FAT LOSS

Facts, Tips & Tricks

by Will Brink

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Biography: Will Brink

Will Brink is a columnist, contributing consultant, and writer for numerous health/fitness, medical, and bodybuilding publications. His articles on nutrition, supplements, weight loss, exercise and medicine can be found in magazines and journals such as *Lets Live*, *Muscle Media 2000*, *MuscleMag International*, *Life Extension*, *Muscle & Fitness*, *Inside Karate*, *Exercise for Men Only*, *Oxygen*, *The Townsend Letter For Doctors*, as well as many others.

Will Brink is the author of the book *Priming The Anabolic Environment: A practical and Scientific Guide to the Art and Science of Building Muscle*, as well as various chapters in sports nutrition–related textbooks and the e–books *Fat Loss Revealed* and *Brink's Bodybuilding Revealed*.

Will graduated from Harvard University with a concentration in the natural sciences, and is a consultant to supplement companies.

He has served as an NPC judge and as a Ms. Fitness USA judge. A well–known trainer, Will has helped many top level bodybuilders through all facets of pre–contest and off–season training. He has also worked with athletes ranging from professional golfers, fitness contestants, and police and military personnel.

His articles and interviews can be found on dozens of websites and at his own piece of cyberspace at www.brinkzone.com.

Will has co–authored several studies published in peer-reviewed, academic journals on sports nutrition and health.

Biography: Will Brink

His monthly column on supplements, "The Intake Update," is one of the most popular features in *MuscleMag International*.

Will has lectured at trade associations and universities around the United States and has appeared on numerous radio and television programs to examine issues of health and fitness.

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Check out *Fat Loss Revealed*:

Fat Loss Revealed

Check out Brink's *Bodybuilding Revealed*:

Bodybuilding Revealed

Introduction

This short e–book is broken up into four major sections that gradually take the reader from the largest perspective on nutrition down to the very specific. The first section takes two seemingly disparate viewpoints on nutrition and unifies them into a single theory people can use to make decisions regarding their approach to weight loss. This "unified theory" is the basis for my approach to nutrition, and should give people a solid understanding of the type of information they can expect from my e–books and articles.

Section Two is an overview of how people fail to achieve their fitness/health related goals by over–thinking and getting too wrapped up in the details. This is what I refer to as "paralysis by analysis." People often take overly complicated approaches to their fitness/health/fat loss related goals, get confused, get frustrated, throw their hands up in disgust, and give up. The "K.I.S.S." philosophy will help to clear the confusion, and allow you to move forward with your health and fitness goals.

The third section is a look at some simple — though rarely used and under appreciated — tips to assist your weight loss efforts. It's intended to be humorous — with tongue firmly in cheek — but added to a decent diet and exercise plan, can be helpful. And we all know that any amount of help — however small — can be the line between success and failure when we're trying to lose some fat.

The fourth and final section is a science–oriented look at the effects of whey protein on weight loss. Whey protein is almost ubiquitous in the diets of health conscious people, athletes of all

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kinds, and dieters. Whey has all manner of potential health benefits, from improving immunity, possibly preventing certain forms of cancer, to reducing the likelihood of overtraining in athletes — in addition to the fact it's an exceptionally high quality protein. But can it be used as a legitimate weight loss aid? Are there studies to support it for that use? The answer appears to be yes in both cases, and we explore the studies that exist in that section.

Brink's Unified Theory of Nutrition

When people hear the term "Unified Theory," sometimes called the "Grand Unified Theory," or even "Theory of Everything," they probably think in terms of physics. Regardless of the topic, a unified theory often seeks to explain seemingly incompatible aspects of various theories. For example, a unified theory in physics attempts to create a single theory capable of defining the interrelationships among nuclear, electromagnetic, and gravitational forces. The result would be a single comprehensive set of equations, or as theoretical physicist Michio Katu, puts it:

"...an equation an inch long that would allow us to read the mind of God."

That's how important unified theories can be. However, unified theories don't have to deal with such heady topics as physics or the nature of the universe itself, but can be applied to far more mundane topics, in this case nutrition.

In this article, I attempt to unify seemingly incompatible or opposing views regarding nutrition, namely—what is probably the longest running debate in the nutritional sciences—calories vs. macronutrients.

One school, which I call the 'old school' of nutrition, maintains weight loss or weight gain is all about calories, and "a calorie is a calorie," no matter the source (i.e., carbs, fats, or proteins). They base their position on various lines of evidence to come to that conclusion.

The other school, which I call the 'new school' of thought on the issue, states that gaining or losing weight is really about where the calories come from (i.e., carbs, fats, and proteins),

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and that dictates weight loss or weight gain. In other words, they feel the "calorie is a calorie" mantra of the old school is wrong. They too come to this conclusion using various lines of evidence.

This has been an ongoing debate between people in the field of nutrition, biology, physiology, and many other disciplines for decades. The result has been conflicting advice and a great deal of confusion for the general public, not to mention many medical professionals and other groups.

Before I go any further, there are two key points that are essential to understand about any unified theory:

- A good unified theory is simple, concise, and understandable even to lay people. However, underneath, or behind that theory, is often a great deal of information that can take up many volumes of books. So it would take a large book, if not several, for me to outline all the information I have used to come to these conclusions — which is far beyond the scope of this article.

- A unified theory is often proposed by some theorist before it can even be proven or fully supported by physical evidence. Over time, different lines of evidence, whether they be mathematical, physical, etc., support the theory and thus validate that theory as correct — or else continued lines of evidence show the theory needs to be revised, or is simply incorrect. I feel there is now more than enough evidence at this point for a unified theory of nutrition and future lines of evidence will continue (with some possible revisions) to solidify the theory as fact.

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A calorie is a calorie

In the old school of nutrition, which includes most mainstream nutritionists, a calorie is a calorie when it comes to gaining or losing weight. Weight loss or weight gain is strictly a matter of "calories in, calories out." Translated, if you "burn" more calories than you take in, you will lose weight, regardless of the calorie source, and if you eat more calories than you burn off each day, you will gain weight.

This long held and accepted view of nutrition is based on the fact that protein and carbs contain approx 4 calories per gram and fat approximately 9 calories per gram and the source of those calories matters not. They base this on the many studies that find if one reduces calories by X number each day, weight loss is the result; whereas weight gain will occur if you add X number of calories above what you use each day.

However, the "calories in/calories out" mantra fails to take into account modern research that finds fats, carbs, and proteins have very different effects on the metabolism via countless pathways, such as their effects on hormones (e.g., insulin, leptin, glucagon, etc), effects on hunger and appetite, thermic effects (heat production), effects on uncoupling proteins (UCPs), and 1000 other effects that could be mentioned.

This school of thought ignores the ever–mounting volume of studies that have found diets with different macronutrient ratios with identical calorie intakes have different effects on body composition, cholesterol levels, oxida-

tive stress, etc. Even worse, the "old school" fails to take into account the fact that different sources of a macronutrient can have different effects on metabolism.

Translated, not only is the mantra "a calorie is a calorie" proven to be false, but "all fats are created equal," and "a protein is protein" are also incorrect. For example, we now know different fats (e.g. fish oils vs. saturated fats) have vastly different effects on metabolism and health in general; we now know different carbohydrates have their own effects (e.g. high GI vs. low GI), and that different proteins can also have unique effects.

The "calories don't matter" school of thought

This school of thought will typically tell you that if you eat large amounts of particular macronutrients in their magic ratios, calories don't matter. For example, followers of ketogenic–style diets that consist of high fat intakes and very low carbohydrate intakes (i.e., Atkins, etc.) often maintain calories don't matter in such a diet. Others maintain if you eat very high protein intakes with very low fat and carbohydrate intakes, calories don't matter.

Like the old school, this "new" school fails to take into account the effects such diets have on various pathways and ignore the simple realities of human physiology, not to mention the laws of thermodynamics!

In reality, although it's clear different macronutrients in different amounts and ratios have different effects on weight loss, fat loss, and other metabolic effects, calories do mat-

ter. They always have and they always will. The data, and real world experience of millions of dieters, is quite clear on that reality.

The truth behind such diets is that they are often quite good at suppressing appetite and thus the person simply ends up eating fewer calories and losing weight. Also, the weight loss from such diets is often from water vs. fat, at least in the first few weeks. That's not to say people can't experience meaningful weight loss with some of these diets, but the effect comes from a reduction in calories vs. any magical effects often claimed by proponents of such diets.

Weight loss vs. fat loss!

This is where we get into the crux of the true debate and why the two schools of thought are not actually as far apart from one another as they appear to the untrained eye. What has become abundantly clear from the studies performed and real world evidence, is that to lose weight we need to use more calories than we take in (via reducing calorie intake and/or increasing exercise)...but we also know different diets have different effects on the metabolism, appetite, body composition, and other physiological variables...

Thus, this reality has led me to "Brink's Unified Theory of Nutrition" which states:

> *"Total calories dictate how much weight a person gains or loses; macronutrient ratios dictate what a person gains or loses"*

This seemingly simple statement allows people to understand the differences between the two schools of thought. For example, studies often find

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that two groups of people on the same calorie intakes — but very different ratios of carbs, fats, and proteins — will lose different amounts of body fat and or lean body mass (i.e., muscle, bone, etc.).

Some studies find, for example, that people on higher protein/lower carb diets lose approximately the same amount of weight as another group on a higher carb/lower protein diet, but the group on the higher protein diet lost more actual fat and less lean body mass (muscle). Or, some studies using the same calorie intakes but different macronutrient ratios often find the higher protein dieters may lose less actual weight than higher carb/lower protein dieters, but the actual fat loss is higher in the higher protein/low carb diets. This effect has also been seen in some studies that compared high fat/low carb vs. high carb/low fat diets. The effect is usually amplified if exercise is involved, as one might expect.

Of course these effects are not found universally in all studies that examine the issue, but the bulk of the data is clear: diets containing different macronutrient ratios do have different effects on human physiology even when calorie intakes are identical.[1–11]

As the authors of one recent study that looked at the issue concluded:

> "*Diets with identical energy contents can have different effects on leptin concentrations, energy expenditure, voluntary food intake, and nitrogen balance, suggesting that the physiologic adaptations to energy restriction can be modified by dietary composition.*"[12]

The point being, there are many studies confirming that the actual ratio of carbs, fats, and proteins in a given diet can affect what is actually lost (i.e., fat, muscle, bone, and water) and that total calories have the greatest effect

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on how much total weight is lost. Are you starting to see how my unified theory of nutrition combines the "calorie is a calorie" school with the "calories don't matter" school to help people make decisions about nutrition?

Knowing this, it becomes much easier for people to understand the seemingly conflicting diet and nutrition advice out there (of course this does not account for the downright unscientific and dangerous nutrition advice people are subjected to via bad books, TV, the 'net, and well–meaning friends, but that's another article altogether).

Keeping the Unified Theory of Nutrition in mind, the above information leads us to some important and potentially useful conclusions:

- An optimal diet designed to make a person lose fat and retain as much LBM as possible is not the same as a diet designed for simple weight loss.

- A nutrition program designed to create fat loss is not simply a reduced calorie version of a nutrition program designed to gain weight, and visa versa.

- Diets need to be designed with fat loss, NOT just weight loss, as the goal, but total calories can't be ignored.

This is why the diets I design for people — or write about — for gaining or losing weight are not simply higher or lower calorie versions of the same diet. In short: diet plans I design for gaining LBM start with total calories and build macronutrient ratios into the number of calories required. However, diets designed for fat loss (vs. weight loss!) start with the correct macronutrient ratios that depend on variables such as amount of LBM (lean body mass) the person

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carries vs. body fat percentage, activity levels, etc. Total calories are based on the proper macronutrient ratios to achieve fat loss with a minimum loss of LBM. The actual ratio of macronutrients can be quite different for both diets and even for individuals.

- Diets that give the same macronutrient ratio to all people (e.g., 40/30/30, or 70/30/10, etc.) regardless of total calories, goals, activity levels, etc., will always be less than optimal. Optimal macronutrient ratios can change with total calories and other variables.

- Perhaps most importantly, the unified theory explains why the focus on weight loss vs. fat loss by the vast majority of people, including most medical professionals and the media, will always fail in the long run to deliver the results people want.

- Finally, the Universal Theory makes it clear that the optimal diet for losing fat or gaining muscle, or whatever the goal, must account not only for total calories, but also macronutrient ratios that optimize metabolic effects and answer the questions: what effects will this diet have on appetite? What effects will this diet have on metabolic rate? What effects will this diet have on my lean body mass? What effects will this diet have on the hormones that may improve or impede my goals? What effects will this diet have on (fill in the blank)?

Simply asking, "how much weight will I lose?" is the wrong question which will lead to the wrong answer. To get the optimal effects from your next diet, whether looking to gain weight or lose it, you must ask the right questions to get meaningful answers.

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Asking the right questions will also help you avoid the pitfalls of unscientific, poorly thought out diets which make promises they can't keep and go against what we know about human physiology and the very laws of physics!

People that want to know my thoughts on the correct way to lose fat should read my e–book *Fat Loss Revealed*.

Fat Loss Revealed

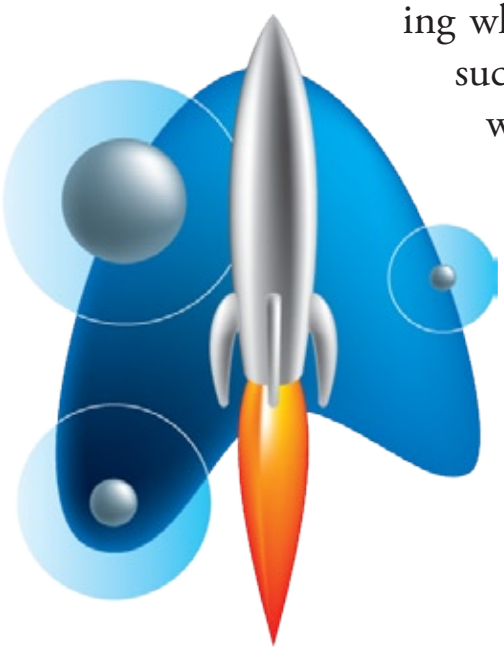
There are, of course, many additional questions that can be asked and points that can be raised as it applies to the above, but those are some of the key issues that come to mind. Bottom line here is, if the diet you are following to either gain or lose weight does not address those issues and or questions, then you can count on being among the millions of disappointed people who don't receive the optimal results they had hoped for and have made yet another nutrition "guru" laugh all the way to the bank at your expense.

Any diet that claims calories don't matter, forget it. Any diet that tells you they have a magic ratio of foods, ignore it. Any diet that tells you any one food source is evil, it's a scam. Any diet that tells you it will work for all people all the time no matter the circumstances, throw it out or give it to someone you don't like!

Follow the K.I.S.S. Approach for Success

In this section of the report, we attempt to add simplicity to what many think of as a complicated topic. The acronym "Keep it simple stupid" or "KISS," has been used for decades by the military, business schools, medical schools, and in countless other areas where unneeded complexity should be avoided at all costs. In the military, adding complexity where it's unnecessary to complete a mission will get people killed. Adding complexity to a business venture where it is not required will often get you fired or see your company go down in flames. Adding complexity, or looking for complex answers to simple problems in medical settings can cause a loss of life or unneeded suffering. I am sure my readers have also experienced situations in which complexity added to situations that didn't require it, led to disastrous results.

One area where most people fail to follow the KISS system is in their approach to fitness, nutrition, or supplements. In fact I find people seem to gravitate toward adding complexity to their approach when it comes to building muscle or losing fat. Not coincidentally, it's the people who take the most complex approaches to their nutrition, supplements, and training who are always the most confused and least successful. They focus on — and subsequently worry about — minutiae that prevent them from seeing the big picture and making the type of progress they desire. It often leads to what is referred to as "paralysis by analysis." The vast majority of people would have better results, not to mention less stress, if they simplified their approach to losing fat or gaining muscle. It's not rocket science, brain surgery, or even rocket surgery!



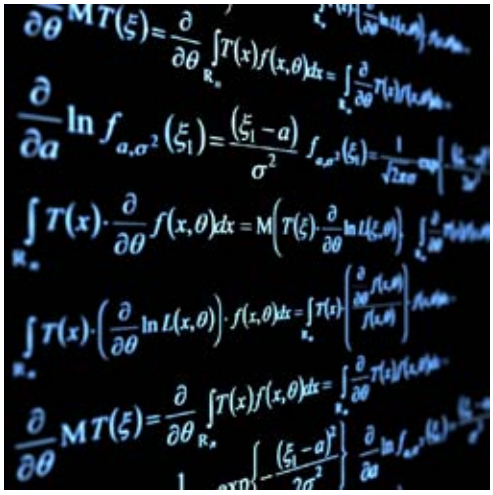
Yes, there are times when complex approaches need to be used to get advanced athletes,

such as pre–contest bodybuilders and Olympic track athletes, prepared for an event. These people make up, at most, 0.1% of the population. The rest of the world needs to worry less and act more.

Why is complexity a bad thing? The issue is variables.

Adding too many variables makes things more difficult, especially when trying to figure out why something is working or why it's not. Variables are an essential part of science. We don't need to go into great depth on this topic, so don't worry. I do, however, want people to appreciate how variables affect the outcome of their successes or failures in bodybuilding or fitness related endeavors.

So what is a variable? According to one of my textbooks:



"Scientists use an experiment to search for cause and effect relationships in nature. In other words, they design an experiment so that changes to one item cause something else to vary in a predictable way. These changing quantities are called variables…"

There are different types of variables (e.g., confounding, independent, dependent, controlled, etc.) but we are not going to worry about that right now. So how does this all apply to the KISS approach? The more complicated you make your approach to your goals of gaining muscle or losing fat, the more variables you have to control for. That is, for every new bit of complexity you add, you have to be able to account for it in terms of the results, or lack thereof, you experience.

Confused? Here's a simple example:

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Last week you changed your diet, added in three new supplements, and changed your routine, then three weeks later you notice you have made no improvements (i.e. you didn't lose any fat, or you didn't gain any muscle, or whatever). Why? It's impossible to know! You added too many variables into the equation and now you're unsure what went wrong — which means you won't be able to make appropriate changes to correct it. Conversely, let's say you did lose fat or gain muscle with the changes. Great, but do you know which of the changes you made resulted the positive outcome you experienced so you can reproduce it? No, no you don't.

So, Lesson #1 is: never change more than one or two variables at a time so you can track what worked — and what did not work — from the changes you made. Most people find writing it down in a note book or online journal is the best way to keep track of their progress. When you write it down, you can see the effects that changes in your diet, training, or supplementation have on your body composition, strength, etc.

KISS and those ugly variables

On my forums, it's not uncommon for someone to post a question like "I added supplement X, Y, and Z to my supplement intake, added an extra day per week in the gym, and reduced my calories by X. Why am I not seeing progress?" My response is "…too many unknown variables to answer that question," which translates into "how the hell should I know?"

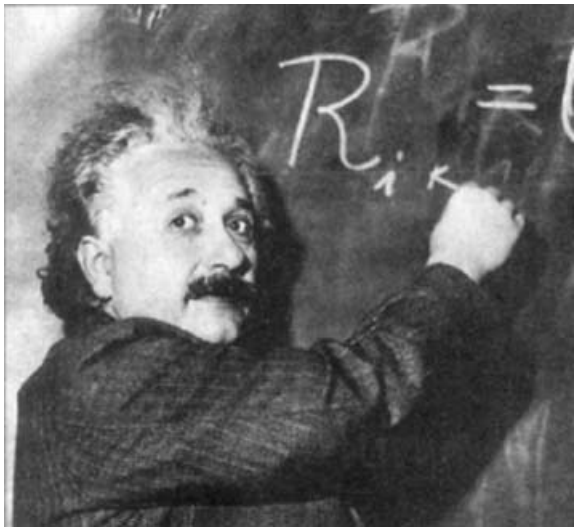
Follow the K.I.S.S. Approach for Success

Why do people make so many changes at once? I suspect it's due to the "I want it now" syndrome. Making permanent changes to your performance, physique, and health takes patience, planning, and a willingness to take things one step at a time and assess what is working and what's not working in the overall plan.

Clearly, the KISS approach fails to be effective as more variables are added to a program. It also fails to be KISS. How can you keep it simple if it ain't simple to begin with?! The more complicated the program, the more variables there are to keep track of—which makes success far less likely. This basic idea was appreciated and understood by history's greatest minds. For example:

"Make everything as simple as possible, but not simpler."

Albert Einstein



What was the Father of Relativity saying? Be it math, science, nutrition, or life, Keep It Simple Stupid wherever possible, but don't simplify it to the point where it's no longer effective or true. In my own writings, be it articles or books/e–books, I make every attempt to keep the information and message as simple as possible. However, I often see popular books and diets that are in fact too simple. They don't want to confuse people, so they simplify things to the point that their advice is no longer correct and has little value to the reader –thus, Einstein's warning. Oversimplified statements like "carbs are bad" or "fat is bad" or "do weight lifting for big muscles and aerobics to burn fat" are among the gems we all see. Problem is, those statements are dead wrong! A line between simple and too simple must be drawn.

Follow the K.I.S.S. Approach for Success

OK, back to the KISS approach…

It's not possible for me to go through every example of how to take a KISS approach to your training, nutrition, or supplement intake, but I will attempt a general discussion of each.

KISS and training

One of the most common mistakes I see in this area is what I like to call the "I have tried everything and nothing works" syndrome. My response is always: "Have you tried sticking to one program long enough for it to actually have any effect?" The answer is usually a guilty sheepish facial expression. Let me be honest with you: even an average uncomplicated program you are consistent with is far more effective than any high–tech, super–advanced program you fail to be consistent with. One simple program you follow consistently for a year is always better than the five high tech programs you tried in 6 months where none of them were followed long enough to have a positive outcome. Simple programs such as: weight training Monday, Wed, Fri, and aerobics, Tue, Thurs, and Sat, with Sunday off — while varying your exercises — tend to work well for the majority of people.

Are there better programs out there? Of course, but the vast majority of people follow routines that are overly complicated, take too long, and are simply unneeded.

I also see a dependence on less productive movements in the gym over more productive choices. I see people doing reverse Romanian lunges while the squat rack gathers dust in the corner. Was that you I saw the other day?

Follow the K.I.S.S. Approach for Success

KISS and supplements

You don't need them. Bet you never thought you would read that coming from me did you?! Let me qualify that statement: does a person need any supplements to achieve the basic goal of either adding muscle or losing fat? No, no they don't. Can supplements help the process? Can supplements potentially speed up the process? Can supplements potentially offset some of the negatives? Can supplements help optimize the effects of exercise and diet? The answer is yes in all cases. The problem, however, is that I see far too many people under the impression that the next whiz bang "cutting edge" supplement is going to make some huge difference to their appearance while their diet and workout are put on the back burner or set low on the priority list. They are constantly looking for that one supplement that's going to make all the difference while they ignore their nutrition and training! I see it all the time and frankly, it's frustrating.

Remember, KISS. Focus on your training and your nutrition — then worry about supplements. Start off with the basics, like a good multivitamin, a source of essential fatty acids (EFAs) and a good protein powder post workout, then add additional supplements over time depending on your goals, such as creatine when trying to add muscle, or ephedrine and caffeine when focusing on fat loss, and so on. The shotgun approach many people take rarely works, wastes money, and adds complexity (remember our conversation on variables above) where it serves no useful purpose.

I love supplements. I take a dozen or more supplements every day of my life. I have designed them for supplement companies, spoken about them at

various conferences, been involved in the published research of supplements, and built my career on them, so I am not some anti–supplement zealot by any means. However, I do speak with people all the time who outline a long list of supplements they are taking (many of which have been shown to be totally worthless) while their diets stink and their training programs are a joke. Don't be one of these people! Don't think for a second there is any one supplement out there that will make or break your success. Realize that supplements are exactly that; supplemental to a good diet and intelligent exercise program.

KISS and nutrition

Finally, we make it to nutrition. Nutrition is a potentially complex topic, and just as importantly, it's a highly emotional topic for many. No place do I find such clear examples of people adding complexity where it's not required. Again, there is a small segment of people that will benefit from — and require — advanced nutritional approaches, such as pre–contest bodybuilders, pre–race track athletes, or even the average person seeking to get to very low body fat levels. Does the average person who needs to get into better shape and lose perhaps 20–30 lbs. (or more) need to follow advanced nutrition concepts? Of course not! Can the average person benefit from techniques more advanced dieters (e.g., bodybuilders, fitness competitors, etc.) might employ, such as cyclic ketogenic diets, refeed days, carb cycling, and other approaches? Of course! Do they require such strategies to drop some fat and get into shape? No, no they don't. That's why I tend to offer well thought out, healthy, and easy to follow approaches to nutrition in my e–books and offer more advanced approaches to people who want to take it to another level.

Follow the K.I.S.S. Approach for Success

Remember one fact that has been confirmed by studies and the "real world:" losing weight is not all that difficult and essentially any diet will work for that purpose. What's difficult is keeping the weight off permanently. If the diet you chose to follow can't guarantee that, it's worthless. That fact narrows down your choices of diets that should be used considerably.

Simplicity + Consistency = Success

The above is what I consider the basics of the KISS approach to nutrition, supplements, and training. You will have to fill in some of the blanks as it applies to you specifically. If you are making steady predictable progress, great, stick to it. If you are not making progress in your goals to add muscle and or lose fat, however, then you may need to sit down and seriously rethink your approach. Is there added complexity where you know it's not needed? Are you relying too heavily on supplements to achieve your goals? Do you find yourself doing exercises that are less effective than the good old fashioned basics, like squats, deadlifts, and bench press? Do you keep jumping on diets that work for some period of time, then when you go back to your "normal" way of eating, the weight comes right back?

I can't answer those questions for you, but hopefully I've made you think—which is half of the battle. You know what they say, you can lead a horse to water but you can't make him think!

The Simplest Weight Loss Tips No One Follows

I have a Cheez–It® problem. You're not listening—I really have a Cheez–It® problem! I have never met a Cheez–It® I didn't like.* Some people can't resist chocolate or ice cream; for others, it's pizza or some other food or sweet. While I enjoy all of those foods on occasion, Cheez–It's® are the food equivalent of crack cocaine for me.

It takes all my willpower to pass up the aisle where the Cheez–It's® reside on the shelves at my local grocery store. My ever loving girl friend Kimberly rolls her eyes at me in sheer disgust when she sees how weak I am to the power of these little crackers, which draw me in like a cheese flavored black hole. "But you have given advice on nutrition to millions of people Will, how could you—of all people—be so weak willed about some little cheese flavored cracker?!" she says. I hang my head in shame and avoid eye contact with her for the rest of the day….

The point of this introduction is that we all have our weaknesses and we are all human…even me. I find Cheez–It's® to be cheese–flavored morphine!

This small problem got me to thinking. If there is one thing I have learned after all these years of doing nutritional research, writing countless articles on the topic of nutrition, and working directly with people on their diets, it's this: it's rarely one single thing a person does that sabotages their efforts to lose fat and or gain muscle, but a bunch of little things that have an accumulated effect.

There are some amazingly simple behaviors and strategies we can all add to our nutritional goals and workout plans that will have a positive effect. Using my own addiction to Cheez–It's® as the primary example, I am going to cover a few of these surprisingly simple, yet effective strategies. A few

issues to keep in mind:

1. Taken alone, these simple tactics will have very little effect. Used alone without any other dietary changes and an exercise plan, these strategies won't amount to much. However, as I mentioned, it's often many minor mistakes adding up to a lack of results for people. Taken in that context, these are some simple mistakes that can be avoided, hopefully resulting in an accumulated effect in a positive direction.

2. I didn't invent any of these tips. They are some of the oldest and simplest tips you will ever read. I don't even know who first came up with them, and I bet most people have seen these strategies in other places, such as various diet books, articles, or web sites. I do, however, think that they may be so old and so simple that most people—with the best of intentions about their nutrition and exercise plans—still don't follow these simple concepts.

These tips are more about behavior changes and psychology than nutritional science, study results, or research. I have written many articles based on the latter topics, but this is not one of those. People interested in a more "hard core" science–oriented article will probably enjoy the next section of this e–book called "The Whey to Weight Loss" which looks at the studies with whey protein and its possible effects on weight loss. In addition to that, if you are looking for more in–depth, science–oriented information about nutrition, supplements, and fat loss or gaining muscle, I suggest reading my e–books on the topic and the many free articles on the Brinkzone.

The Brinkzone

The Simplest Weight Loss Tips No One Follows

Tip #1: NEVER, ever go food shopping hungry

This is one of the most effective strategies I know of to avoid unwanted junk and various snacks from finding their way into your shopping cart; which end up in your home, which end up on your butt!

Make sure to eat something before you go food shopping and you will be able to resist the junk that often finds its way into your cart. If I go food shopping without a good meal in my stomach, I often come home with a family sized box of Cheez–It's® and feel like sh*& for days after eating the entire box!

Human hunger and appetite are regulated by a phenomenally complicated set of overlapping feedback networks, involving a long list of hormones, psychological factors, and others way beyond the scope of this section. Suffice it to say, we often make snap decisions and impulse purchases with certain foods due to one or more of these feedback loops being activated by an empty stomach while we shop.

Translated, your "willpower" to resist junk foods will be much greater if you eat something healthy at least 20–30 minutes before you go food shopping. You can either plan your meal schedule so that one meal is eaten before you go shopping, or have a snack (at least 20–30 minutes before shopping) which will have the desired effects.

A yogurt with some flax oil and walnuts mixed in is a good choice, as is a half–cup

of cottage cheese and a handful of walnuts or some other nut. A protein shake or MRP will suffice, but solid food tends to be more satiating.

Tip #2: NEVER keep snack foods in the house

This tip is a logical extension of Tip #1. If it does not make it into your cart at the food store, it's not in your house. However, many people use excuses like "I have snack foods for the kids" or "my spouse keeps a box of Oreo cookies in the kitchen cupboard" as reasons they can't avoid the snacks that sneak into their diets and sabotage their efforts.

Many of the foods we eat that we know we should not be eating are eaten on an impulse. Impulse control goes a long way here, but few will deny that it's harder to resist that impulse if your favorite junk food is under your nose. That's human nature. When I have an impulse for some Cheez–it's®, I won't resist it well if it's only a few steps to the kitchen vs. having to get in the car to go get a box.

The former I can't resist, the latter I can. Remember, an impulse is defined as "a sudden desire, urge, inclination." That means it's short–lived and will go away, given sufficient time, so it's a matter of not having foods in your house that allow you to act on the impulse while it lasts.

As for the excuse of the spouse, kids, etc. That is more an issue between your kids and/or your spouse. Should the kids be eating that stuff anyway? No! I had a client tell me one day "I keep eating hot dogs 'cause I keep them in the house for the kids." I said

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"so you're ok with feeding your kids foods you know to be unhealthy for you and them?" She stopped feeding her family hot dogs shortly after….

...Bottom line here is, those foods should be occasional treats for both kids and adults, not staple foods that can be found in your kitchen. It's more an issue of teaching the kids good dietary habits young so they don't end up as overweight, unhealthy adults.

As for the spouse, I like to have some chips in the house, which I can resist without a problem. That is, unlike the Cheez–it's®, I can walk past the chips without having to eat them all. I can regulate myself with them. However, Kimberly can't. Chips are to her what Cheez–it's® are to me, so I make it a rule not to keep chips in the house.

Point being, your spouse needs to support your efforts by making some small sacrifices. If you were an alcoholic trying to avoid alcohol, you would (or at least should!) expect your significant other to not keep booze in the house. If they won't support your efforts here, then relationship counseling is in order or a long talk, and I can't help you there—sorry!

Tip #3: Eat off of smaller plates

How much we eat is based on many variables. One of them is the visual cues we get from looking at the food we are about to eat. We are extremely visually–oriented creatures and we often decide how large an object is by comparing it to other objects. Thus, the amount of food we put on a plate is compared to the size of the plate we put the food on. Some of you may remember this little visual test from grade school...

Looking at the two horizontal lines below, which one is longer?

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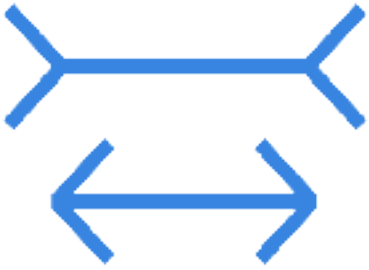

Answer: both lines are identical in length. As you can see, the bottom "plate" looks longer than top "plate," yet they are the same length. It's a visual illusion that shows how our brains are set up to interpret certain visual cues. It is my experience that people will put less food on their plate if they eat from smaller plates, as a smaller plate full of food looks like much more to eat than a large plate with the same amount of food on it.

I know for myself I tend to put 2 slices of pizza on a small plate and three on a large plate! Now this is only one minor cue we have to self–regulate how much food we eat, and other feedback loops (i.e., hormonal, psychological, etc.) can kick in and easily offset this strategy.

For example, you could simply come back for a second helping using the smaller plates. However, it's my hunch (and it's only a hunch as research is lacking here) that over the course of—say—a month, a person may end up taking in fewer total calories using this strategy, as has been my (admittedly anecdotal) experience with both myself and the many people I have given advice to over the years.

Again, as already mentioned, taken alone, this strategy will probably have no effects on your efforts to lose fat if there is not a specific diet and exercise plan involved in the overall equation. It is, however, a simple, small change that may enhance your results. It would be interesting to see a study on this.

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While I expect that the direct effects would be subtle and fairly small, over the course of a year, it may help.

Tip #4: Know Thy Self

The lesson here is, we are all human and we all have our weaknesses. The trick is to know your weakness and develop strategies for coping with them. How well do you know yourself? That is, do you know what cues/triggers tend to set you off? Have you examined that issue for yourself? It's essential to recognize the cues that sabotage your efforts. We all have them. Find yours and take steps to avoid them where possible.

For example, try making a list outlining the things you know tend to set you off and how you react to them, then add a column for how you could deal with it. For example, you might write "talking to my crazy mother makes me anxious and I eat things I shouldn't immediately after the phone conversation." This would be followed by suggestions of how to change it. Some examples are: "always eat a meal right before talking to Mom;" "only take calls from Mom when I am ready and able to deal with her;" "go for a walk immediately after talking to Mom to de–stress and give me time to get over my impulse to eat junk;" and so on.

Develop coping strategies to your known triggers. I know, for example, going food shopping on an empty stomach means I will most probably end up with a large box of Cheez–it's® in my house. I have also found if I go shopping irritated over something, I will buy more foods I don't need, as food is one of many ways we self–medicate looking for some comfort. Hence the term "comfort foods" which are commonly chocolate, ice cream,

and so on.

The bottom line:

- Learn what your hot buttons are that lead to a negative behavior.
- Learn to identify when it's happening.
- Develop strategies for coping with it.

How do you go about doing that? As entire books have been written on that topic, my advice will fall short here. That journey is also highly individual. For some, it's working with a therapist or behavioral specialist; for some, it's reading a few good self–help type books; and for some, it's activities such as meditation, joining support groups, and similar activities. It's also a lifelong journey.

Conclusion

The purpose of this section is actually to remind people of what is stated in the introduction: most people fail in their fat loss/diet goals — not because of a single mistake they are making (with exceptions) — but to many small mistakes that have an accumulated effect that sabotages their efforts. If the above tips help, all the better.

Some people are amazed how many extra calories slip into their diet from snack foods that they are not accounting for. Ninety–nine out of a hundred times, the person that says "I have tried everything and nothing works" is actually saying "I didn't stay on any one plan long enough for it to have an effect, and sabotaged it with small, unaccounted–for negative habits and behaviors." Now, if I can just get the funding for that adult Cheez–it® rehab center I want to have built….

The Whey to Weight Loss!

In this section we get much more scientific. Most readers of this e–book have probably heard of whey protein. However, very few of them know all that much about it, other than it's a high quality protein that athletes and dieters alike use to supplement their diets. Whey protein provides far more than that, however – it also offers immune–boosting and anti–cancer benefits. Additional research also suggests possible medical uses for whey that are quite unexpected and different from whey's traditional role as an immune booster and anti–cancer functional food. For example, whey may be able to reduce stress and lower cortisol, increase brain serotonin levels, improve liver function in those suffering from certain forms of hepatitis, and reduce blood pressure. There are even more amazing recent discoveries, such as whey's possible effects on weight loss, which is the focus of this section.

What is whey?

When we talk about whey we are actually referring to a complex milk–based ingredient made up of protein, lactose, fat and minerals. Protein is the best–known component of whey and is made up of many smaller protein subfractions such as: beta–lactoglobulin, alpha–lactalbumin, immunoglobulins (IgGs), glycomacropeptides, bovine serum albumin (BSA) and minor peptides such as lactoperoxidases, lysozyme and lactoferrin.

Each of the subfractions found in whey protein has its own unique biological properties. Modern filtering technology has improved dramatically in the past decade, allowing companies to separate some of the highly bioactive peptides—such as lactoferrin and lactoperoxidase—from whey.

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Some of these subfractions are only found in very minute amounts in cow's milk, often less than one percent (e.g., lactoferrin, lactoperoxidase, etc.)

The medicinal properties of whey have been known for centuries. For example, an expression from Florence, Italy, circa 1650, was:

"Chi vuol viver sano e lesto beve scotta e cena presto"

which translates into English as: "If you want to live a healthy and active life, drink whey and dine early."

Another expression from Italy regarding the benefits of whey (circa 1777) was

"*Allevato con la scotta il dottore e in bancarotta*."

Which translates into English "If everyone were raised on whey, doctors would be bankrupt."

Is whey a weight loss functional food?

Although there was a smattering of studies suggesting whey had certain properties that might assist with weight loss, a number of recent studies offer further support for whey protein's potential as a weight loss supplement. What's most interesting—at least to nerds like me—is that whey doesn't appear to act by a single mechanism, but several. This article will briefly explore a few possible pathways by which whey may assist the dieter.

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"I'm hungry!"

Human hunger and appetite are regulated by a phenomenally complicated set of overlapping feedback networks, involving a long list of hormones, psychological factors as well as physiological factors, all of which are still being elucidated. It's a very intensive area of research right now, with various pharmaceutical companies looking for that "magic bullet" weight loss breakthrough they can bring to market.

One hormone getting attention by researchers looking for possible solutions to obesity is cholecystokinin (CCK). Several decades ago, researchers found CCK largely responsible for the feeling of fullness or satiety experienced after a meal and partially controls appetite, at least in the short term.

Cholecystokinin (CCK) is a small peptide with multiple functions in both the central nervous system and the periphery (via CCK–B and CCK–A receptors respectively). Along with other hormones, such as pancreatic glucagon, bombesin, glucagon–like peptide–1, amide (GLP–1), oxyntomodulin, peptide YY (PYY) and pancreatic polypeptide (PP), CCK is released by ingested food from the gastrointestinal tract and mediates satiety after meals.

Such a list would not be complete without at least making mention of what many researchers consider the "master hormones" in this milieu, which are insulin and leptin. If that's not confusing enough, release of these hormones depends on the concentration and composition of the nutrients ingested.

This means that the type of nutrients (i.e., fat, protein, and carbohydrates) eaten, the amount of each eaten, and composition of the meal, all affect

which hormones are released and in what amounts…Needless to say, it's a topic that gets real complicated, real fast and the exact roles of all the variables are far from fully understood at this time, though huge strides have been made recently.

Whey's effects on food intake

This (finally!) brings us to whey protein. Whey protein may have some unique effects on food intake via its effects on CCK and other pathways. Many studies have shown that protein is the most satiating macronutrient. However, it also appears all proteins may not be created equal in this respect.

For example, two studies using human volunteers compared whey vs. casein (another milk–based protein) on appetite, CCK, and other hormones.[1]

The first study found that energy intake from a buffet meal was significantly less 90 minutes after a liquid meal containing whey, compared to a meal containing an equivalent amount of casein. In the second study, the same whey preload led to a plasma CCK increase of 60% (in addition to large increases in glucagon–like peptide [GLP]–1 and glucose–dependent insulinotropic polypeptide) compared with the casein.

Translated, taking whey before people were allowed to eat all they wanted (ad libitum) at a buffet caused a decrease in the amount of calories they ate as well as substantial increases in CCK compared to casein. Subjectively, it was found there was greater satiety following the whey meal also.

The researchers concluded:

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"These results implicate post–absorptive increases in plasma amino acids together with both CCK and GLP–1 as potential mediators of the increased satiety response to whey and emphasize the importance of considering the impact of protein type on the appetite response to a mixed meal."

Several animal studies also find whey appears to have a more pronounced effect on CCK and/or satiety than other protein sources.

It should be noted, however, that not all studies have found this effect of whey vs. other protein sources on food intake.[2]

It should also be noted that, although studies find protein to be the most satiating of the macronutrients, certain protein sources (e.g. egg whites) may actually increase appetite,[3] so protein sources appear worth considering when looking to maximize weight loss and suppress appetite.

How whey protein achieves this effect is not fully understood, but research suggests it's due to whey's high glycomacropeptide and alpha–lactalbumin content, its high solubility compared to other proteins, and perhaps its high percentage of branched chain amino acids (BCAAs).

Whey's effects on insulin sensitivity and fat burning

So we have some studies suggesting whey may have some unique effects on hormones involved in satiety and/or may reduce energy (calorie) intake in subsequent meals, but do we have studies showing direct effects of whey vs. other proteins on weight loss? In animals at least, whey looks like a promising supplement for weight loss.

Although higher protein diets have been found to improve insulin sensi-

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tivity, and may be superior for weight loss (with some debate!) than higher carbohydrate, lower protein diets, it's unclear if all proteins have the same effects.

One study compared whey to a meat–based diet in rats and found whey reduced body weight and tissue lipid levels and increased insulin sensitivity compared to red meat.[4]

Rats were fed a high fat diet for nine weeks, then switched to a diet containing either whey or kangaroo meat for an additional six weeks. As has generally been found in other studies, the move to a high protein diet reduced energy intake (due to the known satiating effects of protein compared to carbs or fat), as well as reductions in visceral and subcutaneous body fat.

However, in the rats getting the whey, there was a 40% reduction in plasma insulin concentrations and increased insulin sensitivity compared to the red meat. Not surprisingly, the researchers concluded

> *"These findings support the conclusions that a high–protein diet reduces energy intake and adiposity and that whey protein is more effective than red meat in reducing body weight gain and increasing insulin sensitivity."*

Other studies suggest taking whey before a workout is superior for preserving/gaining lean body mass (LBM) and maintaining fat burning (beta –oxidation) during exercise over other foods taken prior to a workout. One study called "A preexercise lactalbumin–enriched whey protein meal preserves lipid oxidation and decreases adiposity in rats" came to some very interesting conclusions.

One thing we have known a long time is the composition of the pre–exercise

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meal will affect substrate utilization during exercise and thus, might affect long–term changes in body weight and composition. In other words, what you eat before you workout can dictate what you use for energy (i.e. carbs, fats, and or proteins), which alters what you burn (oxidize) for energy.

The researchers took groups of rats and made the poor buggers exercise two hours daily for over five weeks (talk about overtraining!), either in the fasted state or one hour after they ingested a meal enriched with a simple sugar (glucose), whole milk protein or whey protein.

The results were quite telling. Compared with fasting (no food), the glucose meal increased glucose oxidation and decreased lipid oxidation during and after exercise. Translated, they burned sugar over body fat for their energy source. In contrast, the whole milk protein and whey meals preserved lipid oxidation and increased protein oxidation. Translated, fat burning was maintained and they also used protein as a fuel source.

Not surprisingly, the whey meal increased protein oxidation more than the whole milk protein meal, most likely due to the fact that whey is considered a "fast" protein that is absorbed rapidly due to its high solubility.

As one would expect, by the end of the five weeks, body weight was greater in the glucose, whole milk protein and whey–fed rats than in the fasted ones. No shock there. Here is where it gets interesting: in the group getting the glucose or the whole milk protein, the increase in weight was from body fat, but in the whey–fed group, the increase in weight was from an increase in muscle mass and a decrease in body fat!

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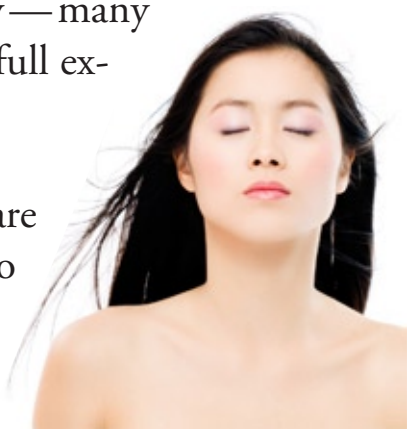
Only the rats getting the whey before their workout increased muscle mass and decreased their body fat. The researchers theorized this was due to whey's ability to rapidly deliver amino acids during exercise.[5] Is this the next big find in sports nutrition—or for those simply looking to preserve muscle mass loss due to aging?

Hard to say at this time, since it was done in rats, but if it turns out to be true in humans (and there is no reason people can't try it now) it would indeed be a breakthrough in the quest to add muscle and lose fat.

Effects on serotonin, blood sugar regulation, and more!

Although the above would probably be the major mechanisms by which whey protein could help the dieter, there are several secondary effects of whey that may assist in weight loss. For example, whey protein's effects on serotonin levels. Serotonin is probably the most studied neurotransmitter since it has been found to be involved in a wide range of psychological and biological functions. Serotonin (also called 5–hydroxytryptamine or 5–HT) is involved with mood, anxiety, and appetite.

Elevated levels of serotonin can cause relaxation and reduced anxiety. Low serotonin levels are associated with low mood, increased anxiety (hence the current popularity of the SSRI drugs such as Prozac and others), and poor appetite control. This is an extremely abbreviated description of all the functions serotonin performs in the human body—many of which have yet to be fully elucidated—but a full explanation is beyond the scope of this article.



Needless to say, increased brain serotonin levels are associated with an improved ability of people to cope with stress, whereas a decline in serotonin activity is associated with depression and anxiety. Elevated levels of serotonin in the body often

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result in the relief of depression, as well as substantial reduction in pain sensitivity, anxiety and stress. It has also been theorized that a diet induced increase in tryptophan will increase brain serotonin levels, while a diet designed for weight loss (e.g., a diet that reduces calories) may lead to a reduction of brain serotonin levels due to reduced substrate for production and a reduction in carbohydrates.

Many people who reduce their calorie intakes to lose weight find they are often ill–tempered and more anxious. Reductions in serotonin may be partially to blame here. One recent study examined whether alpha–lactalbumin — a major subfraction found in whey which has an especially high tryptophan content — would increase plasma tryptophan levels as well as reduce depression and cortisol concentrations in subjects considered to be vulnerable to stress.

The researchers examined twenty–nine "highly stress–vulnerable subjects" and 29 "relatively stress–invulnerable" subjects using a double–blind, placebo–controlled study design. The study participants were exposed to experimental stress after eating a diet enriched with either alpha–lactalbumin (found in whey) or sodium caseinate, another milk–based protein. The researchers looked at:

- Diet–induced changes in the plasma tryptophan and its ratio to other large neutral amino acids.
- Prolactin levels.
- Changes in mood and pulse rate.

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- Cortisol levels (which were assessed before and after the stressor).

Amazingly, the ratio of plasma tryptophan to the other amino acids tested was 48% higher after the alpha–lactalbumin diet than after the casein diet! This was accompanied by a decrease in cortisol levels and higher prolactin concentration. Perhaps most important and relevant to the average person reading this article, they found "reduced depressive feelings" when test subjects were put under stress.

They concluded that:

> *"Consumption of a dietary protein enriched in tryptophan increased the plasma Trp–LNAA ratio and, in stress–vulnerable subjects, improved coping ability, probably through alterations in brain serotonin."*

This effect was not seen in the sodium caseinate group.[6] If other studies can confirm these findings, whey may turn out to be yet another safe and effective supplement in the battle against depression and stress, as well as reduced serotonin levels due to dieting.

Although there is a long list of hormones involved in appetite regulation, some of which have been mentioned above, serotonin appears to be a key player in the game. In general, experiments find increased serotonin availability or activity = reduced food consumption and decreased serotonin = increased food consumption. If whey protein can selectively increase serotonin levels above that of other proteins, it could be very helpful to the dieter.

Other possible advantages whey may confer to the dieter is improved blood sugar regulation[7] which is yet another key area in controlling appetite and metabolism.

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Finally, calcium from dairy products has been found to be associated with a reduction in bodyweight and fat mass. Calcium is thought to influence energy metabolism as intracellular calcium regulates fat cell (adipocyte) lipid metabolism as well as triglyceride storage. It's been demonstrated in several studies the superiority of dairy versus non–dairy sources of calcium for improving body composition, and the whey fraction of dairy may be the key.

The mechanism responsible for increased fat loss found with dairy–based calcium versus non–dairy calcium is not fully understood, but researchers looking at the issue theorized that:

> *"…dairy sources of calcium markedly attenuate weight and fat gain and accelerate fat loss to a greater degree than do supplemental sources of calcium. This augmented effect of dairy products relative to supplemental calcium is likely due to additional bioactive compounds, including the angiotensin–converting enzyme inhibitors and the rich concentration of branched–chain amino acids in whey, which act synergistically with calcium to attenuate adiposity."*

It appears components in whey—some of which have been mentioned above—are thought to act synergistically with calcium to improve body composition.[8]

Conclusion

Taken in isolation, none of these studies are so compelling that people should view whey protein as some form of weight loss nirvana. However, taken as a total picture, the bulk of the research seems to conclude that whey may, in fact, have some unique effects on weight loss and could be of great use

to the dieter. More studies are clearly needed however.

So what is the practical application of all this information and how does the dieter put it to good use? Since the appetite–suppressing effects of whey appear to last approximately 2–3 hours, it would seem best to stagger the intake throughout the day. For example, breakfast might be 1–2 scoops of whey and a bowl of oatmeal, and perhaps a few scoops of whey taken between lunch and dinner.

If whey does what the data suggests it does in the above studies, this should be the most effective method to maximize the effects of whey on food (calorie) intake in subsequent meals, as well as enhance the other metabolic effects covered. If exercising, the schedule may be different, however, so people should follow the pre– and post–workout nutrition recommendations found in my e–books *Fat Loss Revealed* and *BodyBuilding Revealed*, or related advice from sports nutrition and bodybuilding–related web sites.

References

Unified Theory Article References:

1. Farnsworth E, Luscombe ND, Noakes M, et al. Effect of a high–protein, energy–restricted diet on body composition, glycemic control, and lipid concentrations in overweight and obese hyperinsulinemic men and women. *Am J Clin Nutr*. 2003 Jul;78(1):31–9.

2. Baba NH, Sawaya S, Torbay N, et al. High protein vs high carbohydrate hypoenergetic diet for the treatment of obese hyperinsulinemic subjects. *Int J Obes Relat Metab Disord*. 1999 Nov;23(11):1202–6.

3. Parker B, Noakes M, Luscombe N, Clifton P. Effect of a high–protein, high–monounsaturated fat weight loss diet on glycemic control and lipid levels in type 2 diabetes. *Diabetes Care*. 2002 Mar;25(3):425–30.

4. Skov AR, Toubro S, Ronn B, et al. Randomized trial on protein vs carbohydrate in ad libitum fat reduced diet for the treatment of obesity. *Int J Obes Relat Metab Disord*. 1999 May;23(5):528–36.

5. Piatti PM, Monti F, Fermo I, et al. Hypocaloric, high–protein diet improves glucose oxidation and spares lean body mass: comparison to hypocaloric high–carbohydrate diet. *Metabolism*. 1994 Dec;43(12): 1481–7.

6. Layman DK, Boileau RA, Erickson DJ, et al. A reduced ratio of dietary carbohydrate to protein improves body composition and blood lipid profiles during weight loss in adult women. *J Nutr*. 2003 Feb;133(2):411–7.

7. Golay A, Eigenheer C, Morel Y, et al. Weight–loss with low or high carbohydrate diet? *Int J Obes Relat Metab Disord*. 1996 Dec;20(12):1067–72.

References

8. Meckling KA, Gauthier M, Grubb R, Sanford J. Effects of a hypocaloric, low–carbohydrate diet on weight loss, blood lipids, blood pressure, glucose tolerance, and body composition in free–living overweight women. *Can J Physiol Pharmacol*. 2002 Nov;80(11):1095–105.

9. Borkman M, Campbell LV, Chisholm DJ, Storlien LH. Comparison of the effects on insulin sensitivity of high carbohydrate and high fat diets in normal subjects. *J Clin Endocrinol Metab*. 1991 Feb;72(2):432–7.

10. Brehm BJ, Seeley RJ, Daniels SR, D'Alessio DA. A randomized trial comparing a very low carbohydrate diet and a calorie–restricted low fat diet on body weight and cardiovascular risk factors in healthy women. *J Clin Endocrinol Metab*. 2003 Apr;88(4):1617–23.

11. Garrow JS, Durrant M, Blaza S, et al. The effect of meal frequency and protein concentration on the composition of the weight lost by obese subjects. *Br J Nutr*. 1981 Jan;45(1):5–15.

12. Agus MS, Swain JF, Larson CL, et al. Dietary composition and physiologic adaptations to energy restriction. *Am J Clin Nutr*. 2000 Apr;71(4):901–7.

Whey to Weight Loss References

1. Hall WL, Millward DJ, Long SJ, Morgan LM.Casein and whey exert different effects on plasma amino acid profiles, gastrointestinal hormone secretion and appetite. *Br J Nutr*. 2003 Feb;89(2):239–48.

2. Bowen J, Noakes M, Clifton P, Jenkins A, Batterham M.Acute effect of dietary proteins on appetite, energy intake and glycemic response in overweight men. *Asia Pac J Clin Nutr*. 2004;13(Suppl):S64.

References

3. Anderson GH, Tecimer SN, Shah D, Zafar TA. Protein source, quantity, and time of consumption determine the effect of proteins on short–term food intake in young men. *J Nutr*. 2004 Nov;134(11):3011–5.

4. Damien P. Belobrajdic, Graeme H. McIntosh, and Julie A. Owens. A High–Whey–Protein Diet Reduces Body Weight Gain and Alters Insulin Sensitivity Relative to Red Meat in Wistar Rats. *J. Nutr*. 2004 Jun;134:1454–1458.

5. Bouthegourd JC, Roseau SM, Makarios–Lahham L, et al. A preexercise alpha–lactalbumin–enriched whey protein meal preserves lipid oxidation and decreases adiposity in rats. *Am J Physiol Endocrinol Metab*. 2002 Sep;283(3):E565–72.

6. Markus CR, Olivier B, Panhuysen GE, et al. The bovine protein alpha–lactalbumin increases the plasma ratio of tryptophan to the other large neutral amino acids, and in vulnerable subjects raises brain serotonin activity, reduces cortisol concentration, and improves mood under stress. *Am J Clin Nutr*. 2000 Jun;71(6):1536–44.

7. Frid AH, Nilsson M, Holst JJ, Bjorck IM. Effect of whey on blood glucose and insulin responses to composite breakfast and lunch meals in type 2 diabetic subjects. *Am J Clin Nutr*. 2005 Jul;82(1):69–75.

8. Zemel MB. Role of calcium and dairy products in energy partitioning and weight management. *Am J Clin Nutr*. 2004 May;79(5):907S–912S.

Additional References of Interest

1. Curzon G. Serotonin and appetite. *Ann N Y Acad Sci*. 1990;600:521–30; discussion 530–1.

References

2. Pierson ME, Comstock JM, Simmons RD, et al. Synthesis and biological evaluation of potent, selective, hexapeptide CCK–A agonist anorectic agents. *J Med Chem.* 1997 Dec 19;40(26):4302–7.

3. Blundell JE, King NA. Overconsumption as a cause of weight gain: behavioural–physiological interactions in the control of food intake (appetite). *Ciba Found Symp.* 1996;201:138–54; discussion 154–8, 188–93.

4. Zittel TT, von Elm B, Teichmann RK, et al. Cholecystokinin is partly responsible for reduced food intake and body weight loss after total gastrectomy in rats. *Am J Surg.* 1995 Feb;169(2):265–70.

5. Smith GP, Gibbs J. Are gut peptides a new class of anorectic agents? *Am J Clin Nutr* 1992 Jan;55(1 Suppl):283S–285S.

6. Strader AD, Woods SC. Gastrointestinal hormones and food intake. *Gastroenterology*. 2005 Jan;128(1):175–91.

Will Brink's "Fat Loss Revealed"

An important message from Will Brink:

Fat Loss Facts, Tips & Tricks contains a lot of useful information, but is just the tip of the iceberg. If permanent, healthy and awe–inspiring fat loss is what you really want, you need *Fat Loss Revealed*, my fully–comprehensive program for losing excess fat and optimizing your body composition. *Fat Loss Revealed* is more than just an e–book, it's the most up–to–date resource available for fat loss, health and fitness information. When you purchase the e–book, you receive 12 months of unlimited access to the Members' Zone, where you can ask questions and receive support for your fat loss program. The Members' Zone is constantly being updated with supplement reviews, articles, member features and downloads—all of which will be free to you as an FLR member.

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The "Fat Loss Revealed" e–book features:

- 40 complete reviews of supplement compounds,
- A comprehensive diet program that works—to shed those unwanted pounds and keep them off for good,
- Training advice and sample routines,

Will Brink's "Fat Loss Revealed"

- Links to Members' Zone resources and information,
- Advanced fat loss, recipes, bonus reports and more,
- Full integration with the "Members' Zone"—your online gateway for information. The Members' Zone features over **220** brand–name supplement reviews, articles, book reviews, Q & As with Will and his team of expert moderators, recipes, workout information, videos, diet tracking tools, photo gallery and more!

All you need to do is click the link below and *Fat Loss Revealed* will be yours within minutes.

Fat Loss Revealed

When you purchase "Fat Loss Revealed," you'll discover:

✓ **...why resistance training is important for permanent fat loss.** But resistance training is more than just picking up weights and pushing/pulling them around. Find out how the right kind of training can help you keep, and even increase your lean body mass, while helping you raise your metabolism and shed excess fat.

✓ **...which supplements are worth taking—for your health as well as for fat loss.** Many supplements sold for fat loss have minimal effects on your waistline, but offer significant benefits to your health and well–being. In the right doses, many help fight free radicals that can cause premature aging, improve cognitive function, reduce stress, and improve blood lipid levels.

✓ **...why aerobics aren't the best kinds of exercises for losing fat.** Aerobic exercise burns some calories and improves cardiovascular conditioning. Yet people do aerobics for years and never really seem to change their

body compositions or appearance. Find out why, and how to use cardio to your advantage.

- ✓ **...how the scale can be deceiving.** Having a lean and fit body isn't about weight loss—it's about FAT loss. Who wants to lose weight if you're left with a sagging, droopy body? If you want to lose the fat and keep the muscle, you need to stop relying on the scale as a measure of progress. Learn how to measure your body fat %, so you can keep your diet on track.

- ✓ **...which fats will actually help prevent fat storage, and help you burn excess body fat.** And yes—you read that correctly. Not all fats are bad for your waistline...learn which ones are, and which ones aren't—and why.

- ✓ **...how eating extra meals each day will help you lose fat!** One of the first things that people do when they want to lose extra flab is skimp on breakfast, lunch and dinner—or skip some meals completely. Find out why this is the wrong approach, and why eating 5–6 meals is better.

- ✓ **...why fat and starch–blocking supplements aren't the cure–alls they're advertised to be.** Do they work? What else might they be blocking?

- ✓ **...critical adjustments that you need to make to your diet to lose fat permanently.** Find out which carbohydrates will help you towards your goals and which ones you should avoid. Find out the right amounts to eat for your goals and activity level.

You'll find out about all of these things—and more—when you download your own copy of *Fat Loss Revealed*.

We are 100% confident that if you follow the information in the e–book, you will lose your excess body fat...just the same as Will's personal training

Will Brink's "Fat Loss Revealed"

clients have. This is not hit–and–miss information: it's been tested time and time again. We know it works. And all it takes to get started are a few clicks of the mouse.

Download your copy of *Fat Loss Revealed* now:

Fat Loss Revealed

"I lost 30 pounds of Fat & 7" off My Waist!"

It was obvious to me that I had to do something about my weight problem. The problem was I did not know where to start, what to eat, what exercise for my body–type, or what supplements worked or didn't. Thankfully I came across the FLR program.

The *Fat Loss Revealed* program (FLR) is a "fat–loss blueprint" that clearly lays out, on a "step by step" basis, how to lose weight—whether the goal is for better health (my initial goal) or getting ripped.

I was honored when the man himself, Will Brink, who writes for popular magazines and who has trained world class champions answered questions that I posted on the forum.

I have definitely surpassed my initial goal of just "losing extra baggage" I've achieved a condition I just didn't think possible thanks to Will Brink's information.

Sergio Lares

Will Brink's "Fat Loss Revealed"

"I dropped from 52% body fat to 15% body fat!"

Here are my before and after pictures. The "after" was taken on my 48th birthday after a workout. I've made more progress in 5 months following the principles in your information than the entire (almost) 3 years of dieting and exercise. I never would've thought a guy my age could've done this!

Pat Sitton

"I have lost over 50 pounds of Fat!"

I have lost over 50 pounds of fat while gaining lean muscle. I didn't do it as a crash, or quick fix diet, but as a steady healthy reduction in bodyweight as outlined in "Fat Loss Revealed."

Your direction and knowledge of diet and supplements has been more than invaluable to my success.

Thank you Will.

Amy Fox

Will Brink's "Fat Loss Revealed"

Click the link:

Fat Loss Revealed

To begin your fat loss journey. You'll receive instant access to the FLR Program: both the 334 page best selling e–book AND 12 months free access to the FLR Members' Zone, complete with **220+** brand name supplement reviews, sample diets and charts, personal advice from my qualified, experienced moderators, the Diet Planner, Meal Planner, Nutrition Database, articles and exercise videos. And remember, your satisfaction is 100% guaranteed!

Hope to see you soon in the Members' Zone!

Sincerely Your Friend & Fat Loss Coach

Will Brink
Author, Researcher & Consultant

Will Brink's "Bodybuilding Revealed"

Fat Loss Revealed is the ultimate guide to fat loss supplements, diet and exercise. Many have used it successfully as a guide to losing their excess fat, and achieving leaner, healthier physiques.

Losing fat, however, may only be the first step towards achieving your ideal body composition. Gaining muscle and strength is the logical next step, for both men and women.

If you're serious about taking that "next step," then you need a copy of my other book: *Brink's Bodybuilding Revealed*. BBR is focused on the subject of gaining lean body mass, while minimizing fat gains. Just as with *Fat Loss Revealed*, BBR is a comprehensive, no BS approach to muscle building: it's all there: nutrition, diet, workouts, and supplements. There's also an active Members' Area, filled with articles and tools to help you plan and manage your diet and exercise programs. The forum is loaded with information on nutrition, supplements, and exercises, with more material being added daily. And as always, I am there, along with my expert moderators.

Brink's Bodybuilding Revealed isn't just for bodybuilders—it's for anyone who wants to enhance their lean body mass, health, and appearance.

"I've gained Serious muscle mass and lost a lot of fat quicker than ever before."

Hi Will: just a quick note to say thank you really...I've gained serious muscle mass and lost a lot of fat quicker than ever before with the information and help you provided."

Scott Brouse

Will Brink's "Bodybuilding Revealed"

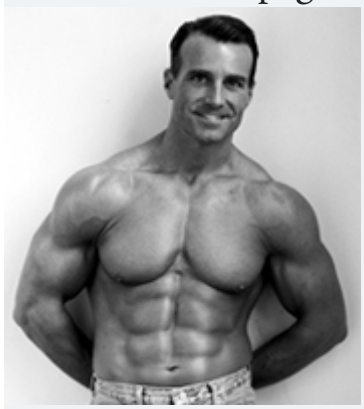
"I've lowered my body fat from 32% to 13%"

I don't think there is a more complete teaching tool on the subject of fitness and nutrition out on the market than Will Brink's *Bodybuilding Revealed*... This program is perfect for anyone wanting the very best of health and fitness, taught by the very best in the business, regardless of your age.

Jim Donaldson

"...Will Brink's E–book is Simply Superb!"

It would take pages to do complete justice to reviewing Will's latest piece of work—*Brink's Bodybuilding Revealed*—because it is such a monumental piece of work. I can't imagine the man–hours that went into the creation of this resource let alone the research that had to be done.



In my eyes, even more important than the sheer quantity of information is the honesty and objectiviity of the reviews and recommendations, which is very important in the shady, biased and confusing bodybuilding marketplace. In particular, Will's method of looking at "what the science says" AND "what the real world" says is the best possible approach to making informed decisions about products or programs. Overall, two very big enthusiastic thumbs up!

Tom Venuto New Jersey
Author of *Burn The Fat—Feed The Muscle*

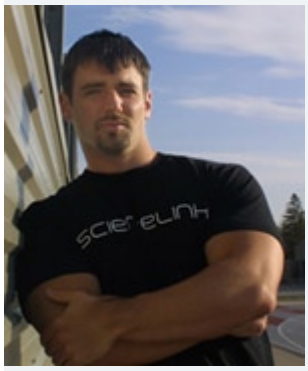
Will Brink's "Bodybuilding Revealed"

"Success Is Virtually Guaranteed."

Combine Will's nutrition and supplement information with my training tips and advice, and success is virtually guaranteed.

Charles Poliquin B.Sc, M. Sc. Ottawa, Canada. Author of *Modern Trends In Strength Training*, *German Body Composition*, *The Poliquin Principles*, *Winning the Arm's Race*.

"You're Ready For Bodybuilding Revealed"



Will Brink has helped thousands build muscle, lose fat, and transform their bodies. And with his new resource, *Bodybuilding Revealed*, Will provides one of the most comprehensive muscle building resources available today. If you're ready to build muscle, you're ready for *Bodybuilding Revealed*.

Dr. John Berardi, Ph.D., Adjunct Assistant Professor, Ottawa, Canada. Author of *Scrawny To Brawny*, *Precision Nutrition*, *Gourmet Nutrition*.

If you've learned the lessons that *Fat Loss Revealed* has to offer, then you have what it takes to get the most out of *Bodybuilding Revealed*. Click the link below to get started!

Bodybuilding Revealed