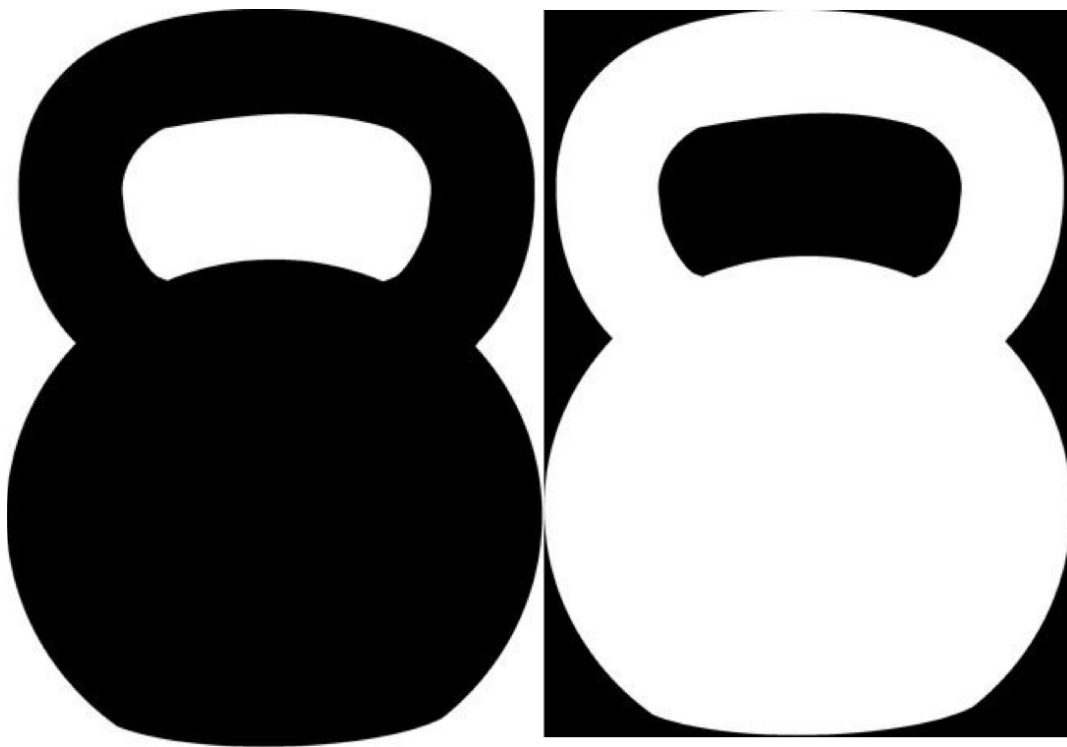Chasing Strength Presents:

"Neuro-Metabolic Contrasts: THE Secret To Rapid Fat Loss Using Kettlebells"

Discover how to quickly strip off body fat by manipulating your body's adaptation mechanisms and lose up to 17 pounds of fat in only 30 days.

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"Neuro-Metabolic Contrasts: THE Secret To Rapid Fat Loss Using Kettlebells"

If you're using kettlebells right now, then it's obvious that you've bought into the idea that they are at the very least a pretty decent tool for getting in shape.

You may have even tried your hand at using some kettlebell workouts for fat loss and seen some pretty good successes.

But how about *rapid fat loss* – you know, the kind of fat loss that up until this point you've only dreamed about?

You know the one I'm talking about – it's the one where you literally see your body *transforming* right in front of your very eyes each day when you wake up and look in the mirror.

It's the one that makes your friends and family say, "***What* have you been doing?!"**

And it's the one that you've quite possibly been chasing for years, if not decades.

Well in the next couple of minutes, I'm going to reveal to you the secrets to achieving rapid fat loss using your kettlebells.

I've used them, and so have hundreds, if not thousands of people just like you all over the world.

But first, I want to tell you why this really isn't a dream and how you can make this dream come true.

That "Little Voice" Inside

Right now you're probably skeptical yet excited at the possibility that lies ahead of you.

Did you ever stop to wonder why everyone jumps on the *"lose 30 pounds in 30 days"* bandwagon?

Is it because we're suckers? Or lazy?

No.

It's because deep inside our intuition, that "little voice," is telling us that there is at least in part, some truth to those claims.

The truth is, that the whole "lose weight slowly" dogma is just that – **dogma**.

Do you really think that carrying around a bunch of excess fat is healthy or safe for your body?

Heck no it's not!

That's why there are so many diseases that arise from being overweight.

So why not get that fat off as quick as possible as long as you're not hurting yourself in the process?

The truth is, you should. I've done it and you can too.

Indulge me for a few minutes while I take you on a journey of possibility...

A "Revolutionary" Background...

I've always done things differently from the crowd. It's just the way I'm made – it's part of my DNA. So, what I'm about to share with you is probably contrary to everything you've ever heard, read, or even learned, depending on your

background. (Unless you've been following my work for a while, and then you'll recognize some of it.) And that's fine.

But as you read this, keep in mind one thing – the concept of **contrarianism.**

Contrarianism is basically doing the opposite of what everyone else does (the "herd") not for sake of just being different but in recognition that the herd is *usually* wrong.
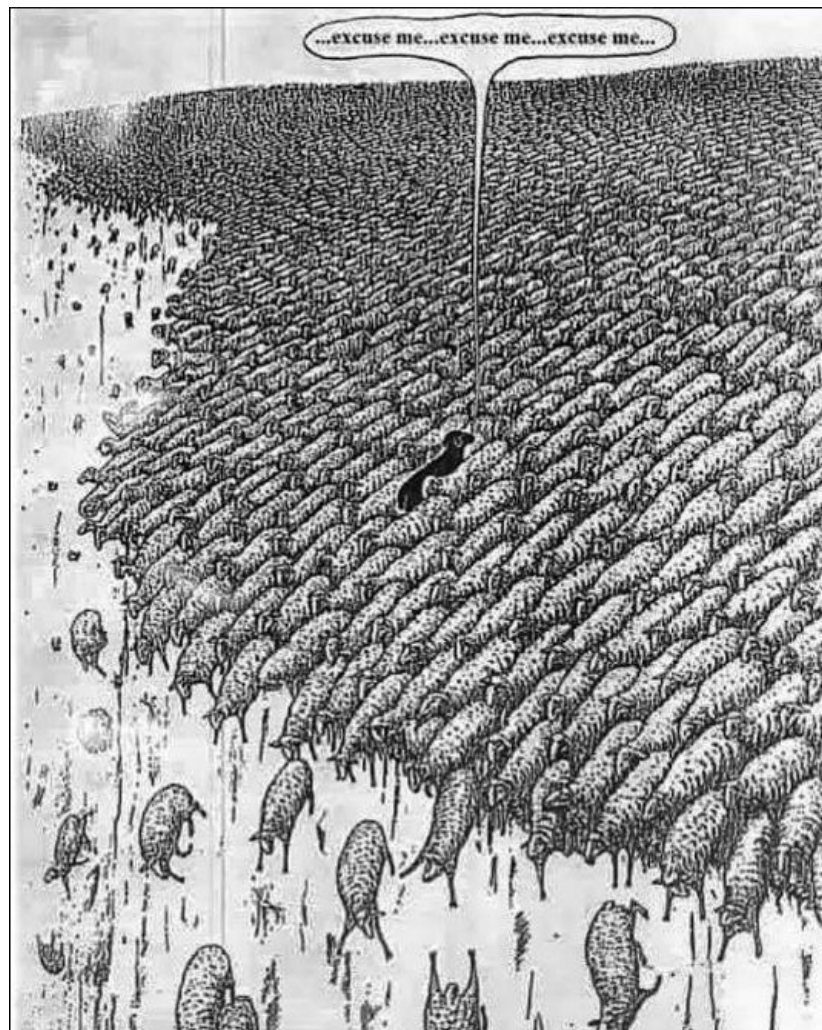
Think about it:

All great accomplishments and achievements are usually accomplished by contrarians – Henry Ford, Thomas Edison, Steve Jobs, Warren Buffet, are a few names you might recognize.

Which leads us to *contrarian fat loss*.

You probably know that the "big secret" to losing weight (fat hopefully) is to expend more calories (energy) than you consume.

<u>*So why is it that so many try but fail?*</u>

What is it that's "broken" about this formula for fat loss?

That's what the rest of this special report is about.

My Contrarian Story Of Rapid Fat Loss

When I was 23 I was training for Olympic weightlifting. It was my sport of choice, my passion, my *obsession*.

I was trying to qualify for the National Championships but was stuck between weight classes - the 91kg (200.2) and the 99kg (217.8lbs). I was weighing 209lbs.

I made a last-minute decision to drop down to 200lbs and try to qualify.

To do this I enlisted the help of a chiropractor who specialized in nutrition, who was also helping out some members of the Rutgers Wrestling Team. (I was training some of these guys at the time, hence the connection.)

Not only was his specialty nutrition, but he had just won an NPC Bodybuilding title so he was like me – a "musclehead." And therefore he knew how to lose bodyfat without losing muscle, which was my goal.

Long story short, we made some minor changes to my caloric intake and my macronutrients and in the space of a week I had dropped from – get this – 10.1% to 3.3% body fat!

<u>His jaw slammed into the floor when he saw my numbers and my condition!</u>

I had striations and separations like a bodybuilder – *without doing bodybuilder workouts!*

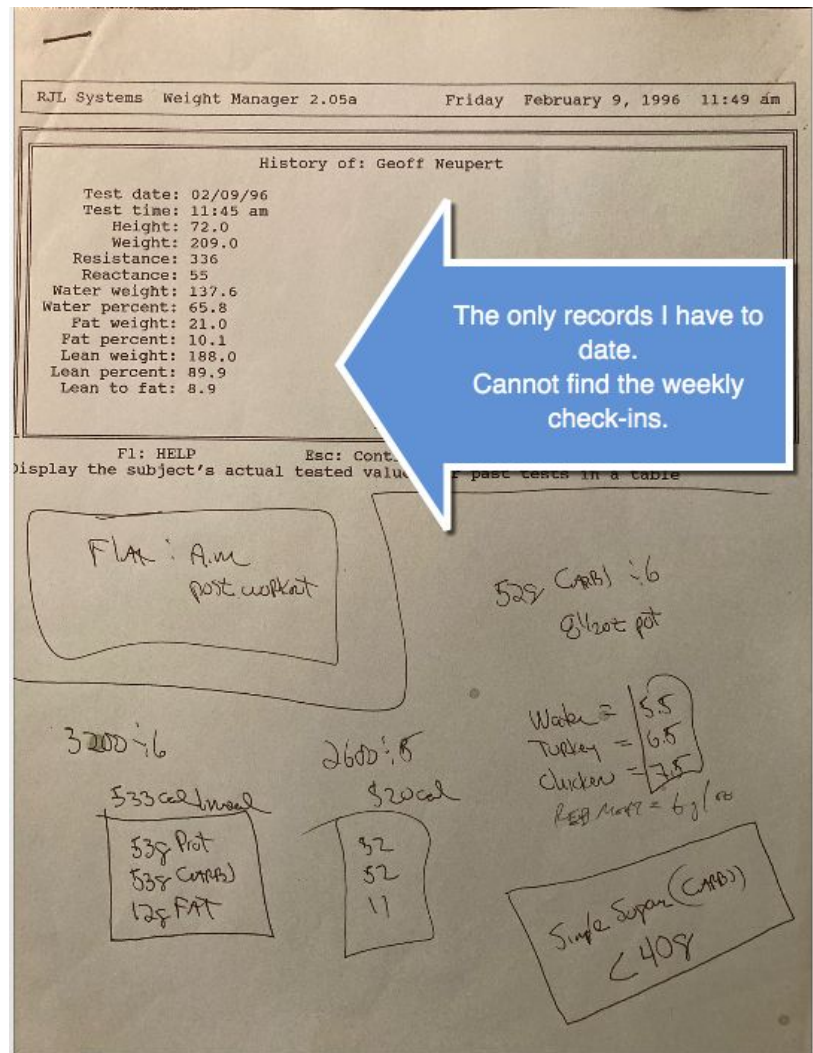***What was I doing that was so revolutionary?***

<u>It was simple: Heavy Squats, Presses, and Snatch and Clean variations every day of the week.</u>

Of course there were several little "twists" to that, and those, I later learned, was what made all the difference in the world. (I'll tell you about these "twists" in a little bit...)

And <u>why</u> was it so revolutionary?

Because at the time it was *exactly the opposite* of what the "experts" were telling people to do to lose fat. (In fact, much of the protocols are still revolutionary today.)

I started applying my methods as I understood them at the time with my personal training clients when I could. They all experienced amazing fat loss results.

RJL Systems   Weight Manager 2.05a   Friday February 9, 1996 11:49 am

History of: Geoff Neupert

        Test date: 02/09/96
        Test time: 11:45 am
           Height: 72.0
           Weight: 209.0
       Resistance: 336
        Reactance: 55
     Water weight: 137.6
    Water percent: 65.8
       Fat weight: 21.0
      Fat percent: 10.1
      Lean weight: 188.0
     Lean percent: 89.9
      Lean to fat: 8.9

        F1: HELP   Esc: Cont.
Display the subject's actual tested valu...   past tests in a table

The only records I have to date. Cannot find the weekly check-ins.

But I was only using dumbbells and barbells at the time, which were somewhat limiting because learning the Olympic lifts proficiently enough to apply my workout tweaks isn't exactly the easiest thing in the world to do. (If only I had kettlebells...)

I was working part-time in New York City at one of the top-rated fitness centers at the time, down in the old World Trade Center, in the heart of Wall Street.

I had stockbrokers and high-powered attorneys telling me I was crazy for my fat loss methods, but the proof was undeniable – it was staring them in the face while they sweated doing their "steady-state" cardio in their "target heart rate zones" for fat burning – and that proof was me.

(I "rebounded" up to about 210lbs and was sitting at single digit bodyfat – about 7%.)

They didn't listen though – they were much too "smart." They continued following the herd and getting sub-par results at best.

Let me just go ahead and answer two questions that you may have right now:

"You were young and soaked in testosterone, so it's easy to make the kinds of changes you described above. Can someone in their late 30s and older make these types of changes?"

Yes. Many of my customers are in their late 30s, early 40s, and beyond and they loved their results. Not only that, I put myself through the program.

Here's what I ended up looking like at age 39:
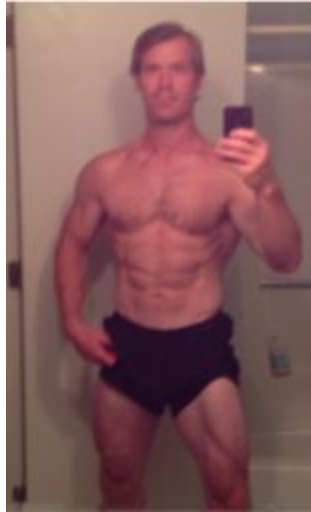
"Originally you used barbells, can this work with kettlebells?"

Absolutely. The picture above was taken after a 4-week rapid fat loss program that used only kettlebells. (You'll learn more about that in a while.)

Not only that but others have achieved similar and better results using the same program.

**So that brings us back to the matter at hand:**

Undoubtedly you're currently using kettlebells for a large part of your workout training, so you're already a "partial contrarian" and not part of the regular fitness herd.

And you're already most likely doing Squats, Presses, Cleans, Snatches, and even something I wasn't – Swings.

So how then do you use these exercises for _rapid_ fat loss?

By understanding…

The "Zatsiorsky Principle":
THE Secret to Great Strength AND Rapid Fat Loss
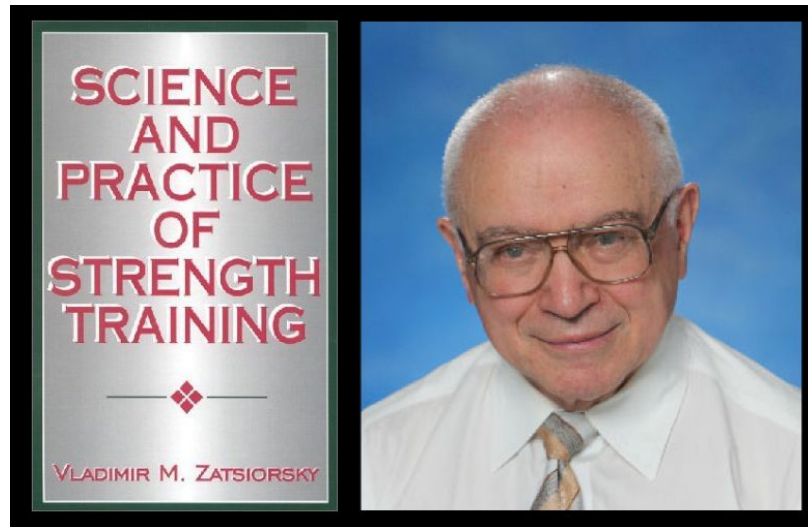
Professor Vladimir Zatsiorsky is a legend in the sports science world. He is currently a biomechanics professor at Penn State University but before that he was the Chief Biomechanist for all Soviet sports teams from 1980 through 1988. (Yes, those were the years where they wiped the mats with the athletes from the West.)

And he came up with the secret to exceptional progress. Here it is:

"Train as often as possible, as heavy as possible, as fresh as possible."

These are the secrets to great strength.

But what most people don't know is they're *also the secrets to Rapid Fat Loss.*

However, it's not enough to "know" these secrets.

You must know how to *apply them.*

And to do so you must understand the concept of "Neuro-Metabolic Contrasts."

Before we get into Neuro-Metabolic Contrasts we need to **_truly understand the importance_** of the Zatsiorsky Principle **and what it means for our training**.

PART 1: "Train as often as possible."

Basically this is the practice of the "skill of strength," known for over 150 years by the world's greatest Strongmen, but re-popularized around 1999 or 2000 by Pavel Tsatsouline, founder of the modern kettlebell movement, the _Russian Kettlebell Challenge StrongFirst, Inc_.

The process is called _"synaptic facilitation"_ - the repetitive and frequent stimulation of motor neurons - which strengthens the synaptic connections and even forms new ones.

It essentially trains your body to become more efficient at a particular movement, making it easier to perform.

This means that you will be able to do more and more and more work.

And that's important for fat loss because more work equals more calories burned.

PART 2: "Train as heavy as possible."

"Heavy" of course is a relative term depending on the individual.

But really we could translate this into "use as much force as possible."

That's important because Force is made up of two distinct components –

Mass and Acceleration.

(Force = Mass*acceleration.)

So in order to create as much force as possible, we either lift a very heavy weight slowly or a lighter weight as fast as possible (explosively).

These two "force factors" can be uniquely applied to kettlebells and literally will allow us to generate large amounts of force, which we can also think of as work, much more frequently than we formerly thought possible.

But heavy is also important in terms of fat loss.

Why?

Because, when you lift heavy, your body is forced to use your Type 2X fast-twitch muscle fibers, which rely solely on carbohydrate as fuel source to produce ATP (energy), unlike your Type 2A fibers which can use a mix of carbohydrate and oxygen to produce ATP (energy), or your Type 1 fibers which rely solely on oxygen to produce energy.

But more about that later on...

PART 3: "Train as fresh as possible."

This is where most people get into major trouble.

They train too heavy (or too hard) too often and this zaps them of the energy necessary to strip off body fat.

As a result, their bodies produce the wrong kinds of hormones at the wrong times and they end up overtraining or injured and fat.

So we need to install mechanisms into our workouts that allow us to literally be as fresh as possible, which means we have to be able to recover enough between training sessions to do more and more work (expend more energy in the form of calories).

This is quite a challenge if you've ever lifted heavily frequently.

Sure, extra sleep helps, but only so much.

We need to implement other strategies and tactics that allow us to remain fresh.

Because that's the KEY - being able to remain "fresh" while still training heavy and frequently.

More force more frequently equals more work. And more work, in a calorically restricted state, means a greater amount of fat lost in a shorter period of time.

This leads us back to...

Contrasts: The "Secret Agents" of Change

This concept of "contrasts" first started rolling around in my head back in 1996/97, when Alfonso Duran, my weightlifting coach, told me about Professor Arkady Vorobyev's scientific findings on strength.

Frequent practice with radically contrasting changes in loads, produced faster gains in strength.

(Dr's. Mel Siff and Yuri Verkhoshansky refer to Vorobyev's work in their iconic work, *Supertraining*.)

Then in 1998, I sat in a private lecture at Yale University, from a PhD and sport coach from Romania, Georg Marom, who talked about research into the Zatsiorsky Protocols throughout the Eastern Bloc.

He shared with us that the best gains in physical adaptation – strength, speed, whatever, were best obtained through the contrasting of loads – Heavy followed by light, followed by heavy, and so on.

He showed us how that looks on a weekly basis:

> Ermakov, a contemporary and colleague of Vorobyev, found that when compared to "smooth" changes in training loads, "sharp" [think: up & down] changes in loads produced strength gains 61% greater in experimental groups when compared to control groups.

Heavy - Light - Heavy - Light - Heavy - Light

This allows the body to do as much work as possible by training the "skill of strength" way more frequently – TWICE as much as traditional training protocols of Light – Medium – Heavy.

It also promotes "freshness," as the light workouts provide a sort of "tonic" effect on the nervous system, allowing it to recover faster than just taking complete rest days.

I have always kept this contrast in the back of my head, looking for places I could apply it successfully.

Sometimes I got it right in my own practice. Many times I didn't.

Yet, I had been haunted by my results and experiences back in 1996 – those amazingly quick gains in strength and losses in body fat.

I wondered how I could replicate those amazingly fast results not only myself but for others.

That, and applying these ideas to my clients' programs, led me to designing a modification of my original program with the release of *Kettlebell Burn* in 2010.

But that still wasn't enough.

The results, although good, weren't fast enough.

They didn't match the results that I had gotten.

Sure, 2 pounds per week is good when you're really overweight, but I know from personal experience that it's possible to lose even more.

So I looked at the Zatsiorsky Principle and my own results, and tried to find some common ground.

What I came up with astounded me.

The secrets to success were right in front of my face all along and I had missed them.

Throughout my career, both as a trainee and a trainer, the training and nutrition protocols that I had used in the past with the best successes were the ones that relied on CONTRASTS.

These contrasts included alternating light/heavy in training, high calories/low calories when eating, passive/active recovery after workouts, and other such things...

Yes, the body seems to produce faster adaptations when there are contrasts in ALL areas of training.

Which brings me to what I believe is the most amazing discovery for rapid fat loss:

The Neuro-Metabolic Contrast

The Neuro-Metabolic Contrast is what I believe to be the ***application*** of The Zatsiorsky Principle.

It is the contrast of the training variables most necessary for making rapid changes in your body's appearance.

It is the stimulation of the nervous system through exercise and recovery and the stimulation of the metabolism through diet and exercise.

It is a *systematic application* of the concept of contrasts...

Where key contrasts are literally "stacked" for larger gains in lean body mass and faster losses in body fat.

This stacking effect compounds the nature of each contrast, making them more powerful when applied together than when they are used on their own.

Why "Neuro-Metabolic?"

Because both the nervous system and the metabolism are the drivers for change.

And by strategically manipulating our input to both, we can determine, direct, and achieve a desired output –

In our case, *rapid fat loss*.

There are FIVE (5) Neuro-Metabolic Contrasts that produce the rapid changes in body composition we are looking for.

They are as follows:

Contrast #1: The Loading Contrasts

We've already seen that the body yields you faster results when you contrast your loads. But I've also noticed that your body yields you much faster results when you contrast not only the loads, but the *types of loading*.

Training is really just "work." (I guess that's why we call it "working out" - duh...)

And when we're trying to lose fat, the more work you can do, and recover from, the better.

And in order to understand the types of loading, we must first look at the nature of "work."

There are 3 "work (based)" formulas we need to address:

1. Force = Mass * acceleration (F=Ma)

We're all pretty familiar with this formula. It's pretty simple.

Maximum force is produced two ways:

- Lift heavy weights slowly (because you cannot technically move heavy weights quickly) and

- Move lighter weights as quickly as possible

2. Work = Force * distance (W=Fd)

Work is simply defined as the greatest amount of force over the greatest distance.

Again, just like the Force formula, it's an inverse relationship.

You cannot lift the heaviest of weights over large distances.

You may be able to deadlift 700lbs from mid-thigh to lockout, but that doesn't mean that you'll be able to lift that same 700lbs from the floor. In fact, I will almost guarantee you can't.

In the same way, it's easier to throw a lighter weight, like a shot, over a greater distance than a heavier one, like a 45lbs plate.

So you have to maximize the combination of the two – *force and distance*.

<mark>3. Power = Work/Time (P=W/t)</mark>

<u>The key then to maximum power output is to do as much work as possible in whatever time period you have available to you</u>.

The more work you do in the same amount of time, the greater your power output.

And the greater your power output the greater your energy expenditure. And the greater your energy expenditure, the more calories you'll burn.

<mark><u>Therefore, the **optimal rapid fat loss formula** focuses on producing as much force as possible, as much work as possible, and as much power as possible AND it contrasts these needs in order to maximize recovery from work.</u></mark>

So far, so good.

However, there's another loading contrast we must also consider...

Overload Contrasts

Overload is the mechanism that creates change.

You push your body into new ranges of motion or lift a heavier weight or lift the same weight more reps – that's overload.

These are called volume, intensity, and density.

    Volume: The total tonnage lifted – weight x reps x sets

    Intensity: Percentage of a Rep Max

    Density: Total work done in a specified period of time

The best and fastest way for rapid fat loss to occur is by constantly contrasting these three overload variables within your training program – so that we can indeed train as heavy as possible, as often as possible, as fresh as possible.

All this loading is going to require some nutritional support so let's look at...

Contrast #2: Nutrient Contrasts

Nutrients, the parts of your foods, like loads, can *and should also be contrasted*.

Eating the same foods every day in the same quantities is a surefire way to psychologically and physically stagnate.

So for fastest fat loss, we need to do the *opposite*.

One such example is contrasting the **eating carbohydrates** with not eating carbohydrates.

Contrary to popular belief, **your body can actually use carbohydrates to burn fat.**

Our bodies use it as a sort of "primer" – like kindling – for fat burning.

By eating carbohydrates strategically in a weekly workout plan, we can speed up the fat loss for the simple reason that your body's most powerful muscles (the ones that do the most work) are designed to run on sugar (carbohydrate).

Teaching them to do otherwise reduces work output, and therefore decreases the number of calories you can and will burn. (Remember, calories = energy = stored body fat.) We'll discuss more about this in a minute.

Another important contrast to take into consideration is contrasting calories –

Mixing high calorie days with low calorie days.

Taking it a step further, larger contrasts like "supra-calorie" days contrasted with zero calorie days work exceptionally well for rapid fat loss.

This strategy is quite contrary to conventional wisdom (again, here's where that contrarian thinking occurs).

Most people think you need to be in a daily caloric deficit to burn fat.

And while this is true to a degree, what you really need to do is *be in a caloric deficit over a defined period of time – like a week.*

This strategy also allows for recovery between and from your demanding workouts designed to burn calories.

(This strategy actually affects your hormonal balance and will kick your body's fat burning hormones into overdrive.)

In a society of excess, we, unlike our ancestors, are never lacking quick, readily available food. **And that's why we're fat.**

Our bodies are designed to be able to operate with no or very little food.

That's actually what fat is – food storage (future energy storage).

By contrasting the amounts and types of foods we eat on a daily basis, we enable our bodies to tap into those future energy stores.

And only by doing that will we see rapid changes in body composition.

Just in case I haven't made myself clear to this point:

What this means is that you can and should include both carbohydrates and fats in your diet for *maximum* fat loss.

Let's look more closely at the reasons why:

First, and we briefly touched on this earlier, your body's most powerful muscle fibers – the Type 2Xs – the ones that produce the most force, are essentially "sugar-driven."

So depriving them of carbohydrates in the long term can lead to muscle wasting and the inability to get as strong as possible.

Second, exercise physiologists have discovered that fat "burns in a carbohydrate flame" – meaning that you actually ***have the potential to burn more fat by using carbs as a "starter" fuel source***, if you will. (We touched on this earlier if you remember.)

Just like a large fire starts not with a giant log, but with kindling, so it is with your body. Carbs are used for "quick energy" and fats for "long term energy."

Third, in the absence of carbohydrate your body will (should) burn stored body fat for fuel.

So strategically removing carbohydrates from your diet will speed up your fat loss, especially when combined with the right forms of exercise – which in our case, is specific kettlebell exercises.

Furthermore, there is no need to be on a *chronic long-term low carb diet*.

Your body actually needs some carbohydrates to keep your thyroid functioning properly.

Long term low carb dieting can lead to downregulation of your thyroid function, slowing your metabolic rate – which is the rate at which your body burns calories.

This is bad news for rapid fat loss because your body no longer burns calories at the rate it once did, let alone a faster-than-normal rate.

So, the take home point here is that strategic contrasts in both the fuel sources and caloric intake can radically speed up the fat loss process.

Contrast #3: The Hormonal Contrast

By now, many of us are familiar with the concept that hormones control our bodies and therefore are ultimately a good indicator of how we look and function.

Hormones, incidentally, often work in contrasts, or in antagonistic pairings, meaning one "counters" the effects of others.

For example, *insulin*, a powerful storage hormone, responsible for storing blood sugar in your body's muscle cells as glycogen, is contrasted by *glucagon*.

Glucagon is a powerful mobilization hormone, that signals the release of that stored blood sugar from those cells to be used as energy when blood sugar levels drop too low.

Other hormones we want to manipulate through contrasts are:

Testosterone – Growth Hormone

This isn't necessarily a true contrast, meaning we are pitting one hormone against the other or that one hormone works in an opposite contrast to the other.

The contrast comes in the application of the training program.
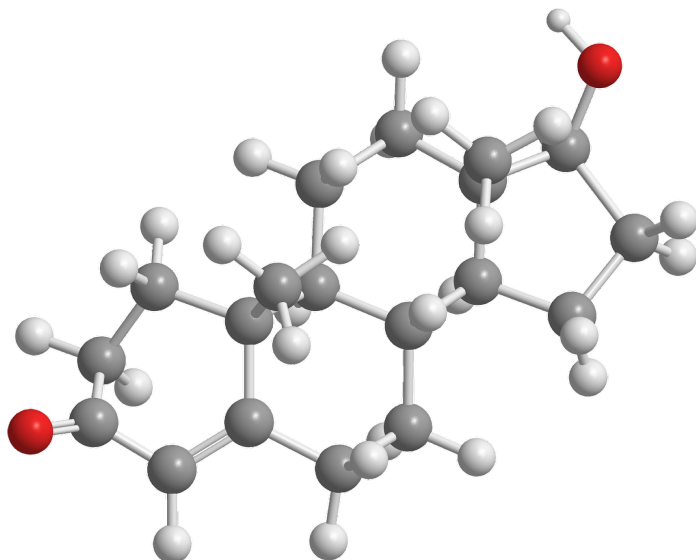
Research has actually shown that a decrease in testosterone due to higher levels of body fat is linked to a decrease in the body's secretion of growth hormone.

So by improving the body's ability to release or stimulate the release of testosterone through the appropriate training, we can also increase its ability to release more growth hormone.

Speaking of training, we will actually use distinctly different training variables to stimulate both testosterone and growth hormone production in a very strategic fashion.

We know that testosterone is released as a result of very heavy loading, upwards of 85% of a 1-rep max, using compound lifts like squats, deadlifts, and Olympic lift variations.

(Incidentally, it is also released under lighter loads with higher reps of compound movements. But these workouts produce incredible amounts of tissue breakdown and muscle soreness, inhibiting recovery on the musculoskeletal level.)

But remember, one of our strategies for losing large amounts of body fat is to lift heavy to not only access our energy-squandering Type 2B fibers, but as you now see, testosterone release.

Unfortunately, we can't lift heavy every day because we'll burn out our adrenal glands and end up overtraining.

> **SIDE NOTE**: Adrenal burnout is bad because there are increased levels of cortisol in your body. Cortisol,

```
although very necessary to reduce inflammation,
actually increases insulin levels when too high. And
that's a great way to store fat.
```

So how then do we train to avoid burnout and still burn massive amounts of calories?

By biasing training protocols that stimulate the production of growth hormone.

Growth hormone has been shown to increase both in the presence of lactic acid *and* from explosive training.

Imagine what happens to GH levels when you combine the two...

*Mmm-hmm, you're right – **rapid fat loss.***

Therefore a rapid fat loss program will contrast very specific training protocols that either bias the release of testosterone or growth hormone.

Leptin – Ghrelin

Leptin is a hormone responsible for appetite control.

When your leptin levels are high, your body doesn't receive a "hungry" signal.

When leptin levels are low, say, through typical low calorie dieting, or being in a chronic or an excessive caloric deficit, your appetite is stimulated and it receives the hungry signal through the release of ghrelin (More on that in a second).

The problem is that when that happens, **your thyroid hormone levels drop and your metabolic rate – the rate at which you use energy (burn calories) *slows*.**

Not good when you're trying to lose fat. (This incidentally is I believe what most people refer to when they talk about "starvation mode.")

Ghrelin on the other hand is the appetite-stimulating hormone.

Ever go on a diet and after a week to ten days you **get really hungry?**

Like starving – *going to eat anything that moves – hungry?*

Yeah, that's ghrelin.

And it's released when leptin levels drop in order to refuel your depleted (of fat) body. And it's also why so many people go on calorically restrictive diets and fail.

They end up binging because they *think* they're starving. Or at least their bodies are sending their brains those signals. So they binge, feel guilty, and quit dieting altogether. (Sound vaguely familiar?)

So how do you overcome this?

You simply create an environment where we are using the release of these hormones in a strategic manner to burn off fat at the fastest rate possible.

*And the best way to do that is through **contrasting the foods we eat**, including the **types** and the **amounts**.*

*We use **tactically timed high calorie days** contrasted with **low calorie days** along with **varying the types of foods we eat when**.* (Refer back to our discussion on carbohydrates.)

As you can see, manipulating hormones can have a very powerful effect on your body composition.

Get it right, and you're burning off lots of fat.

Get it wrong, and you're stuck in an endless cycle of *frustration*.

That brings us to our next contrast...

Contrast #4: The Exercise Contrast

We learned earlier that in order to boost testosterone levels, we need to lift heavy. Really heavy.

But we also learned that doing so too frequently becomes too stressful to the body and is actually a great way to put on fat. (Not exactly what we're looking to do here...)

So, we have a bit of a dilemma here don't we?

If the one of the pathways to rapid fat loss is through exercise…
How then do we burn as many calories as possible if we can't lift as heavy as often as we think we should?

Well the great news is that there's another type of lifting that burns a ton of calories –

Explosive lifting.

That's right, like Swings and stuff.

The really cool part about explosive lifting is that not only does it burn a ton of calories (i.e. stored body fat), but it also does something else almost miraculous –

It increases insulin sensitivity.

And yes, we're back to talking hormones here for a minute, so keep your shorts on – ALL of it is important (and inseparable).

One of the contributing factors to weight gain is not only excess calories, but excess sugar (carbohydrates).

Remember the role of insulin – to shuttle blood sugar into your body's cells – *preferably muscle and not fat cells?*

Well when you eat too many carbs without burning them off, you eventually end up with elevated blood sugar **and excess body fat**.

This means that your poor **pancreas has to work overtime** and **pumps out *extra* insulin** to deal with that extra blood sugar.

Over time your body's cells become resistant to the effects of insulin, so your body's response is to produce more insulin because the insulin it is producing isn't storing all the blood sugar like it's supposed to.

Therefore, it secretes *even more insulin.*

And chronically elevated insulin levels <u>eventually result in Type-2 Diabetes</u>.

Fun stuff. (Not really, that's sarcasm.)

But the good news is that repeated bouts of explosive exercise not only burn off stored sugar, but also re-sensitize your body's cells to insulin again. (Hurrah!)
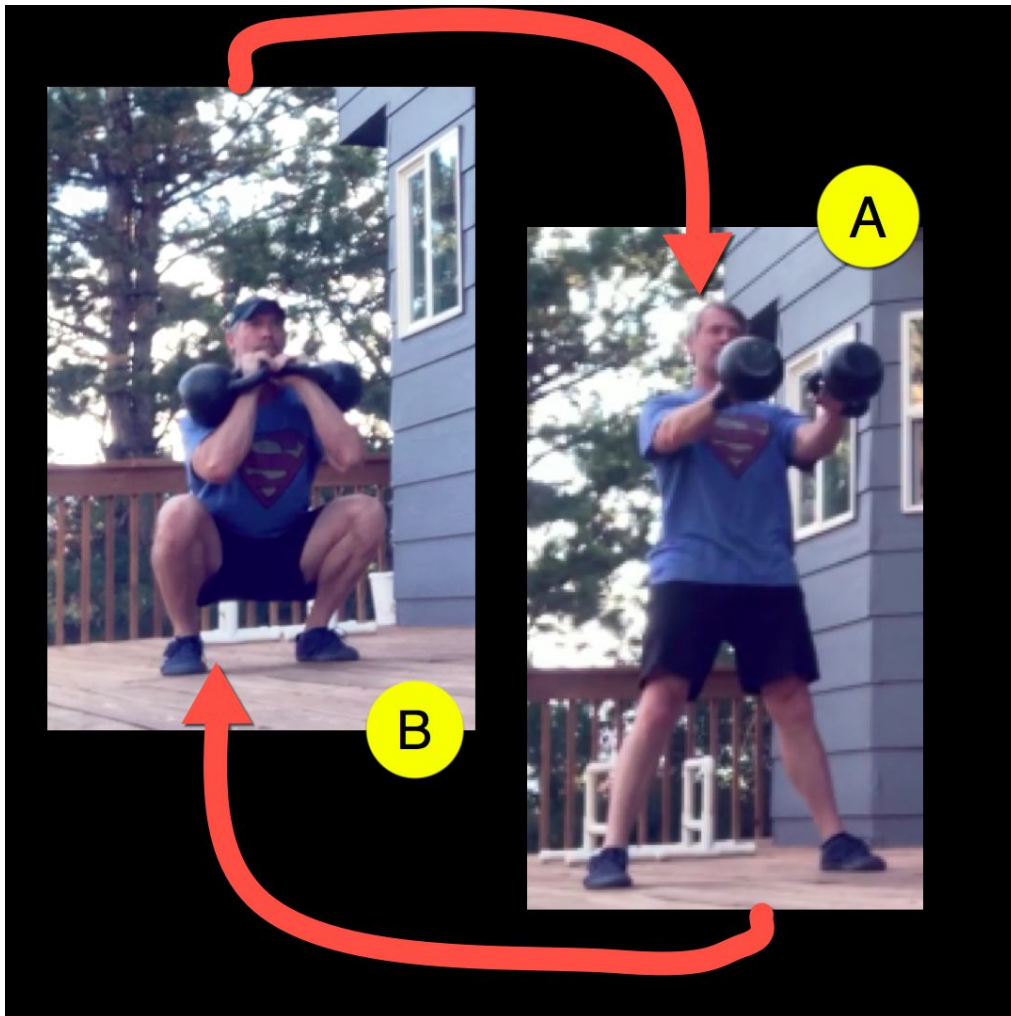
So...

By **contrasting *heavy* lifting** with ***explosive* lifting**...

We can not only ***speed up the fat burning process* by burning a ton of calories.**..

But by also *re-balancing* and *optimizing* our fat-burning and fat-storing **hormones.**

Which means that we can eat more carbohydrates to do more work to burn more calories, which in turn burns even more fat.

Pretty cool, huh?

(A = Explosive; B = Heavy)

Kinetic Chain "Bias Contrasts"

Another contrast we need to use is kinetic chain "bias contrasts."

This is where we bias, or overload certain kinetic chains of the body relative to others.

(A kinetic chain is a group of muscles responsible for a particular movement, like flexion (folding) or extension (unfolding).)

For example, if you were to do a ton of Swings, you would be biasing the posterior kinetic chain – all the extensor muscles of the body (the gluts, hamstrings, lower back).

Contrast that with Front Squats and you're now biasing the anterior kinetic chain – all the flexor muscles of the body (abs, hip flexors, etc.)

Alternating between different kinetic chains allows for very large volumes of work to be performed *without* experiencing overwhelming levels of fatigue and exceeding the ability to recover, **and therefore large amounts of calories (fat) to be burned.**

Good stuff which leads us to even better stuff...

Contrast #5: Work/Rest Contrasts

I will repeat this until I am blue in the face, because no one seems to be paying attention – especially in the fitness industry where more is always better:

> ***It's not how much work you can do, but how much you can recover from.***

The body perceives your workouts as *stress*.

And stress taxes your body's adaptive reserves – the ability to adapt and make the progress you want.

When you work out too hard, <u>you literally run out of the ability to adapt, which makes recovery take longer</u>.

So it stands to good reason then that in order to make the fastest progress, you need to do everything possible to help your body adapt to the stimulus you create through your workouts.

Then you can workout again and continue providing that ongoing stimulus which signals your body to continue changing.

Intra-Workout Contrasts

The key then for maximal fat loss is to use the *right balance* of work and rest within each workout.

This, to a certain extent, is personal, depending on how "in-shape" a person is, but can be relatively estimated.

<u>It should be short enough to get as much work as possible done, but long enough to **keep force production as high as possible** while maintaining exercise technique</u>.

Remember:

Fatigue alters exercise *technique*, especially in novice and intermediate strength trainers, and *limits your ability to produce force*.

So, that means if you rest too little, your form will degrade and you can end up injured, and/or you'll miss reps on your exercises, which will decrease the

amount of work you can do, and therefore the number of calories you can expend.

Also, from a hormonal perspective, you'll also be taxing your adrenal glands and increasing your amounts of circulating cortisol, which will hinder your fat loss efforts.

Extra-Workout Contrasts

Of course I'm not talking doing *extra* workouts here, that'd obviously be contradicting everything I just said!

No, I'm talking about what you do **outside of your workouts**.

Your workouts stress your sympathetic nervous system, the part of your body responsible for the "fight or flight" response.

You know – the one where you almost get into a car accident and then get the jello-legs afterwards. Yeah, that one.

Over-stressing your SNS – your Sympathetic Nervous System – leads to *chronic fatigue, overtraining, irritability, depression*, and here's the biggie – **fat gain.**

And since we already live in a world that demands that we work 50+ hours a week, have car payments, one, maybe two mortgages, and kids that need to be driven all over creation for after-school activities, we're already redlining our minds and bodies.

So adding to the mix by forcing our bodies to burn all that excess fat through dietary changes and extra hard workouts will dramatically increase our stress levels and therefore our stress hormones (adrenaline and cortisol).

That's why it's vitally important we balance out all this SNS stimulation by stimulating our Parasympathetic Nervous System (PNS). This is the part of your body that's responsible for the "rest and digest" part of our life.

By stimulating the PNS through "active recovery" methods, we **decrease our body's stress levels, reverse the stress hormone responses, and speed up the adaptive processes**, which in our case, is how fast the body can burn off that unwanted body fat.
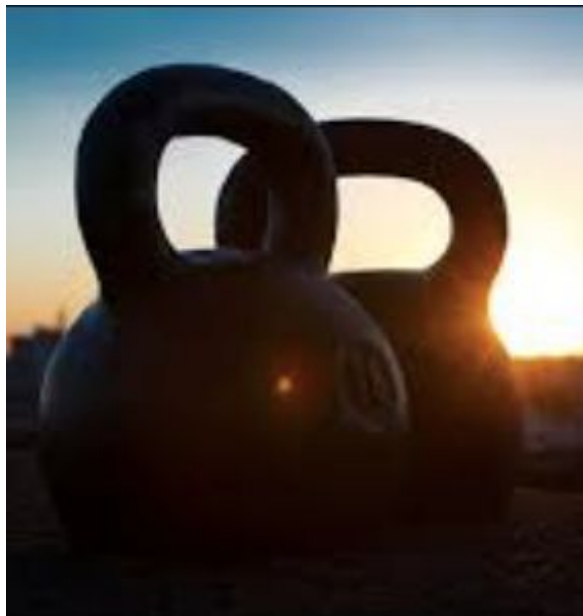
The take home point here is that by **implementing calculated and controlled Neuro-Metabolic Contrasts into your training, you will see fat loss like you've never seen it before.**

Which begs a question:

How do you put these Neuro-Metabolic Contrasts into practice?

GREAT question.

Keep your eye on your email inbox for the upcoming details.

About Geoff Neupert

Geoff Neupert is a former StrongFirst Certified Master Instructor and Master RKC Instructor. He has taught others throughout the United States, Europe, Australia, and Asia how to use kettlebells through certifications and workshops.

Geoff is a prolific author and publisher of kettlebell training and workout material, including the book, *Kettlebell Muscle*, and the *Kettlebell STRONG!* program.

He has been in the fitness/strength and conditioning field since 1993 and has logged well over 25,000 hours of one-on-one personal training.

Geoff has trained individuals from all walks of life: Athletes, busy professionals, stay-at-home moms, arthritis-ridden grandmothers, and military special operators, and pretty much everyone else in-between.

He is a former Division 1 Strength and Conditioning Coach at Rutgers University, New Jersey State Champion in Olympic Weightlifting and a National Qualifier in Olympic Weightlifting.