Program Information

Congratulations on taking the first step toward achieving pain-free fat loss.

Please save this document for your records.

Below, you'll find your unique password needed to access the website.

((**NOTE:** Your credit card statement will show a charge from SALTWRAPCOM for your order of Pain-Free Fat Loss.))

Ready to get started?

- 1) Read the full eBook (scroll down to continue to eBook).
- 2) Visit the Member's Area of PainFreeFatLoss.com to download recipes, food guides, and more: painfreefatloss.com/members-area/

The Member's Area is password protected

Your password to access the online book link and Member's Area:

PFL245

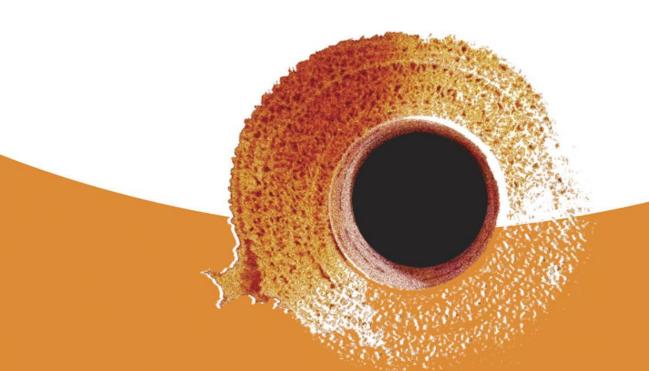
Type this password in when prompted on PainFreeFatloss.com. Passwords are case sensitive, meaning letters "PFL" must be capitalized.

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PAIN-FREE FAT LOSS

AN UNCONVENTIONAL APPROACH TO RAPID FAT LOSS AND PAIN RELIEF



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Product Recommendations from SaltWrap

Pain-Free Fat Loss is a comprehensive program based on our work with exercise therapy clients. When we feel it's appropriate, we will reference other products sold by SaltWrap that can help you accomplish your goals.

Out of respect for you and so you can keep focused on *this* program, we'll keep those product recommendations infrequent and brief.

Please understand that any and all products we recommend were designed to be used in complement to the others.

For example, we created a food journal called the <u>Daily Fitness</u>

<u>Planner™</u> that allows you to track all of your exercise and nutrition in one place. We recommend this to all of our clients, especially those who want to lose weight.

It's no secret that we are a business, and we stay in business by selling products and services. But right now, our goal is to deliver the weight loss and pain relief results you are looking for.



TABLE OF CONTENTS

PREFACEi
CHAPTER 1: The Link Between Weight Gain and Pain1
CHAPTER 2: Introduction to the PFL Program
CHAPTER 3: PFL Nutrition Principles
CHAPTER 4: Eat in compacted time periods
CHAPTER 5: Eat fat
CHAPTER 6 : Burn in the morning, feast in the evening
CHAPTER 7 : Eat foods that satisfy, avoid foods that increase hunger 70
CHAPTER 8: Putting it All Together
Meal Planning
Chapter 9: PFL Advanced
For Extreme Weight Loss and Conditioning
For Muscle Growth
1,000+ Calorie Meals: How to Cheat Your System
Chapter 10: PFL Resources & Tools
I. Resources: PFL Choice Foods, Grocery List, PFL Survival Guide
(Travel & Restaurants), Common Mistakes, Pain-Free Recipe Book
II. Example Meal Plans
III. Common Mistakes
IV. Nutritional Supplement Guide
V. References and Research
AFTERWORD140

PREFACE

We get a lot of questions about our name—**SaltWrap**. No, we don't sell those hokey waist-slimming wraps. And we don't sell *salt* either.

The name itself came from a protocol we use with clients to manage pain levels and inflammation (it's a combination of concentrated Epsom Salt water and gauze bandages).

But it became much more than that to us. It's a symbol of everything we stand for. A natural approach to managing pain, but not in a Band-Aid sort of way.

The different protocols we use with clients are designed to treat short-term pain and injuries, but also help our clients get back on their feet for the long-term. Back to training, back to running. Or walking. Or just back to their lives in general.

A few years ago, we decided to take our work online.

With diverse backgrounds in exercise therapy, physical fitness training, and pharmaceutical science—we wanted to reach more people than was possible in the gym and training studios. And when we realized how backwards the fitness industry is, it fueled our desire to make an impact.

...When you look around, it seems like most fitness and nutrition companies are focused on short-term solutions. Ways to help you look good naked or lift heavier weights... but they don't think about long-term consequences. **This is where we are different.**

As athletes and weight lifters, we love performance.

But we don't sacrifice later for right now.

We don't advocate behaviors that are going to screw you up years down the road. *That's what we're all about*.

And this program is a perfect example of our philosophy. It's a total weight loss program, with a focus on healthy nutrition. And it's something you can use for the rest of your life to stay lean, healthy, and pain-free.

The Pain-Free Fat Loss program was a joint effort between me and the two other founders of SaltWrap.com.

I may have spear-headed this project, but I can't take credit for it. It's something we put together as a team. However, to avoid confusion, I'll often speak to you directly from my point of view. Please keep in mind that when I'm speaking to you, it isn't just my opinion.

At SaltWrap, for ANYTHING to pass muster—at least three passionate health and fitness researchers scrutinize it. So you aren't getting the slanted perspective of one "guru"—you're getting a program that's been analyzed and perfected by a group of researchers. And more importantly, it's already been battle-tested by our face-to-face clients.

-Brendan Hall

Director of Research & Development

SaltWrap Biolabs & Publishing

CHAPTER 1

The Link Between Weight Gain and Pain

People are often surprised to learn that the first thing we (the trainers at SaltWrap) focus on with 95% of our clients who are in pain is **weight loss**.

At first glance, this doesn't make sense. Our specialty is designing therapeutic fitness protocols for people who are in pain, injured, or working to overcome performance barriers.

So why the focus on weight loss?

First, it's what many of our clients really *want*. Even if they come to us for exercise therapy to overcome pain and injury.

We know this because we ask them.

In an ongoing survey we run on our website (saltwrap.com), 53.68% of participants rated "lose fat" as their #1 most important goal.

Second, it's what most of our clients actually *need*. Even if they don't know it.

According to Arthritis.org, a person who is just 10 pounds overweight (which means most people) has an additional 40 pounds of pressure on his knees. [33] That's a lot of stress for one little joint.

But it's not just knees. This excess stress affects the entire human system. We'll get into exactly how it does later.

But for now, I want you to know that for most people with chronic joint pain and systemic (total body) inflammation, **losing weight should be** the #1 priority.

As part of our exercise therapy and weight loss coaching programs, we use the protocols on the following pages to help our clients lose weight and manage their pain levels.

It's the perfect example of killing two birds with one stone. This plan will help you lose weight AND conquer pain issues, *naturally*.

Pain-Free Fat Loss means exactly what it sounds like. But it has double meaning, as you might have expected. Pain-Free also means that this program is... for lack of a better word...easy.

We created it that way on purpose.

We designed it to fit seamlessly into your life.

Instead of asking you to make major sweeping changes to your everyday routine, we built a "plug and play" program this fits into your life.

To do this, we had to use some unconventional approaches.

Things that you won't see most nutritionists or so called experts talking about online.

We also had to be brutally honest with ourselves (and you) about what is realistic. See, the stakes are higher for us.



We can't afford to have 80% of our clients fail (that is the going failure rate for most New Year's Resolutions and fitness goals, but it's not acceptable for us).

If we let our clients down—and they aren't able to lose weight—the result isn't just disappointment.

...The result isn't just a person who wants to look better, but has to deal with being overweight...No. Like I said, the stakes are higher.

If we fail to help our clients lose weight, then it means they have to live in pain.

It means they aren't able to return to the activities they love. It means they aren't going to age well...and their joints won't last as long. It means their quality of life is forever altered.

That's why we take this so seriously. Because it's that important.

And it's also why we believe this is the best diet program you can follow for sustainable, *pain-free* weight loss.

It's not just a short-term program you follow for a little while to lose a few pounds—it's a master-class in learning to control your own metabolism, eating habits, and body.

It's a way to (once-and-for-all) achieve sustainable weight loss, manage pain levels, and achieve your physical potential.



You might be wondering, "Should I follow this if I'm not in pain or recovering from some kind of injury?"

If you want to lose weight, but also protect your joints and overall health for life, the answer is a resounding *Yes*.

In fact, even if you aren't in pain, inflammation might be wreaking havoc on your body. Let me explain...

Weight Gain = Pain

Weight gain and pain go hand-in-hand.

There's more than a few reasons for that:

(Reason #1) Being overweight increases systemic inflammation.

When you break a bone, that is an **acute injury**. Your body goes through all kinds of healing and inflammatory processes to repair the break.

When you have repeated, small-dose injuries over a longer period, that is referred to as a **chronic injury**. A good example is getting tendonitis in your wrists from typing at a computer for 8 hours per day over a period of several months (also referred to as **repetitive stress injuries**.)

These types of injuries are almost worse than acute injuries, because your body is in a state of chronic, low-grade inflammation.

But inflammation isn't all bad.

Actually, it's a healthy process for repairing injuries and protecting us from infection.

But when left unchecked, inflammation wreaks havoc on your body. It erodes joint tissue, causes severe pain and swelling, and is directly linked to numerous diseases, including:

- Heart disease
- Stroke
- Arthritis
- Nerve damage and degeneration
- Diabetes
- Autoimmune diseases
- Inflammatory Bowel Disease (IBS)
- Chronic Fatigue Syndrome

In short, chronic inflammation is a silent killer. It slowly and quietly steals away your health and quality of life.

Here's where the weight gain factor comes in to play—an increasingly common cause of elevated inflammation is what we refer to as "dietary injury."

Much like repetitive use injuries to muscles and joints cause an immune response, a dietary injury occurs when your immune system experiences consistent, low-level stress. This happens when you consume foods your body is allergic to, foods devoid in natural enzymes that require extra work from your body, or foods that specifically trigger an inflammatory response.



(Reason #2) Being overweight puts more mechanical stress on joints.

This one makes intuitive sense. If you're carrying around an extra 20 pounds, that's like carrying a duffel bag on your back every day. It has cascading negative affects not just on your knees, but your back, shoulders, neck and entire spine.

Like I mentioned earlier, for that excess 10 pounds you're carrying around—your knees have to support the equivalent of 40 extra pounds. Every day, with every step you take. This alone is an important contributor to pain and joint breakdown.

"Weight plays an important role in joint stress, so when people are very overweight, it puts stress on their joints, especially their weight-bearing joints, like the knees and the hips."

—Eric Matteson, MD, chair of the rheumatology division at the Mayo Clinic in Rochester, Minnesota

(Reason #3) Regularly being in a calorie surplus causes spikes in inflammatory and pain-causing hormones.

We know that being overweight causes inflammation and pain.

But the process of <u>becoming</u> overweight—being in a caloric surplus—*also* causes inflammation and pain.

When you consume more calories than your body can burn off, it causes inflammation in adipose (fat) tissue. And the most fattening foods are high in sugar and artificial fats, which also cause spikes in inflammatory hormones (the nutrient-storage hormone, insulin, is a good example).



We'll cover this in detail later, but some seemingly harmless advice you've probably heard hundreds of times about "meal frequency" is working against you.

We're told we should eat several small meals per day. But in our practice, we see that this leads to program failure, reductions in satiety, and even increases in pain and inflammation originating from an overworked digestive system.

You'll like this part. I'll be asking you to eat BIGGER meals instead of smaller meals.

(Reason #4) Being overweight increases risk of osteoarthritis.

Osteoarthritis is the degeneration of joint cartilage and underlying bone. In addition to causing pain and stiffness (usually in the hips, knees and thumbs), it makes your bones weaker, exposing you to more risk of lifethreatening injuries.

Studies show overweight women are four times more likely to develop osteoarthritis than those with healthy weights. Overweight men are *five times* more likely to develop osteoarthritis. ^[34]

Pretty depressing stuff. But there *is* good news.

There are several favorable metabolic changes that take place in your body when you *lose* weight.

You might associate "being on a diet" with being miserable, but in fact, you'll likely feel better—even in the short-term.



Here's why:

- 1) Losing weight reduces inflammation, which reduces paincausing enzymes.
- 2) Losing weight improves your "gut biome"—meaning the mix of healthy bacteria and yeast in your digestive tract.

Research shows that the digestive tract of obese individuals has several marked differences from those of healthy individuals. This is a relatively new field of study, but it's already apparent that the disruption of normal gut bacteria can lead to food cravings, mood swings, declines in energy levels, and weight gain.^[35]

By eliminating some foods and adding others, you make your digestive system your ally in losing weight instead of your enemy.

3) On this diet, you'll be avoiding the few foods that cause immediate increases in pain, muscle tension, cramping and stress hormones.

You'll also be adding certain foods to your diet that build healthy, strong joints that will last you a lifetime. For example, I'll be asking you to consume more dietary fat than you're used to. Don't worry, you won't be sabotaging your heart-health. More on this later.



The Best Diet is the One You Can Stick To

"A good plan violently executed now is better than a perfect plan next week."

—U.S. General George S. Patton, Jr

We made the Pain-Free Fat Loss program easy to stick to.

It's not easy, per se. But it's simple.

As I mentioned, we created this program to be concise and direct. No fluff, no excess. Which is why the rest of the book will be dedicated to the tactical *how-to* and explanation of fat loss using the PFL (Pain-Free Fat Loss) method.

After reading this far, you should be convinced (or not) that losing weight is your #1 priority. You'll notice some research layered in when applicable to illustrate how specific diet tactics aid pain management, but from here on out—our focus in on helping you learn and APPLY these methods to *lose fat*.

Whether you understand your body's inflammatory processes or not...you'll get the results you're looking for when you lose the weight.

It just so happens that the best method for life-long fat loss is also the best method for managing pain.

Now it's time to focus on the tactical steps necessary to lose weight.



This is a handbook—not a text book. We created this program to get results. In order to do that, it must be simple, direct, and concise. Without further ado, let's dive in to *Pain-Free Fat Loss*.

My name is Brendan Hall. I'm the Director of Research & Development at SaltWrap, and act as our Chief Editor.

I'll be your guide throughout this program.

CHAPTER 2

Introduction to the PFL Program

PFL stands for *Pain-Free Fat Loss*.

It's the end of "dieting" as you know it, and a way to simplify your life.

You don't have to starve yourself or spend 10+ hours a week at the gym to shed excess fat. You also don't have to give up your social life and good food. "Work harder" is replaced with "work smarter" as I show you how to build a simplified, automated template for losing fat, managing pain and inflammation, and maintaining your ideal body weight.

PFL goes beyond simple nutritional programming, arming you with the knowledge and principles you need to effortlessly shed fat, improve performance, and free up your time so you can focus on LIVING YOUR LIFE. That's what we're really after right? Losing weight and conquering pain are just avenues to living your best life.

No more tiny-Tupperware-meals or trudging along on horrifyingly boring treadmill sessions. I'm going to show you how to eat larger portions (at specific times), enjoy the foods you love, and exercise less while achieving the best results of your life AND getting your pain levels under control.

Here are a few core components of PFL that may surprise you:



- You don't have to give up your favorite foods to lose weight and reduce inflammation levels.
- Eating high carbohydrate foods at night can be an effective weight loss tactic, but eating them at other times can increase hunger and pain levels.
- Most breakfast foods set the stage for hunger, fat storage, and increased inflammatory hormones ALL day.
- A high fat diet can help you BURN fat and preserve lean muscle tissue while lubricating your joints and boosting your immune system.

I want to show you how to make nutrition work for you, instead of against you. It all starts with a focus on simplification; identifying a small set of principles that will give you an unfair advantage in the Battle of the Bulge. As you'll hear me say more than once, these same principles will allow you to move through life pain-free. To enjoy the activities you love, challenge yourself physically, and maintain a fully functional and mobile body well into your golden years.

"Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius—and a lot of courage—to move in the opposite direction."

—E.F. Schumacher

PFL shows you how to move in the *opposite direction*. But I should warn you—once you start, you'll never go back to your old ways.

Getting Back to Life

Chronic pain and injuries can seriously detract from your quality of life. For many of my clients, it becomes an obsession. They become singularly focused on solving their pain, which detracts even more from their quality of life.

I want you to keep this goal in mind as you read through this book. The #1 goal is to improve your quality of life.

So, it makes no sense to ask clients (*eh 'hem...that is, to ask YOU*) to follow a strict program that steals the enjoyment away from day-to-day pleasures (like eating your favorite foods).

When you learn to eat and move the way your body wants you to, you don't feel like you are "on a diet" or following some restrictive, short-term program. You are simply living the way nature intended.

What I will be asking from you is a small investment in your future. It will pay you dividends for the rest of your life in terms of stress, time, and the way you look.

Whether you have a considerable amount of weight to lose, you want to build strength while improving joint health, or you just want an easier way to stay fit without all the wasted energy and constant hunger—the following pages will show you how. I know this because you are here. The fact that you are here means you are ready for a change, or you are curious if there is a better way. And trust me—there *is* a better way.

PFL Action Steps

Before you begin this book, I would like to present you with two challenges.

Challenge #1: Trust in the "Snowball Method"

Virtually all worthwhile achievements are the result of tiny, incremental steps over a long period of time.

The myth of radical transformation is dangerous. This myth says that you must do something dramatic to accomplish your goals. A grand gesture, a complete 180 degree turn from your normal lifestyle and choices...

But that's not how great things are accomplished. Or how goals are achieved.

The *Snowball Method* takes the opposite approach:

Picture a tiny snowball rolling down a hill.

When it starts out, it's the size of a baseball.

As it rolls, it picks up more snow and becomes larger.

As it becomes larger, it rolls faster. And picks up even more snow.

Soon, the once tiny snowball is a giant, unstoppable boulder screaming down the hill.

It works the same way with habits and small behavior changes.

Start small. Be consistent. And trust in the process.

We designed this book to follow the Snowball Method, with tiny positive steps building on each other.

Challenge #2: Simplify. I want you to STOP counting calories, eating bird-sized meals, trudging along on boring treadmill sessions, and worrying about what you are going to eat exactly 2.5 hours after your next snack.

Instead, we're going to focus on JUST A FEW proven methods for painfree fat loss. We'll be referencing scientific studies throughout this program, but our aim is to keep it simple.

It will be necessary to constantly remind yourself of these two challenges when reading through the book.

As I write this, I must constantly remind myself of these same concepts. *Especially* simplicity.

In an age of endless complexity and confusion, the following quote from E.F. Schumacher is one we should read every day:

"Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius—and a lot of courage—to move in the opposite direction."

—E.F. Schumacher

It takes courage to question common knowledge, examine yourself, and cut the fat. There is a reason this book doesn't cover water intake or the optimal ratio of BCAA's for your pre-workout drink. Focusing on these minor details is holding you back from focusing on the few, important factors. I have ruthlessly cut this book down to provide information that is actionable and relevant. I highly recommend consuming the material in this book *only* until you have mastered the principles written here.

Beyond fact-checking me, you are better off avoiding news articles and outside advice for the time being. When you finish this short book, you will have all the information you need to achieve incredible results.

How to Use This Book

Treat this book as a *Work Book*. I invite you to actively participate by taking notes, recording results of your action steps, and questioning me as we move along. I never want you to blindly accept anything I say. If something doesn't quite make sense to you, please check the references and use your own logic. It is important that you understand, believe, and experience these concepts first hand. After all, they aren't popular. But everything popular is wrong anyway.

ACTION

You won't get any benefit out of this book if you read the whole thing without doing anything. Knowledge only has potential value. Action is the only thing that makes knowledge truly valuable. I can't stress this enough. You may find that certain things work for you, and certain things don't, but you'll never know if you don't try it out for yourself.

You can hire a personal trainer to tell you to run 10 miles, but that is just putting a Band-Aid on the real issue.

You can hire a Nutritionist to tell you exactly what to eat, but that is just putting a Band-Aid on the real issue.

Or you could teach yourself how to count calories and absolutely refuse to give in to hunger, but again—that is just putting a Band-Aid on the real issue...



The culmination of this book and the way of life I am suggesting is to eat, move, and live *instinctively*. You can <u>learn</u> to listen to what your body really wants—it only takes understanding a few basic concepts, and giving your body the foods and stimuli it wants. No micro-managing necessary, just working alongside your body's natural clock. Once you do, it becomes second nature to eat optimally and live pain-free. It becomes automated. You have the ability to develop your auto pilot function...And let it keep you lean, strong, and pain-free.



CHAPTER 3

PFL Nutrition Principles - Summary

1. Eat in compacted time periods.

It isn't necessary or even optimal to eat every few hours. We are not biologically designed to constantly pour food down our throats and into our stomachs. By eating in compacted (or compressed) time periods, you allow yourself to eat larger meals. I don't know about you, but I get much more satisfaction out of a full belly after a nutritious meal than eating bits of celery several times per day. Also, research shows that eating fewer (but larger) meals is better for appetite control. In the next two chapters, we'll debunk the "starvation mode" myth and show you how to enjoy bigger portions and a smaller waistline.

2. Eat Fat.

This section might ruffle some feathers, but I am encouraged by the acceptance of research that shows saturated fat is not the culprit in heart disease, obesity, or even high cholesterol. I won't ask you to take my word for it—we will spend some time looking at scientific research showing that certain types of fat are in fact heart-healthy and fat-loss friendly. These same fats boost your immune system, which helps control inflammatory and pain-causing hormones.

3. Burn in the morning, feast in the evening.

This is the fun part. I'll show you how eating more carbohydrates in the evening helps you lose weight and curbs your appetite during the day. Tired days and sleepless nights will be history—it's time to



regain control of your natural circadian rhythm. Increased productivity and energy levels, decreased appetite, and better sleep are just ahead.

4. Eat foods that satisfy, avoid foods that increase hunger.

If it seems impossible to trust your instincts when there are donuts lurking in the conference room, I promise that the effectiveness of your food-craving instincts is directly related to the types of foods you are eating, *and* when you are eating them. Your dietary woes may be the result of an addiction to a common food. This is where the rubber meets the road, and you will start to see that you can say bye-bye to the stress associated with micromanaging your nutrition. This section starts with recognizing which foods are ruining your natural hunger instincts and igniting an inflammation response in your body.

Some of these are obvious enough, while others probably seem cryptic. Don't worry about memorizing this list, or absorbing it all right now. We will get into detail in the chapters to come. This quickly summarized list will be a great tool in the future to refresh your memory.

Action Step #1: Dedicate a notebook to following the Pain-Free Fat Loss Program. You will only need to track a few action steps. Taking notes on what you did and how it made you feel are vital parts of understanding how certain concepts affect your hunger, energy, appetite, and even body weight fluctuations. The goal here is not to meticulously track every factor, but to export the information out of your brain and into a notebook. This way you won't have an annoying alarm going off in the back of your head reminding you to eat your vegetables (or whatever else is lingering in the back of your brain).



Any thoughts or action steps you are working on will be easily accessible in your notebook. Please don't discount the power of dedicating an actual paper notebook to this (not a digital one—no phone lists, apps, or electronic documents allowed). You've read this far—you might as well participate and get the full benefit.

Use a blank notebook, or use ours which has a full food journal template inside. Go <u>here</u> to see the Daily Fitness PlannerTM that we created for this purpose.

CHAPTER 4

Principle #1 - Eat in compacted time periods.

★ Status-Quo Challenge: You don't need to eat every 3 hours to keep your metabolism running at full tilt.

Many nutrition experts and programs suggest eating a small meal every three hours. This method supposedly boosts your metabolism and wards off hunger. In clinical research and practical application, this method just doesn't measure up.

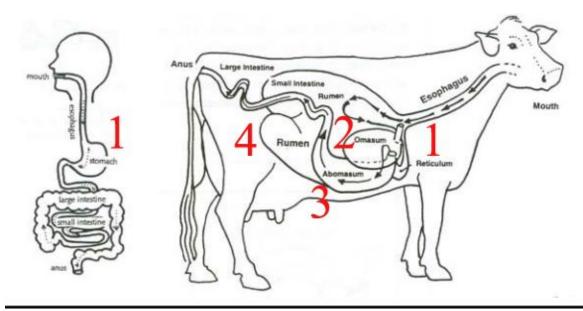
I'm a Lion. Hear me... "moo"?

Our digestive system is similar to that of a lion. Lions (and humans) are monogastrics—meaning they have one chamber in their stomach for processing food. ^[2, 3] Lions, which are notoriously lean and muscular, eat a very large meal once every few days. Like lions, we would be just fine eating once a day, or once every two days for that matter! Yet, we are told by many experts to eat several times a day. Some very educated nutritionists even use the word "grazing," which describes how cows eat. I hate to point out the obvious, but cows are encouraged to eat several times per day in order to be fattened up...

Cows have four stomach chambers ('ruminant digestive system'), each with its own role in the digestion process. In order to acquire nutrients from their food, cows have a specialized digestion process that involves fermentation, regurgitation, and chewing the food again—something that most of us don't do. Our ruminant bovine friends have to eat all day in

order to break down their non-nutrient dense food and assimilate it into protein. Fortunately for you and me, humans have a much cleaner digestion process. We also have access to high protein, nutrient dense foods. It makes sense for cows to eat several times per day. It doesn't make sense for us to.

Considering the fact that it takes 8-10 hours for the human digestion process to complete, why on Earth would we need to eat every 2-3 hours?



"Excuse me sir - you might want to take a few steps to your left..."

Monogastric vs. Ruminant Digestive System

It is not necessary, or even optimal, for us humans to eat 4-7 times per day (as long as we subsist on something besides barley grass and hay). Who has time for that!? If you are a six-meals-per-day Tupperware junkie, I challenge you to eat the same volume of food spread over 2-3 meals for one full week and track any changes you experience in body weight, appetite, and energy levels.

This isn't a new concept. Many cultures, both historical and modern, eat in extremely compacted time periods and consume only 1-2 meals per day. Tibetan monks are known for their impressive health and longevity. It's not uncommon for them to live well past 100 years. And many groups of monks restrict their food intake to a four hour period every day!

Though it isn't necessary to be this restrictive, you can shut-down pain causing enzymes and lose weight faster utilizing the same principle these Tibetan monks do: *intermittent fasting (IF)*.

Intermittent fasting refers to going for short periods of time without consuming any calories. Usually anywhere from 10 to 24 hours (or longer for some extreme methods).

In addition to super-charging weight loss efforts, intermittent fasting also enhances brain function and has shown the ability to increase calorie burning in the short-term (more on that in a second).^[36]

If you aren't familiar with intermittent fasting (known as "I.F."), you might think it sounds pretty darn painful. Too painful for a supposed "pain-free" diet program...

But it's actually quite easy once you get used to it. In fact, studies have shown that short periods of intermittent fasting can improve mood and boost neurogenesis—the production of new brain cells.^[38]

To sweeten the deal even more, we have a small tweak to traditional intermittent fasting methods that makes it even more effective. AND makes it easier to stick with.



On the surface, intermittent fasting is pretty simple. If you eat an early dinner then skip breakfast, you would be in a fasted state anywhere from 12 to 18 hours. That's really all you need. I won't ask you to go for 24+ hours without food...

Studies show that you only need about 16 hours of being in a fasted state to reap the largest benefit of intermittent fasting: *autophagy*. ^[37]

Autophagy is your body's natural cell-cleaning process. Basically, it removes dead and damaged tissue, and replaces it with new healthy tissue.

For pain and inflammation, this is a powerful weapon. By activating your body's natural autophagy process, you suppress inflammation. You also slow down the aging process. Intermittent fasting and autophagy are also at the forefront of natural cancer prevention techniques—they have even shown the ability to prevent cancer cell growth. [39]

That's a lot of information, so let's step back for a second.

For our purposes, there are three main benefits to intermittent fasting.

- 1) It boosts your body's cell-cleaning process—autophagy—thereby reducing inflammation and pain.
- 2) It helps heal your gut—where much of your body's inflammation originates. By giving your digestive system a short break, you allow it to recharge. To build up its stores of enzymes and make repairs in the gut-wall lining. Our clients frequently report that by utilizing this method (skipping their normal breakfast), they notice immediate relief from irritable bowel-like symptoms.



3) It makes controlling caloric intake MUCH easier.

Why?

Because it gives you permission to eat larger, more satisfying meals.

"But wait – eating a small meal every few hours is better for hunger control and helps boost your metabolism.... Right?"

Nope, that argument doesn't hold up either.

Meal Frequency, Fat-burning, and Hunger

★ Status-Quo Challenge: *Larger, more infrequent meals are better for controlling hunger.*

"We conclude that increasing meal frequency from three to six per day has no significant effect on 24-h fat oxidation, but may increase hunger and the desire to eat."

—US National Library of Medicine, National Institutes of Health (Ohkawara, K.; Cornier, MA; Kohrt, WM.; Melanson, EL.) [4]

The quote above comes from a study published in the US National Library of Medicine. Meal frequency did not have any impact on fat oxidation (fat burning), and more meals actually increased hunger! Many fitness authorities tout the advantages of eating often to burn more calories, but this doesn't hold up in the lab:

"increasing meal frequency may increase hunger and the desire to eat."

Personally, eating every few hours forces me to constantly think about food. This study concurs with my experiences, and the experiences of most of my clients. If you were able to eat larger meals, you wouldn't need to reach for that trail mix every few hours to stay sane. And when you don't have to constantly stop to eat, it is much easier to focus on other things, putting your next meal far into the back of your mind.

I cringe every time I hear the term "starvation mode." This pop-culture theory states that if you go for long periods of time without eating, your body goes into "starvation mode" which causes you to store fat. I fell victim to this shoddy advice, thinking that if I didn't eat every 2 or 3 hours that my metabolism would slow to a screeching halt.

I thought I would gain fat, lose muscle, and all of my hard work would go down the drain. In fact, during shorter periods of fasting, the metabolism actually increases. ^[5] It is not until 60+ hours of fasting that your metabolism begins to drop in order to preserve calories. ^[6] That's more than two days! You'll be just fine going a few hours without food. In fact, it will likely improve your energy levels as your body releases natural adrenaline hormones in response to the short-term fast.

Martin Berkhan (LeanGains.com), expert on intermittent fasting and all things related, succinctly states why this adaptive mechanism to increase energy levels makes perfect sense:

"This makes sense from an evolutionary perspective. Epinephrine and norepinephrine (adrenaline/noradrenaline) sharpen the mind and makes us want to move around. Desirable traits that encouraged us to seek for food, or for the hunter to kill his prey, increasing survival."

Mindless snacking

When you stop eating every few hours, you have permission to eat larger meals. In fact, it's necessary in order to go longer periods without food. If you have trained your body to need food every few hours, I promise you can re-train your body to enjoy satisfying meals without snacking in between. It starts with examining the way we think about snacking.

My guess is that most of the time when you are munching away on a bag of pretzels, you aren't really getting that much satisfaction out of it. Most of the time snacking is a thoughtless ritual we have burned into our daily schedule.

Mid-afternoon slump at work? Granola bar.



Law and Order is on? Bowl of ice cream.

That coffee table has crackers on a plate? I'll just have a couple...

Though these small snacks are not calorically dense, they cause your body to secrete the hormone insulin, which shuttles nutrients from your blood stream into your cells. If it has been a few hours since your last meal, your body was likely in the process of slowly dumping stored fat and carbohydrates into your bloodstream for energy. By eating a snack, you reverse that fat-burning process and jam all the free-floating nutrients back into your fat cells. Then, only an hour or two after your small snack, your blood sugar starts to drop again and you become hungry.

"Snacks" are designed to bring you back for more—not to satisfy you. They are designed to make you hungry!

Here's another problem with eating small frequent meals that doesn't get near enough attention...

...When I used to eat six times per day, my stomach was constantly upset. I had accepted this as a way of life until I discovered that eating only a few times per day allows my stomach to function properly.

Think about it—if you eat every few hours your stomach never gets a break. Of course it's going to be upset! If you suffer from gas, stomach cramps, Irritable Bowel Syndrome, or some other digestive problem—you may be surprised at how quickly those symptoms improve when you reduce the number of meals eaten per day.



In my experience both personally and professionally, infrequent meals are better for diet adherence, satiety, and general satisfaction. Constantly eating, or grazing, prevents your body from ever really dipping into your stored fat for energy, and forces you to constantly focus on meal planning. It is also an unnecessary time suck. The only people who should be employing this technique are 17 year olds with ridiculous metabolisms who are trying to gain weight for football season. Even then, I question the validity of this method.

If you are eating the right types of foods in the right quantities a few times per day, and training properly, you'll get the best resulting physique that your genes can express. The only exceptions to this rule are Type 1 Diabetics and people who have problems with chronic hypoglycemia (low blood-sugar).

Action Step #2: Tomorrow, limit yourself to three whole food meals for the day with no snacking or smaller meals between feedings. I realize this is not a revolutionary concept, but it is important nonetheless. By eliminating snacks and smaller meals, you are giving your body more time between feedings to dip into your stored fat for energy. Also, eating three meals per day is better for appetite control than eating six meals or more, despite popular belief.

Non-calorie containing beverages are allowed at any time. Meal timing, size, and content are completely up to you. If you normally eat several meals or snacks per day, ensure that you increase portion sizes to make up for the longer time periods between meals. This is a one day experiment—we will put together your ideal meal frequency plan in Chapter 8.

For this one day experiment—jot down what you ate, when you ate it, and summarize some quick notes about your hunger and energy levels in your notebook at the end of the day.



CHAPTER 5

Principle #2 - Eat Fat.

★ Status-Quo Challenge: Fat doesn't make you fat.

"Butter, olive oil, heavy cream, and bacon are not harmful foods. Quite the opposite. Fat is the best thing for those who want to lose weight....There are no connections between a high fat intake and cardiovascular disease... High-fat, low-carb is the healthiest dietary regimen for most people." [21]

—Swedish Council on Health Technology Assessment

The study left out one important fact: butter, heavy cream, and bacon are three amazing tasting foods! It's sad that some people swear them off to accomplish their low-fat diet goals.

I am encouraged by the mainstream acceptance that fat is not the enemy of weight loss and general health, but I still think there is work to be done. Not only is fat NOT the enemy, fat is an incredibly important macronutrient for hormonal health, metabolism, and even brain function.

Brain Health

A whopping 70% of the myelin (protective material) in your brain is made up of fat. A deficiency of certain types of fats in the diet leads to cognitive impairment and depression.

Low-fat diets make you stupid and depressed, while consuming the right types of fat improves intelligence and mood (I'm paraphrasing). [7]

Nerve Pain

Eating the right types of fat can reduce your risk of developing neurological diseases and suffering from nerve pain. In an article published on MindBodyGreen.com entitled "This High-Fat Diet Could Help End Chronic Pain," physical therapist and author Joe Tatta makes the case that high-fat diets could be the solution to ending chronic pain.

Tatta lists a few "healthy fats" that would have caused an uproar during the hay-day of the low-fat movement, including: grass-fed butter, whole pastured eggs, avocados, and coconut oil.

Hormonal Health

Fat is also essential for normal testosterone levels—which is important for men *and* women to maintain health. Studies have shown dramatic drops in testosterone while following a low-fat diet. ^[8] Both men and women are negatively affected when testosterone levels fall.

- ★ Men: There is a reason it feels so dang manly to finish a 12-ounce medium rare steak. The saturated fats and cholesterol provide the raw materials for assembling testosterone in your body—giving you that extra UMPH!
- ★ Women: You will NOT start growing hair on your forehead and giant biceps if you maintain a healthy level of testosterone. You should enjoy that medium rare steak as well! Remember, our goal is to maintain or slightly increase testosterone—not artificially jack it up.



We are aiming to prevent the drop in testosterone associated with lowfat diets.

Because I don't need to convince most men that having healthy testosterone levels is important (for several reasons), I want to make one more point regarding testosterone and women. The following quote is from the April 2004 edition of *Life Extension Magazine*:

"Controlled studies show that slightly increasing testosterone levels in aging women restores sexual drive, arousal, and frequency of sexual fantasies. In fact, low testosterone levels in women of all ages seem to suppress libido and cause sexual dysfunction. Restoring youthful testosterone in women has been shown to improve mood and well-being, and to provide many other health-enhancing benefits." [9]

A very memorable client of mine told me a story regarding how her low-levels of this hormone ruined her health. Janet had just turned 60 and recently finalized a drawn out divorce when she came to see me for the first time. After months of depression and careless eating, Janet had gained more than 20 pounds. Her risk factors for cardiovascular disease were dangerously high and her physician diagnosed her as "prediabetic." She knew that a lifestyle change was necessary, but couldn't find the motivation to get to the gym or make good decisions around the dinner table. She had no zest for life, and nothing excited her.

After several trips to the doctor's office, her physician tested her serum testosterone levels and determined they were far below the normal levels for her age. Janet's physician listed the common side effects of low testosterone levels in women: reduced sex drive and vigor, depression, high blood pressure, diabetes, and increase risk factors for coronary



artery disease. Though Janet assumed her depression and low energy levels were caused exclusively by her life circumstances, there were actual physiological problems preventing her from feeling good and moving forward.

After increasing her testosterone to baseline levels, Janet regained her focus and drive. Her mind sharpened, her mood improved, and she returned to her old exercise regimen. She was able to lose the extra weight she had gained and return to the activities that made her happy.

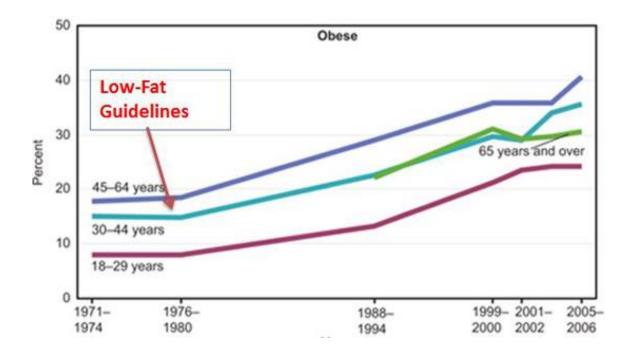
Janet's story is a dramatic example of how important testosterone levels are for men AND women. There are entire books written on the details of this one subject. For our purposes, you only need to know that a drop in testosterone is very bad, and that avoiding high-fat foods will lead you in that dangerous direction.

Saturated Fat, Obesity, and Heart-Health

From my conversations with friends and clients, there seem to be two main fears associated with consuming high amounts of saturated fat: *gaining body fat* and *negative impacts on heart health*. But as it turns out—since Americans increased their consumption of plant oils and processed foods, and decreased consumption of animal fats—markers of health and obesity have taken a turn for the worse.

The image below from the National Center for Health Statistics (2008) [10] shows the ironic correlation between the low-fat movement and skyrocketing rates of obesity.





An even scarier trend is the substitution of processed vegetable oils for traditional fat sources like butter. Highly processed vegetable oils oxidize much more easily than saturated fats, depleting your body of health-promoting antioxidants, causing inflammation, and clogging your arteries. Opt for butter, coconut oil, and olive oil over these disease-causing fats.

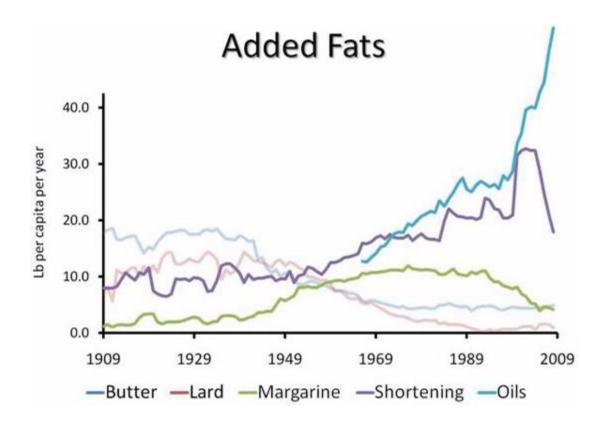
The next time you pick up a bottle of salad dressing, compare the ingredients to the list below. In the **Pain-Free Recipe Book** available on our companion website, you'll find a few home-made salad dressing recipes that put store bought gunk to shame. That being said, store-bought salad dressings and sauces are not bad food choices compared to most packaged food.



Fats to avoid:

- ✓ Rapeseed oil (Canola Oil)
- ✓ Soybean Oil
- ✓ Corn Oil
- ✓ Sunflower Oil
- ✓ Safflower Oil
- ✓ Grape seed Oil
- ✓ Margarine
- ✓ Hydrogenated Oil

The graph below from Dr. Stephan Guyenet's *The American Diet* (2012) illustrates the dramatic rise in processed vegetable oil use over the past century. Pre-packaged foods, fried foods, and cheap condiments usually contain high amounts of these processed oils. ^[10]



Saturated Fat, Cholesterol, and Heart Health

★ Status-Quo Challenge: Saturated fat and cholesterol consumption do not cause heart disease.

Yep. I said it. And I'm not the only one.

Chris Kresser, licensed acupuncturist and practitioner of integrative medicine, is one of the most respected researchers and writers on the topic of dietary fat. In an article entitled "The Diet-Heart Myth: Cholesterol and Saturated Fat Are Not the Enemy," Kresser provides an overwhelming amount of evidence that saturated fat and cholesterol consumption do not cause rises in blood cholesterol or lead to heart disease. In fact, saturated fat consumption combined with a lower carbohydrate diet appears to improve heart health!

This quote from the same article explains these findings:

"Studies on low-carbohydrate diets (which tend to be high in saturated fat) suggest that they not only don't raise blood cholesterol, they have several beneficial impacts on cardiovascular disease risk markers... Low-carb diets were associated with significant decreases in body weight as well as improvements in several CV risk factors, including decreases in triglycerides, fasting glucose, blood pressure, body mass index, abdominal circumference, plasma insulin and c-reactive protein, as well as an increase in HDL cholesterol." [11]

Pretty convincing...but that's the conclusion from only one specific study. So let's look at what other similar studies came up with...



A meta-analysis published in 2011 compiled data from 21 studies on heart disease and stroke incidents (a meta-analysis is a wide-ranging review of dozens or hundreds of different research studies on a topic).

This meta-study included nearly 350,000 adults, and found zero difference in risks for heart disease or stroke between people with the lowest and highest intakes of saturated fat.

Now THAT is convincing...Case closed, right? Not so fast.

In mid-2017, a USA Today article entitled "Coconut Oil Isn't Healthy: It's Never Been Healthy" sparked a heated debated about not just coconut oil, but saturated fats in general (coconut has high amounts of naturally occurring saturated fats).

The article from USA Today was based on a statement released by the American Heart Association. In this statement, the AHA made the following statement:

"Because coconut oil increases LDL cholesterol, a cause of cardiovascular disease, and has no known offsetting favorable effects, we advise against the use of coconut oil."

Despite the AHA's intentions—though they've made it clear they plan on sticking to their decades all position on dietary fat—there are some serious issues with the scientific validity of this statement.

First of all, by the AHA's own admission, this statement was NOT released after new research emerged. It was based on several studies performed over the last few decades. One of those being a meta-analysis in 2014 from the *Annals of Internal Medicine*.



One of the supposed findings of that meta-analysis was that there is no evidence to support recommendations to consume high amounts of polyunsaturated fats and low amounts of saturated fat. So it seems the AHA cherry-picked statements from that meta-analysis that further reinforced their position, instead of objectively looking at the entire study.

Secondly, the AHA even admitted that their statements about coconut oil were not based on "clinical trials that compared direct effects on cardiovascular disease of coconut oil and other dietary oils..." Instead they were based on studies that measured the impact of saturated fats in general.

Now, there's a big difference between getting saturated fat from hot dogs and getting saturated fat from coconut oil... The food source is an important variable to consider. But even if we do look at the studies that supposedly frame saturated fat as the bad guy, the science still doesn't hold up.

When looking closer at the AHA's claim that saturated fat increases LDL cholesterol, they left a crucial fact out... (and, by the way, the science isn't conclusive about LDL raising cholesterol in the first place)...

The AHA failed to mention that coconut oil also raises HDL cholesterol—the kind that the scientific community agrees is good for your heart.

So let's be fair to poor undeserving coconut oil. The question we should be asking is:



How does it stack up against these supposedly superior polyunsaturated fats and vegetable oils that the AHA supports?

Let's see:

In a 2009 study published in *Lipids*, a group of obese woman were given either a coconut oil supplement or soybean oil supplement. ^[45] At the end of the study, the coconut oil group ended up having higher HDL cholesterol levels (the good kind) and a superior HDL to LDL ratio.

Further, the soybean oil group had higher LDL cholesterol, lower HDL cholesterol, and higher total cholesterol than when they started. All bad!

Not only did the coconut oil group beat the soybean oil group in every heart-health measure, they also lost more weight.

So, yes—coconut oil is indeed good for you.

I hope this will be old news soon... but the "fat is bad for your heart" myth needs to die. And the "coconut oil is not good for you" headlines are just plain ridiculous.

The best way to lose weight, feel great, and improve health is to increase your saturated fat and total fat consumption (from the sources I've mentioned), reduce intake of plant oils, and reduce total carbohydrate intake.



The History of Fat

For most of human history, man has lived off a high-fat, high-protein, low carbohydrate diet. Depending on the region—fruit, nuts, and other carbohydrate sources may not have been available. Inuit cultures inhabiting artic regions have subsisted on extremely low carbohydrate diets for thousands of years—mostly animal meat, fish, and sea grass or artic vegetation when available.

Dietary fat and stored body fat have been the main sources of energy for humans for the last several thousand years. It is only recently that we began eating several meals per day and a high carbohydrate diet. Your genes have evolved to efficiently consume, digest, and burn fat. Around 45% of your total caloric intake should come from fat. This is enough to provide you with the metabolism and brain-boosting benefits of fat while consuming adequate protein and keeping total caloric intake relatively low.

Increase your consumption of organic meats, fish, eggs, nuts, high-fat dairy, and coconut products to ensure you are getting enough good fat in your diet.

Action Step #3: Instead of eating breakfast tomorrow, choose from the following two options:

Option 1: Coffee with Cream: Have a cup (or more) of coffee with full-fat heavy cream (a.k.a. Whipping Cream), coconut milk, or unsweetened almond milk. Use two to four tablespoons of heavy cream in your coffee OR ½ - ¾ cup almond or coconut milk (think *Café con Leche* with almond milk instead of regular cow's milk). This simple breakfast concoction can help you lose body fat while saving time and money.



Plus, it's delicious! If you use sweetener, opt for a low-calorie version such as stevia (recommended: Sweet Leaf Stevia Packets).

Option 2: If you want something more exciting than coffee and cream, refer to the "Breakfast Shakes" heading in the *Pain-Free Recipe Book* download. Try the Cinnamon Dolce Latte, Double Chocolate Espresso, or one of the other breakfast shake recipes. To access the recipes guide, visit the link here in the member's area on PainFreeFatLoss.com.

After consuming coffee with cream or one of the breakfast shakes, eat your first whole food meal of the day whenever you become hungry. The purpose of this exercise is to demonstrate that you don't need a traditional breakfast to survive. Consuming a small, high-fat meal first thing in the morning such as coffee with cream or a breakfast shake can keep you full and energetic for hours. It is also an easy way to boost your fat-burning engines, improve energy levels, and save time. This method forces your body to use fat for fuel. As we will discuss later, what you normally eat for breakfast is likely causing your body to store fat all day long.

Think it's impossible to thrive without an All-American breakfast? Many fitness professionals are already thriving by using a similar approach every day. I personally know people who don't eat breakfast, and swear it is the secret to staying lean.

The late Greg Plitt, considered to be the #1 fitness model in the world, figured out how to achieve a ripped physique and maintain it year round. He did this by eating one very large meal per day (if you think skipping breakfast makes you chubby, check www.GregPlitt.com for evidence to the contrary. RIP Greg Plitt).



It is not necessary that you determine whether this is a good breakfast ritual for you or not right now. Your body may respond better to a whole food meal in the morning. We'll cover that in Chapter 8 – *Putting it All Together*. What's important for now is that you understand and experience the following points:

- 1) You don't need to eat in the morning, and you don't need to eat every few hours to "boost your metabolism."
- 2) A concoction of coffee and satiating fats from heavy cream or almond milk can keep you full and focused for hours.
- 3) It is not necessary, or even optimal, to consume a meal containing carbohydrates and protein in the morning.
- 4) NOT eating a traditional breakfast can improve focus, energy, and fat-burning hormones for several hours.
- 5) Certain types of fat (like those found in heavy cream) are hearthealthy and fat-loss friendly.

Again, skipping breakfast (or replacing it with a liquid version) may not be the best method for you. Some people do much better with a whole food breakfast to start their day. This exercise is meant to illustrate the points above, and shake the cobwebs off your eating patterns. You may just find that you thrive on this regimen, or that you are better off with one of the whole food breakfast options.



Variations:

- ✓ Refer to the *Pain-Free Recipe Book*: All of the breakfast shakes or frozen coffee options accomplish the same goals for this action step. Full taste and minimum carbohydrates.
- ✓ If you normally drink coffee in the morning, feel free to have coffee in addition to one of the breakfast shakes above.
- ✓ If you are allergic to dairy, add unsweetened almond milk or coconut milk to your coffee.
- ✓ If you like your coffee sweet, I recommend using a stevia product such as Sweet Leaf Stevia packets. (If you are not familiar with Stevia, it is a non-caloric sweetener derived from an herb in the Sunflower family, native to North and South America). Stevia, along with coffee and heavy cream, are on my Choice Foods List (also available on the Resources page) for their fat-burning qualities and wonderful taste.
- ★ Please keep in mind—You should consult with a physician prior to starting any exercise or nutrition program. If you have a health condition such as diabetes, low blood-sugar, or heart condition—this advice is especially for you. Going for long periods of time without eating, consuming certain types of food, and consuming caffeine can be dangerous for some people. Please be responsible and clear yourself with a physician before implementing any tactics suggested in this book.



The "Fat Fast": coffee with cream

Chapter 6 starts with an in depth look at how your body responds to traditional breakfast foods, and how consuming a small high-fat meal encourages the use of stored body fat as fuel. You are basically fasting from food with the exception of heavy cream (or some other high fat option). Though there are several choices for a PFL-approved breakfast, this method is unmatched in terms of weight loss results, energy output, and ease of use.

I have experimented with virtually every possible meal planning approach, and every possible breakfast approach. In comparing coffee with cream in the morning to a traditional breakfast, here are the personal results I have reported—and why this is an integral part of my day. Coffee with cream:

- ✓ Tastes great.
- ✓ Provides me with more energy than eating breakfast.
- ✓ Keeps me satiated for 4-6 hours: better than eating breakfast, or not consuming anything in the morning (fasting).
- ✓ Frees up 20-30 minutes from my morning routine (invaluable).
- ✓ Is available virtually anywhere, so travelling is a non-issue.
- ✓ Supplies my brain with fat and caffeine—a powerful 1-2 punch for morning concentration.
- ✓ Allows me to enjoy a larger lunch and dinner while maintaining low body fat levels.

In Chapter 6, I'll dive into why consuming fat in the morning allows you to extend the fat-burning phase from the previous night, and how drinking coffee with cream in the morning can help your body shuttle calories to your muscles for energy instead of to your fat cells.



For you adventurous types, butter coffee might just change your life. Dave Asprey—avid "bio-hacker" /entrepreneur /investor, and creator of Bulletproof®—invented a delicious morning concoction known as "Bulletproof Coffee®."

In addition to ensuring exceptional quality in coffee selection and processing, Dave advocates adding grass-fed butter and MCT Oil (Medium Chain Triglycerides) to coffee. Dave's intent with the invention of Bulletproof Coffee® was two-fold: give the brain the fats it needs to function optimally, and create a fat-burning morning drink. Many testimonials later, it is clear that Dave's Bulletproof Coffee® is helping people lose weight and perform on a higher cognitive level.

Why butter instead of regular cream? Butter is high in vitamins, minerals, and short and medium-chain fatty acids, which support immune function, boost metabolism and have anti-microbial properties. It also contains Glycospingolipids, a special class of fatty acids that protect against gastrointestinal infections. [12]

An article from Mercola.com, a popular alternative health website founded by Dr. Joseph Mercola, cites the health benefits of butter in its article "Butter: This Vilified Daily Food Slashes Heart Attack Risk in Half." Butter is not only OK to eat—it can improve heart health. [12]

Butter truly is a super-food! That is why I recommend cooking in butter, and utilizing butter in any recipe that calls for oil or another type of added fat. For your morning coffee, you are welcome to add butter and enjoy a rich, creamy cup of coffee. You can blend your butter with hot coffee as the Bulletproof Coffee® recipe recommends, or stir in the butter until it dissolves. I recommend using 2-4 tablespoons to start.



For taste and ease of use reasons, I prefer heavy cream over butter in my coffee (though I do substitute butter from time to time because of its higher butterfat content and mental-boosting properties). The important point is to start your day with a healthy dose of fatty acids that supercharge your brain and metabolism while keeping your appetite at bay.



Chapter 5 Addition:

Is cheesecake the perfect weight loss food?

That's not a typo—you read it correctly. And it's a serious question: *Is cheesecake the perfect weight loss food?*

Most cheesecake is high in fat, sugar, other carbohydrates from wheat, and total calories. This version of cheesecake is the perfect recipe for fat storage, because high levels of fat and carbohydrates in the same meal create the perfect environment for your fat cells to grow. However, in the absence of carbohydrates dietary fat will not be stored as body fat in the same way. When consumed by itself or as a part of a low-carb/high-protein meal, dietary fat will actually help you burn body fat.

So what happens if we strip away all the parts of cheesecake that make it fattening? We are left with the perfect PFL-friendly breakfast or snack.

There are two ingredients in cheesecake that make it fattening: the crust (made of wheat flour), and the sweetener that usually comes from white sugar. You can create a tasty, crunchy crust using almond meal (ground up almonds) and butter. Also, you can substitute Stevia or another calorie free sweetener in place of sugar. The only other ingredients necessary to assemble the perfect cheese cake are cream cheese and eggs.

Using this list of ingredients, cheesecake is indeed the perfect pain-free fat loss food. The Cheesecake Cupcake recipe in the Pain-Free Recipe Book outlines exactly how to make this amazing, guilt-free dessert.



One cupcake contains approximately 14 grams of fat, 2 grams of carbohydrates, and 3 grams of protein! Because of this dessert's impressive ratio of fat to carbohydrates, it's the perfect food to consume in the morning, at lunch, for a snack, or with any other low carbohydrate meal. As long as you don't eat the cupcakes with carbohydrate rich foods, your body will have a very tough time storing them as body fat.

Don't feel bad if you decide to try this: two PFL Cheesecake Cupcakes have half the carbohydrates of ½ cup of nuts, and 100 fewer calories!

One of my favorite parts of the week is my Saturday morning breakfast ritual: low-carb cheesecake cupcakes and coffee. Yum.

CHAPTER 6

Principle #3 - Burn in the morning, feast in the evening.

★ Staus-Quo Challenge: Consuming most of your carbohydrates in the evening is an effective weight loss tactic.

"Eat breakfast like a king, lunch like a prince, and dinner like a pauper."

—Old Adage

My response:

"Ok – thanks for the advice, Old Adage. But what if I'm not hungry in the morning? I should stuff my face anyway, and then rush through my morning routine and start the day stressed out? Then fall asleep at work around 9 a.m. from my food coma?

Ok – that works. So then I just get progressively hungrier throughout the day, and go to bed on an empty stomach? Guess I'll skip dinner with my friends... I probably won't sleep very well... but hey at least I have that King-sized Breakfast to look forward to!"

Fat-burning from full-fat coffee

If my excitement and alliteration aren't enough for you, let's look at what happens in your body when you consume only fat in the morning compared to a King Sized traditional breakfast containing fat, carbohydrates, and protein.

In response to a carbohydrate containing meal, your blood sugar naturally rises. To protect your body from dangerously high blood sugar levels, your body produces the hormone insulin to shuttle the glucose (sugar) and other nutrients into the tissues of the body. Insulin directs your muscle and fat cells to take in glucose to be obtained for energy (in your muscles) or converted to fat for long-term storage. [13]

If your lean tissue is already jam-packed with stored carbohydrates, guess where that glucose is going to end up? You guessed it: fat cells. This is a key reason why low-carbohydrate diets are better for weight loss, and why keeping insulin levels low allows your body to burn more stored fat for energy.

You'll find that if you can keep insulin levels low by limiting carbohydrate intake, your pain levels will be reduced dramatically. That's because insulin activates the body's inflammatory defense mechanism, causing a cascade of pro-inflammatory cytokines that flair up aches and pains.^[41]

What many diet plans don't discuss is how protein consumption also raises blood sugar and causes your body to secrete insulin. ^[14] Though almost every diet plan touts the advantages of a high-protein breakfast for giving your muscles the nutrients they need, few discuss the hormonal response your body has to consuming protein in the morning.



Because insulin causes your body to store energy, we want to keep it low during the first part of the day in order to maximize fat burning.

Conversely, consuming only fat (or a very high percentage of fat relative to carbohydrates and protein) causes only a negligible rise in insulin levels.^[15] When insulin levels are low, your body is more adept at releasing stored energy from your body.

Consuming only fat in the morning provides the best combination of maximal fat-oxidation and minimal hunger, while also supporting great energy levels. By saving protein intake for lunch and dinner, you are creating a more receptive environment in your muscles to absorb the protein and allowing your body to burn fat all morning long.

What's for breakfast?

So we have a dilemma: keep insulin extremely low in the morning by consuming only fat, or give your muscles a much needed dose of protein?

Both methods can help you burn fat and protect lean muscle by keeping insulin levels relatively low for the first half of the day, so it's a matter of personal preference. If you aren't particularly hungry in the morning, go with a small dose of fat in the morning and wait until lunch to consume protein.

If you do get hungry in the morning, or find it difficult to find a PFL approved afternoon meal, you may be better off consuming fat *and* protein in the morning (without added carbohydrates). This is also a great option for those that exercise in the morning. If you choose to go this route, try to skip the afternoon snack so that you only have three



separate feedings throughout the day. I recommend consuming five or more grams of fat at breakfast if you choose to eat in the morning. This will help slow down insulin and the digestive process, giving you longer lasting energy. For PFL breakfast shake recipes, check out the Pain-Free Recipe Book available for download on the Resources page at http://painfreefatloss.com/members-area/resources. Chapter 8 goes into more detail about what you should eat for breakfast, and which meal planning approach is right for you.

Though there are many benefits to consuming only fat in the morning, you shouldn't avoid protein and carbohydrates at every meal. I advocate keeping insulin levels low and being in a calorie deficit for the first half of the day. Then, in the latter part of the day you can consume higher amounts of protein and carbohydrates, resulting in a "fed state." This works out wonderfully from a nutrient partitioning standpoint: if your last carbohydrate-heavy meal was the previous night at 7 p.m., your body will be incredibly efficient at storing carbohydrates in lean tissue. Your muscles, not your fat cells, will soak up the extra carbohydrates. This is partially due to the sensitivity of your cells to the hormone insulin after keeping insulin levels low for an extended period of time.

This is referred to as "insulin sensitivity." You can consume carbohydrates in the evening guilt-free, knowing that most of what you eat will be shuttled to your lean muscle tissue, and you will have burned up any excess by the next morning.

Cortisol and Insulin: A Case for Skipping Breakfast

Another factor that makes avoiding traditional breakfast items in the morning a no-brainer is our hormonal environment upon waking.



After 7-8 hours of sleep, and 9-12 hours without food, your body produces high levels of *cortisol*—a hormone released in response to stress or low levels of blood glucose. Cortisol's main function in your body is to break down tissue for energy—which is definitely a good thing for fat-burning. But problems arise when cortisol is elevated for extended periods of time. Chronically elevated cortisol levels lead to impaired cognitive performance, loss of lean muscle tissue, high blood pressure, and increased abdominal fat.

And, you guessed it—inflammation and pain.

Cortisol isn't all bad, though. Cortisol levels are typically highest in the morning hours, which helps you release fat stores into the blood stream for energy. However, if you consume carbohydrates and/or protein upon waking, your body produces even MORE fat-storing insulin in response to the elevated levels of blood sugar *when cortisol is high*. This is why eating a typical carb-containing breakfast sets you up for hunger and inflammation all day long.

Here's how it works: If you eat a normal breakfast in the morning, your body basically freaks out because (1) it senses that the hormone cortisol is roaming around burning off fat reserves, and (2) you gave it the raw materials to jam all those nutrients back into your fat cells. This natural, protective mechanism can work against you when you are trying to lose weight. Instead of using cortisol to your advantage in the morning, you are telling your body to QUICKLY put all that fat back where it belongs!

By consuming a traditional breakfast with carbohydrates and protein, you set the stage for roller-coaster fluctuations in blood sugar, insulin, and appetite all day long.

This is why most people are hungry in the late morning after eating breakfast only a few hours before.

Your blood sugar drops and appetite hormones rebound, causing the mid-morning munchies.

Without breakfast (or a high fat breakfast only), cortisol levels naturally drop throughout the morning. Around lunch time, your cortisol levels will have plateaued. At this point, your high-protein/high-fat lunch will not cause your body to freak out and go into fat storing mode.

So—if you choose to eat breakfast in the morning, it should be extremely low in carbohydrates and high in fat to blunt the effects of insulin. Also, breakfast should contain fewer total calories than lunch or dinner (only about 20% or less of your total daily intake). You don't need to count calories to get the full benefits here—just consume a small, high fat meal relative to lunch and dinner.

It is vital that you use this morning period to burn fat with the help of cortisol. Skipping breakfast makes cortisol your fat-burning ally, while eating a traditional breakfast makes cortisol your fat-burning enemy.

A day in the life

I'm rarely hungry in the morning these days. If I am, it usually subsides within a few minutes of sipping my coffee concoction. The first four hours of the day are always the most productive for me. I use this time period to hit the gym, organize my schedule, or write. I am constantly amazed at how much better I feel in the morning compared to when I ate egg whites and oatmeal, or some other type of normal fitness-friendly breakfast.



If I feel like my body absolutely needs some fat and protein, I will have a small meal of eggs and bacon or one of the breakfast shakes referenced above. My mornings are infinitely more productive and painless with a little fat to start the day.

Before I started eating this way, I would lose my mind when travelling or breaking my schedule in any way. I would inevitably find myself in a situation where lean food options were not available every 2 hours (imagine that!). I would get crabby during an outing with friends. I'd be distracted while watching a movie because I was hungry or concerned it had been too long since my last meal. Now that I have trained my body to subsist on fewer and larger meals, travelling is a non-issue. If a good meal is not available, I might have a second cup of coffee with cream in the afternoon (go easy—tweaking out on caffeine daily is not a good way to live a focused, stress-free life either). Or I might just wait until the evening when there is a more nutrient dense meal option available.

Even if my food choices are not the best (or downright shameful), I can maintain my body weight and body fat levels simply by consuming coffee with cream for breakfast, then enjoying two or three meals later in the day.

Consider the two examples below based only on volume of food intake. I am only including hypothetical calories in the example below for the sake of demonstration. For my size, body composition, and activity level I need 2,500 – 3,000 calories to maintain my current weight of 185 pounds. Let's assume my magic number is 2,800. In looking only at total calories consumed, the advantages of coffee with cream for breakfast combined with eating in compressed time windows become clear:



Scenario 1:

Traditional Breakfast – Morning Flight, then Dinner with Co-workers

- 6 am: Breakfast (500 calories)
- 9 am: 3 hour airplane flight
- 10 am: Rebound hunger from breakfast sets in Snack (350 calories)
- 12 pm: Flight lands
- 1 pm: Lunch at Airport large meal, not the best food quality (1,000 calories)
- 3:30 pm: Hunger rebounds after large, carb-heavy meal Snack (350 calories)
- 7 pm: Dinner with co-workers, and a few too many drinks (1,500 calories)
 - TOTAL Calories Consumed: 3,700
 (+900 calories, 32% more than maintenance)

Scenario 2:

Coffee/Cream Breakfast – Morning Flight, then Dinner with Co-workers

- 7 am: Breakfast (200 calories) slept in, grabbed coffee with cream on way out
- 9 am: 3 hour airplane flight
- 10 am: Flight attendant offers Pretzels and Peanuts I politely decline and return to reading
- 12 pm: Flight lands
- 1 pm: Lunch at Airport large meal, not the best food quality (1,000 calories)
- 3:30 pm: Hunger rebounds after meal handful of nuts (150 calories)
- 7 pm: Dinner with co-workers, and a few too many drinks (1,500 calories)
 - TOTAL Calories Consumed: 2,850
 (+50 calories, 2% more than maintenance)

See the difference? In Scenario 1, I ate breakfast just like most fitness professionals recommend, and it set the tone for the rest of the day. I ate every few hours, which wouldn't have amounted to that much total consumption if it wasn't for the poor choices I made at lunch and dinner. So I got 32% fatter.

In Scenario 2, I didn't eat until 1:00 p.m.—and my food choices were awful. Then I splurged AGAIN at dinner with more food and drinks.

The penalty? A measly 2% over my calorie maintenance threshold. Also, most of my caloric intake came between 1:00 p.m. and 7:00 p.m.—a very compacted time period. You can also clearly see in Scenario 2 that I was in a calorie deficit during the first half of the day (burning fat like crazy), and in a fed state during the second half of the day.

Making better food choices has numerous benefits, but you can see that by following a few simple rules I was able to enjoy some good grub and splurge guilt-free. I call this my "Travel Template"—when I am on the go, I make sure that I get my morning coffee and consume no more than 3 meals and snacks later in the day. This is a worst case scenario, and it still ain't that bad.

In Scenario 2, I only thought about food when it was time to eat; this freed up my mind to catch up on some reading, organize my notes for a presentation, and let loose a little after dinner.

From a total calorie AND social life perspective, this approach makes sense. As always, I like to support common sense with research.



Science shows us that consuming most of your carbs and calories in the evening is superior to the traditional big breakfast/light dinner approach to weight loss.

Evening carbs and weight loss

Mostly for social reasons, I prefer to eat my biggest meal in the afternoon or evening. This is when I am likely to go out to a restaurant, or get together with friends and family for a meal. It's also when I am naturally the hungriest. Back-loading total food intake is one of the most effective ways to improve adherence to a diet regimen. It also allows you to consume the foods you love, especially carbohydrate-rich foods, without the meal going straight to your rear end.

Researchers at the Hebrew University of Jerusalem, Institute of Biochemistry and Food Science, conducted an experiment to determine the effects of carbohydrate consumption in the evening versus earlier in the day. Among other things, they measured hunger and total weight loss of two groups on a low calorie diet. The following is a quote from the published article:

"Greater weight loss, abdominal circumference, and body fat mass reductions were observed in the experimental diet in comparison to controls. Hunger scores were lower and greater improvements in fasting glucose..." [17]

Even though many nutrition and fitness experts preach the value of tapering carbohydrates throughout the day, science shows us that the opposite can be an effective way to lose fat and control hunger.



The evening carb-heavy group lost more weight AND reported less hunger!

Consuming carbohydrates in the evening also works well with your circadian rhythm. Eating carbohydrates causes your body to secrete serotonin, a neurotransmitter involved in relaxation and sleep. Studies have correlated evening carbohydrate intake with shortened sleep onset times.^[18] I hope that it is starting to make sense now:

Consuming fat in the morning allows you to power through the day, utilizing natural energy hormones such as epinephrine or adrenaline. This is also the time when you are in a calorie deficit, and your body is dipping into its fat reserves for fuel. Then in the afternoon and evening you can fuel up with nutrient dense foods, including carbohydrates, and relax just in time for bed.

Keep in mind that the studies above were based on low calorie diets. Although saving the majority of your total carbohydrates for the evening is better than eating them in the morning, weight loss will only occur if you are in a calorie deficit. This approach makes being in a calorie deficit much easier. Also, the occasional over-splurge in the evening won't significantly affect your efforts if you consistently keep carbohydrates low on most days. The longer you keep total carbohydrates low, the more efficient your body is at burning them off when you splurge.

The beauty of this arrangement is that it builds on itself. Did you catch the last part of the research article above? The group that consumed more carbohydrates in the evening reported improvements in fasting



glucose (blood sugar). This is relevant because improvements in glucose levels lead to **more stabilized energy and appetite** levels.

A similar study supports this, showing that evening carbohydrates improve day-time hunger hormones as well (Leptin, Ghrelin, and Adiponectin). This group of researchers concluded that evening carbohydrate ingestion prevents day-time hunger:

"...we believe this diet regime may prevent mid-day hunger, better support weight loss and improve metabolic outcomes compared to conventional weight loss diets." [19]

Carbohydrate ingestion in the evening reduces day-time hunger, and fat consumption in the morning will further help regulate appetite throughout the day. Not only is it OK to eat carbohydrates in the evening, it actually makes the first part of your day more effective!^[20] In the next section, I will outline the best carbohydrates to consume in the evening for satiety and maximum health benefits.

You may be asking yourself—where did the theory of "no carbs before bed" come from? I wish I could tell you. It may have originated from the concept of matching caloric intake with activity levels. This is a great concept—but it doesn't take into account what you plan on doing the following day. If you have a low carbohydrate breakfast and lunch (after a carb-heavy dinner the previous night), those evening carbs will be history. On the other hand, if you wake up and have oatmeal, cereal, fruit and yogurt—you will have amassed a giant store of carbohydrates that will be converted to fat.



The not-so-vicious cycle of fat and carbs

You can be energetic and focused all day long. You can be a fat-burning, report-writing, problem-solving powerhouse. Then, in the afternoon and evening you can re-fuel with big, delicious meals. You can even splurge on some high-carbohydrate foods. Then, you naturally become relaxed and fall asleep quickly, comforted by the fact that you can wake up and kick butt again tomorrow. Life is good!

This is life-changing for some people. For those of you who are either tired during the day, anxious, or have trouble falling asleep at night this is especially important. You can have great energy levels and still sleep like a baby. You shouldn't feel like you are running on empty, and you shouldn't battle anxiety and sleeplessness at night. Barring other issues that cause insomnia, you can regain control of your days and nights with this technique. This isn't a hard regimen to follow, because once you get into a groove with it you'll realize how natural it really is. You won't feel like you are on a diet—you are just doing what feels good!

PERFECT DAY OF APPETITE MANAGEMENT

The Fat/Carb Cycle

PAINFREEFAILOSS



A Note on Dinner Time

Try to eat dinner at least 3 hours before bed time. This will give your stomach time to empty the contents of your dinner into the small intestine and begin the digestion process. Going to bed on a full stomach can interfere with sleep quality, and cause stomach distress that carries into the next day. A properly timed evening meal with protein and carbohydrates will allow you to fall asleep naturally while preventing the conversion of carbohydrates to body fat.

The Calorie Breakdown

A calorie truly is NOT just a calorie. 200 calories of fat in the morning will keep you energetic and lean, while 200 calories from carbs for breakfast will make you sluggish and soft. Eat according to the time categories listed here and focus on food choice. If you do that, calories take care of themselves. If your goal is to lose weight, being in a calorie deficit will come automatically with following the guidelines for macronutrient timing outlined below.

Let's now examine how total caloric intake is affected by employing these techniques. The scenarios below are designed to show you how this method allows you to eat larger meals and feel full while still burning more calories than you consume.



John / 38 yrs. old / 5'11 / 190 pounds / active lifestyle

Maintenance Calorie Needs (Amount necessary to maintain body weight): **2,750**

(Calorie estimates from MayoClinic.org's calorie calculator)

- Breakfast: Double Chocolate Espresso from *Pain-Free Recipe Book* (200 calories)
- Lunch: 8 oz. T-bone steak, 1 cup spinach sautéed in 2 tablespoons butter (700 calories)
- Snack: 2 oz. beef jerky, ¹/₄ cup nuts (350 calories)
- Dinner: (Mexican Restaurant) Chicken fajitas with peppers, ½ cup guacamole, 1 cup rice, several corn chips (1,200 calories)

Total Calories: 2,450

Net Difference: 300 calories below maintenance.

John ate generous portions at every meal, and even stuffed several handfuls of corn chips in his mouth at dinner, and still came in 300 calories below his daily maintenance total. John kept carbohydrates low during the first part of his day, allowing him to have extra at dinner. Also, John will likely not be hungry until after noon the following day, at which point he will have burned through any excess carbohydrates consumed.

Lisa / 28 yrs. old / 5'5 / 160 pounds / only light activity

Maintenance Calorie Needs (Amount necessary to maintain body weight): **2,000**

(Calorie estimates from MayoClinic.org's calorie calculator)

- Breakfast: Frozen Yogurt Smoothie from *Pain-Free Recipe Book* (300 calories)
- Lunch: (Restaurant) Appetizer: Cheese Stuffed Olives, Chicken Caesar salad with 6 oz. chicken and 3 tablespoons Caesar dressing (600 calories)
- Dinner: 6 oz. Salmon Filet with 1 cup green beans (sautéed in 1 tablespoon butter) (540 calories)
- After Dinner Dessert: 3 chocolate chip cookies from *Pain-Free Recipe Book*, 1/2 cup whipped cream with ½ cup raspberries (400 calories)

Total Calories: 1,840 calories

Net Difference: 160 calories below maintenance.

Lisa admittedly filled up at lunch and dinner, and then had a treat of chocolate chip cookies, whipped cream, and berries for dessert. She normally doesn't eat this much, but was still 160 calories UNDER her maintenance total of 2,000 for the day. In Lisa's example, you can clearly see the benefit of eating two larger meals without snacking in between.

By keeping carbohydrates low throughout the day, you make it much more difficult for your body to store carbohydrates consumed in the evening as fat. A rule of thumb for preventing fat storage is to separate high-fat and high-carbohydrate meals; no meals should contain high amounts of both macronutrients. Your meals should be high-fat/low-carb or high-carb/low-fat. This simple method of cycling fat and carbohydrates allows you to enjoy your favorite foods guilt-free. Check out the Dessert section of the *Pain-Free Recipe Book* to find out how you can enjoy Chocolate Mousse, Cheesecake Cupcakes, and Chocolate Chip Cookies without gaining fat. You can have your cake.... and eat *it* too.

Action Step #4: For the next two days, save carbohydrate intake for dinner time. Consume less than 25 grams of carbohydrates prior to dinner and less than 75 grams at dinner (< 100 g for the day). Up until now, we have only been "testing the waters" with each action step. This step has the ability to produce *rapid* fat loss results (without excessive hunger or energy level decreases).

Increase your consumption of vegetables at lunch. The added volume and fiber will keep you satisfied despite being in a carbohydrate and calorie deficit. An entire 10 oz. bag of frozen cauliflower has around 13 grams of carbohydrates. You can make "fo mashed potatoes" by combining cooked cauliflower, butter, and garlic in a blender or food processor. Even if you eat an entire blender full of "fo mashed potatoes" you will still be well under the carbohydrate limit prior to dinner. I wouldn't recommend it though—consuming that much fiber in one sitting will clean you out!

Food choices for breakfast, lunch, and optional snacks are up to you—but save the carbs for the evening. The goal of this exercise is to experience what it is like to live low-carb during the day, and then consume carbs at night.



Also, this is a two-day experiment so you can see how eating carbs at night keeps your appetite in check the following day. This makes it easier to wait until dinner to eat your favorite carb-heavy foods. For this exercise, create a new page in your notebook and record the following: *meal content* (food categories – not exact measurements), *meal times*, and *number of carbs consumed prior to dinner*. Assume that meat (without added sauces) does not contain any carbohydrates.

Choose foods from the following categories in whatever quantities you want at lunch and snack time: meat, fish, eggs, nuts, vegetables, oils, and other concentrated fat sources. Some of these foods will contain small amounts of carbohydrates. This is OK as long as you can keep total carbohydrate intake prior to dinner less than 25 grams. Once you get the hang of eating low-carb foods during the day, it will be relatively easy to stay under the limit of 25 grams without feeling deprived or limited. For carbohydrate measurements on individual foods, read the back of your food labels or search for the carbohydrate content on a website like Carbscontrol.com or Calorieking.com.

★ Special Considerations: High performance athletes may benefit from higher levels of carbohydrates during training and prior to competition. For low-intensity exercise (walking) and short bursts of intense exercise (resistance training), the high-fat/low-carb approach will provide you with more than enough energy. If you are a performance athlete, the rules change for you here. See the section for athletes and competitors in Chapter 9: *PFL Advanced* for instructions on how to mold this fatburning, simple approach to your competitive goals.



CHAPTER 7

Principle #4 - Eat foods that satisfy, avoid foods that increase hunger

★ Status-Quo Challenge: *Your food cravings may be due to an addiction, not lack of will-power.*

Consumers are getting smarter; it's not as easy for food companies to trick people as it was during the emergence of the low-fat movement. Supposed healthy foods that are low in fat and calories are often high in processed carbohydrates. I have literally watched people consume a 150 calorie "healthy snack" that led to an uncontrollable binge eating session later in the day. Instead of providing a steady supply of energy, these low-calorie/low-fat foods create dramatic fluctuations in blood sugar. When your blood sugar is out of whack, so is your appetite

I have also watched as these same individuals traded in their low-fat snacks for high-fat/high-protein foods and immediately gained control over food cravings.

Most people attempting to lose weight or make lifestyle changes are incredibly hard on themselves. They often internalize failures by assuming they are weak and simply lack the will-power to stick with a nutrition program. In reality, they are setting themselves up for inevitable failure by consuming foods that make them hungry and produce rapid changes in energy levels. Though the idea of "instinctual eating" is a joke to these people, they can get in touch with their food instincts in a few short days just by eating more of the right foods—

namely, high fat foods—and removing the addictive ones. Once you remove these addictive foods from your diet, the insatiable desire to eat constantly or eat until you are stuffed vanishes.

Food & Drugs

It is likely that you are suffering from an addiction. Not lack of discipline, or an overactive sweet tooth, but a very literal addiction. One of the most prevalent food staples in the world— one that is touted as heart-healthy and belly-friendly—is a highly addictive substance. This food accesses the same reward centers in your brain as opiate drugs. Just like opiates, this food is highly addictive...

"...The brain is highly sensitive to the wide variety of substances that gain entry to the blood, some of which can provoke undesirable effects should they cross into your amygdala, hippo-campus, cerebral cortex, or other brain structure. Once having gained entry into the brain, **wheat** polypeptides bind to the brain's morphine receptor, the very same receptor to which opiate drugs bind."

—Dr. William Davis, Cardiologist and Author of Wheat Belly [26]

You are not doing yourself any favors by swapping out White Bread for Wheat Bread—both are bad choices.

As Dr. William Davis points out, wheat is a highly addictive food, accessing the same reward centers in your brain as opiates. If wheat actually was heart-healthy, and helped you stay lean, it wouldn't be so bad that it is highly addictive. But that's not the case.

In an interview with MindBodyGreen.com, Dr. Davis explains what happens when you remove wheat from your diet:

"When you cut out wheat, you lose the insatiable appetite, the cyclic highs of blood sugar and insulin, and the inflammatory phenomena via its components, gliadin, wheat germ, and gluten. Many people have told me that when they've eaten wheat, they couldn't stop. Even if they ate a whole plate of pasta and felt stuffed, they wouldn't stop.

Wheat creates incredibly desperate behavior." [27]

This is one of the most important discoveries I have ever made regarding my own nutrition, weight loss, and performance. I admit—I still occasionally consume wheat products—pizza (crust), hamburgers (buns), and pastries made from wheat flour. Of course this is only on rare occasions, and has not prevented me from reaching my body composition goals or performing on a high level because these instances are so few and far in between.

However, almost every time I do consume wheat products I immediately experience gas and other gastrointestinal distress, insane food cravings for the next 24 hours, and general lethargy. Chronic wheat consumption can lead to depression due to overtaxing the reward centers in your brain. For me, wheat definitely does cause desperate behavior as Dr. Davis states.

I was skeptical of this research until I experienced it for myself. Wheat makes me hungry, tired, irritable, gassy, and sometimes even depressed. The sick part is that most people live with this condition every day, not realizing they could feel better if they removed wheat from the equation. When I need to splurge on something that tastes amazing, I usually opt



for a non-wheat containing dessert like crust-less cheesecake or berries with whipped cream. It makes a world of difference in how I feel afterward.

Dr. Davis' research shows that just cutting back on wheat is not enough. It can be likened to cutting back on heroin. For some people, consuming wheat products can trigger food cravings for <u>up to five days!</u> [26]

The Gluten-Pain Connection

Gluten is a protein present in cereal grains and wheat that is responsible for the elastic texture of dough. Consumption of gluten in people suffering from Celiac Disease (gluten intolerance) causes a myriad of symptoms, including gastrointestinal distress, immune suppression, and nutrient deficiencies. For those diagnosed with Celiac Disease, removing gluten and wheat products from their diet produces rapid positive improvements of symptoms [28]. If you have been diagnosed with Irritable Bowel Syndrome, or regularly suffer from diarrhea, stomach cramps, or other intestinal problems, it is a good idea to get tested for Celiac Disease.

The gluten-free movement is spreading like wildfire—and it is not just Celiacs who are taking part any more. Concerned that gluten causes health problems for all people, many experts and food companies are touting the benefits of a gluten-free diet for everyone. You can now find gluten-free pancakes, gluten-free breads, and other gluten-free desserts.

There have been studies that show changes in health markers, such as increased gastrointestinal distress, with consumption of gluten in non-Celiacs.



Many studies show some type of measurable response to gluten in non-Celiacs without identifying the exact mechanism, or being able to draw a hard-lined conclusion. ^[29, 30] To be on the safe side, avoiding gluten containing foods is a good idea even if you haven't been deemed "gluten intolerant" or diagnosed with Celiac Disease.

A new study provides even more support for going gluten-free if you suffer from pain, cramps or muscle tension.

This study, presented at the *United European Gastroenterology* (UEG) conference, showed that gluten consumption causes an increase in inflammatory markers and pain levels in some people—without any of the normal symptoms of gluten sensitivity.

This is big news for people who do not have Celiac Disease, but are still on the fence about whether they should consume gluten.

The UEG study proves that you could be regularly consuming foods that are causing widespread inflammation and pain.

As Dr. Davis points out, focusing on gluten alone will not solve all related ailments. Many gluten-free foods still contain wheat products that cause rapid rises in blood sugar and lead to fat storage and food cravings.

While it's a good idea to eat gluten-free, removing gluten alone doesn't ensure you are avoiding foods that fuel appetite and wreck your natural food instincts.



Other foods that are ruining your instincts and causing inflammation (avoid)

All Grains

Wheat may be the most serious threat in the grain family, but it is not the only grain responsible for making people fat and endlessly hungry. Grains have been praised for decades as heart-healthy and perfect for those trying to lose weight. You can find several diet plans designed to prevent diabetes that promote consuming three or more servings of "whole grains" per day. This is pure insanity! Rice, corn, barley, breads, and pastas all contain high amounts of insulin-spiking carbohydrates. These foods are at the top of the list for obesity and Type II Diabetes causes when consumed at every meal. Your best bet is to remove wheat from your diet entirely, and only consume other grains such as rice in moderation at dinnertime (once per day, as opposed to several times per day).

Liquid Calories

Stick to non-calorie containing beverages as much as possible, getting most of your nutrition from whole food sources (excluding coffee with cream, of course). Whole foods are slower digesting than liquids—even supposedly healthy ones such as most protein shakes or fruit smoothies. Slower digestion means more satisfaction and a slower drip of energy release from the food. Whole food also has a higher Thermic Effect of Food (TEF), meaning your body has to expend energy in the form of calories to break down and digest the food. Most calorie containing liquids (juices, soda, shakes, milk, etc.) are high in carbohydrates, and cause a massive rise in blood sugar and insulin. The easy digestion process of liquid calories makes it much easier for your body to store fat.



Exception: We do recommend a specific type of shake for some clients for ease of use purposes. It's important to be careful about what goes in your shake though—avoid excess carbohydrates and processed ingredients in order to minimize the natural inflammation response your body has to liquid calories.

Sugar

Whether consumed separately, or as a hidden ingredient in a packaged good, sugar should be avoided. Especially in the early part of the day, your goal is to keep insulin levels as low as possible. Even small amounts of sugar trigger a significant insulin response that will blunt your fat-burning efforts for hours. Also, the rapid rise and fall of blood sugar associated with sugar ingestion will cause cravings only an hour or two after eating it. One of the biggest changes in the American diet over the last century was the increase in total sugar intake. When sugar consumption is charted next to obesity rates over the last 100 years, the frightening correlation between the two becomes clear.

Plant Oils

Most people consume too many unsaturated fats and not enough saturated fats. Though most nuts and other plant-derived fats have many health promoting properties, you should focus on increasing your consumption of animal fats whenever possible. Most plant-derived fats are high in Omega-6 fatty acids, and low in Omega-3 fatty acids. Overconsumption of Omega-6 fats and neglect of Omega-3 fats has been linked to obesity and several diseases. Your metabolism thrives with a higher Omega-3-to-6 ratio. You can increase your intake of Omega-3 fatty acids by consuming plenty of fish, grass fed beef, and other animal-derived fats. Opt for whole nuts over nut oils or other plant oils. Avoid rapeseed oil, soybean oil, corn oil, sunflower oil, and safflower oil.



Hydrogenated Fats

Hydrogenated fats are artificially produced by adding hydrogen to liquid fats to keep them semi-solid. This is designed to increase the shelf life of packaged foods. They have been linked to diabetes, insulin resistance, coronary heart disease, and systemic inflammation. Beyond the ample evidence that hydrogenated fats are linked to disease, they have also been shown to increase migration of fat into the abdominal area and cause weight gain even when compared to diets with the same amount of calories and fat. Avoid pre-packaged foods and you will avoid hydrogenated fats.

Artificial Sweeteners

Artificial sweeteners have been accused of everything from causing cancer to obesity. Though most artificial sweeteners have been tested and deemed safe by the FDA, it is a good bet to reduce consumption of them. Studies show a higher correlation between obesity and artificial sweeteners than obesity and sugar consumption. This does not prove causation, as one could argue that those who want to lose weight are more likely to consume artificial sweeteners. A common theory is that the chemicals "trick" your body into thinking it is getting something high in sugar, causing a similar hormonal response to actual sugar. I avoid most artificial sweeteners that have been linked to disease and opt for Stevia, Monk Fruit Extract or Xylitol. Stevia is derived from a plant in the sunflower family, Monk Fruit is naturally sweet with virtually no calories, and Xylitol is a sugar alcohol. These products can be part of a successful nutritional program, but should be used sparingly.



Snack Foods

I explained how snacking leads to weight gain previously, but it bears repeating. Snacking is usually a thoughtless ritual that we barely even enjoy. You are better off letting your body naturally dip into its fuel reserves for energy between meals. Avoid any food that is packaged as a snack—you can guarantee that it won't fill you up and will ignite your appetite for more. Focus on generous portions during meal times instead.

What's left?

Without pasta, bread, and grains—what's left? Quite a bit actually. With a little creativity, you can turn out some amazing dishes using only meat, vegetables, high fat sauces and spices. Eating at restaurants is a breeze as well. Ordering a big salad with meat and full-fat dressing is an easy choice. It will fill you up and still leave you energetic and sharp instead of comatose (remember what you felt like last time you ate pasta and garlic bread?). My go-to restaurant meal is steak, spinach sautéed in butter, and a salad with Caesar dressing. Don't expect perfection from yourself here —avoid the foods listed above, but don't think you are going to fall apart if you consume these foods that are not *PFL-approved* on occasion.

The Good Guys

Eat a variety of the foods listed below. By sticking to these groups at lunch and dinner, you'll lose weight and maintain low body-fat effortlessly. If this is a big change for you, you'll quickly realize that the most satisfying foods in the world are listed below:



(The Right Types of) Meat

Grass-fed beef, chicken, pork, lamb, waterfowl, and other wild game should be the core of your diet. Meat provides the most satiety of all foods and provides important nutrients such as B-vitamins, potassium, and magnesium. Meat should be your #1 source of protein and fat. Add sauces and spices at will as long as you are not adding extra carbohydrates and sugar. Opt for organic meats whenever possible to avoid consuming preservatives and other chemicals used in the processing of meats.

<u>Fish</u>

All fish is high in protein with some species providing more beneficial fats than others. Fish contains high amounts of Omega-3 Fatty Acids, which improve your metabolism, appetite, brain, and basically every other organ in your body—in addition to helping lubricate your joints. Salmon, Mahi Mahi, Grouper, Swordfish and a few other large ocean fish are among my favorites for their taste and fat profiles. Including fish regularly will not only keep you lean, but also provide many brain-boosting benefits. Opt for "wild caught" whenever possible.

Eggs

One of the biggest internal battles I faced while creating this plan was to advocate coffee with cream instead of eggs for breakfast. Though coffee with cream is superior for ease of use and results, eggs are truly a superfood. My solution is to eat them regularly for lunch or dinner. One of my favorite meals is steak and eggs! Please don't throw out the yolk! It is the most nutrient dense part of the egg. You are actually better off throwing out the white and consuming only the yolk. Egg yolks not only contain more fat, but also provide more B-vitamins and choline—



a nutrient associated with improved neurological function and reduced inflammation.

(The Right Types of) Dairy

Stay away from low-fat dairy products such as skim milk and non-fat yogurt. Opt for full-fat versions. Kefir, yogurt, cottage cheese, whipped cream, sour cream, and cheese are permitted. Dairy products do contain higher amounts of carbohydrates than meat or eggs, but high-fat dairy is allowable. Dairy products contain probiotics, natural bacteria (and some yeast) that are an integral part of a healthy digestive system. Consuming dairy will help keep your natural gut flora in balance which improves overall health and digestion. Whipped cream (no sugar added) with berries is my all-time favorite dessert. Use cottage cheese instead for a higher protein version.

Fat Sources

The majority of your total fat consumption should come from meat, eggs, and fish. Other sources that should be a staple in your diet are butter, cream, coconut oil, avocados and nuts. For cooking, use butter, coconut oil, or unprocessed vegetable oil such as Extra Virgin Olive Oil. Include ample amounts of all these foods in your diet every week to ensure a balanced fat profile and a soaring metabolism.

Vegetables

From lunch to dinner time, consume as many vegetables as your heart desires. Cook them in butter, steam them, or eat them raw with Ranch Dressing. There are two reasons to eat vegetables at lunch and dinner: (1) they are filling, and (2) they provide high doses of important micronutrients (vitamins and minerals). Make them taste good, and try to eat a few servings every day. There is no minimum amount that must



be consumed on this plan, and there are no specific directions on which vegetables to eat at this time. Knowing how much Vitamin A is in one cup of spinach is not the most important thing for reaching your goals. Including a variety of vegetables regularly will cover your micronutrient needs while keeping you satisfied and energized. Keep it simple — include a vegetable (or more) with each meal. However, there is nothing wrong with a high fat/high protein meal without vegetables like Steak and Eggs.

Exceptions: potatoes and corn (all varieties)—though potatoes and corn are technically vegetables, they should not be consumed prior to dinner because of their high starchy-carbohydrate content. Other "starchy" vegetables include carrots and parsnips. These are OK to eat at lunch, snacks, and dinner because they have a very low caloric load per serving.

Fruit

Fruits generally have higher amounts of carbohydrates and sugar content than vegetables. Though fruits do contain important vitamins, minerals, and antioxidants it is not imperative that you consume four servings a day as some experts would suggest. In fact, fruit is quite easily converted to fat in your body. Because your total carbohydrate intake will be low throughout the day, consuming a few servings of fruit won't hurt you. I usually have one or two servings of fruit per day. For those of you who want to lose ten pounds or more, eat no more than two servings per day for the fastest results. Two of my favorite fruits are tomatoes and avocados—these are surprisingly low-carb with full flavor. Blueberries, Raspberries, and other berries are good options as well because they contain less sugar (and more fiber) than most fruits.



Other Carbohydrates: Potatoes, Corn, Beans, Legumes, and Starches Unless you are an elite athlete, you can get 100% of your carbohydrate needs from fruits, vegetables, dairy, nuts and other PFL food options. Two servings of fruit and three servings of vegetables will provide around 60 grams of carbohydrates—more than enough for you to thrive on as a daily total. Otherwise, stick to carbohydrate sources that do not contain wheat as your staples.

Though beans are not allowed on many popular diets, they can be an integral part of your nutrition program. Unless they cause unwanted gas or indigestion, eat all the beans you want during your evening meal. I personally love black beans, garbanzo beans (hummus), and lentils. If you experience gastrointestinal stress, try taking a few tablets of Beano with your meal. One half cup of beans contains approximately 16 grams of carbohydrates and 7 grams of fiber—this makes a low-calorie, filling side dish. I consistently go on "kicks" where I will eat refried beans for several days in a row while staying lean and feeling great.

Exception: If you suffer from leg cramps or foot cramps, you may want to avoid beans and legumes for a while. They contain high amounts of phytic acid (a.k.a. phytates) which lead to increased excretion of magnesium. This can exaggerate or even cause cramps and muscle spasms due to magnesium loss. [44]

List of supplemental carbs for performance and those with higher carb needs: sweet potatoes, potatoes, corn, rice (brown and white), wild rice, beans, lentils, quinoa, nuts, seeds, and dairy products. Though rice is technically a grain, I have great success eating rice at dinner when I am active.



Beverages

Non-calorie containing beverages such as coffee, tea, and diet soda are OK. Go easy on the soda though—the phosphoric acid will erode your teeth and lead to bone health problems. Also, excessive use of artificial sweeteners will likely increase your appetite. To be on the safe side, limit your artificial beverage consumption to one serving/glass/can per day. For coffee and tea drinkers, it is at your discretion. Just keep in mind that overconsumption of caffeine can hurt your adrenal system, making you tired and more likely to reach for junk food. One or two cups of coffee per day is fine—living on a constant caffeine high is not.

★ Alcohol ... keep it to 2 or less drinks per day. A glass of wine or an occasional beer won't hurt anything. However most beer, wine, and mixed drinks contain sugar and empty calories. If you must, save it for the evening and count it as a serving of carbohydrates. Opt for dryer wines and drinks without added sweeteners. As long as it's in moderation, you can enjoy your favorite alcoholic beverage and still reach your goals. But keep in mind that alcohol increases cravings for junk food.

Extras: sauces, seasonings, condiments, herbs, and spices

The only rule here is to avoid extras that add carbohydrates and sugar to your meal. Condiments like Ketchup and BBQ Sauce are obvious offenders. Other than that, go crazy and spice it up. A combination of cream-based or unrefined oil-based sauce with spices can make any meat dish taste amazing. Try Ma and Pa's Homegrown Salsa recipe in the *Pain-Free Recipe Book* link here. This low-carb, healthy salsa can transform any boring meat or entrée into a tasty and satisfying meal.



Protein: The Appetite Killer

Up until now, I have spoken almost exclusively about the benefits of fat consumption. While you should ensure adequate fat intake during midday, protein is equally important. High-protein diets are proven to curb appetite. Studies show that increasing protein intake results in a reduction in spontaneous calories consumed (snacking, overeating) [25]. Also, it is necessary to consume adequate amounts of protein in order to maintain muscle mass and rebuild damaged muscle tissue from exercise.

A common mistake that people make with the PFL program is not including enough protein at lunch and dinner. For some, having a high-protein snack between lunch and dinner is the only realistic way to get enough protein. Why do we care about protein? It provides more satiety than carbohydrates or fat, it is more "metabolically expensive" than carbohydrates or fat, and your body needs ample amounts of protein to build and maintain muscle tissue. Because you'll be consuming relatively few carbohydrates, your body will breakdown a small amount of your dietary protein for energy. For low-carb dieters it is even more important to get ample amounts of this macronutrient; a protein deficiency combined with a hypocaloric diet will lead to muscle wasting. Even if you aren't afraid of ending up with the dreaded "skinny-fat" body type, understand that maintaining muscle mass is vital to ensuring your body is a calorie incinerating furnace. Without protein, you won't have the calorie burning power to lose fat and keep it off.

While consuming carbohydrates in the evening is definitely on the menu, it is important to include ample amounts of protein during this meal as well. A high carbohydrate dinner without protein will lead to hypoglycemia (low blood sugar) overnight ^[22]. This can interfere with

sleep quality, and cause fluctuations in appetite. To ensure stable blood sugar levels and quality sleep, build your evening meal around a source of protein such as meat, fish, or eggs. Then, supplement your meal with vegetables, fruits, and other carbohydrates.

Protein Digestion

It is perfectly OK to compress your protein intake into 2-3 feedings each day. There is a persistent myth in the world of nutrition and fitness that says your body can only absorb a small amount of protein at each meal. The number that pops up again and again is 30 grams of protein: "Your body can only absorb 30 grams of protein at one time— after that it just turns to fat or is wasted!"

Noooo. This is far too simplistic. Let's think about this—you're telling me that a 100 pound sedentary woman and a 250 pound linebacker who hasn't eaten in 10 hours are BOTH going to absorb 30 grams of protein?? Our bodies are more opportunistic than this. Just like a dry sponge soaks up more water than a wet sponge, a person who has not eaten in several hours will absorb and utilize more protein in one sitting than someone who eats every few hours. Also, just like a bigger sponge can soak up more water than a smaller sponge, people with more muscle mass are able to absorb more protein per meal.

Another problem with the "30 grams" myth is the rate of digestion for protein. Depending on the source of protein, the other nutrients involved in the meal, and many other factors—amino acids (the building blocks of protein) are typically absorbed by the small intestine at a rate of 5-10 grams per hour. The limiting factor in total absorption is not an arbitrary number—it is often the time it takes for food to be digested and



excreted. Though there is variability in individual digestion rates, it often takes 8-10 hours for food to pass through the stomach and small intestine. Because most of the absorption takes place in the stomach and small intestine, let's assume that once your food reaches the large intestine, it's as good as flushed. [23] After doing some quick math, we arrive at a total potential number of 40-100 grams of protein that can potentially be absorbed in one sitting.

Again, this is highly generalized—this number could be much higher! OR, if you eat something that upsets your stomach, this number could be much lower as your body expedites the excretion process. It is crucial that you focus on a high protein meal at lunch (and dinner). At lunch, your body will be primed to absorb and utilize protein. At dinner, it is important to consume enough protein to feed your muscles during the overnight fast and morning period where you will be in a caloric deficit.

For lunch and any other mid-day meals you eat, focus on fat and protein while continuing to avoid carbohydrate-rich foods. By keeping the carbohydrate consumption period compressed, you are making your body that much more efficient at directing those carbs away from your fat cells. Eat PROTEIN + FAT during the day, and PROTEIN + CARBS at night.

It is important to note that a low-carb day does not warrant a free-for-all on carbohydrates at night. A low-carb day allows you to have a moderate amount of carbohydrates at night without the excess being stored as fat. However, if you routinely go over-board your body will still store these as fat.



You can get away with high carbohydrate meals in the evening if you do the following:

- ★ Consume only fat in the morning
- ★ Keep carbohydrate intake low during the day (breakfast/lunch/snack)
- less than 25 grams total
- ★ Consume ample amounts of protein at lunch and dinner
- ★ Keep total caloric intake at or below your maintenance needs

You can also mitigate the damage from an over-splurge by pushing your first meal further back into the next day. See "Get Ripped Eating 1,000+ Calorie Meals" in Chapter 9: PFL Advanced.

Ketogenic Diets, Growth Hormone, and Insulin

A Ketogenic Diet is a high fat, low-to-moderate protein, low carbohydrate diet that utilizes fat as a primary fuel source. In the absence of glucose (carbohydrates), your liver converts fat into ketone bodies which are then used as a fuel source. When this happens, you are in a state of "ketosis." This type of diet is often used for medicinal purposes and helps alleviate symptoms of diseases such as epilepsy.

Ketogenic diets have other apparent benefits related to brain function, metabolism, and cellular cleaning. Many people also report an appetite suppressing effect when following a Ketogenic Diet. Depending on your carbohydrate and protein intake, you will likely be in ketosis some of the time following the PFL principles.



Though it has several benefits, there are drawbacks to being in ketosis all the time. Following an extremely low carbohydrate diet for an extended period of time can result in unfavorable hormonal changes and muscle wasting. By including some carbohydrates (50-100 grams) in your diet, you can get many of the benefits of a Ketogenic Diet without the drawbacks (*like missing out on Sushi, Pad Thai, and your favorite desserts...*).

We've already discussed the major role that the hormone testosterone plays in your well-being. Another important hormone is Growth Hormone—a naturally produced hormone that stimulates growth in animal and plant cells. Like testosterone, growth hormone can be artificially produced and administered to improve body composition (more muscle, less fat), and is often abused by athletes, competitors, and Average Joe's looking to improve their physiques.

Though growth hormone (GH) has negative connotations related to drug abuse, it is an essential part of our natural metabolism. Specifically, GH plays a crucial role in energy metabolism, protein synthesis, and immune function. And like testosterone, it is important that you maintain healthy levels and cycles of growth hormone release. If your GH levels are out of whack, your metabolism will be out of whack.

Among the many factors that affect GH levels is carbohydrate consumption. An extremely low carbohydrate diet has been shown to cause GH resistance, impairing the central feedback mechanisms your body uses to regulate this important hormone. ^[24] Though I recommend a low carbohydrate diet, extremely low carbohydrate diets should only be utilized for very short periods of time, if at all. Conversely, a high carbohydrate diet spread over several meals also leads to growth



hormone resistance (another reason why the optimal range for the PFL protocol is 50-100 grams of carbs per day).

There is some debate on the impact of carbohydrate intake (at night) on growth hormone secretion. Some bodybuilding and fitness coaches recommend avoiding carbohydrates in the evening because of studies that show growth hormone suppression following a high carbohydrate meal. This well-intentioned theory posits that impeding GH production will prevent your body from building muscle and recovering optimally. Though growth hormone production will fall in the short-term after a carbohydrate meal, it will rebound with optimal production overnight.

Another reason to include some carbohydrates in your diet is to ensure a baseline level of insulin production. Though I have demonized insulin up to this point, it is an important hormone for maintaining lean muscle tissue. If insulin levels are chronically low, your body will not effectively recover from exercise or rebuild muscle tissue properly. Maintaining lean muscle tissue is extremely vital for sustained weight loss efforts.

More muscle not only equates to more total calories burned per day, it also enables your body to more effectively manage glucose and insulin levels. As we have learned, managing your blood sugar is extremely vital to burning fat. Temporary periods of moderate insulin production are healthy, while chronically elevated levels leads to weight gain and diabetes. One moderately carbohydrate-heavy meal per day is perfect for maintaining a healthy hormonal environment.



The self-regulating appetite

So what happens to your appetite when you remove all the hunger-inducing foods and focus on high protein, nutrient dense foods? **It self-regulates**.

You don't feel the need to eat until you pop, and you won't have constant cravings for dessert. Once you become accustomed to filling up on protein and fat, you will naturally desire protein and fat when you are hungry. And you'll have to go several hours without food to even experience hunger.

As long as you are able to compress carbohydrate consumption into the evenings, and consume foods that do not contain wheat, gluten, high amounts of sugar, hydrogenated fats, or copious amounts of artificial sweeteners, *you'll be great*. Your best bet is to focus on the *Choice*Foods List for lunch and dinner, and check labels to ensure that no sugar or other chemicals are being snuck into your food.

You already know this, but you shouldn't subsist on pre-packaged, processed foods. Any meal, side-dish, entrée, etc. that you can buy ready-to-eat is likely loaded with all of the nasty additives mentioned above. Even if they technically fit the guidelines, you should still opt for fresh and unprocessed foods.

Once people are given stipulations or rules, they have a tendency to try and "cheat" while still staying within the rules. A good example would be to find a packaged, delicious food that technically does not have a ton of sugar, wheat, or any other food referenced in the "avoid" section—but



has an expiration date of four years from now and contains more ingredients than the dictionary has words.

You would know intuitively that this product does not have high amounts of healthy nutrients, and that it is not the best item to help you reach your goals. You could drive yourself crazy by trying to categorize all 50,000 items in your grocery store as good or bad. Instead, focus on purchasing items that need cooked or are close to their natural form.

Full Disclosure

There is no diet plan in which you can eat junk every day and get away with it. Even diets that restrict you to one meal per day will not allow you to reach your goals if you subsist on junk. This is not about having a free pass to eat any chemical-infested product that presents itself to you. It's about figuring out how to eat the way your body wants you to. Eating junk will cause you to eat more junk. Also, there is no diet in which you can eat unlimited amounts of food and not gain weight.

What we are trying to accomplish is not gaining permission to a buffet of endless splurge meals, but finding a sustainable way of eating that allows us to stay fit, feel good, and free up our time in order to focus on more important matters. I challenge you to keep it simple. When you eat foods that are simple, there are no surprises. Focus on fresh foods with minimal processing. Meat from the butcher, fruits and vegetables from the produce section, and bulk products that require cooking. If you choose to eat rice in the evening, you know that you are better off buying a bag of uncooked rice and preparing it at home versus buying a box of Rice-To-Go with dozens of ingredients you can't pronounce.



Please don't focus too much on the details here, but understand that the quality of food you eat is important.

Cooking and Food Quality

Cooking almost had its very own chapter in this book. Instead, it will get an honorable mention at the end of this section. I believe that preparing fresh meals at home is absolutely essential to taking control of your nutrition and your health. At the same time, I regularly eat out at restaurants utilizing all of the same principles listed so far. I believe that focusing on meal timing and macro-nutrients (fats, carbohydrates, and protein) is more important than knowing exactly where the food came from, or exactly how it was processed. If the source of your food is important to you—which it should be—then please continue to care about it.

But make no mistake, organic brown rice and quinoa eaten several times per day will make you fat. Conversely—a big, juicy steak with a salad smothered in Ranch from a greasy looking chophouse will make you lean-and-mean.

A tasty fruit smoothie for breakfast will have tons of vitamins and minerals, but also plenty of fat storing sugar. On the flipside, coffee with heavy cream may not be as sexy as the smoothie, but I guarantee that you will experience more weight loss and improvements in energy levels from the coffee.

The point I am trying to drive home is to stay focused on what produces results.



For our purposes, "results" means weight loss or maintaining low body fat, improving energy levels, and reducing pain in the most efficient, simplest way possible.

Action Step #5: Do not consume wheat products for 1 week. You'll discover two things: (1) appetite stabilizes and food cravings diminish, and (2) there are plenty of amazing dishes that do not involve wheat and grains.

It is vital that you don't skimp on portions this week. No need to track your food intake for the entire week, but start a new page in your notebook and record any differences in energy or appetite.

CHAPTER 8

Putting it All Together

This chapter summarizes the principles covered so far, and helps you build your own meal planning template and rituals.

Pain-Free Fat Loss Eating Principles Summary:

1. Eat in compacted time periods.

Consume 2-3 meals per day, avoiding snacks between meals. Have coffee with a few tablespoons of heavy cream or a small, high-fat meal for breakfast. Then, eat a high-fat/high-protein lunch, and a high-protein dinner with 1-2 servings of carbohydrate containing foods. One small, low-carb snack in the afternoon is OK.

2. Eat Fat.

Approximately 45% of your total caloric intake should come from fat (around 40% protein, and 15% carbohydrates). Increase your consumption of meats, fish, eggs, nuts, high-fat dairy, and coconut products. Lunch should be the highest fat-containing meal of the day. For a 2,000 calorie diet—the macronutrient totals should be approximately 100 g fat, 75 g carbohydrates, and 200 g protein for one full day.

3. Burn in the morning, feast in the evening.

Avoid carbohydrate containing foods until dinner time (last meal of the day). Make lunch and dinner your largest meals of the day. Though no counting is necessary, you can ensure your carbohydrate intake is ideal for fat-burning by following these guidelines:

Before Dinner (Breakfast/Lunch/Snack):

Consume less than 25 grams of carbohydrates.

Dinner:

Consume less than 75 grams of carbohydrates.

Consuming 100 grams or less of carbohydrates per day will result in consistent weight loss with great energy and satiety levels.

4. Eat foods that satisfy, avoid foods that increase hunger.

Focus on meat, fish, eggs, nuts, high-fat dairy, vegetables and fruits. Avoid wheat products, liquid calories, sugar, processed plant oils, artificial fats, and other snack foods. High carbohydrate foods should be eaten at dinner time only. High protein shakes are OK in the afternoon to ensure adequate protein intake with minimal caloric load.

For the sake of automation, find a few meals that you enjoy and eat one of them every day for lunch. Also, find a few snack options you like and keep them easily accessible. Controlling your environment is half the battle. It is vital that you make good food decisions easy and bad food decisions difficult. You do this through preparation, habit, and owning your environment. If you have nothing in your refrigerator for lunch, and the only food in your cupboard is Oreos, you are setting yourself up for bad food choices.

And remember, try to keep it simple. Here is a basic format to review whenever you feel like it's getting too complicated:

Breakfast: coffee with heavy cream or almond milk, or coconut milk OR a small 200-calorie breakfast—high fat, low protein, low carb

Lunch: 1 protein source, 1 concentrated fat source, at least one vegetable (unlimited vegetables)

Dinner: 1 protein source, 1 complex carbohydrate source, at least one vegetable (unlimited vegetables)

Alcohol: Aim for 1 or less drinks. No more than 2.

...That's it!

Variety vs. Rituals

A common misconception is that we need food variety. This is one of the first complaints that people think of when embarking on a new diet plan. I remember a time when a co-worker walked by me in the cafeteria and couldn't help but comment on the giant slab of meatloaf sitting in front of me:

"No pain, no gain – huh?!" he said.

"Not really – what is so painful about meat loaf?" I asked.

"Ya, it's OK. But I couldn't eat it every day like you do..." he said, trailing off.

He looked down at his lunch box containing a ham sandwich (with wheat bread), chips, and some Nabisco Crackers. Though he took the moral high ground on me, preaching that he gets to enjoy care-free lunches and spontaneous snacking while I suffer, he failed to realize that he packs the same basic lunch every day. Just like me. We both made a decision sometime before that about what our usual lunch would be—then it became automatic. The only difference is that I actively chose my ritual, while he let his environment dictate his ritual.

Breakfast is even more ritualized. Most people who eat in the morning are still half asleep when they stumble to the refrigerator and start spiking their blood sugar with cereal and skim milk. Then they wonder why they are hungry a few hours later, and why they are hungry again in the afternoon.

Adding variety to your diet requires thought, effort, and decisions. All three of those things drain finite resources. Rituals require no thought, no effort, and no decisions. Personally, I get enough variety through going out to eat and unplanned splurges. My day-to-day meals are basically the same with slight variations. I value the results I get from this much more than the pleasure of a widely varied diet. Who do you think enjoys a bowl of ice cream more—someone who eats it every night, or someone who eats in once per week? I argue that reducing variety actually increases our satisfaction with food.

I propose accepting this inherent monotony in our schedules and using it to our advantage. Breakfast, Lunch, and Snack options should be basically the same every day. You have a little wiggle room with dinner because it is OK to have a moderate amount of carbohydrates. This makes grocery shopping and preparation much easier as well. Even people who don't eat the same foods every day tend to eat the same foods every week. I have a grocery list written on a piece of notebook paper. You can find me carrying this list around the local Publix every Sunday:

- ✓ 1 whole chicken (organic) quartered
- ✓ 2 lb. grass fed ground beef
- ✓ 2 lb. wild-caught salmon
- ✓ 1 lb. organic lamb chops
- ✓ 1 dozen free-range eggs
- ✓ 1 can Whipped Cream (no sugar added)
- ✓ 1 quart organic heavy cream or unsweetened almond milk
- ✓ 1 package frozen blueberries
- ✓ 1 bag organic baby spinach
- ✓ 1 head broccoli



- ✓ 2 bags mixed Romaine lettuce salad
- ✓ 3 bell peppers (various colors)
- ✓ 2 bags Almonds (Cocoa Roast with no added sugar)
- ✓ 1 bag organic quinoa
- ✓ 1 bag basmati rice

Pretty simple right? It might vary slightly from week to week, but this is basically it.

There are other staples in my pantry, refrigerator, and freezer that are not on this list. Examples include Cholula hot sauce, coconut milk, and ingredients for my amazing home-made Honey Mustard. These are bulk items that I only need to buy on a monthly basis. I can make 5-6 days' worth of lunches and dinners using the list above and what is already available in my pantry. With a little creativity, this provides all the variety I need.

Pain-Free Fat Loss Simplified – START HERE!

There are two basic templates to choose from for Pain-Free Fat Loss meal planning. The first method involves having only coffee with heavy cream in the morning, or a small meal from a concentrated fat source. For non-coffee drinkers, there are other options available that provide nearly the same benefits. Template 1 is affectionately referred to as the "Fat Fast"—because you are consuming exclusively high-fat foods in the morning. This meal should contain 10% or less of your total daily intake.

Template 2 is referred to as "BLD" for Breakfast, Lunch, and Dinner. Some people prefer a bigger breakfast based on their work schedule or personal preferences. I am OK with this as long as the same meal planning and food choice guidelines are followed. The Creamy Breakfast Shake (from the *Pain-Free Recipe Book*) example would fall into the BLD template because it contains fat and protein. Eggs, bacon, and even a small amount of cheese are excellent breakfast options under this template. If you choose to eat breakfast (or a shake containing fat and protein), the meal should represent less than 20% of your total food intake for the day. Or put another way, breakfast should be about half the size of lunch and dinner.

★ The percentages of total daily intake listed at each meal are rough guidelines—it is not necessary for breakfast, lunch and dinner to be exactly 10%, 50%, and 40% (respectively) of your daily totals.

The idea is to "backload" total intake each day—meaning you will consume the vast majority of your total caloric intake between lunch and dinner.



You should choose a template based on your lifestyle and personal preferences. If you value having breakfast with your family in the morning, then eat breakfast and feel good about it. You can even have coffee (with or without cream) WITH breakfast. I don't want you to build your life around this program. That is the exact opposite of what we are trying to accomplish.

I want you to build this program *around your life*. If you are unsure, experiment with both. See which causes you the least stress and provides you with the most satisfaction. Also, don't feel like you are handcuffed to only one approach.

You are welcome to follow Template 1 on weekdays, and enjoy breakfast on the weekends using Template 2. Both templates accomplish the same goals in slightly different ways. The underlying goal of both templates is to compress eating into two to three separate feedings.

Under Template 1, eating in compacted time periods is simple: drink coffee in the morning, then eat lunch and dinner with an optional snack. That makes two or three separate feedings.

Using Template 2, those calories are spread over a slightly larger time span. Instead of eating a snack between lunch and dinner, you are shifting those calories to breakfast. Total intake is the same—just slightly different timing.



How do I know which plan is right for me?

Template 1: Fat Fast (coffee with cream, or other concentrated fat source) *is right for you if...*

- ✓ You are generally not hungry in the morning.
- ✓ You would rather enjoy a larger lunch and dinner with the option of having an afternoon snack.
- ✓ You don't regularly exercise in the morning.
- ✓ You exercise in the morning, but only at low intensities (walking) or short bursts of high intensity training (weight lifting).

Template 2: BLD (Breakfast, Lunch, and Dinner) is right for you if...

- ✓ You wake up starving, and can't live without breakfast.
- ✓ You run, bike, or perform some other type of endurance exercise in the morning.
- ✓ You don't always have access to PFL appropriate lunch choices.
- ✓ You get tired in the late morning or early afternoon if you skip breakfast.
- ✓ You have tried utilizing Template 1—even with 15-20 grams of fat consumed at breakfast—and still don't think it is right for you.

Remember, the underlying goals are to keep carbohydrates low throughout the day and compress eating periods into 2-3 meals. Both templates accomplish these goals.

Basic Meal Planning

Template 1: Fat Fast

Depending on your normal dinner time, it may make sense to add a snack into your afternoon routine. If you are not hungry in the afternoon, skip the snack and wait for dinner to extend the fat burning period even longer. The fat-only breakfast should contain 100-200 calories (i.e. 2-4 tablespoons heavy cream, ¼ cup coconut milk, 1-2 tablespoons almond butter). Most people who choose to have a snack in the afternoon get the best results by focusing on a concentrated source of protein. This will keep you full without adding excess calories. I often recommend using a protein powder supplement for ease of use.

Breakfast

(10% of daily total caloric intake)

- ★ Goal: Consume a small amount of fat (10-20 grams).
 - Fat: from butter, cream, coconut or nuts
 - Non-calorie containing beverages OK (coffee, tea, etc.)

Lunch and Optional Snack

(50% of daily total caloric intake)

- ★ Goal: Consume filling meal of protein and fat. Unlimited vegetables are allowed at lunch also. Though vegetables do contain carbohydrates, they don't significantly raise blood sugar or insulin and send you into fat-storing mode. The time to load up on veggies is at lunch and dinner.
 - Protein: meat, fish, eggs, dairy
 - Vegetables: no limit (exceptions: avoid potatoes, corn and other starchy vegetables)

- Fruit: small amounts OK opt for tomatoes and avocados
- Fat: from meat, butter, cream, cheese, coconut, avocados, nuts, and seeds
- > See *Choice Foods List* for snack ideas
- ➤ As a general rule, consume less than 25 grams of carbohydrates prior to dinner

Dinner (40% of daily total caloric intake)

- ★ Goal: Consume filling meal of protein and carbohydrates from vegetables, fruit, and other sources. Keep added fat consumption to a minimum.
 - Protein: meat, fish, eggs
 - Vegetables: any and all are welcome
 - Fruit: 1-2 servings
 - Other carbohydrates: 1-2 servings
 - Fat: reduce consumption of added fats from concentrated fat sources such as dressings, butter, cream, cheese, and nuts
 - As a general rule, consume less than 75 grams of carbohydrates at dinner

Template 2: BLD (Breakfast, Lunch, Dinner)

BLD works much better without an added snack in the afternoon. Because you are eating three generous meals with the BLD Template, a snack should not be necessary for hunger or energy purposes unless you are consuming nutrition for competitive or performance reasons (i.e. a skilled sport, heavy weight training, or preparation for an exam). That being said, a little protein or fat in the afternoon won't kill you. If you are highly active or regularly utilize resistance training, an afternoon snack that is high in protein (80%+ protein content) will aid muscle recovery without adding excess calories.

Eggs, bacon, and other breakfast meats are perfect to eat in the morning using the BLD template. A meal of 3 eggs, 2 slices of turkey bacon, and 1 slice of cheese contains about 350 calories. For a 2,000 calorie diet, this would represent about 17% of total daily calories—well below the suggested 20% for breakfast (that's a good thing).

For a quick breakfast on-the-go, use the Creamy Breakfast Shake Recipe or check out the breakfast shake recipes in the *Pain-Free Recipe Book*. The most popular shake contains coconut milk, flavored protein powder, and cocoa powder. This high fat, high protein, very low carbohydrate breakfast will keep you full and energetic for hours.

Breakfast

(20% of daily total caloric intake)

★ Goal: Keep total caloric intake low, with the vast majority of calories coming from fat and protein. Carbohydrate intake should be as close to zero as possible.

- Protein: from meat, eggs, or protein supplement
- Fat: from meat, eggs, butter, cream, cheese, coconut, avocados, nuts, or seeds

Best options:

- Creamy Breakfast Shake recipe from Pain-Free Recipe Book
- 3-4 whole eggs, 2-3 slices bacon
- 3-4 whole eggs, 1 oz. or 1 slice cheese

Lunch/Snacks

(50% of daily total caloric intake)

Same guidelines as Template 1

Dinner

(30% of daily total caloric intake)

Same guidelines as Template 1

In both templates, caloric intake at lunch is around 50% of the daily total with most of the calories coming from fat. Notice that there are no quantity limits here—just eat until you are satisfied (not to the point of being sick).

The dinner meal can actually appear larger in volume than lunch even though lunch is more calorically dense. This makes sense from a macronutrient perspective because fat is more dense than carbohydrates at 9 calories per gram (versus 4 calories per gram for carbohydrates). To maximize weight loss efforts, build your evening meal around a lean source of protein, vegetables, and one high-carbohydrate food item. It is easy to consume excess carbohydrates when you are eating a variety of carbohydrate-laden foods. Stick to one carbohydrate source at dinner.



If you are hungry in the morning or between meals after following the basic guidelines above, see the Common Mistakes heading in the Reference Material (near the end of this book document).

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Meal Frequency and Digestion

The recommended meal frequencies for all plans are based on what works best for energy, appetite, and weight loss. If you have trouble digesting larger meals, it may be necessary to add in more snacks to maintain your body weight (once you reach your ideal body weight). Those with gall bladder issues or high-fat food sensitivities may also need to make adjustments based on their ability to digest food using the recommended templates.

If you don't normally consume high amounts of fat, there may be an adjustment period. If consuming high amounts of fat in the morning and/or afternoon creates stomach distress, start with a smaller amount of fat and work your way up to the recommended levels. Your body may need some time to up-regulate its production of bile to digest the fat. This process has health benefits as well!

Nutrition for exercise performance and recovery

For competitive athletes and those involved in vigorous exercise, it is necessary to refer to the PFL Advanced section in Chapter 9. This section covers how to determine your nutritional needs based on your activity, and how to custom design your additional needs into one of these templates.

The easiest way to ensure you are getting the most out of an exercise session is to time the session immediately prior to a scheduled meal. This will allow you to get some good nutrition in your body immediately to foster a quick recovery.



- ✓ Morning training session perform your routine prior to consuming any breakfast (black coffee or coffee with cream is OK here if you must have caffeine prior to your workout).
- ✓ Afternoon training session push your lunch time back so that you can exercise immediately prior. Some of the best weight loss results I've seen came from utilizing the Fat Fast (Template 1) and an exercise session prior to lunch.
- ✓ Evening training session hit the gym or running track an hour or two before dinner. This will allow you to train hard on an empty stomach, and enjoy your dinner afterward. I do not advocate late night training sessions because it screws with your circadian rhythm and sleep quality. However, if you must train late at night you can move your dinner earlier into the evening to ensure it is fully digested prior to training.
- ✓ If your exercise session is in the afternoon or evening, a protein supplement can be substituted for a meal or snack. The quick digestion and high protein content of the shake will aid in recovery efforts, though it is not necessary to obtain benefits from exercise. If you are involved in vigorous and consistent weight training or high impact exercise early in the morning, consuming a recovery drink may speed up recovery and help maintain immune health. If you want to maintain muscle and strength gains while shedding fat, utilizing a Branch Chain Amino Acid (BCAA) supplement is your best bet. [32] In this scenario, you can consume 5-10 grams of BCAA's to help with exercise recovery without adding substantial calories. Refer to the Supplement Guidelines section in Chapter 10 for more information on nutritional supplement best practices.

If you are disappointed by the lack of specificity to individual foods or nutrient intake, don't be! You should feel free! It is in your hands now. You know everything you need to know about nutrition to accomplish your weight loss and body composition goals. Is there a lot left to learn? Endless amounts! But the actionable, relevant stuff is sitting right here.

You can get results by focusing on your timed consumption of fat, carbohydrates, and protein without worrying about anything else. For you micromanagers, I encourage you to try following the principles without counting calories or tracking every detail of your meal plan. If you absolutely need more structure, you'll find a calorie and macronutrient calculator in Chapter 9: *PFL Advanced*.

So far, we have covered tons of material in this book. Right now, it is more important than ever to zoom out and focus on the few factors necessary for dietary success. The PFL Program offers some strict meal planning guidelines, but some of the content is up for personal interpretation. Try to not get caught up on details that aren't directly related to one of the nutrition principles. Remember what this program is all about: establishing a simplified, efficient system that doesn't consume your mental resources. If you use the principles here but still drive yourself crazy by micromanaging every detail, then the program is a failure.

Simplify. Use the principles discussed here to create a system for yourself that requires less work. Once you do that, achieving your goals and maintaining results will be automated. At that point, you'll realize that you are not "on a diet" any more—you are just giving your body exactly what it needs. Reaching your goals, staying lean, and managing your pain will be second nature. *That's* Pain-Free Fat Loss.



Chapter 9 covers the unique needs of athletes and competitors, eating for extreme weight loss and conditioning, and how to build muscle using the PFL principles.

Action Step #6: We've come to our final action step. They say it takes 21 days to create a new habit. I believe that you can establish new habits AND see noticeable results within 21 days. Using the principles outlined so far, build your own template using the steps below for three weeks. After you reach the 21 day mark, stop and assess your progress and satisfaction with how the plan fits into your life.

First – Choose the "Fat Fast" or "BLD" as your default template.

Decide what your breakfast ritual will be, and stick with it every day for the 21 day period. Then, write down three lunch and dinner options that you can stand to eat on a regular basis. To make things easy on yourself, build your lunch and dinner meals with the following template. There are no quantity limits, but stick to one item from each category per meal.

- ✓ Lunch: 1 meat/fish/egg high protein source, 1 concentrated fat source, 1 vegetable
- ✓ Dinner: 1 meat/fish/egg high protein source, 1 vegetable, 1 fruit, 1 carbohydrate source

Second – Use the *PFL Grocery List* to fill your kitchen with PFL-friendly breakfast, lunch, snack, and dinner options. I recommend checking out the *Pain-Free Recipe Book* link on the website as well for great tasting meal and shake ideas. If you haven't made the Pain-Free Cheesecake Cupcakes yet, I highly recommend it. You'll thank me later!



Third – Refer back to the PFL Principles Summary regularly to remain focused on the fundamental principles that will lead you to success with this program (without driving yourself crazy with details).

Do your best to follow the parameters for meal content and frequency without expecting perfection. Feel free to eat out or cook at home using the PFL nutrition principles. If you've read this far, you absolutely owe it to yourself to test-drive your own template.

CHAPTER 9

PFL Advanced

The PFL Advanced methods below are condition specific. These are to be employed only if the description of the heading fits your goals. These sections are not necessary to accomplish your goals in weight loss, performance improvement, or simplifying your life. These sections are about taking those goals to the next levels of achievement.

Advanced Techniques for Weight Loss and Conditioning

By following the Pain-Free Fat Loss principles, you can accomplish any amount of weight loss or level of conditioning you desire. The section below was designed for those people that want a controlled, structured way to ensure success. I have to admit, nothing guarantees weight loss success like controlling overall food intake using calories as a benchmark. Again—it is not necessary to achieve your goals! Proceed with caution: this method requires some micromanagement.

Calorie and Macronutrient Calculations

I highly recommend following the **Pain-Free Fat Loss Simplified** principles for at least 21 days prior to counting total caloric intake. This will help you accomplish our goal of simplifying your life, and also give you a chance to adapt to the new guidelines prior to adding in more structure.

Using the steps below, you can create a plan that follows the principles described in this book within the context of a calorie controlled nutrition plan. Meal timing and food choices stay the same—this just provides you with a daily target calorie goal.

Warning: This will require some calculations and discipline to log your meals and count specific food item calories. Your notebook will be useful here! If you choose to use this method, make your life easy by writing down the calorie content of a few of your favorite meals. Then, use these same meals over and over for lunch and dinner. This way you

can be sure you are adhering to the calorie goal without having to break out your calculator at every meal. Though I am not a big fan of excessive structure, I have to admit that this method produces the fastest results and does so consistently.

To find your calorie and macronutrient (fat, carbs, protein) goals, follow the instructions below. I recommend using this macronutrient calculator (click to visit page).

This website uses the Basal Metabolic Rate (BMR) calculation method, and also calculates your daily activity expenditures using the Harris Benedict Equation. These are commonly used and accepted methods for determining calorie needs. The website also has a convenient macronutrient calculator. This will aid you in adhering to the PFL macronutrient guidelines of 45% fat, 40% protein, and 15% carbohydrates.

First – Determine your *Daily Calories Target*. You can do this by following the steps below

- Go to the Macronutrient Calculator page, then navigate to the red button that says "Help Me Find My Daily Calories Needs."
- Fill out the form with your information and select a weight loss (or weight gain) goal. The maximum weight loss goal is 2 pounds per week. If you have more than 10 pounds to lose, I recommend selecting 2 pounds per week. You will see consistent progress with this number.
- Select the grey button that says "Use this Value."



Second – Determine your Macronutrient Goals based on your *Daily Calories Target*. Adjust the sliders on the page to the following settings: Carbohydrate - 15%, Protein - 40%, Fat - 45%.

This will provide you with your target grams of each macronutrient. Do you need to know exactly how many grams of each you are eating every day? No, absolutely not. If you follow the food choice guidelines, your totals will naturally fall very close to this. However, I find counting macronutrients very useful for ensuring you are eating enough fat and protein. You should always air on the side of more protein and fewer carbohydrates.

Third – Write your *Daily Calories Target* and macronutrient goals in your notebook. Calculate the totals from a few of your favorite meals following the PFL guidelines, and log them into your notebook. This will serve as a useful reference. You should try to minimize the amount of work you will have to do later. Even if you don't eat these exact meals every day, it will give you a reference for determining the content of other similar meals.

Follow this plan for 3 weeks. After the 3 week period, you will need to reassess your caloric needs based on your new body weight (after weight loss). Using this method for a few weeks can provide the structure to follow **Pain-Free Fat Loss Simplified** effortlessly.

For Muscle Growth

If your goal is to gain muscle, you don't have to eat every 3 hours like some magazine articles would recommend. I know several physique competitors and bodybuilders who subsist on 6+ meals per day. There is no doubt that this method works—the proof is in the pudding. I also know physique competitors who do NOT eat 6+ meals per day, and still are able to build and maintain muscle mass.

The most important nutritional concept for building muscle is ingesting more calories than you expend. The second most important concept is timing your nutritional intake so that the vast majority of excess calories go to muscle tissue.

As always, I like to keep it simple. Building on the foundation of the PFL principles, you can boost your muscle-building potential by focusing on two time periods: immediately prior to your training session, and immediately following the training session. For weight loss, whole food is king. For muscle building, liquid shakes provide advantages over whole food before and immediately after your workout.

Pre-Workout and Post-Workout

Resistance training results in a few undesirable outcomes for building muscle: dehydration, depletion of protein and carbohydrate stores, increased cortisol levels, and decreased insulin levels. During prolonged resistance training, your body will dip into your stores of protein which will result in muscle wasting if left unchecked. The best way to prevent this is to consume a liquid protein supplement within an hour before beginning the training session. This will give your body a pool of protein and amino acids to use for energy and beginning the refueling process.



It is also beneficial to have moderate-to-high levels of insulin during this period, as this ensures that the nutrients you are consuming will be directed to your working muscles. Also, high insulin levels increase blood flow—a very positive side effect for training. More flood blow delivers more nutrients, which builds more muscle.

To maximize fat burning, insulin should be kept relatively low throughout the day. However, insulin is our friend before and immediately following a resistance training session. By giving your body protein and carbohydrates in liquid form prior to training, you are setting yourself up for a better muscle-building environment before, during, and after the session. To ensure maximum recovery and nutrient delivery to your hard working muscles, you should have another serving of liquid protein and carbohydrates within 30 minutes of finishing your training session.

A good rule of thumb is to consume 0.2 grams of protein and 0.2 grams of carbohydrates for each pound of body weight immediately prior to, and immediately following your training session.

For a 185 pound man, this is 37 grams of protein and 37 grams of carbohydrates (pre-workout and post-workout). For a 120 pound woman, this is 24 grams of protein and 24 grams of carbohydrates (pre-workout and post-workout).

The simplest way to employ this method is to mix up both the preworkout and post-workout servings in the same bottle. Drink the first half prior to training, and drink the second half immediately following training. This will provide you with sufficient amounts of protein to aid in the muscle re-building process, and sufficient carbohydrates to spike



insulin levels. Many programs advocate ingesting as much as twice this amount of carbohydrates to enhance recovery. I recommend a lower amount for two reasons:

- 1. Your body can use stored body fat (and carbohydrates) for energy in addition to the carbohydrates consumed prior to training.
- 2. Your goal is elevate insulin levels, which can be accomplished with a smaller dose of carbohydrates.

The second point above is based on the concept of "insulin sensitivity." When you go for long periods without ingesting carbohydrates, your body becomes exceedingly efficient at using small amounts of insulin to shuttle nutrients into cells. In a way, your muscles become "sensitive" to receiving insulin and the muscle-building nutrients it carries.

Liquid Shake Content

The macronutrient amounts (grams of protein and carbs) are much more important than the source. For protein sources, I recommend Whey Protein Isolate or Whey Protein Hydrolysate. Whey is a high protein byproduct of dairy production. Whey Protein Isolate and Hydrolysate are refined versions with virtually all of the sugar and cholesterol removed. Normally I encourage consumption of cholesterol (Testosterone is 95% cholesterol by weight), but you are better off consuming cholesterol from fresh meats than dried supplements.

Studies have shown that some dairy-based supplements contain high amounts of oxidized cholesterol. Oxidized cholesterol has been linked to heart disease and other metabolic hormone disruptions. If you are allergic to dairy—or whey based supplements cause you gastrointestinal distress—opt for a plant-based protein.



Rice protein, pea protein, and hemp protein are three common blends that you can find at most nutrition or health food stores.

The source of carbohydrates is less important than the source of protein. Before and after training are the only times when ingesting a high-sugar, rapid-digesting carbohydrate is beneficial. Maltodextrin, Dextrose, Fructose, Waxy Maize, or even Sucrose (table sugar) are suitable sources.

You can get similar benefits from taking a BCAA supplement immediately before and after your training session. I recommend consuming 5-10 grams within 30 minutes of beginning your workout, and another 5-10 gram serving within 30 minutes of finishing your workout. BCAAs carry a minimal caloric load, but will still accomplish your goals of replenishing amino acid stores and aiding muscle recovery.

Though amino acid consumption does result in a slight elevation of insulin levels, it will not produce the same increases in insulin that a liquid protein shake would. If you are training hard and your highest priority is to build muscle, go with a liquid shake containing protein and carbohydrates. If losing fat and improving your conditioning is more important than gaining muscle, then BCAAs taken pre- and postworkout will accomplish your nutritional goals. [32]



Get Ripped Eating 1,000+ Calorie Meals: How to Cheat Your System

With PFL, you can enjoy big, satisfying meals without gaining fat. You can even splurge on some fattening foods once in a while without it impacting your progress. This is an important part of the program: we are all guilty of overeating from time to time. By eating in compacted time periods, and giving your body time to burn off stored fat, you mitigate the damages from these gluttonous occasions.

I believe that lifestyle changes and sustainable habits are much more effective than short-term tricks and extreme diets. The PFL program is based on sustainable habits, but what I am going to outline below is slightly different. It still utilizes the PFL principles, but takes your fatburning potential to the next level. This is how you get ripped while eating 1,000+ calorie meals. This is for big eaters only!

Calories In, Calories Out

When you consume a 1,000+ calorie meal, it is likely that your body will store a significant portion of this meal as fat. This is perfectly fine as long as you give your body time to burn off the excess before eating again. Remember, we have been utilizing stored body fat as a main source of energy for thousands of years...

The keys to sustained weight loss and staying lean when you eat big meals are to (1) create an internal environment that supports storing food in lean tissue instead of fat cells, and (2) allow your body to burn off the excess calories consumed *after* the meal. I don't advocate using exercise to burn off the excess after an over-splurge either.

You can accomplish this by allowing time and your body's natural fatburning system to work for you.

Eating 2-3 whole food meals per day is ideal for the PFL program. This allows you to enjoy your food without stopping to eat every few hours. Conversely, packing your entire caloric intake into one meal is not productive either—you'll likely pass out from the ensuing food coma and get sick to your stomach.

BUT—if you plan on eating a large holiday meal, going to a party where food and drinks will be prevalent, or simply have a premonition that you may end up eating a gigantic meal in the evening...this approach will help you lose weight while eating monstrous meals. The timing is built around a large evening meal. Here's how it works:

The "Super Fat Fast":

Day 1: Day of the Feast

BREAKFAST: Consume only fat (as per the usual Fat Fast Method). No carbohydrates or protein. Aim for 10-20 grams of fat total.

Only heavy cream, coconut milk, or butter are allowed (in addition to non-calorie containing beverages such as coffee or tea). This method works best if you are a coffee drinker. If you are not, I recommend sipping on ¼ cup of coconut milk first thing in the morning. As described in the normal Fat Fast, this helps blunt your appetite and leads your body in the direction of using fat for fuel.

LUNCH: Consume fat and protein in a 1:1 ratio (or very close to 1:1).

Minimal carbohydrates (< 3 grams). Consume no more than 20 grams of fat and 20 grams of protein—less than 300 calories total.

A meal of bacon and eggs is the most effective for achieving the calorie goal, matching fat and protein in a 1:1 ratio, and filling you up. You can also use a low-carb protein powder with additional fat from heavy cream or coconut milk. No nuts or nut butters at this time besides coconut products. You will be in an extreme caloric deficit for the day following this meal, but should not be hungry as the fat and protein have an appetite suppressing effect.

Approved Foods:

Meat, Fish, Eggs, Cheese, Cream, Butter, Protein Supplements

Example Meals:

- ...3 eggs + 1 strip bacon (270 calories)
- ...2 eggs + 2 slices cheese (260 calories)
- ...4 oz. chicken breast, 2 tablespoons Ranch Dressing (280 calories)
- ...1 scoop low-carb protein + $\frac{1}{2}$ cup coconut milk (300 calories)

DINNER:

Go nuts. Enjoy your favorite foods. You don't *have* to make yourself physically sick—just enjoy your food (and/or drinks) knowing that you have a plan to ensure more calories are burned than consumed.

Day 2: the day after The Feast...

BREAKFAST: Consume only fat (as per the usual Fat Fast Method). No carbohydrates or protein. Don't consume any other food (protein or carbohydrates) until your normal lunch-time. This gives your body another 8-10 hours to burn off any excess calories stored.

Even if you don't significantly reduce calories and carbohydrates prior to an over-splurge, you can burn through the excess consumed and maintain your body weight by following the Fat Fast method the next morning.

Two-Day Summary - Example:

Day 1:

BREAKFAST: Coffee with 4 tablespoons cream (200 calories)

LUNCH: 2 eggs, 2 strips bacon (260 calories)

DINNER: Pizza/Cheeseburgers and Fries/Pasta/Cheesecake/ [insert your

favorite food and drinks]: (1,000-2,000 calories)

TOTAL CALORIES CONSUMED: 1,470-2,470

Day 2:

BREAKFAST: Coffee with 4 tablespoons cream (200 calories)

LUNCH: normal meal – High Fat, High Protein

As discussed previously, you can enjoy your favorite foods in moderation and still see great results. I don't recommend making the Super Fat Fast approach a habit—it is tough to get enough protein and other important nutrients eating this way. From a total calorie perspective, the sample meal plan above would put me approximately 500 calories BELOW my maintenance threshold—even at the high end. For a woman who needs 1,600-1,800 calories per day to maintain her weight, the low-end of the range is far below that threshold as well.

CHAPTER 10

PFL Resources & Tools

- I. Downloads: PFL Choice Foods, Grocery List, Survival Guide, and Recipes
- II. Example Meal Plans
- III. Trouble Shooting
- IV. Common Mistakes
- V. Nutritional Supplement Guide
- VI. References and Research

I. Pain-Free Fat Loss Resources

Printable documents of the following can be found in the members section of the Pain-Free Fat Loss website:

http://painfreefatloss.com/members-area/resources

<u>Pain-Free Fat Loss Choice Foods</u> – This list contains the best tasting, most convenient, and healthiest options for food choices within each category. If you are looking for a jumping off point on food selection, this list is a great start.

<u>Pain-Free Fat Loss Grocery List</u> – The first step to a new paradigm is filling your refrigerator with the right stuff. Make this list part of your new weekly routine.

PFL Survival Guide: Travel & Restaurant Guide – Print this (or take a picture of it with your phone) and take it with you on trips to help you remember the most important principles for staying on track, while still having a little fun.

<u>Pain-Free Recipe Book</u> – Here you'll find a week's worth of lunches and dinners. These recipes are good enough to be part of your weekly meal plan.

II. Example Meal Plans - Simplified

EXAMPLE A

Template 1: Fat Fast – 2,000 calories

BREAKFAST

1-2 cups coffee, 4 tablespoons cream (or ½ cup coconut milk)

LUNCH

½ Rotisserie chicken (9 oz.), 2 cups homemade coleslaw (2 cups shredded cabbage, ¼ cup Mayonnaise, 1 tablespoon white vinegar)

SNACK

1 tablespoon Almond Butter, 1 cup Greek Yogurt - unsweetened (optional: add stevia and vanilla extract for flavoring)

DINNER

Thai Food Restaurant: Chicken and Shrimp Pad Thai with extra vegetables, 1 cup rice noodles

III. Example Meal Plans - Simplified

EXAMPLE B

<u>Template 1: Fat Fast – 1500 calories</u>

BREAKFAST

1-2 cups coffee, 2 tablespoons heavy cream (or ¼ cup coconut milk)

LUNCH

Restaurant: 6 oz. filet mignon, 1 cup broccoli (cooked in butter), House Salad with Ranch Dressing (2 table spoons)

SNACK

1 scoop low-carb protein powder, 1 tablespoon heavy cream

DINNER

Sushi Restaurant: 10 pieces (roll), 6 oz. raw tuna (3-4 filets), salad with Ginger Dressing

Example Meal Plans (continued) – Recipes for the non-restaurant options below can found in the *Pain-Free Recipe Book* download. Items indicated below in blue font.

EXAMPLE C

<u>Template 2: BLD (Breakfast, Lunch, Dinner) – 2,000 calories</u>

BREAKFAST

3 whole eggs, 3 slices pork bacon (Butcher's Cut), 1 cup coffee with 2 teaspoons cream (cook bacon first, then cook eggs using bacon grease for non-stick purposes)

LUNCH

Turkey Sausage (3-5 links) with Cheesy Cauliflower Biscuits

DINNER

Parmesan Crusted Chicken, 2 cups Creamed Broccoli with Cheddar Cheese;

Dessert: Greek Chocolate Mousse with ½ cup whipped cream

EXAMPLE D

Template 2: BLD (Breakfast, Lunch, Dinner) – 1,500 calories

BREAKFAST

Chocolate Almond Breakfast Shake

LUNCH

Taco Salad with 6 oz. ground beef (or chicken), 2 cups shredded lettuce, *Homemade Taco Seasoning*, ½ cup cherry tomatoes, ½ cup guacamole, ¼ cup shredded cheese, and ¼ cup *Homemade Salsa*

DINNER

3 cups *Honey Mustard Chicken Salad with Grapes* (made with Greek Yogurt), 2 slices Ezekiel Break, 1 cup whipped cream with 1/2 cup raspberries;

After Dinner: 4 oz. glass Red Wine

IV. Common Mistakes

Not eating enough protein

Focus on meat. Ensure you are building each lunch and dinner around a high protein food like meat, fish, or eggs.

Eating too many carbs early in the day

If you are not seeing the weight loss results you desire, it is most likely because you are consuming too many carbs (especially prior to dinner). Use your notebook to track carbs, ensuring you stay under 25 grams prior to dinner, and well under 75 grams at dinner time.

Overthinking

Zoom out, take a deep breath, and realize that you don't have to monitor everything. Focus on choosing quality foods at the suggested times and you'll be great.

Eating too often (not eating big enough meals)

Eating too many snacks and smaller meals is a common mistake. Increase the size of your lunch and skip the afternoon snack to expedite results. Watch out for thoughtless (not conscious of) snacking.

Not sticking to PFL food choice guidelines

Condiments: Using condiments with excess sugar (read labels to ensure you aren't being tricked by a smaller than real-life serving size). Opt for dry spices and pepper sauces.

Coffee creamers: Most coffee creamers have added sugars and carbohydrates. Stick with heavy cream or an extremely low-carbohydrate version. Remember, a small amount of fat in the morning is an integral part of this plan. A small amount of sugar will ruin your fat-burning morning.

Empty calories: Focus on real food...meat & produce. Try not to rely on packaged foods to get your fill of protein and fat.

Simple ingredient label = results.

V. PFL Nutritional Supplement Guide

The definition of "supplement" is something that completes or enhances something else when added to it. For our purposes, that *something else* is the list of core PFL Principles. You can easily get lost in the maze of nutritional supplements on the market, becoming distracted by products that may or may not help you accomplish your goals. However, there are a few supplements that I take every day and recommend highly. The list below describes these briefly, and names a few of my favorite brands. Follow the recommended dosage guidelines on the packaging if you purchase one of these. The dosage guidelines are highly varied among brands, as are your individual needs.

For links to specific brands and products under each category, visit the <u>supplement recommendations page</u> in the members section of the Pain-Free Fat Loss website.

Probiotics Supplements

Probiotics supplements contain organisms such as bacteria and yeast that naturally occur in our digestive tract. These helpful organisms live symbiotically with us humans. Probiotic supplements help with digestive function and maintaining the integrity of the intestinal lining. I personally notice a huge improvement in digestion (and reduction in stomach stress) when I take probiotic supplements. If you have an irritable stomach, probiotics may offer you some much needed relief. Brands: Garden of Life (RAW Probiotics or Primal Defense)

Fish Oil Supplements

Fish oil supplements are high in the Omega-3 fatty acids EPA and DHA. Research shows that the Omega-3's in fish oil may help to lower blood



pressure, reduce triglycerides, slow development of arterial plaque, and reduce the likelihood of strokes and heart attacks. Increasing your consumption of Omega-3 fatty acids can be accomplished by eating more fish, but adding a fish oil supplement provides you with nutritional insurance. Brands: Nordic Naturals (Purified Fish Oil).

Vitamin C Supplements

Vitamin C has long been associated with improved immune function, but research shows Vitamin C may help with preventing atherosclerosis and speed up healing processes from wounds and muscle tissue damage from exercise. Brands: NOW (Vitamin C 1000 Capsules), Emergen-C (effervescent powder)

Vitamin D Supplements

Low levels of Vitamin D have been linked to calcium malabsorption, decreased bone integrity, depression, heart attack risk, cancer risk, decreased immune function, and a laundry list of other ailments. Unless you spend several hours outdoors each day (with no clothes on), you will benefit from supplementing with Vitamin D. Brands: Carlson (Vitamin D3 10,000 IU)

Collagen Supplements

Collagen supplements have burst onto the scene in the last few years because of new (and old) research that shows they can help rebuild cartilage, improve joint function, suppress appetite, and even improve skin tone and elasticity. If you choose to supplement with collagen for its joint health or skin health benefits, look for a version that clearly states "hydrolyzed collagen" or "collagen peptides" on the supplement facts section of the label.



Shoot for 5 to 10 grams per day for joint health, skin health, and overall wellness support.

Multi-mineral Supplements

Due to mineral depletion in agricultural soil, our food supply just doesn't pack the mineral-punch that it used do. Minerals like Calcium, Magnesium, and Zinc are necessary nutrients for healthy bones, energy production, muscle function, and immune health. Brands: Trace Minerals Research (Cal Mag Zinc)

Protein Supplements

Protein supplements can help you increase your daily protein intake without added calories from fat and carbohydrates. For athletes or individuals who do weight trainnig, protein supplements speed up recovery times and support the muscle building process. Opt for Whey Protein Isolate, Whey Protein Hydrosolate, or a Plant Protein blend with less than 5 grams of carbohydrates per serving. Brands: Whey Protein Isolate - Dymatize (ISO-100); Whey Hydrosolate - Optimum Nutrition (Hydrolyzed Whey); Plant Protein – Sunwarrior (Rice Protein), Garden of Life (RAW Protein)



VI. References & Research

The list of references below provided much of the support for the PFL program logic. See links to articles and publications below for more information about specific topics. You'll notice that these referenced are included throughout the book to support specific claims or cite specific studies:

- 1. "Non-Exercise Activity Thermogenesis." American Heart Association. http://atvb.ahajournals.org/content/26/4/729.full
- 2. "Digestive Systems." OpenStax College. http://cnx.org/content/m44736/latest/
- 3. "Ruminant and Monogastric Stomachs." Alberta Agricultural and Rural Development. http://www1.agric.gov.ab.ca/\$department/deptdocs.nsf/all/4h8115/\$FILE/DairyReference6.pdf
- 4. "Effects of increased meal frequency on fat oxidation and perceived hunger." *Obesity* (Silver Spring 2013). http://www.ncbi.nlm.nih.gov/pubmed/23404961
- 5. "Resting energy expenditure in short-term starvation is increased..." *American Journal of Clinical Nutrition* (2000). http://www.ncbi.nlm.nih.gov/pubmed/10837292
- 6. "...Metabolism after 3 days of fasting in healthy human subjects." *American Journal of Clinical Nutrition (1987)*. http://www.ncbi.nlm.nih.gov/pubmed/3661473
- 7. "The Human Brain: Nourish Fats." The Franklin Institute (Museum) Online. http://www.fi.edu/learn/brain/fats.html
- 8. "Decrease of serum total and free testosterone during a low-fat high-fiber diet." *Journal of Steroid Biochemistry (1983)*. http://www.ncbi.nlm.nih.gov/pubmed/6298507
- 9. "Why Aging Women Need Testosterone." *Life Extension Magazine* (2004). http://www.lef.org/magazine/mag2004/apr2004_report_test_01.htm
- 10. "...Everything That's Wrong with the Modern Diet." *Business Insider* (2014). http://www.businessinsider.com/whats-wrong-with-the-modern-diet-charts-2014-2
- 11. "The-Diet Heart Myth: Cholesterol and Saturated Fat Are Not the Enemy." *ChrisKresser.com.* http://chriskresser.com/the-diet-heart-myth-cholesterol-and-saturated-fat-are-not-the-enemy
- 12. "Butter: This Vilified Daily Food Slashes Heart Attack Risk in Half..." *Mercola.com*. http://articles.mercola.com/sites/articles/archive/2010/12/07/why-is-butter-better.aspx
- 13. "NIH study shows how insulin stimulates fat cells to take in glucose." National Institutes of Health. http://www.nih.gov/news/health/sep2010/nichd-07.htm
- 14. "The effect of protein ingestion on the metabolic response to oral glucose in normal individuals." *American Journal of Clinical Nutrition* (1986). http://www.ncbi.nlm.nih.gov/pubmed/3538843



- 15. "Insulin and Insulin Resistance (Effects of Lipids)" *Clinical Biochemist Review* (2005). http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1204764/
- 16. "Greater weight loss and hormonal changes after 6 months diet with carbohydrates eaten mostly at dinner." *Obesity (Silver Spring 2011)*. http://www.ncbi.nlm.nih.gov/pubmed/21475137
- 17. "Limiting carbs to dinner-time increases satiety, reduces risk for diabetes and cardiovascular disease." Hebrew University, Robert H. Smith Faculty of Agriculture, Food and Environment. http://www.huji.ac.il/cgi-bin/dovrut_search_eng.pl?mesge135262755005872560
- 18. "High-glycemic-index carbohydrate meals shorten sleep onset." *American Journal of Clinical Nutrition* (2007). http://ajcn.nutrition.org/content/85/2/426.full
- 19. "Changes in daily leptin, ghrelin and adiponectin profiles following a diet with carbohydrates eaten at dinner in obese subjects." *Nutrition, Metabolism, and Cardiovascular Diseases* (2013). http://www.ncbi.nlm.nih.gov/pubmed/22901843
- 20. "Blood glucose patterns and appetite in time-blinded humans: carbohydrate versus fat." American Journal of Physiology (1999). http://www.ncbi.nlm.nih.gov/pubmed/10444538
- 21. "High fat, high protein, low carb diets speed up weight loss..." Examiner.com (2013). http://www.examiner.com/article/high-fat-high-protein-low-carb-diets-speed-up-weight-loss-says-swedish-study
- 22. "Protein content of the evening meal and nocturnal plasma glucose regulation..." *Hormone Research* (1995). http://www.ncbi.nlm.nih.gov/pubmed/7590638
- 23. "Gastrointestinal Transit: How Long Does It Take?" ColoradoState.edu (2006). http://www.vivo.colostate.edu/hbooks/pathphys/digestion/basics/transit.html
- 24. "Lack of dietary carbohydrates induces hepatic growth hormone (GH) resistance in rats." *Endocrinology* (2011). http://www.ncbi.nlm.nih.gov/pubmed/21427215
- 25. "A high-protein diet induces sustained reductions in appetite..." *American Journal of Clinical Nutrition* (2005). http://www.ncbi.nlm.nih.gov/pubmed/16002798
- 26. Davis, William. Wheat Belly: Lose the Wheat, Lose the Weight (2011).
- 27. "Why Wheat Is Ruining Your Life." Mindbodygreen.com (2013). http://www.mindbodygreen.com/0-9484/why-wheat-is-ruining-your-life-the-author-of-wheat-belly-explains.html
- 28. "No effects of gluten in patients with self-reported non-celiac gluten sensitivity after dietary reduction of fermentable, poorly absorbed, short-chain carbohydrates." *Gastroenterology* (2013). http://www.ncbi.nlm.nih.gov/pubmed/23648697
- 29. "Effect of a gluten-free diet on gastrointestinal symptoms in celiac disease." *American Journal of Clinical Nutrition* (2004). http://www.ncbi.nlm.nih.gov/pubmed/15051613
- 30. "Gluten causes gastrointestinal symptoms in subjects without celiac disease..." *American Journal of Gastroenterology* (2011). http://www.ncbi.nlm.nih.gov/pubmed/21224837



- 31. "Insulin Inhibits Growth Hormone Signaling via the Growth Hormone." *Journal of Biological Chemistry* (1999). http://www.jbc.org/content/274/19/13434.abstract
- 32. (The role of BCAAs in exercise)"Protein and Exercise." *Journal of the International Society of Sports Nutrition* (2007). http://www.jissn.com/content/4/1/8+
- 33. http://www.arthritis.org/living-with-arthritis/comorbidities/obesity-arthritis/fat-and-arthritis.php
- 34. http://www.healthline.com/health/osteoarthritis/knee-pain/link-between-weight-loss-and-knee-pain#1
- 35. https://www.ncbi.nlm.nih.gov/pubmed/27255389
- 36. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3670843/
- 37. http://fitness.mercola.com/sites/fitness/archive/2016/03/11/autophagy.aspx
- 38. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4013772/
- 39. https://www.ncbi.nlm.nih.gov/pubmed/21733821
- 40. https://www.mindbodygreen.com/0-24948/this-high-fat-diet-could-help-end-chronic-pain.html
- 41. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3992527/
- 42. https://www.wsj.com/articles/SB10001424052748704893604576200393522456636
- 43. https://www.ueg.eu/press/releases/ueg-press-release/article/new-study-links-protein-in-wheat-to-the-inflammation-of-chronic-health-conditions/
- 44. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4325021/
- 45. https://www.ncbi.nlm.nih.gov/pubmed/19437058



AFTERWORD

Thank you for taking this journey with us.

The Pain-Free Fat Loss program is one we care about deeply. Because it has the ability to positively impact your life as much as any rehabilitative or therapeutic program we implement.

There is a sea of conflicting information and advice out there. If you're well-read on the subject of nutrition and weight loss, much of what is contained in this book is probably the opposite of what you've been told. So I'd like to leave you with one more challenge:

Experiment with the PFL principles. Implement them for 21-30 days. Then, re-examine your progress, and determine your next action steps from there. We think you'll find that PFL allows you lose weight, get relief, and still have some life left over.

One more thing—don't forget that (as a PFL subscriber) you get exclusive access to deals and discounts in our store. Check out the Bonuses Page on our Member's Only site here to learn more.

-Brendan Hall

Director of Research & Development

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