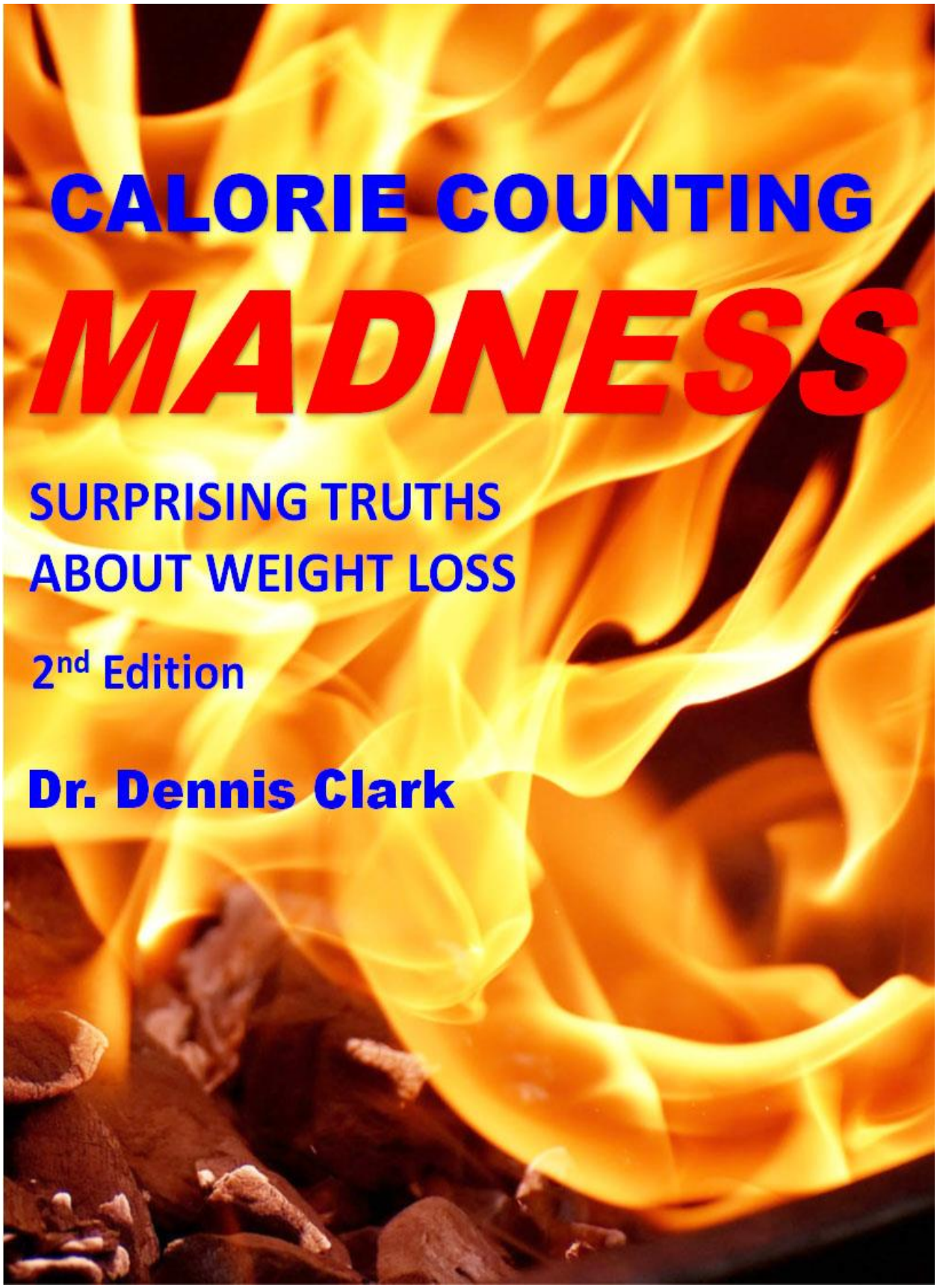
CALORIE COUNTING
MADNESS
SURPRISING TRUTHS
ABOUT WEIGHT LOSS
2nd Edition
Dr. Dennis Clark

Calorie Counting Madness: Surprising Truths About Weight Loss, 2nd ed.

(Ebook)

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INTRODUCTION

Human metabolism is logical and rational, or at least is supposed to be. Unfortunately, scientists have taken a wrong turn when it comes to calories. The concept of using calories for keeping track of how much to eat has become thoughtless and dogmatic.

The concept of food calories has become the foundation for one of the biggest myths ever perpetrated on humanity about dieting. It is known as the Calories In/Calories Out advice that nutritionists, doctors, and health care professionals of all kinds mete out as the bedrock of weight management.

Too bad it isn't true.

The good news for you is that, since Calories In/Calories Out advice is obsolete, you don't have to count calories to lose weight. In fact, calorie counting is madness and it won't work.

The purpose for this brief book is to explain what calories really are, why counting calories is irrelevant for dieting, and what approaches to weight management really do work, based on actual human metabolism.

PERSPECTIVE ON WEIGHT

Using terms correctly is usually important, right? One of the surprises about weight loss is that it is a misnomer. The term is not used appropriately.

Let's get a little geeky to find out why.

First off, weight is a physical phenomenon that is a function of mass and gravity. Specifically, it is the pull of gravitation on mass. Scientists don't really refer to the pull of gravitation. We call it acceleration, which is measured as meters per second per second (or per second squared).

Your weight, therefore, is a product of your mass times acceleration due to gravity. As an example, for a mass of 100 kilograms, on Earth that would create a weight of 100 X 9.81 meters per second squared. That means 981 units of weight.

Units of weight in the metric system are called Newtons (N). Can you imagine yourself as weighing 981 N? Where do pounds come in? Normally we would equate 100 kg with 220 pounds, although that is only true on Earth.

Weight and mass are two different animals entirely. Weight, as you see, is a function of gravity. On the other hand, mass is not. Kilograms and pounds are therefore not comparable. Newtons and pounds are. By the way, the English system of measurements has no equivalent of mass.

If you think this is confusing, consider what the British face. They measure weight in stones. Our 220 pound example would be 15.7 stones. Wow...now THAT clears things up, doesn't it?

Think about what all this means for weight vs. mass. You can become weightless in outer space. You can never become massless.

In fact, the (bad) joke is that you can go to the moon to lose weight. The moon has about one sixth the gravity of Earth, so you would lose five sixths of your weight. Your mass would still be the same.

Let’s stop this geeky stuff for the moment and just reiterate that weight is not the key measure that is important for what we call weight loss.

The real key is fat.

OVERWEIGHT VS. OVERFAT

Several components of your body contribute to your weight. The main ones are water, bone, muscle, and fat. You are probably not carrying around too much bone or muscle. You may be retaining excess fluids, although that is not really a worry regarding overweight either.

No, the component of your body that is the true underpinning of problems involving overweight is fat.

Specifically, you don't get overweight. You get overfat.

Think again about the irrelevance of losing weight by going to the moon, as it relates to fat. Let's say that you start your trip on Earth, weighing 220 pounds and measuring at 50 percent body fat. On the moon you would weight under forty pounds. However, you would still have 50 percent body fat!

Obviously, what is most important to your health is reducing your body fat. Reducing bone or muscle would undermine your health.

The general advice to reduce body fat, however, is valuable. However, directing your body to lose fat and not muscle or bone is tricky. It is even trickier when you realize that you should lose only certain kinds of fat. Certain kinds of fat you have to keep.

Hopefully by now you are starting to understand why weight is an irrelevant measure of your health and why weight loss is a misnomer. Loss of specific kinds of fat is the key.

The truly bad news about most scientific research on weight loss is that it fails miserably in addressing fat loss. This failure rests mainly on two things: 1) weak thinking involving what calories really are; and, 2) ignoring actual fat metabolism in humans.

Now let's explore what calories really are so you can understand what the weak thinking about them really is.

MYTHS ABOUT CALORIES

As mentioned at the outset, the biggest myth is the old dogma of Calories In/Calories Out. It simply means that to lose weight you have to burn more calories that you consume. This generally translates into advice to either eat less or exercise more, or both. This advice is thoughtless and ineffective.

The logic and rationale of this advice seems so believable, doesn't it? Of course they do. Everyone says so. Unfortunately, they are wrong.

The fundamental premise that undermines such typical advice about calories is that your body acts like a furnace, as so many diet gurus tell you. However, human metabolism has very little to do with being a furnace.

WHAT CALORIES REALLY ARE

Fundamentally, a calorie is a unit of heat. Heat is not directly useful metabolically. Once a calorie is released, there is no putting it back. It dissipates as heat.

Scientists have a very specific definition of a calorie. With some variation, the simplest way to say it is that a calorie is the amount of heat that is required to raise a cubic centimeter (milliliter) of water one degree Celsius, at room temperature and at sea level.

Saying that you can consume calories is like saying that you can eat heat.

Nutritionists, medical doctors, fitness trainers, and many other experts who should know better, incorrectly equate food calories to metabolism. This simplistic reasoning goes something like this:

The food you eat provides energy, in the form of calories, for you to live.

Now that you know what calories really are (i.e., heat), you can understand that the only thing they can do is provide heat. They are important for maintaining body temperature, but that is all.

FOOD CALORIE NONSENSE

Do you know how we measure calories in foods? We incinerate them in an instrument called a bomb calorimeter. When a substance is completely combusted, it releases carbon dioxide, water, and heat. Only the charred remains are left.

After complete combustion, the food or other substance has released all of the calories ('heat') that it contained. In other words, a bomb calorimeter measures heat released, which is expressed in calories.

Oh, by the way, the term calorie commonly applies to two different quantities. One is the definition above (i.e., raising 1 cc of water 1 degree Celsius).

The other is 1,000 times that amount – the amount of heat required to raise 1 liter (1,000 cc) of water 1 degree Celsius. Technically, to be clear about which is which, the smaller calorie is written in lower case (i.e., calorie), and the larger calorie is written in upper case (i.e., Calorie). You will also see Calories expressed as kilocalories or kcal (thousand calories).

A Calorie is therefore 1,000 calories or one kilocalorie.

You undoubtedly already know something about calories in different food groups. Carbohydrates and proteins each release 4 calories per gram and fat yields 9 calories per gram.

To be correct, though, these are Calories (kilocalories).

Why do we commonly use Calories instead of calories? Maybe it is just too scary to use small calories. Imagine having 100 grams (3.2 oz) of chicken breast and realizing that it contains more than 400,000 calories! Or that your daily caloric intake that is rated 2,000 Calories is really 2,000,000 calories! Two million! A scary number for anyone.

Regardless of how the caloric content of food is labeled, it is nonsense to suggest that you can get nearly the amount of heat that any food can yield in a bomb calorimeter. The whole business of keeping track of food

calories, as measured in a bomb calorimeter, for weight loss is so often misused that I am astounded.

If you aren't as efficient as a bomb calorimeter (nobody is), then how many calories can you really get out of food? Let this sink in: You can never, ever get all the caloric energy out of food.

Human metabolism can never be that efficient.

At the most you might get 10 to 20 percent of the potential energy (calories from complete combustion) through your fuel-harvesting metabolism. Certainly never greater than 30 percent. Sometimes you won't get any calories at all.

At least a dozen factors determine what the energy efficiency will be for you from any particular food at any particular time.

A RIDICULOUS COMPARISON

Consider this: in a calorimeter a gram of starch will yield the exact same number of calories as a gram of cellulose, which is indigestible fiber. As you and I both know, starch is a source of food calories for people. In contrast, cellulose is not.

A calorimeter will get the same number of calories from equivalent amounts of potato and of celery (correcting for water content).

Obviously, your body couldn’t possibly do that.

WHAT IS REALLY IMPORTANT ABOUT FOOD?

Instead of comparing the metabolism of food to the combustion of food in a furnace or bomb calorimeter, it is much more meaningful to talk about what happens to different foods when they are digested. Digestion is a complicated process that includes how foods are broken down, how the breakdown products get into different kinds of cells (e.g., fat vs. muscle), and what happens to these products once they are there.

For a surprising example of what this means, compare the two nearly identical sugars, glucose and fructose. Following their metabolic fate is much more meaningful regarding their roles in diet than just keeping track of their calorie content.

In fact, these two sugars have identical caloric potential (i.e., 4 Calories per gram). However, glucose goes into many different tissues, most notably muscle and brain. In contrast, intact fructose never escapes your liver.

The consequences of these differences are that glucose serves the metabolism of your entire body, whereas fructose has to be converted to something else before you can do anything with it. That something else is largely fat, in the form of triglycerides. In simpler terms, fructose will make you fat much faster than glucose will.

Knowing just that little tidbit gives you a good idea why one of the biggest problems in gaining fat comes from consuming foods that contain high-fructose corn syrup. These foods are highly fattening.

The metabolic consequences of consuming glucose vs. fructose have nothing at all to do with their potential caloric content.

Hopefully, you can now see that the potential caloric content of food has nothing to do with obesity. Chew on that comment for a while (pardon the pun).

When you adopt this kind of thinking about food calories, you will have a much better idea about what is truly important for controlling your fat metabolism.

Calories do not make you fat, so stop counting them.

It is pure madness!

Unless you have your own bomb calorimeter in the kitchen, leave the calorie counting up to biochemists like me.

CAN YOU OVEREAT?

If calories are irrelevant for fat metabolism, then what should you pay attention to instead? Think about your eating style as consisting of three components: 1) what you eat; 2) when you eat; and, finally, 3) how much you eat.

Successful fat metabolism depends on all three.

Of these three, what you eat and when you eat are far more important than how much you eat. You can, however, still overeat.

Indeed, standard dogma says that overeating will make you fat. This is what scientists call a cause and effect statement. Like many such statement, there seems to be a general agreement that it is true.

The main problem with that agreement is that the cause and effect are reversed from what we now know to be true. In other words, it is not that overeating causes fat.

In reality, getting fat causes overeating.

Yes, you read that right.

In fact, the causes of fat are myriad. Everything from genetics to poor nutrition, aging, hormone imbalance, and many more factors, comprise an extensive list of suspects that can make you fat. They all act to direct your body to literally build another body out of fat.

That growing fat body demands you to eat more. In other words, for whatever reason you get fat, you have to overeat to feed your fat body.

By the way, this isn't a general fat body. Specifically it is a body comprised of what is called visceral fat. This is the fat that grows internally around your organs. Visceral fat squishes organs and generally stresses them out. Ultimately, you see the buildup in visceral fat when it protrudes into blobs where it clearly shouldn't be, mostly around your belly, thighs, and arms.

Visceral fat isn’t just unsightly. It is dangerous to your health. All your best efforts for a healthy lifestyle have to include the reduction of visceral fat to be successful.

REDUCING VISCERAL FAT

Every cell in your body depends on fat to function well. Muscles and organs have to maintain certain amounts of the right kinds of fat. The challenge is for you to reduce only the body fat that you don't want without harming the fat you need for good health.

As mentioned earlier, eating style (what, when, how much) is just one component of proper fat metabolism. Your body's response to your eating style determines how you metabolize fat. You have to know what the best eating style is for directing appropriate fat metabolism.

What is the best eating style for fat metabolism? That depends on many factors (age, hormone balance, health status, and more). Regardless of what factors you must deal with, the best eating style will simulate how our ancestors ate.

These days this style is most popularly known as the Paleo diet, although the modern application of this approach has some big holes in it.

Exercise is the other main component of standard weight loss programs, although the vast majority of advice fails to address the reduction of visceral fat. In fact, most advice on exercise for weight loss doesn't even work for weight loss!

There are only a few kinds of exercises that do anything for metabolizing fat, much less visceral fat. And they have to be done right to work. This includes none of the popular programs that you see in late night infomercials on TV.

Reducing visceral fat requires multiple strategies involving eating style, exercise, basic nutrition, and proper lifestyle choices. The best of these are outlined in my ebook, How to Lose Belly Fat for Good.

My book provides the best strategies I could find based on good science.

They are the real truths you need to know for getting and staying slim for the rest of your life. Additional details and directions on how to order it are available here: https://bellyfatscience.com/truths/. Go there now to see what I mean.

STANDARD DISCLAIMER

This book is for educational purposes only. It is based on my own personal research and on my interpretation of published scientific studies. I am not a medical doctor and I do not provide medical advice.

As per recommendations (demands) by the U.S. Food and Drug Administration (FDA), I must state the obvious: *This book is not intended as a substitute for medical advice of physicians. The information provided here is designed to help you make informed decisions about your health. However, before following any dietary recommendations in this book or any other diet regimen, you should consult your physician.*

Regarding your choice of physicians, the best starting point is generally a naturopathic doctor or other health practitioner who has been trained in natural approaches to diet and health. Consider FDA-approved drugs and surgeries as desperation measures of last resort.

ABOUT THE AUTHOR

Dr. Dennis Clark holds a bachelor's degree in Biological Sciences from Sacramento State College and a Ph.D. in Botany, specializing in plant chemistry, from the University of Texas at Austin. He spent his entire 30-year professional career in teaching and research at Arizona State University. He has also been Visiting Professor at the University of California and at the University of Heidelberg in Germany. He is currently an adjunct professor at the Southwest College of Naturopathic Medicine in Tempe, Arizona.

Dr. Clark is a leading expert on plant natural products chemistry and integrative medicine, an award-winning teacher, and co-author of a best-selling college textbook on botany. He has been awarded grants for his research from the National Science Foundation, the U.S. Department of Agriculture, and the Alexander von Humboldt Foundation. His studies have been published in dozens of national and international scientific journals. He has lectured at international conferences in the U.S., Canada, Mexico, Germany, Belgium, and England.

Dr. Clark's journey into medical botany and natural health began when, as a young university professor, he found that his knowledge of plant chemistry and human physiology could be used to explain how plant natural products affect human health. This led to his discovering which botanicals were best for enhancing the health of his family and friends. He soon found that his university students also wanted the same kind of information. Their ever growing demand for his scientific approach to natural health led to designing several new classes in integrative medicine, medical botany, and natural products pharmacology.

Over the years Dr. Clark has gathered the best information available on natural approaches for preventing and overcoming many human disorders. These include herpes, obesity and overweight, menopause and hormone imbalance, cancer, osteoporosis, arthritis, stress, cardiovascular disease, diabetes, digestive problems, candida (yeast) overgrowth, and many others. He uses his expertise from many years of teaching, researching, and writing to provide the public his clear, powerful, and often entertaining views of a research scientist about being healthy naturally.