"5 Nutrition Musts for Rapid Muscle Growth!"

Your muscles are a bit like your paychecks…

- Their size makes a huge difference in your confidence levels
- You feel awful if they shrink
- You're willing to work your butt off for them
- You want them to grow, and you don't want to wait for it

Sorry to report that this book isn't going to rescue you from your 9-5 cubicle grind or double the value of your next paycheck. But if you're looking to make your deflated muscles burst with new life, then you've come to the right place.

You probably already know the "simple" formula for massive muscle growth. That being "train, rest and eat."

If things were truly that simple you wouldn't need this book and I wouldn't need to be writing it. **But the fact that you're sitting in front of your computer reading this means that there's some aspect of that tried-and-true formula that's not working out for you.**

Let's see which part of the equation is causing trouble for you:

Train: Sure, "training" is a vague term encompassing mind-stretching concepts like sets, reps, rest times and pyramiding. But if you have the mental capacity to drive the car that gets you to the gym you can probably handle lifting heavy things over and over again.

The only problem I notice with so-called bodybuilders is consistency. If you don't go to the gym on a set OCD-style schedule you won't grow. Period. If you're serious about packing on serious mass then you need to hit the gym, and hit it hard, consistently each and every week.

It doesn't matter if you think 25 or 2 reps work best. The most crucial factor for muscle growth is being consistent. If you have that covered then it's time to put you mind towards…

Rest: "The pump" was originally made famous in the classic bodybuilding movie "Pumping Iron" starring the Govenator Arnold Schwarzenegger. To the joy of every teenager whose ever set eyes on this scene, Schwarzenegger –-with a completely straight face-- compares the pump he feels during his workouts to, well, finishing his job in bed.

Whether or not you get the same kick out of muscle pumps, you should know that "the pump" is misleading. Sure, your muscles are bigger than they were before set #1. But the increase in size is nothing but fluid. Contrary to popular belief your muscles actually *break down and shrink* during your workouts. You may be saying, "if they get smaller, then why the heck should I work them in the first place?"

The answer to that is a tried and true principle in muscle physiology: "your muscles grow after your workout, not before." To many --especially those that love to flex their new-and-improved muscles between sets --this may seem like bodybuilding blasphemy.

That's why some would-be muscleheads don't put enough energy towards rest –as oxymoronic as that concept sounds. Rest includes taking adequate time between working the same muscles (hence the reason for split routines), not overtraining and sleeping at least 8-hours every night. While sleeping enough *is* a major issue in this country according to the National Sleep Foundation, most gym-goers get plenty of rest – even if they aren't trying.

So if training and rest aren't holding you back, then it must mean…

Nutrition: Bingo! It's nutrition where the rubber meets the muscle-growth road. I'm sure that I'm not causing you to break down and cry with the revelation that diet is important for muscle growth. That's a well-known fact.

But the fact that fewer know is that **most people go about nutrition all wrong**!

Most people eat too much (or too little), they "cheat" far too often (or not enough), they eat at all the wrong times, and they eat all the wrong things. The majority of people are so far off with their diet that it's nearly impossible for them to grow.

What's the source of all this misguided eating? I'd hate to point fingers (actually, I do get a bit of fun from it), but I'd say that the muscle magazines and so-called "gurus" shoulder most of the blame.

You see, like any media outlet, muscle mags are forced to produce new content each and every month. If they simply printed the same stuff all the time people would stop reading. So what do they do? They come up with new "angles" that reveal "breakthroughs" in muscle building nutrition. They tout supplements that are "cutting edge", even if they're the same old stuff already out there. And they *never* admit that eating for maximum muscle growth is simple and easy (secret: it is).

Because if they ever laid down a definitive guide to muscle building nutrition, they'd be out of business.

Fortunately for you, you're no longer at the mercy of these garbage content machines for your nutrition advice. With this guide you hold in your hands you'll cut through the crap and finally understand the 7 nutrition musts for rapid muscle growth that will boost your gains, explode your results and make your muscles expand like a hot air balloon!

Nutrition Must #1: You Have to Rethink Protein

If there's a stereotype of a bodybuilder that's right on it's a musclebound Incredible Hulk of a man carrying around a container of protein the size of a planet. And if you were to ask this bodybuilder the most important aspect of his diet, he's simply tap his finger against the side of this plastic container and say, "this is it man."

Is he right? Absolutely not!

Don't get me wrong, protein is an enormous part of your diet, whether or not you're a 300 lb. bench pressing monster or an old lady watching reruns of Matlock on her couch.

First, let's get protein's importance out of the way. Once we have that set in stone we can move onto its role in your diet.

Why Protein Matters For Muscles

I bet you didn't know that in Latin, protein translates to "of prime importance (It's true, look it up). Even back in the 19th century when protein was first discovered, scientists knew it was a necessary component of life. Like you, they understood that protein is important for immunity, enzyme function and healthy skin and nails. But unlike you, they didn't seem to put much attention towards dietary protein and muscle growth – even though muscles are more than 75 percent protein!

How else can you explain the ridiculous protein recommendations set forth by the Institute of Medicine in the 1960s that actually remain in place today. The so-called experts at the IOM claimed that humans only needed .8g of protein per kg of body weight. For those of you that got a C (or worse) in math, let's see what that comes out to.

Let's say you're a skinny-ish guy that weighs 70kg (about 155 lbs.). If you followed their advice you'd only be eating a measly 56 grams of protein *per day*! That's the equivalent of a large steak or two scoops of protein powder.

Fortunately, someone over at the IOM got the memo that physically active people need more protein. Why? Because working out breaks down muscles. The only way for your body to bridge the gap is to eat protein. The thing is, 56 grams of protein isn't nearly enough to pack on muscle mass *and* create new enzymes *and* produce new muscle cells

and repair the muscle damage from your last workout. There simply isn't enough protein to go around!

That's why the IOM revised their recommendations to take into consideration the heightened protein needs of athletes –especially strength trainers like yourself. They acquiesced a bit with this group and "allowed" (thanks for the generosity guys) people that resistance train regularly up to 1.5 g per kg.

Then there's the muscle mags (that "coincidentally" have protein powder to push) that say that you should be eating 3-4 g per kg –or 40% of your calories from protein alone! While the protein-kidney disease connection is overblown, consistently eating this much protein will stress and strain your kidneys. Not cool.

The reason I belabor this point is because there's a lot of misinformation about how much protein you need in a day. A simple Google search will give you the spectrum of advice. Many university websites touting the IOM's advise as gospel while less scrupulous bodybuilding sites recommending gorging on protein morning, noon and night!

"That's Great, But Can You Answer The Question Please?"

I'm getting to that. So what's the "right" answer? The "magic number" that you can hang your hat on as a benchmark of protein Zen?

The real answer is: **it doesn't really matter**.

Now before you pick up the phone and call the bodybuilding police, let me explain.

Of course, getting enough protein *does* matter. If you don't, the protein that you do eat will be re-rerouted to other bodily functions that are more crucial (like keeping your heart beating and your liver filtering).

But what's more important than the total amount is the *type of protein* that you consume.

Before we get into the nitty-gritty of protein sources, let's first answer the million dollar question of how much protein you should be stuffing into your mouth in a given day. Because while I said it doesn't matter, it does (just not as much as most people think).

As with any muscle-related burning question that I need answered, I don't turn to the guy doing hammer curls next to me. What makes me different from the other experts out there is that I look at what the science has to say (you'll learn to love me, promise).

I was delighted to find a research review published in the July 2004 edition of *Sports Medicine.* Professor of Exercise Science Charles P Lambert of the University of Arkansas was kind enough to sift through more than 70 research studies that attempted to answer the question of how much protein bodybuilders require.
After combing through the available scientific literature Dr. Lambert concluded that about 20-30% of your calories should be in the form of protein. For a young guy eating a 3000 calorie diet that chooses to eat 25% of his diet from protein, this translates to about 190 grams of protein –a fairy massive amount but much less than most gurus tell you to shove down your throat. If you prefer the g/kg method, aim for 2g/kg of body weight. For most people it will come out to about the same protein intake.

As tempting as it may be to go above and beyond this level, it's not a good idea. Why? Because you only have so many calories in your diet to work with. Contrary to what you've heard, carbs and fat are important calorie-containing foods for bodybuilders too. If you gorge yourself on too much protein, you'll displace these important nutrients from your diet –and your muscles will pay the price.

What You Need to Rethink About Protein
Now that we have that pesky point out of the way, it's time to start discussing something known as *protein quality*. For many lifters, they were already hitting their protein targets and only need to tweak their total protein intake.

But what you may not have been doing is making sure that the bulk of your protein comes from a handful of what I like to call Power Protein sources (please don't steal it or I may run and tell my lawyer). Simply put, Powder Protein sources are sources of protein that outperform all the others (we'll get into them in the next section).

You may be wondering, "how can one protein be "better" than another?." Great question. If you were to simply look at the Nutrition Facts label on the side of your favorite brand of beans, you'd have no idea that your body absorbs less than half of the protein in the can.

To understand this we need to go a little "Bill Nye the Science Guy " for a moment (feel free to run and get your lab coat if it makes you feel more 'sciency').

Imagine that the sentence "Protein rocks my world" is protein, (work with me here).

If the above sentence is protein, then the letters in that sentence are what's known as amino acids. You may have heard of amino acids already (supplement makers love to market them without explaining what they are). Essentially, amino acids are the building blocks of protein. And while we may use the word "protein" to describe the stuff in tofu and and the stuff in a grilled steak, they aren't equal.

Why? **Because the amino acid composition of the protein in a given food widely varies depending on the source.**

Let's look at a practical example. Let's say you're budget is a bit tight this month and you've decided to eat a black bean salad for dinner instead of grilled chicken. On paper, they may have the same exact amount of protein.
But instead of giving your body the complete sentence "Protein rocks my world", the beans would write something like, "Prein rock y wold." Foods like beans that don't make complete sentences are called *incomplete proteins*. As you may have guessed, those that write the whole sentence are popularly referred to as *complete proteins.*

In general, vegetarian protein sources aren't complete and protein that comes from animals like meat, eggs and dairy are. I know the vegetarians out there are screaming at their computer screen, shouting "but you can complement protein!".

It's true, by eating a food with the letters 'o', 't', 's', 'm' and 'r' you can turn "Prein rock y wold" into "Protein rocks my world". In fact, this is something vegans have to do all the time as they're complete protein sources are limited to soy.

Logically it may seem like you can magically turn rice and beans into a steak. But in reality, it doesn't work that way. A study published in the August 2009 "British Journal of Nutrition" compared a vegetarian or omnivore diet in a group of strength training athletes. Even though the vegetarians were complementing protein like mad and ate the same amount of protein as the carnivores, they didn't gain as much muscle. Leading the researchers to conclude:

"Thus, a vegetarian diet is associated with a lower muscle mass index than is an omnivorous diet at the same protein intake."

So there you have it, the amount of protein that you eat does make a different in your gains, but not nearly as much as the source.

Now that we've established that, it's time for me to pull back the curtain on my Power Protein sources.

Nutrition Must #2: Eat the Power Protein Sources

Based on the last section you may think that all you have to do to get complete protein is "go caveman" and start sinking your teeth into meat at every meal. It's true: if you're aim is to boost muscle growth (and if you're here, it should be), then you need to start making complete protein sources part of your life. For the most part, complete protein sources are animal products, which include meat. And if you were paying attention you learned that complete protein sources, especially from animal sources, bulk you up more then plant protein.

If the only thing you get out of this book is to switch your protein towards complete animal sources, you'd likely notice a tremendous difference in your size and strength.

But for those that set their sights for absolutely explosive muscle growth, complete protein may not do it. That's because certain protein sources stand alone at the top of Mount Muscle. They don't simply give your body ample amounts of complete protein, but they go the extra mile to fire up muscle growth, activate fat burning enzymes and help you bounce back from hard work faster than you ever thought possible. For these protein sources, I give them the illustrious title of Power Protein sources. Aim to eat at least one of these Power Protein sources each and every day.

Power Protein Source #1: Beef
The anser to the question "where's the beef?" should be "in your mouth at nearly all times." Nearly everyone knows that beef is a protein-packed foodswith nearly no rival. That's why, when you're craving protein, you run for the nearest steakhouse and order a big fat slab of porterhouse.

But what's so great about beef compared to other meats like chicken?

Amount: Beef is absolutely packed with protein. Because steak is actually the muscle of the cow, it's made up nearly entirely of protein (with some fat and water thrown in there for good measure).

In fact, for every one-ounce piece of steak you get 7 g of protein. That's a remarkably high protein/weight ratio that you won't find in too many other foods. And as you may expect, beef has all the amino acids that the body needs (and then some).

The highest protein cuts of beef include eye of the round and shank.

Hormones: You may think that hormones are something that go out of kilter during your girlfriend's time of the month. The truth is, hormones are a crucial part of muscle growth, and health in general. That's why one of the "musts" in this book is to wrest control of your hormones.

Japanese researchers published results of a study in the 2006 *Journal of Nutritional Science and Vitaminology* that investigated the effects of beef on muscle metabolism. They found that beef had the unique ability to significantly increase hormones important for stimulating muscle growth like IGF-1.

Vitamins: Beef hooks you up with a boatload of micronutrients like iron and vitamin B-12 that muscles eat up. Without enough of these your muscles can't perform in tip-top shape. A typical steak floods your body with 10 mcg of muscle-boosting B12 –more than 5x the RDA.

A quick note on cholesterol: Beef gets a bad wrap in cardiology circles because it's high in total and saturated fat. While there's no denying that, there's no evidence to find that eating beef ups your cholesterol or heart disease risk.

A study in the *Asia Pacific Journal of Clinical Nutrition* looked into the connection between beef intake and heart disease in 54 studies. They found no evidence that eating lean beef raised cholesterol or made you more likely to have a heart attack. Yet another reason to get your beef on guilt free!

Power Protein Tip: Go grass-fed

When picking out beef from the meat section you may see stickers advertising "grain fed" and "grass fed" stuck on the beef packages. Which should you choose?

Without a doubt, it's grass fed. Think about it: what do cows naturally eat, bread or grass? Grass of course? And like Michael Pollen said in his classic book, The Omnivores Dilemna, "you are what you eat eats." Actually, the feed makes little to no difference on the protein content. But the feed does affect it's fat composition, especially the concentration of a fatty compound known as conjugated linoleic acid (CLA).

Grass-fed beef and other livestock animals have significantly more CLA than traditional, grain-fed versions. CLA is important because it can help you burn fat and build more muscle. Research in the June 2004 *American Journal of Clinical Nutrition* found that CLA intake helped strength training people burn more fat and pack on more muscle than if they didn't take in CLA.

Power Protein Source #2: Eggs

The Egg Board advertisements are right: the egg is incredible and edible. Whether you scramble them or eat them as a hard-boiled snack, there's no doubt that eggs are one of the best protein sources you'll find.

Amount: A typical large egg contains more than 6 grams of protein, all complete of course. Even if you eat only the whites, eggs are still extremely protein-dense.

Biological Value: Scientists have actually created a version of "Battle of the Bands." Except instead of a handful of longhaired hacks competing for a prize, they pit protein sources against one another. During this contest, scientists assign each protein source a number, known as it's biological value (BV). Not surprisingly, the higher a food's BV, the better the protein source.

Better how? The BV determines how much of the protein in the food ends up being a) absorbed and b) used by your body.

As you can already guess, animal sources of protein like chicken and milk destroy vegetarian protein like lentils and soy in terms of BV.

But the undisputed heavyweight champion of biological value is the unassuming little chicken egg. Eggs have the highest BV of any food in the food supply, the February 2009 *Nutrition Today* states.

Leucine: An amino acid that eggs have plenty of is leucine. Leucine is what's known as a branch chain amino acid (BCAA). For the purposes of our discussion all you need to know is that BCAAs are the chief class of amino acid found in muscle. Simply put, your muscles prefer BCAAs more than any other kind. Give them enough BCAAs and your muscles will thank you by growing big and strong ("oh boy!").

Besides working their way into your muscle tissue, leucine also stimulates an enzyme known as mTOR, which promotes muscle growth, May 2008's *Current Opinion in Clinical Nutrition & Metabolic Care* reports.

In fact, many bodybuilders drop serious cash at their local GNC on leucine supplements. Eggs are so absurdly rich in leucine that you can save your money and just eat 5 eggs per day to get about the same amount of leucine in a supplement.

Power Protein Tip: Go Free Range
Even if you're not a card-carrying member of PETA, you probably feel at least a twinge of guilt knowing that the eggs you buy come from chicken raised in inhumane conditions. But even if you don't care about the welfare of the chickens, you may want to opt for free range chickens for another reason: nutrition.

Free range eggs are significantly higher in health-boosting omega-3 fats than factory farmed varieties.

Speaking of omega-3s, our next Power Protein is…

Power Protein #3 Salmon
Salmon is one of the few bona fide "superfoods" out there. Salmon's secret? It's ridiculously high amounts of omega-3 fats –nutritional powerhouses that raise good cholesterol, reduce inflammation and fight fat.

Amount and BV: Although salmon isn't as protein-dense as eggs or beef, it's no slouch in the protein department. A 6 oz serving of Atlantic salmon has more than 33 grams of protein –not too shabby.

Salmon's biological value is also something to marvel at. At 76, salmon's BV is only a shade below beef.

Omega-3s: But what makes salmon a true Power Protein is it's dense concentration of omega-3 fats. And not just any omega-3 fats. You see, like protein all omega-3s are not created equal. The omega-3s found in foods like flaxseeds are no doubt a boon to health, but they're a peashooter compaed to the bazooka-like omega-3s found in salmon and other seafood.

Salmon contains impressive amounts of the two most powerful omega-3s docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA). You may have read that these two fats can help drop heart disease risk –the Mayo Clinic states that eating fish just twice per week can cut your heart disease risk in half.

But we're not here to discuss the health of your ticker. We want your muscles to pop.

Fortunately, salmon fits the bill. Researchers at the University of Alberta recently looked at the concentrations of EPA and DHA in people's bodies and the amount of muscle they had on board. As expected, individuals that ate the most fish or took fish oil supplements had the highest DHA and EPA levels. Imporantly, EPA and DHA levels correlated with total muscle mass.

Taking fish oil is especially important for those of you looking to build muscle as you drop pounds, whether for pre-competition prep or just to lose that flabby gut. Scientists at the University of South Australia gave fish oil supplements to a group of volunteers looking to lose weight. The group that took fish oil burned off more fat and built more muscle than the group that only dieted and exercised.

Vitamin D: It's a sad fact that at least than 25% of all American adults are deficient in Vitamin D. We largely have our indoor lifestyle to blame --we make most of our vitamin D from exposure to sunlight. Because we hardly ever see the sun (and cover up with clothes and sun block when we do), we quickly run out of vitamin D.

Scientists are still looking into the effects of vitamin D deficiency on health. So far, they've revealed that low vitamin D levels up your risk of diabetes, heart disease and certain cancers. Also, being vitamin D deficient can make your muscles weaker than a kitten.

Take this study from the March 2010 *Journal of Clinical Endocrinology and Metabolism*. Alarmingly, they found that **more than 50%** of the volunteers had clinically low vitamin D levels. In line with similar studies they discovered that low vitamin D levels correlated with poor muscle strength. So if you're not getting that last bench press rep up like you used to be able to, it may be time to take care of that vitamin D problem.

Salmon is one of the few non-sunlight sources of vitamin D. Eating 6 oz of salmon gives you more than 200% of your daily vitamin D needs.

Power Protein Tip: Go Wild
One of the concerns that many people have with eating salmon and other fish are their high levels of toxins like mercury and other toxins. Salmon is one of the fish lowest in mercury. And opting for wild salmon will reduce the amount of mercury you'll be exposed to. As a nice bonus, wild salmon has more omega-3s than farmed.

Nutrition Must #3: Timing
Time waits for no man… even the man who squats 300+ lbs to make his thighs grow like well-tended crops. One of the most important factors for muscle growth that gets no love is timing. There seems to be the misconception that as long as you're eating enough protein, working out and eating something after you're done training then everything is A-OK. Sorry, but there's a little issue of timing that has to be addressed if you want to squeeze every last drop of benefit from your muscle building efforts.

Why do timing and muscle nutrition have to do with one another? Let's say that you wake up tomorrow morning and absolutely feast on your entire days' worth of food --eggs, veggies, meat, fruits, whole grains --in a single go. It'd be like Thanksgiving dinner on steroids. Even though you 'd feel like hibernating for a few months, you'd *technically* be getting all of the nutrition you need for the day.

So why don't we eat like snakes –downing a massive meal and then fasting for days afterwards? First, there's the practical aspect of physically being able to down all that food in one sitting. But most importantly, even the most nutrition-ignorant person out there has at least a vague notion that timing matters.

Timing factors into muscle building nutrition in three ways: number of meals per day, pre-workout nutrition and post-workout nutrition. Let's hit each of these one at a time.

Meal Patterning
Believe it or not, but nutrition researchers actually investigate the metabolic effects of eating 3 vs. 4 vs. 7 meals per day. They dub how many times per day you eat as "meal patterning." So which approach to meal patterning results in the most amount of muscle growth?

6-8 meals per day. For my readers who were raised on three square meals, you may be freaking out at the thought of eating 6 times per day. Admittedly, eating this many times does require a fair bit of effort. But after you read *why* 6 meals blows the tired "breakfast, lunch and dinner" out of the water I expect that you'll become a 6-8 meal convert.

Why 6 -8 Meals Rules

Protein Ingestion: It's a peculiar thing about protein that our bodies can't store it very well. Unlike carbohydrates, which are stored as glycogen and fat, which is stored as, well, fat extra protein has nowhere to go to hang out until you need it.

Another thing to keep in mind is that protein is digested and metabolized more quickly than carbs or fat (with high glycemic carbs like white bread being an exception). Scientists think that our bodies evolved this way because protein was so crucial for survival that our bodies rushed and hurried to utilize it as much as possible.

What does this have to do with meal patterning? Oh, just everything. You see, if you're eating only 2-3 times per day, that means that upwards of 5,6 or even 7 hours are ticking away without an ounce of protein intake to show for it! During these hours of protein fasting, do you think your body still needs protein for making new cells and activating enzymes? *Of course*! And where do you think your body is going to get the protein it needs? Your precious muscles. So instead of growing, your muscles will actually shrivel up like a grape.

Nutrients: Protein isn't the only nutrient you need more of if you hit the weights. An active person requires much more vitamins, minerals and antioxidants than his couch potato counterpart. Like we saw in our above example, getting all of our nutrients in a single meal isn't the most practical thing in the world.

It's the same with meal patterning. By spreading your meals out over the day you can simply *eat more*. For those skinny-winnys out there, upping your meal frequency may be the very thing that puts some meat onto your skin and bones.

And for readers looking to cut away some layers of fat as they pack on muscle, you should know that eating multiple times per day also influences…

Metabolism: You can think of your body's metabolism like a furnace that sits inside of you. The things you do in a given day can either toss in a bucket of ice-cold water into the flames (like skipping breakfast). On the other hand, interval training and eating regular meals is like throwing a can of lighter fluid into your metabolic furnace.

Like your beating heart and blinking eyes, your digestive system requires energy to work. You may not feel it, but your body works hard at breaking down, digesting, absorbing and metabolizing the food you take in. In fact, a study published in the "American Journal of Clinical Nutrition" estimated that more than 10 percent of all the calories you burn in a given day are just for digesting food. 10 percent may not seem like a lot, but consider that increasing your metabolism by just 1-2 percent is more than enough to significantly reduce body fat.

Like a factory, digesting is more efficient when you "batch" them together. But unlike a factory, you want your digestive system to be an *inefficient* as possible. The way to do

that is to simply eat more often. Every time you eat a meal your body has to rev up its digestive machinery, burning off fat along the way.

Breakfast: It's a nutritional cliché that "breakfast is the most important meal of the day." Like many clichés, this mantra became popular simply because it's 100% true. Dieters know that skipping breakfast makes them eat like ravenous animals later in the day. But even for those of you looking to pile on muscle mass, breakfast is important for you as well.

Why? First, the very act of eating breakfast stimulates the production and release of hormones that tell your body to build new muscle tissue. Researchers at the German University of Erlangen-Nuremburg compared the metabolic affects of fasting vs. eating a meal first thing in the morning in a group of healthy men. Those that ate breakfast had ***21 times more*** growth hormone floating around in their bloodstream compared to the group that "skipped" breakfast.

But it's not just any type of food that ramps up AM muscle growth. We already noted that your body isn't terribly good at storing protein for a rainy day. Knowing this, how do you think your body's protein situation is doing after 8-9 hours of sleep? Your body is *starving* for protein. In the German study, the researchers also looked at the difference between eating a protein-rich breakfast like an omelet vs. a carb-based meal like cereal. Not surprisingly, the protein breakfast boosted muscle-building hormones like IGF-1 much more than the carb eating group.

Pre-Workout: Does your pre-workout routine consist of driving to the gym and walking through the doors –-with little to no regard to what's sitting in your stomach? In my local gym it's not uncommon to see seemingly sane men eating bagels and candy bars are they prepare for their first set.

Actually, eating just about *anything* before a strength training bout is better than nothing. If you haven't eaten a thing before your workout then your body is going to go all cannibalistic on your muscles –breaking them down and doing more harm than good.

While everyone loves to set their crosshairs on their post-workout meal (which *is* important, as we'll see in a minute) it seems like no one pays any attention to what they eat before they hit the gym.

Maybe this scientific fact will get you to wake up and smell the coffee: **your pre-workout meal is twice as important as pork-workout.**

It's true. Many studies have compared the affects of the same "meal" (usually a protein + carb shake) given before or after a workout. All of the studies have found that the pre-workout shake amped up your body's muscle building machinery more than drinking it

after your final set. And a number of these research studies discovered that the pre-workout meal worked *twice as much* as your post-workout meal.

Take this study from the *Journal of the International Society of Sports Nutrition*. This study gave a group of young men a protein supplement or a carb-rich drink before their workouts for 24-weeks. At the end of the study, those that ate protein before their workout outperformed the carb-group in terms of muscle strength and total muscle mass. Also, the protein group boosted their blood levels of muscle-growth hormones and enzymes like IGF-1, HGF, MRF-4 and Myo-D. In essence, even though both groups did the exact same workouts at the exact same time on the exact same days, the men who made sure to consume protein before they hit the weights completely transformed their bodies.

An ideal pre-workout meal would consist of high-quality protein, some carbs and a tad bit of fat. This could be a hard boiled egg with an apple, a veggie omelet, a turkey sandwich on whole wheat bread or whey protein powder with some fruit.

You may also want to consider throwing in some caffeine in coffee, diet soda or supplement form. Scientists at the University of Luton found that downing a cup of coffee before your workout boosted exercise performance by more than 20 percent.

Post-Workout: Now that I've thrown post-workout under the bus in favor of the new holy grail of muscle building known as pre-workout nutrition, it's time for me to cover the crucial important of eating after your workout.

Before we get into the "how" of post-workout nutrition (which is a relatively complex affair), let's establish the "why."

Imagine that you're your muscular system after an intense session of squats, deadlifts, lunges and Romanian deadlifts. Your broken down, battered and beaten. You're quite literally damaged (one of the reasons you feel sore the day after a workout is due to "micro tears" in your worked muscles). Not only that, but your warehouse for spare energy --glycogen-- has been wiped clean.

There's no way that you can magically repair without the raw material needed to do it. That's where your postworkout meal comes into play. By eating a recovery meal within the 30 minutes following your workout (there's timing coming to play again) you'll hand your body the nuts, bolts and cement it needs to get to the important job of repairing damage and building new muscle tissue.

The timing is crucial here. I don't mean 30-ish minutes after you've finished –the sooner you take in your recovery meal the better. Research in *The Journal of Physiology* compared the effects of a protein-rich recovery meal taken immediately or 2 hours after training. The group that ate right after working out significantly boosted their muscle

mass and overall strength over the course of the 12-week study period. But those that "waited" until 120 minutes post-workout to take in the very same supplement barely improved strength or muscle mass –*even though they ate the exact same recovery meal.*

Here's how to make the perfect post-workout meal:

Protein: *Duh*, you need protein after your workout. But not just any protein will fit the bill. You want protein that is **high quality and digested quickly**. While beef, chicken and yogurt will fit the first criteria, their digested time is slow as molasses. This isn't going to make your injured and impatient muscles very happy.

A study from the *International Journal of Sport Nutrition and Exercise Metabolism* investigated how long it took for different protein sources to end up in muscle. They found that two protein sources, whey protein and egg protein, were protein's version of Usain Bolt –digesting much more quickly than meat or dairy.

Regarding amount, aim for .2-.4 g of protein per kg of bodyweight. This translates to about 30 g of protein for a typical 165 lb man.

Carbs: It's not uncommon to see local gyms selling protein shakes to sweaty gym-goers to take with them as they head out of the gym. Unfortunately, many of these protein shakes are simply protein powder mixed with water or milk. In other words, they're very, very low in carbs and high in protein.

I can hear you say, "Isn't that a good thing…shouldn't I be limiting the carbs I eat?" As you'll see in a later section of this book, carbs aren't the devil they're made out to be. But if there's a time to go nuts and eat carbs, it's right after your workout.

That's because eating carbs after your workout actually helps the protein in your recovery meal work better. You may have heard of an important hormone that your pancreas makes known as insulin (if you know someone with diabetes, they probably mention insulin at least 5 times per hour). But we're not talking about the insulin you inject –I mean the insulin your body naturally produces.

Insulin's job in the body is to get the carbs floating around in your blood into your cells. A popular analogy is that insulin is the "key" that unlocks your cells, allowing carbs to flood inside. But a little known fact about insulin is that it's also required for protein to get into your cells as well –especially muscle cells.

But the only way to get your pancreas to crank out insulin is to eat carbs. Because your body knows that is needs insulin to use the carbs you eat, when it senses the presence of carbs in your intestine, it orders your pancreas to make insulin.

However, not all carbs are equally effective at boosting insulin production. You want to eat what's known as high glycemic index carbs. While the glycemic index may sound like something your high school chemistry teacher made you memorize, it's actually quite simple. All the glycemic index is is a measurement of how quickly carbs in a food get absorbed by your body. And there's a direct correlation between a food's glycemic index and **how much insulin** your pancreas pumps out.

Usually you want to strictly limit high glycemic index carbs in your diet because they tend to be stored as body fat (ouch). But there's one (and only one) exeption to this role –during your recovery meal. High glycemic carbs shoot insulin levels up like a rocket, rapidly shuttling the protein in that mean to where it's needed most –your hungry muscles.

Another reason to chow down on high glycemic carbs is to replenish glycogen stores. Glycogen is how your body stores carbohydrates. In your muscles (where most glycogen sits), the glycogen found there is used to give your working muscles energy. If you don't have enough glycogen then you're muscle performance suffers. Carbs find their way into drained glyocgen stores more effectively after working out than any other time – helping boost your performance for your next session.

Convenient sources of high glycemic index carbs include fruit, white bread, maltodextrin supplements and breakfast cereal.

Exactly how many carbs you should be eating is a matter of debate. But according to Maastricht University's JC van Loon you should aim for **twice as many grams of carbs as grams of protein** to maximize post-workout muscle synthesis and glycogen replenishment. Because protein is paramount, be sure that you set your recovery protein first. Then, simply double that and eat approximately that amount in carbs.

Fat: All this talk of white bread and bagels being an ideal food may have you thinking that the time period following your workout is a nutritional free for all. I'm sorry to report that a 45-minute strength training session doesn't give you the OK to stuff your face with cupcakes, cookies and muffins.

In fact, eating fat after your workout is one of the worst things you can do (besides eating nothing, of course). As you already saw, the idea is to give your body stuff it can use as quickly as possible. The faster the food in your recovery meal is digested, the more muscle mass you'll pack on in the hours and days following your workout.

Fat is like popping a tire on your F-1-racer recovery meal. Dietary fat takes much longer for your body to digest and absorb, making it a poor candidate for post-workout nutrition. Even worse, fat slows the passage of everything else you eat along with it out of your stomach and into your intestine, where it ultimately gets absorbed. While

healthy fats have their place in your diet, the crucial timeframe after your workout isn't that place.

Liquid: If you're like most people, the last thing you want to do after cranking out massive amounts of effort in the gym is to sit down and eat a gargantuan meal. In fact, if your workout is intense enough, you may not even have the energy *to chew*.
Also, carrying around chicken and white rice in your gym bag isn't what I'd consider practical.

For all these reasons, I advise would-be muscleheads to down their recovery meal in liquid form. Liquid recovery meals are more convenient than carrying around/finding whole food that fits out specific nutrient criteria. It also makes shelling out specific grams of protein and carbs a cinch. You can either buy pre-made recovery shakes (which are *expensive*) or make your own using some mixture of whey protein powder, water, milk and some form of high glycemic carbs like maltodextrin (which has a sky-high glycemic index).

Perhaps the most important reason to liquefy your recovery meal is that it's absorbed significantly faster than the same nutrients in solid food form. Nutrition scientist John Berardi estimates that a liquid meal is completely absorbed in about a half hour. On the other hand, a meal can take upwards of 3 hours –leaving your muscles stranded in the meantime.

Nutrition Must #4: Play Your Hormones Like a Fiddle
For most people, their hormones are like their car's engine –you don't give much thought to it unless something's wrong. Only when someone has a flabby tummy, weird hair loss or man boobs do they start taking note of the hormones pulsing through their bodies.

One of the things I've noticed that separates massive muscle bound beasts from scrawny wannabes is their ability to **take control of their hormones**.

Your body's cells are surprisingly passive and reserved. Without receiving orders --coming in the form of hormones --your cells don't do anything special. To accomplish anything of note they need hormones ordering them around.

Muscle and fat cells are especially reliant on hormonal commands. If you can play your body's hormones like a fiddle then you'll be able to determine the amount of fat and muscle you carry around. In fact, once you make your hormones work for you (instead of the other way around), eating for maximum muscle growth becomes child's play.

Here are the four hormones that are crucial for muscle growth and how to make them your bitch:

Insulin: We already discussed the importance of insulin related to post-workout nutrition. But that brief time period isn't the only instance where insulin becomes important. In fact, when it comes to body composition, insulin may be the most important hormone of them all.

You already know that insulin opens up your cells so they can take in and use protein and carbs. Insulin is definitely a "carb-oriented" hormone. It's relative amounts in the body are highly reliant on the levels of blood sugar in your body. The higher your blood sugar, the more insulin you need to clear it out. This is because your body doesn't like blood sugar to get too high because it gets lodged into tissues like blood vessels. Insulin is the only way your body has to get blood sugar back under wraps.

But that's not the only thing insulin does.

Insulin levels let the rest of your body know your relative fed vs. fasting state. When insulin levels are high, your body knows that you have some food around and it ramps up anabolic processes. Anabolic simply means growth, especially muscle growth. But when insulin levels freefall, your body shifts to catabolic, meaning break down. And muscle, not fat, tends to take the bulk of the damage from catabolic states. Because your body generally needs protein during times of fasting, it has no qualms about eating your muscles (literally) to do what it has to do for you to survive.

That's why you want to eat plenty of high glycemic index after your training bout –the insulin basically tells your body to grow, grow and grow some more!

So that must mean that we want insulin levels as high as possible, right? Absolutely not!

Insulin levels that are too high actually tell your cells a completely different story. Once insulin reaches a certain point, it starts ordering your fat cells to open up wide for a massive shipment of new body fat. Ideally, your body pushes the extra blood sugar in your body into glycogen. But if they're full or nearly full (which they almost always are) then your body turns the blood sugar into fat. And while this book is about muscle growth, I assume that you don't want your muscles hidden by hideous layers of flab.

So the "game" you want to play with insulin is keeping it within a nice tight range. And the way to do that is to keep blood sugar from rising too high or falling too low. Remember, glucose levels are directly proportional to insulin. Technically, healthy glucose levels (that is, levels that'll keep insulin under wraps) are 80-120mg/dl. While this number may mean nothing to you, it's just to illustrate the level of wiggle room you have to play with. Keep in mind that glucose levels below 50mg/dl can make you weak and dizzy and anything above 200 is considered dangerous.

Fortunately, you don't need to carry around a glucometer to manage your blood sugar and insulin. All you have to do is eat the right carbs at the right time –the focus of the

next “must.” At this point just understand that insulin alone can make you fat or muscular…it mostly depends on the carbs that you eat.

Testosterone: Forget your “member”, testosterone is what makes you a man. It’s testosterone you have to thank for your hairy chest, your love for Victoria Secret catologs, and, oh yes, your muscles.

Remember that insulin is primarily concerned with fat storage or muscle breakdown. Testosterone is the hormone that tells your muscles to get up and start growing! In fact, testosterone is known as a “steroid hormone” by biochemists. Steroids (not the stuff you inject in your behind) simply refers to hormones that build new muscle tissue. Anabolic steroids (the stuff you DO inject) tend to simply simulate the action of testosterone in your body. So you can look at testosterone as steroids that your body naturally makes.

Some people –generally professional athletes—have higher levels of testosterone than mere mortals –one of the secrets of their success.

To maximize muscle growth, you want your testosterone levels to be (naturally) as high as possible. While you can buy plenty of testosterone supplements (including syringes!) on the Internet, I do NOT recommend these. Your body’s hormones are a delicate balance, kind of like an ecosystem. Rapidly increasing one hormone can upset your body’s hormonal balance, leading to short-term and long-term health issues even if you may gain some muscle along the way.

Here are some simple diet tips that promote natural testosterone production:

Eat Fat: If you’ve been avoiding fat to build a lean frame, you’ve been doing yourself a disservice. Fat will be discussed in depth as a later “must”, but you should understand fat’s importance in testosterone production.

Like all hormones, testosterone is made up mostly of fat. You can look at fat as the bricks that come together to form the house that is testosterone. If you don’t get enough fat (because you’ve been following a misguided low-fat diet, perhaps) then your body simply isn’t able to make testosterone.

A classic study in the *Journal of Applied Physiology* looked at the affects of different diets on testosterone level in people who regularly pump iron. They found that eating moderate amounts fat resulted in significantly higher testosterone levels when compared to low-fat eaters.

Don’t Go Overboard on Protein: Another interesting finding from this study was the affect of protein on testosterone. Many so-called tough guys think that eating steak at

every meal makes them more of a man. But according to the results of this study, eating more protein than your body needs can actually **suppress testosterone**.

I opened this book with a thorough discussion of how you should rethink the "more is better" concept as it relates to protein. This is yet another reason to hit --but not exceed --your daily protein targets. Counterintuitive as it may seem, extra protein may actually interfere with muscle growth.

Eat Meat: Yet another interesting finding from this study (I absolutely *love* this study), was how your protein choices affected testosterone levels of the research subjects. To get the details of how the subjects ate, they analyzed everything they ate over a 2-week period.

Those that ate animal protein like chicken, steak and eggs had much higher testosterone levels than people that opted on veggie protein like tofu. Yet more proof that the type of protein you eat means much more than the sheer amount.

Dine on Dairy: You don't have to be a seasoned nutritionist to know that dairy is bursting with calcium. Along with building bones, calcium is important for muscle contraction and other important bodily functions.

According to Selcuk University researchers, downing calcium-rich dairy can boost sagging testosterone levels. In this study, a group of athletes were given daily calcium supplements for 5-weeks. They found that simply taking calcium and strength training increased testosterone far more than just lifting.

You don't have to run to GNC and buy another supplement to take advantage of these findings. You can get the same amount of calcium the study used by eating one and a half servings of low-free dairy like Greek yogurt, cottage cheese or skim milk.

IGF-1: When most people say "growth hormone" they're usually referring to Insulin-like Growth Factor-1. The reason that the word "insulin" is in it's name is simply because it resembles insulin under microscope. Biologically, it's a little like insulin as it tells your body whether to grow or shrink. But unlike insulin, high levels don't promote fat storage.

As you can see, IGF-1 is a *very* powerful anabolic hormone. It's especially important for stimulating the production of new muscle tissue.

Here's how you can bump up your IGF-1 levels.

Eat Your (Complete) Protein: As if you needed another reason to take in enough high-quality protein, add IGF-1 to the list. Scientists at South Dakota State University recently looked at the correlation between protein intake and IGF-1 levels. They found that the

amount of protein made little difference. However, subjects that ate complete protein sources like chicken had more IGF-1 in their bodies than people that got most of their protein from incomplete sources.

Get Fishy: As with all hormones, IGF-1 is mostly fat. Eating proper amounts of fat – especially omega-3 fats –gives your body the building blocks needed to make new hormone molecules. In a 2006 animal model study published in the *British Journal of Nutrition* found that eating omega-3 fats from fish boosted IGF-1 production considerably.

Post-Workout: You already know that the window after your strength training session is a potential treasure trove of muscle growth. Biologically, what makes your muscles hungry for protein, carbs and massive growth is IGF-1.

IGF-1 stimulates a Schmorgas board of muscle building enzymes and proteins that go to work rebuilding beat up muscle cells. Scientists at the University of Texas found that downing whey protein post-workout significantly upped IGF-1 levels.

Estrogen: The reason that Men are from Mars, Women are From Venus has little to do with society gender roles and everything to do with differences in sex hormones. You see, whether you're a 350 lb manly man or a petit soft-spoken woman you both have testosterone and estrogen circulating through your bloodstream.

The only difference between the two of you is the amount of each.

Obviously, men tend to have more testosterone and women tend to have more estrogen. However, there's emerging research that both men and women *are* carrying around *way too* much estrogen.

What's the harm of excess estrogen? I'm sorry to report that it's not just watching more reruns of *The View*. Scientists think that estrogen can increase the risk of certain cancers and promote belly fat accumulation. And because testosterone and estrogen compete in your body, too much estrogen means that testosterone gets muscled out –-with your muscles paying the price.

How can you keep estrogen under wraps?

Shun Soy: It may be marketed as a health food, but there's nothing healthy about phytoestrogens –estrogen-like compounds in soy products that act like estrogen in your body. This doesn't mean that you can't have your occasional tofu burger, but chowing down on soy products everyday will throw your body's delicate hormonal balance out of whack.

Watch for Xenoestrogens: Xenoestrogens sound like something out of a sci-fi movie that comes from the planet Volkert to destroy the human race. Xenoestrogens aren't quite as destructive, but they're pretty close. Like phytoestrogens, xenoestrogens are treated by your body as estrogen molecules.

Xenoestrogens are found in plastic products like water bottles, pesticides and in certain creams and lotions. You can limit your xenoestrogen exposure by opting for pesticide-free organic produce and ditching your plastic water bottle in favor of stainless steel.

Eat Healthy Fats: Yet another reason to eat omega-3s –they're more likely to be converted to testosterone than estrogen.

Nutrition Must#5: Make Up With Fat and Carbs

It's been said that "to err is human, but to forgive is divine." If so, then you've most definitely erred if you consider carbs and fat enemy nutrients to be avoided at all costs. The health risks and their role in physique building has been twisted, turned, and blown completely out of proportion.

Now its time to ask you to become divine and forgive these life-giving nutrients that have wanted nothing more than to make you buff and healthy. Fat and carbs have gotten a really bad rap when it comes to diet —leaving bodybuilders like yourself feeling guilty about eating anything that isn't 100% protein.

But for you to build the physique you dream of, it's necessary to come to terms with fat and carbs. Once you do --and learn their crucial role in muscle development-- then you'll have a complete diet that's also guilt-free.

Relearn Fat

Fat has gotten a bad name, *literally*. The name of this nutrient alone suggests that by eating fat then you will become fat. Oh my, is that logic off base.

Here's why fat *doesn't* make you fat (and makes you muscular). As we learned in the previous "must" fat storage is largely dictated by insulin. When insulin levels shoot up, fat storage cells get to work. But when insulin is low, fat cells go on a coffee break.

And what causes insulin to rise? That's right, it's not fat…it's carbs! And not just any carbs, but fast-digesting high glycemic carbs. On the other hand, fat barely nudges insulin levels. In fact, when you eat fat with a meal it slows down the digestion of the carbs in that meal –reducing the amount of insulin released.

In other words, fat is your friend. And considering this is a book about muscle building, let's chat about how you can use fat to maximize muscle growth.

Insulin: It's a scientific fact that trans fats are bad for your body. They boost dangerous inflammation and are more likely to be stored as belly fat than other fats. Saturated fat is a bit more controversial, but more than likely eating too much of this fat clogs your heart's arteries. Even worse, both of these fats interfere with insulin's job –forcing your body to produce more to get the same result.

But eating the *right types of fats* can actually make your cells more insulin sensitive – reducing fat storage AND boosting the amount of protein that finds its way you're your growing muscle cells.

Fat=Energy=Muscle Growth: Every soccer-playing kid and exercise scientist loves to tout the fact that carbs provide your body with energy. Sure enough, carbs do provide your muscles with energy for quick bouts of activity like sprinting. But for all those time sthat you're not running for your life (as in, almost all the time) fat is the energy source of choice for your body.

While there's a little bit of individual variation, for the most part your body uses fat (**not** carbs) 60-70% of its energy needs. Contrary to popular belief, your body **loves** to burn fat. That's why it burns it all day long!

Unfortunately, if you don't give your body the fat it wants (let's say, with a misinformed low-fat diet), then it's forced to break down protein for energy –a process known as protein catabolism. This means that the high-end protein powder you just drank as part of your low-fat diet plan doesn't make it your muscles where it belongs. So to make sure your protein gets used as muscle juice and not to fuel your metabolism, you need to eat some fat.

Eat These Fats: Now that you've accepted that fat is a necessary part of a muscle building diet, you need to be an expert at **fat types**. In general you want to aim for monounsaturated and polyunsaturated fats. These types of fats boost metabolism and provide your body with protein-saving energy without clogging your arteries.

Healthy fats include:

Nuts: walnuts, cashews, almonds

Fish: mackeral, fish oil, tuna

Olive oil: extra virgin olive oil

Flaxseeds: milled flaxseeds, flaxseed oil

Fruits and veggies: avocado, broccoli, spinach

Relearn Carbs
Fat was the public enemy #1 in the 1990s. And in the new millennium carbs largely replaced fat as the bad guy on dieter's most wanted lists. Like fat, carbs themselves aren't harmful. But unlike fat, carb-haters had a point.

In response to the low-fat craze of the 1990s, many people avoided fatty foods at all costs –and replaced them with nasty refined carbs like bagels, crackers and pasta. The idea was, "as long as it doesn't have any fat, then I'm OK." For long-term health and short-term physique building, this concept is a dangerous one.

Like fats, the type of carb you choose to eat makes all the difference in the world. Here's how to wisely choose carbs to pack on serious mass:

Become "GI-Joe": We already described what the glycemic index (GI for short) is in the first "must." The secret to piling on mass without also packing on rolls of flab is to eat low-GI carbs. Low-GI carbs don't stimulate insulin release in the same way as high-GI varieties.

Low-GI carbs also give your muscles energy to work during cardio and strength training. Once you know the GI of every food in your diet, you can make smart decisions about the carbs that you eat. With the post-workout period as an exception you should **always** opt for low-GI carbs.

Go Veg: No, I don't mean picketing outside of your local butchers with a sign reading, "meat is murder." I'm talking about making vegetables the base of your carb intake. As you may have guessed veggies are low in the GI. In fact, many vegetables barely impact insulin at all –meaning you use the energy and nutrients in them but don't pay the price with fat storage. Also vegetables are loaded with fiber. Fiber helps your body burn fat and build muscle.

Grains play a role in your carb intake, but veggies should form your diet's carb foundation.

Choose Non-Vegetable Carbs Wisely: You may already know that whole grain versions of your favorite foods (like brown rice) are healthier than the refined variety (like white rice). That's true, but that doesn't mean anything with the words "whole grain" on the label is inherently healthy…or has a low GI.

For example, the GI of "healthy" whole grain foods like whole wheat bread, brown rice and muesli are 71, 55 and 66 respectively. I know you're thinking "OK, what the heck do those numbers mean?" The numbers are just to give you something to compare with refined grains. For comparison, here's the GI of sponge cake is 48, Coca Cola is 58 and apple juice is 40. This isn't to say that drinking a Coke is healthier than eating brown rice, but it does suggest that your body digests whole grains faster than you probably

thought. That's why you should opt for the majority of your diet's carbs to come in the form of veggies –they nearly universally have a rock-bottom GI.

List of Muscle Building/Fat Fighting Carbs

Veggies: Spinach, broccoli, eggplant, yams, kale, bell peppers, onions

Fruits: Blueberries, apples, raspberries, pineapple

Whole Grains: barley, millet, quinoa

Legumes: Lentils, black beans, chickpeas

10 Delicious Recipes To Make Your Muscles Pop

Breakfast

Manly Vegetable Omelet

Ingredients

6 egg whites
1 whole medium egg
¼ c chopped broccoli
¼ chopped small onion
1 chopped small tomato

Preparation instructions
Mix eggs into small bowl
Pour eggs over hot pan coated with EVOO
Mix in vegetables

Nutrition information

Calories per serving: 220
Protein per serving: 28 g
Carbs per serving: 14 g
Fat per serving: 3 g

Bicep-Building Oatmeal

Ingredients

1 c old-fashioned oats
1 scoop whey protein powder
½ c skim milk
1 c blueberries

Preparation instructions
Cook oatmeal according to package instructions
Stir in whey protein and blueberries

Nutrition information

Calories per serving: 380
Protein per serving: 30 g
Carbs per serving: 50 g
Fat per serving: 4 g

Power Parfait

Ingredients

2 8 oz containers Green Yogurt
¼ c whole grain granola
½ c raspberries
½ c strawberries

Preparation instructions
Mix together ingredients in a bowl and serve

Nutrition information

Calories per serving: 410
Protein per serving: 21 g
Carbs per serving: 48 g
Fat per serving: 5 g

Lunch

Protein Packed Wraps

Ingredients
1 low-carb whole wheat wrap
1 can solid white albacore tuna
1 sliced medium tomato
3 leaves spinach
1 chopped cucumber
1 tbsp bbq sauce

Preparation instructions
Open and drain tuna
Mix together ingredients in wrap
Fold wrap and enjoy

Nutrition information

Calories per serving: 350
Protein per serving: 41 g
Carbs per serving: 27 g
Fat per serving: 7 g

Flex Salad

Ingredients
1 c spinach
1 large tomato
1 medium yellow bell pepper
1 can black beans
1 can chicken
1 tbsp EVOO
1 tbsp balsamic vinegar

Preparation instructions
Drain and rinse black beans and chicken
Mix together vegetables in bowl
Mix together and dress with EVOO/vinegar

Nutrition information

Calories per serving: 580
Protein per serving: 50 g
Carbs per serving: 51 g
Fat per serving: 15 g

Beef Kebabs

Ingredients
4 oz lean beef (like eye of round)
1 red bell pepper, chopped
½ medium onion
¼ c brown rice

Preparation instructions
Stick beef and vegetables on skewer
Grill skewers until fully cooked
Serve over brown rice

Nutrition information

Calories per serving: 452
Protein per serving: 46 g
Carbs per serving: 38 g
Fat per serving: 15 g

Dinner

Real Deal Chili (serves 2)
1 can kidney beans
1 can black beans
3 large diced tomatoes
1 chopped large onion
6 oz lean ground beef
2 tbsp chili powder

Preparation instructions
Drain and rinse beans
Mix together beans and other ingredients in large pot
Cook for 45 minutes

Nutrition information

Calories per serving: 650
Protein per serving: 43 g
Carbs per serving: 63 g
Fat per serving: 17 g

Grilled Salmon

5 oz wild-caught salmon filet
1 tbsp EVOO
pinch oregano
pinch salt + pepper

Preparation instructions
Coat salmon on both sides with EVOO and spices
Grill until thoroughly cooked
Serve with 1 c green salad and ½ c lentils

Nutrition information (Including salmon and lentils)

Calories per serving: 613
Protein per serving: 60 g
Carbs per serving: 55 g
Fat per serving: 21 g

Chicken Stir Fry
5 oz lean chicken breast
1 large chopped broccoli head
1 medium chopped onion
½ diced yellow bell pepper
1 dash reduced sodium soy sauce

Preparation instructions
Heat wok or large saucepan
Toss in ingredients
Stir for 4 minutes or until chicken thoroughly cooked

Nutrition information

Calories per serving: 414
Protein per serving: 37 g
Carbs per serving: 21 g
Fat per serving: 14 g

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