lifelong change.

So I'm gonna break it down for you. I want to explain that there is ... There is so much more to this storyline. There is several assumptions and realities that are just glossed over by such a simple approach or tagline, "Burn more than you take in to lose weight." And this helps to explain the dilemma in the initial story I told. The one about you and how the calorie math just didn't add up in your weight loss efforts.

So here's the reality. The numbers don't add up. Why is that? Because there's more to it. So let's look at the equation. You have been led to believe that calories burned minus calories consumed equals weight loss. The more calories you burn, the less calories you consume, the bigger that difference is and the more weight you will lose. So that's what we try to do. We try to burn more calories by exercising more. We try to consume fewer calories. Typically by just eating less.

But let's look at what actually goes into each part of that equation. Let's start with the calories burned. It's not just more exercise. First of all, calories burned varies greatly from one person to the next. If you think back to the online calculator in the initial story. The calculator that you used to determine how many calories you should consume each day to lose weight. There is several variable that go into that right? Your height, your weight, your age, your gender, how much you exercise, your activity level.

It's highly variable and even for two people with the exact same inputs to those variables, calorie burn can be very different. Why is that? Well, scientifically speaking, there are three or four, depending on how you classify the categories, there are three variable that determine how many calories you burn. And it's a bit complex but I'm gonna simplify it here for you. The first is your resting metabolic rate or RMR. This is the number of calories that you burn each day at rest. Just breathing, just thinking, just living. And it represents about 60% of the amount of calories you need to burn each day.

And it again depends on how much you weigh, your body composition, your gender, your age, genetics. Many people refer to this as metabolism. You've heard people say, "Oh, I have a high metabolism or my metabolism is slowing down." What that really means is you resting metabolic rate, okay? And in going back to the variables that I just mentioned a bigger individual, in general has a higher resting metabolic rate. So the bigger you are the more calories you burn just to sustain life. There are more metabolic functions and activities that have to occur in your body. That's why men, generally speaking, burn more calories than women.

Because we weigh more and again, generally speaking, we have more muscle mass, okay? But here's the thing. Not only are there variables in your RMR, be it your height, your weight and so forth. But RMR itself can vary up to 15% from one person to the next with everything else being equal. So someone who

is the same height, weight, age, gender as you can burn 30 calories more or less each day, assuming you weigh 200 pounds, let's say to make the math easy.

So people are different. And it's a function of genes. It's a function of genetics. How much sleep you get. Even menstrual cycles can increase or affect your calorie burn. And another tidbit you may not want to hear but I'm gonna shoot you straight. If you've been heavier, you may need to burn more calories than someone who is the same weight as you now but they have not been healthier in the past.

So if you want to lose weight and let's say you weight 250 pounds but your down from 300 or so. Another 250 pound individual who has never weight more than that doesn't necessarily, they don't have to work as hard to lose that weight. You may. Your weight history is a factor in other words. So again, RMR makes up about 60% of your total daily energy expenditure and there are so many things that go into it.

But you can't directly change your metabolism, right? You can't directly change your resting metabolic rate. The second thing though, the second big category that goes into how many calories that you burn is the amount of physical activity you do. And physical activity is something you can control. In fact, it's the most variable in that part of the equation because you can control how much physical activity you take part in.

You can control the type of activity. You can control the intensity of exercise and the types of movement that you perform. And you burn calories through purposeful exercise and what I'll call, non purposeful movement. Such as walking, running, going to the gym. Those are all purposeful things. You were intentionally exercising. And then the non purposeful exercise but the things that still burn calories for you. Parking farther away from the door, taking the stairs, standing up at you desk, washing clothes, washing dishes, all of that burns calories.

But guess what? All of that activity is extremely hard to measure. Even if the calorie burn numbers on the treadmill and that heart rate monitor that you have. Even if they were accurate and I can pretty much guarantee you that they're not accurate for you because it's the same equation that's used for everyone, right? Based on the variable you put in.

But there would still be errors in trying to calculate the calorie burn for all of the different types of activities that you perform throughout the day. Whether it's intentional activity or just through daily living. So the calorie burn estimates aren't precise. I've seen numbers that state the method behind almost all of those calorie burn estimates you see can have a margin of error up to 45%. And the consumer fitness trackers that you purchase. They can be off by as much as 30% for your totally daily caloric expenditure and off by 10%-20% for activity.

So there's a lot of variability in what you think you're burning and what your devices tell you that your burning. And then the third factor ... So the first two again, resting metabolic rate was the first one, physical activity was the second one and the third was called the thermic effect of food. So in case you didn't know, it takes energy to digest the food you eat. That's called the thermic effect, the thermic effect of food or the thermic effect of eating. And it's essentially the number of calories you burn by eating, digesting and processing the food within your body.

It's pretty minimal when you compare it to the resting metabolic rate and your exercise activity. Thermic effect of food represents only about 5%-10% of your total energy burn. But in general, you'll burn the most calories when digesting proteins. Smaller percentages to digest carbohydrates and very minimal percentages when it come to digesting fat. And as we noted before, you'll burn more calories digesting minimally process whole foods compared to highly processed foods. I'll talk a little bit more about that.

So, that's calories burned. Now, let's talk about the calories that you consume. So most of us have measured calorie intake through a food log or some type of tracking system. I still use that technique from time to time as inputs into nutrition assessments for example that I provide for individuals that I work with. But calories in is a trickier number than you think for a couple of big reason.

The first, is that the number of calories in a meal doesn't necessarily match the number of calories on the food labels or on the menu. The calorie counts are not precise. In fact, the FDA permits inaccuracies of up to 20%. So that means that 150 calories can actually mean anywhere between 100 and 180 ... 120 and 180 calories. So there's a 60 calorie swing in there. And we're just not that good at eyeballing portion sizes. We'll read on the label that one portion contains this many calories but we'll put two portions on our plate and think that that's good.

And the second reason, the amount of energy a food contains in the form of calories is not necessarily the amount of energy we absorb, the amount of energy we store or the amount of energy we use. So we absorb less energy from minimally process carbohydrates and fats because they're harder to digest. And we absorb more energy, more calories from highly process carbohydrates and fats because they're easy to digest.

Think of it this way, more processed a food is the more of the digestion work is already done for you. So for example, when you talk about peanuts and peanut butter. We absorb more fat from peanut butter than from whole peanuts because the peanut butter is already processed to an extent. Our bodies don't have to work to do that. It's there for us to extract, the calories are. So we often absorb more energy from food also that is cooked or chopped or blended because the process again of breaking down the plant and animal cells, that increases the bioavailability, increases the amount of absorption that we're able to use from those foods.

In the end, a diet rich in whole minimally process foods and the number of calories you absorb can be significantly less than what you can expect, all right. And those types of foods, those minimally processed foods require more calories to digest. And on the flip side, you'll absorb more calories by eating the highly processed foods because they burn ... you'll burn fewer calories in the process. The highly processed foods are also less filling. They're more energy dense and more likely to cause overeating, which also works against you.

So let's recap that. When it comes to calorie burn. Calorie burn estimates are imprecise. Individuals who burn calories, burn them uniquely and variably because everyone is different. And how much you eat influences the calories you burn and your weight history also influences how many calories you burn. So when you start thinking about counting the calories you burn or the calories out. That can be a lot less reliable than you think.

On the calories in side of the house. Again, calorie counts, nutrition labels, they are imprecise as well. And we don't absorb all of the calories we consume. And part of the variability comes into play with how

you prepare the food. Individuals again, absorb calories uniquely. Everyone's different and we're not good at eyeballing our portion sizes. So that original equation, where you talk about calories burned minus calories consumed equals weight loss. What that really means is calories burned is equivalent to your metabolism, plus your activity, plus the thermic effect of food minus the calories consumed which is the calories consumed is the difference between the actual calories eaten and the calories your body doesn't absorb. That's what equals weight loss and that is confusing because it's confusing for me to even say that.

If you're watching the video at least you can see it on the slide. But wait. There's more. The weight loss equation sounds simple initially but that's not the full story, right? Here's the kicker. Even if you nailed all of the numbers in that equation, and you started to lose weight. Your body adjusts. Because when you consume fewer calories, your body automatically reduces the number of calories it burns. It's a safety mechanism. You want to let the weight go for aesthetic or health purposes but your body wants to keep it for survival purposes.

Your body fights to maintain a balance because it doesn't know your skimping for weight loss. It thinks you might be starting to starve. And that's why, in our initial story, that's why you lost the weight initially but once the body recognized what was happening it became harder to continue to lose that weight or to keep it off by doing the same things that you started doing to lose the weight to begin with.

Likewise, when your energy in goes up, your energy out tends to go up too. So you burn more calories in response to eating more. And you burn less calories in response to eating less. So, let's take some examples based on some of the things we've discussed already. We talked about the thermic effect of food and how when you eat you burn calories based on what you eat and how much you eat. Well, the thermic effect of eating goes down when you eat less. That goes against your goal to burn more and lose weight.

Your resting metabolic weight goes down because you start to weigh a little bit less. That goes against your goal to burn more and lose weight. And the calories burned through physical activity, actually go down since you weigh less. Heavier individuals burn more calories when they exercise. As you get lighter, you'll burn less calories when you exercise and those calories that weren't absorbed in digestion before, well, the body works harder to digest and absorb those calories because it's trying to get all it can because there's less coming in. And that serves to add more calories to what you digest.

Let's look at the physical activity side. So increasing physical activity above a certain threshold by exercising more can trigger a few things to happen. Things that you don't want to happen. So, as you exercise more, your appetite increases, because now there is a need for more energy, more fuel. And if you eat more then you're gonna consume more calories. Also we absorb more of what we eat for the same reasons. Again, your body needs that energy, those calories. So, it's gonna do a better job of breaking down the food you eat and extracting the energy from it.

And your resting metabolic rate goes down when you exercise more consistently because your body functions become more efficient and you don't require as much energy to operate. Your heart doesn't have to work as hard when you're resting. You have better brain functionality. Less stress. And speaking of stress, which is often associated with dieting, as you know. The stress hormone, which is called cortisol. It kicks off several functions in our bodies that also work against us.

And I hate to kick you while you're down but there's more. There are several other things the body does to try to ensure it has enough calories or energy to sustain life. So in addition to those things that I just mentioned, when you cut back on the calories you eat, the hormones in your body send stronger and stronger hunger signals. We crave more and we crave the things that are gonna give us the biggest calories bang for our buck. You ever crave broccoli? Not likely, right. How about chocolate cake? Yeah. How about pasta and bread? Yes.

What all this means is that while you're working so hard to lose weight, your body is working through hormonal and other bodily function changes to keep the weight on. And the overall effect is that your rate of weight loss slows down and then maybe you stop losing weight altogether. And unfortunately for some the weight comes back and it comes in higher quantities than you even started with. So stop telling yourself and stop listening to people who tell you it's all you, that you lack the will power, that you lack the discipline.

No, this is hormonal and that's next week's episode. It's all about metabolism, about hormones and the concept of the body's set point weight. Which is the body's resistance to change the weight that it's become accustomed to. It's science, guys. So where does that leave us? I started by saying that the weight loss formula is more complicated than eat less and move more. It's more complicated than burn more calories, consume fewer calories and now we can understand why.

But the reasons why we continue to hear this simple message is that, well, it's simple. It's easy to remember and we want simplicity. Honestly, reducing calories can be a good place to start for some and exercise. More movement is good for you. So, yes. Eat less. But take that to mean, don't overeat. And consume quality foods that are higher in nutrients and lower in calories. And yes, by all means, move more. Movement is good. It's good for you. Just know that when it comes to burning calories, exercise alone is not going to get you there.

I go deeper into this concept in Episode Number 13, which is called, "The Surprising Truth About Exercise for Weight Loss. What Exercise Doesn't Do and What's It's Good for You." So check out that episode. How much you can lose or gain can depend on a lot of different things. Much of which you just simply can't control and a lot of it that you'll never even know about.

And the other unfair part is that change is very hard for some people. And it's very easy for other people. But the shining light at the end of the tunnel, the shining light through all of this is that change is possible for everyone. Now, you know I started this episode with a story and I think I'll finish with another quick story. But this one is not just based on real life, it actually happened.

I'm going to title this, "The Sandcastle and the Snowman." What in the world does that mean? So a few months ago our family traveled to Hawaii. And one of the things that our daughters, particularly our oldest daughter, who is age five. One of the things she liked to do most is spend time on the beach playing in the water and playing in the sand and I would help her gather piles of sand, using the buckets to scrape it from around the area so she could mold that sand into the masterpiece that she had in her mind.

Fast forward a few months to last week, where in our area we got about four or five inches of snow in one day. So school was canceled. Most of the businesses were closed, including the offices where I work. So what better time to go out and build a snowman. Well, both my wife and I started scraping the

surrounded area for snow, creating a big cone shaped mound. But our five year old did something different. She made a snowball and she rolled it. She rolled it around a bit and created these huge snowballs, which actually went on to form the body of the snowman. And we stacked those on top of one another.

She reminded us how to build a snowman. We were stuck in the sandcastle mindset. So here's the deal. When it comes to your weight loss efforts, your healthy living goals, your better nutrition practices, your desire for consistent activity and exercise. You can keep trying to add those things that are popping up around you. Hey, that's a good idea maybe I'll try a cleanse or that's the diet I should follow or six workouts a week, well, if that's what it takes. That is the sandcastle mentality.

Or you can start with a small improvement in one area of your life. I am going to exercise once or twice this week. What if I add a side salad to my meal today? Or sure, I'll try the whole wheat option. Those small actions, they snowball. They get bigger and bigger and you can stack those to new heights. Do you want to keep gathering things as you hear about them and building up that proverbial pile of your, randomly adding those things to your approach? Or do you want take a methodical approach, a proven approach, a much simpler approach and have a snowball effect?

Don't just keep adding new techniques and approaches hoping that something will stick. Start small and build on that single habit and momentum. Use the power of small wins and successes. If you want to learn more about making snowballs in your health and fitness journey, check out the Fit Life Program at FitLifeProgram.com. Now, if you want to check out the show notes for this episode, head on over to TDFitness.net/028 where you can watch, you can listen, you can read or just close your eyes and place your head on your computer or put the smartphone up to your head and have the information pass through osmosis. That doesn't really happen but you will find links to all of the references that I mentioned in this episode there on the show notes page.

And as always thank you. Thank you for listening. Thank you for tuning in. Thank you for your time and attention. It is valuable and I know it. And I appreciate it. And I appreciate you. That's why I want you to have a blessed one. Coach T, out.