

Fat Loss Biology by Dr. Dennis Clark

INTRODUCTION

Fat loss is not difficult!

Or at least it shouldn't be. Your body is already perfectly adapted to being lean and healthy. If you happen to have a little excess fat – or even a lot -- all you have to do to get rid of it is take advantage of your own ready-made biology.

How to do exactly that is the subject of this book.

The diet and weight loss industry is a gigantic monster market that is worth billions of dollars every year. It includes weight loss clinics, bariatric surgeries, diet pills, fitness centers, books and DVD programs, a vast array of supplements, and way too many skinny so-called gurus to shake a stick at. Almost all of it would be unnecessary if replaced with just a little common sense about biology.

Yet the obesity epidemic continues to expand (sorry, couldn't resist the pun there). It has become so bad that every new book cites the latest statistics on the downfall of our health due to it. All I will say in this regard is that the problem has grown to the point that *politicians* have become involved. This is a sure sign of trouble to come, which is also unnecessary in the face of common sense.

By the fact that you are reading these words now, you are on the right track for sorting out truth from fiction about diet and health. You are also about to learn what it takes to have the slim and healthy body that you are supposed to have, and how to keep it that way for as long as you want.

WARNING: Since I am a research scientist and retired university professor, I have a predisposition to teach and explain what I think is important based on research. Whenever you come to a section in the book where you think I have provided too much technical detail, just skip over it until you find the underlying recommendations that you seek. Go ahead, I won't take it personally.

My ultimate goal for this book is that you come away with a lifestyle approach that benefits you in the best way possible. When you live the lifestyle that is

meant for you, based on human biology, you will discover that ‘weight loss’ is a silly phrase that has no meaning. You will simply never be overweight again.

This book offers a particular slant on weight loss that is, as much as possible, rooted in scientific research. The reason for this approach is not because science has all the answers. You will come to understand that soon enough. No, the reason is because I am a research scientist who loves to dig out research that seems to be important for you, then explain it sufficiently for you to decide whether it is beneficial to you.

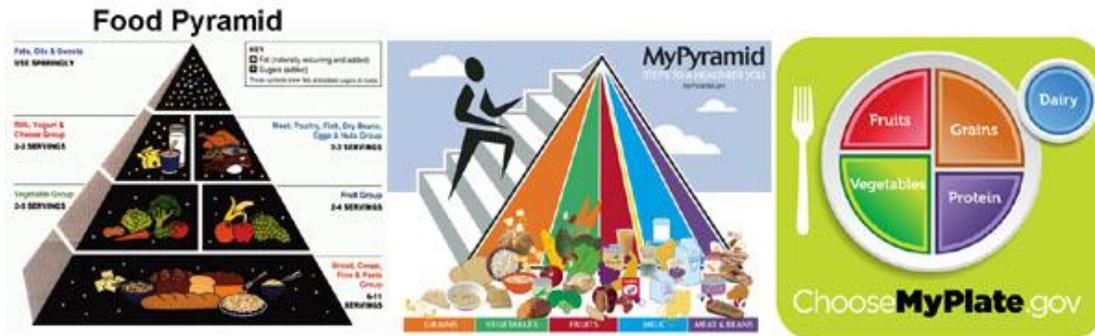
Scientists like me owe our educations and our research funds in large part to taxpayer support, although most of us aren’t interested in, or aren’t good at, explaining to the taxpaying public what we do. Consider my effort here as a way to at least partially rectify the gap between research science and those of you who are impacted by it.

A couple of things that you should be aware of regarding scientific research, especially when it comes to using human subjects, is that: 1) almost all studies are flawed in some significant way; and, 2) science has very few solid, research-based answers for most of the questions that you might ask about weight loss, fitness, and overall health.

This does not stop experts from offering advice, though. Indeed, government experts have used scientific research to foist two of the biggest diet boondoggles on the American public that have ever been created. The first was the USDA Food Pyramid, launched in 1992 and supposedly improved in 2005 as the MyPyramid. The second was the current program backed by First Lady Michelle Obama, called ChooseMyPlate, which came out with a lot of hoopla in 2011.

The Food Pyramid and MyPyramid were abominations against human health, and ChooseMyPlate was not much of an improvement. This comment will become clearer to you as you read through this book. In fact, you may even come to agree with me that, when it comes to health, the federal government is not your friend.

Here is a glance at what these recommended diets look like. You can see bigger images of them, with more detail, in this post: [Bad News for Dieters – Food Pyramid, MyPyramid, ChooseMyPlate](#).



Books about weight loss and fitness generally start out with an extensive explanation of why the author is an expert whom you should believe, accompanied by stories about the successes of people who have taken their advice.

The good news is that you don't have to read through much of that here, since I am not a weight loss or fitness expert at all. What I do instead is wade through scientific research, books, and articles, and provide explanations about them that you can understand. Then you can decide for yourself whether you want to take action on their conclusions.

You can therefore view what you learn here as a foundation to empower yourself to make your own health choices. Toward that goal, I will explain enough here so you can judge the perspectives that I provide. At the very least, you will become better at sorting out some of the loud marketing hype and a few of the yammering experts who often make a habit of contradicting one another.

In case you really have nothing better to do and feel that you absolutely must know more about me, then you can skip to the end of this book for some biographical information and an overview of my professional background (see 'About the Author').

One thing about me that you might identify with is that I gained weight over a period of time – about 10 extra pounds every decade since starting college in 1966. One day I finally got fed up looking at that fat guy in the mirror and

launched a personal crusade to find out what I could do about getting back to my old slim and energetic self.

That's how I discovered the first of many surprises related to weight gain and weight loss.

The Weight Gain Surprise

Let's skip the suspense here and get to what my first surprise was, because it may surprise you, too. It was this: *people do not get fat because they are lazy or slothful*. In fact, plenty of folks who exercise regularly and eat the way their doctors and nutritionists advise are fat. Take a look at the entrants in any weekend 10K race and you will see loads of fat people who are well-trained for the race. Probably not morbidly obese, mind you. Just fat. These are people who have trained by running 25 to 40 miles per week for several weeks or months and are in great shape for running a 10K. Fat people often beat me in these races.

It has nothing to do with the relatively short distance, either (only 6.2 miles). Later I will explain a study about a group of obese people who trained for 18 months to run a marathon (26.2 miles) and basically stayed fat all the way to race day. Exercise is clearly not all that it is cracked up to be for weight loss.

These were not slothful people! ***And you aren't slothful, either!***

The primary challenge in preventing and reversing weight gain is simply knowing what the right lifestyle choices are, then making them. Exercise can help, just not all types. Eating right can help if you know what and when to eat. Supplements can help if you take the right ones for your body.

Now let's dig in to some good resources to find the advice that will be of greatest benefit to you.

Information Overload

You can learn anything about anything in the current Great Age of Google. You can, for example, search on the term 'weight loss' and get more than 460 million

results. If you have your Google search set to the default of 10 results per page, this means that there are 'only' 46 million pages of information about weight loss on the internet. Can they all be right? Of course not. In fact, since this vast amount of information is not reviewed for quality control, most of it is probably useless.

How about books? At least books might be reviewed by editors and maybe by experts in the subject material before they are published. Books are a resource that narrows the possibilities down quite a bit: a search for books under 'weight loss' at Amazon comes up with nearly 75,000 results.

Wait, there's more! PubMed, the free medical research database from the U.S. National Institutes of Health, lists more than 56,000 publications that include the term 'weight loss'.

These are some of the main resources that you have access to, although plowing through even a small portion of them would be information overload. Here is what I do: focus on books that contain scientific references, then examine the best references that support the author's views. For example, one of my favorite books is *Good Calories, Bad Calories* (subtitled, '*Challenging the Conventional Wisdom on Diet, Weight Control, and Disease*') by Gary Taubes. Of equal importance is his more recent trimmed down and updated book, *Why We Get Fat and What to Do About It*. Both of these provide robust lists of scientific references.

These and many other books that I have read are great sources for the information that I offer in this book. You will find a bibliography of my key references in APPENDIX D: RESOURCES AND LINKS.

Regarding research articles, the ones that are most important for making clear points about weight loss, health, and fitness will be summarized at appropriate places in this book. The articles that I cite will include full reference data.

You may notice that this book is not typical of 'diet' books. You will not find a lot of fluff. No introductory chapters with scads of personal stories like you find in all those popular diet books. Testimonials and stories, after all, are just a common marketing ploy to convince you of the truth of what they say. In reality, the only important testimonial is your own. You have to determine for yourself how well

certain advice works for you. It doesn't matter one whit that someone else lost a gazillion pounds in just 12 days, or whatever amazing results were achieved by other people.

Celebrity endorsements are also missing here. They are just another paid-for marketing ploy that has nothing to do with what you can achieve. It doesn't matter that Charles Barkley has been successful with Weight Watchers or that Marie Osmond dropped 50 pounds on the Nutri-System program.

The approach in this book is a scientific one as much as possible. Scientific research is a wonderful starting point for understanding how your body works and what you do that influences your health. This is what I enjoy knowing about and explaining to the public.

The main challenge for scientists, however, is a lot like the main challenge for the public – i.e., determining what is true when results from different studies contradict one another. Is the low-fat Ornish diet best, or the low-carb Atkins diet? Is eating 6 small meals per day better than eating 2 or three larger ones? Does aerobic exercise drive weight loss better than resistance exercise? All of these are supported by scientific research.

Do calories really matter?

My favorite diet myth, which I will explain in detail later, is the 'calories in/calories out' advice that falls so easily out of the mouths of experts so often that you probably feel that you have to believe it. Indeed, it has become dogma of mythical proportions. The notion that you have to 'burn' the same number of calories as you consume, to maintain your ideal weight is, unfortunately, false. In fact, it is ridiculous.

Almost any choice that you make can be correct according to research. You can lose weight on many different kinds of diets. More than likely you have already experimented with more than one, with some success. I'd bet that the reason you are reading this book, though, is because, regardless of whatever you have done previously, you are fat again. Maybe even fatter than ever.

Regardless of your weight management history, I guarantee you right now that the information in this book will provide you with enough advice to get and remain slim and healthy for as long as you want. And you won't have to do anything radical to accomplish it.

This is not an ordinary book about losing weight or dieting. This is a book about fundamental lifestyle choices that underlie good health and are based on human physiology and scientific research.

Some Encouraging Words

Let's not mince words here. The reason that you are reading this book right now is because you are fat. The good news is that ***you are not fat because you are slovenly or weak in some way***. Such an accusation is a common myth that has been perpetrated on the public for so long that it has become medical dogma. Don't believe it.

The bad news isn't all that bad, either. It is simply that you are fat because you don't know how to be 'unfat'. Otherwise you would already have the slim and healthy body that you used to have, or that you always wanted.

Now let's get into some straightforward recommendations...

Fat Loss Biology Take-Home Lessons

You will find periodic take-home lessons throughout this book. These lessons summarize the main points and the most important strategies for you to adopt for taking advantage of your own fat loss biology.

Rather than have you search for them, or only encounter them when first introduced, I decided that it might be more helpful for you to avoid the hassle and the suspense of finding them by listing them all here, at the beginning. In many ways this list of lessons is a manifesto for what you want to know and do for reducing fat and living a long and healthy life.

If all you do is adopt the following lessons, regardless of whether you even read another word in this book, you will be successful.

THE LESSON (p. 15):

A calorie is not what you've been led to believe. Counting calories as part of a dietary strategy makes no sense whatsoever biologically. The concept of 'calories in/calories out' for weight management is one of the most ridiculous myths ever foisted on the public.

THE LESSON (p. 18):

You do not get fat because you overeat. You overeat because you are getting fat.

THE LESSON (p. 21):

There are plenty of obese people. There are plenty of senior citizens. Obese citizens do not live as long as non-obese citizens.

THE LESSON (p. 22):

Overfat and obesity are caused by hormone and enzyme imbalances. This means that fat metabolism is a matter of biochemistry, not a matter of calories.

THE LESSON (p. 24):

Visceral fat (belly fat, abdominal fat) is the key indicator of your fat metabolism. The less you have, the better off you are. The best way to keep track of visceral fat is by measuring your waist. No fancy equipment or blood test needed.

THE LESSON (p. 30):

Getting lean and healthy, and staying that way for life, requires that you do the right things in four main areas: 1) eating style; 2) exercise; 3) stress management; and, 4) supplementation. Your body's response to each of these areas depends on your age, gender, metabolic and health status, hormone balance, genetics, and many other factors that influence your metabolism.

THE LESSON (p. 36):

Spacing meals to include a fasting period that starts at about 4 hours after you eat is crucial for taking advantage of the anabolic (muscle-building) effects of insulin and the anabolic and fat-metabolizing effects of hGH. The ideal strategy is to allow 5-6 hours between meals. Do not snack.

THE LESSON (p. 39):

Finish dinner early enough in the evening to allow at least 3 hours before bedtime without eating. Do not snack. Allow a

minimum of 12 hours of overnight fasting before your first meal on the following day.

THE LESSON (p. 40):

Do a 24-hour fast 1-2 times per week. Fasting is the bedrock of your fat loss, your long-term weight management, and your overall health and longevity.

THE LESSON (REPEATED) (p. 53):

Do a 24-hour fast 1-2 times per week. Fasting is the bedrock of your fat loss, your long-term weight management, and your overall health and longevity.

THE LESSON (p. 62):

Eat only foods that provide high nutrient density. This means primarily whole foods that are not too starchy or sugary, including vegetables, meats, and some fruits. Certain frozen foods are more nutritious than their fresh counterparts in supermarkets. Staying low on carbohydrate intake gives you the best chance for long-term, sustainable fat loss and general health.

THE LESSON (p. 65):

Include fiber – both soluble and insoluble – from whole food sources at every meal. The minimum amount of daily fiber intake should be 20-25 grams. Consuming 35 grams or more is even better.

THE LESSON (p. 67):

Getting into ketosis and staying there is the most important key for directing your metabolism to burn more fat than you store.

Reducing your carbohydrate intake is the most straightforward strategy for doing so.

THE LESSON (p. 72):

Fructose, especially from high-fructose corn syrup, is one of the top two most dangerous food additives of all time. Avoid it like the plague.

THE LESSON (p. 74):

Aspartame (NutraSweet) is the other one of the top two most dangerous food additives of all time. Also avoid it like the plague.

THE LESSON (p. 84):

Eat as much fat as you like, especially the good stuff. Watch carefully that you include an abundance of omega-3 fatty acids and that you reduce your intake of omega-6 fatty acids.

THE LESSON (p. 86):

The best approach to starting a low-carb eating style is to crank up your fat intake. Dietary fat is the miracle worker for getting your metabolism going in the right direction, not protein. In fact, too much protein will slow you down.

THE LESSON (p. 87):

The initial steps toward ketosis lead to a loss of excess body fluid and accompanying electrolyte minerals. The most crucial electrolytes that you must replace are sodium, potassium, and magnesium.

THE LESSON (p. 90):

A low-carb, high-fat approach is great. A high-carb, low-fat approach can also work. Fat and carbs together lead to metabolic disaster.

THE LESSON (p. 94):

Fat-fasting gets you into ketosis at warp-speed. Use it best whenever you are stuck or stalled or whenever you just want to move your fat metabolism along in a big hurry. Expect spectacular results.

THE LESSON (p. 103):

Exercise is absolutely crucial for a healthy metabolism. However, the common belief that you can exercise off fat is ridiculous. The function of exercise is to improve insulin sensitivity, thereby making your body build muscle at the expense of visceral fat and liver fat. The two best exercises are: 1) appropriate resistance training (weightlifting) no more than once per week; and, 2) sprint interval training (cycling, running) 1-3 times per week. These are the most efficient ways to exercise for building muscle and endurance.

THE LESSON (p. 107):

The most well-researched supplement for inducing healthy metabolic changes is green tea. The best preparations are those that contain a green tea extract combined with phytosome delivery technology. This excludes green tea beverages and green tea powdered herb products.

THE LESSON (p. 112):

The best supplement combination for building muscle is: L-arginine and certain complementary amino acids, HMB (beta-

hydroxy beta-methoxybutyrate), and creatine. Nothing else is comparable.

Now for some details behind all these lessons...