The Leptin Rx: FAQs

Readers Summary

1. What questions do you have about The Leptin Rx?
2. What questions would you like to see added to the FAQs?
3. Post your experience with The Leptin Reset in the comments

What should I do before I start The Leptin Reset?

Before you start, take a picture of yourself from all angles. Don’t be bashful or you’ll be sorry in 18-24 months. Next, weigh yourself naked. Let your significant other or a family member take this picture. Go to the store and buy a piece of clothing that does not fit you now, but will when you have met your goal. Remember, calories are important when you’re LR (leptin resistant) and mean nothing once you are LS (leptin sensitive). Macronutirents count when you’re LR and mean nothing when you’re LS.

How do I determine if I am leptin resistant?

Remember, you can be LR (leptin resistant) if you’re fat or skinny. If you’re overweight by more than 30lbs, it is a lock you have some degree of LR. If you’re underweight by 20 lbs, you are likely LR, too. If you had an eating disorder, you’re likely suffering from a serious leptin issue.

The easiest test is to look in the mirror. The mirror does not lie and it is really cheap. For those people who still can’t be sure after peeking in the mirror, you can order some blood

tests. My favorite is the HS CRP (highly sensitive C-Reactive protein) and the reverse T3 tests (but there are others). They are accurate in over 90{a7b724a0454d92c70890dedf5ec22a026af4df067c7b55aa6009b4d34d5da3c6} of cases.

My next favorite test is the salivary cortisol test, along with at least two of the following: HDL level, serum ferritin, homocysteine, fasting triglycerides, fasting insulin, or post-prandial glucose readings done every 15 minutes for one hour after eating. (Read my Hormone 101 blog for details.)

How do I restore leptin sensitivity?

If you're overweight, eat a low carb version of the paleo or primal diet. You'd be wise to read my book, The Epi-paleo Rx.

If you're really obese, eat a ketogenic version of this diet. If you're underweight, you need to eat a regular paleo or primal diet using leptin reset principles found in the Leptin Rx. You probably need to eat more protein and exercise more than you would expect. Exercise when your leptin resistant will make you gain weight. And the more protein you eat the less you should exercise because of the AMPK pathways. This seem counterintuitive but you will gain weight. You must be careful when you do it. Most people who eat a paleo diet who exercise too much will gain weight.

How long does it take to restore leptin sensitivity?

This step depends upon how badly damaged your metabolism is. It also depends upon how willing you are to adapt your diet and your exercise routine. My standard answer is 6-8 weeks for most people. "Most people" refers to those within one standard deviation on either side of the mean, and that includes about

68{a7b724a0454d92c70890dedf5ec22a026af4df067c7b55aa6009b4d34d5da3c6} of people.

How do I know when I am no longer leptin resistant?

Changes in appearance: Your hair and nails will improve in color and presentation. Your pedicurist will notice you have less dead skin on your feet. Your face will look a lot better, with softer skin and better color, especially if you use olive oil or coconut oil on your skin.

Changes in mood, personality, and thoughts: You will become more thoughtful, more mindful, and less explosive in explosive environments. If you decide to add mindfulness to your reset, (you should) you will notice tremendous changes in your thinking and your ability to learn and comprehend things. Your insight, intuition, and mental acuity will be sharper. Also, your sexual desires will change and your libido will awaken. Your spouse will begin to notice things and treat you differently.

Changes in appetite: Your carbohydrate cravings will go away. You'll feel full and not really need to eat three meals a day. You'll notice your taste and smell change.

Changes in energy and sleep: Over 6-12 months, expect your energy to gradually improve. You will feel warmer and exude body heat, but your body temperature will actually be lower. It will continue to trend lower over the next 18-24 months while you thyroid settles into its new biologic groove. Dramatic improvements will be made in your sleep. Both migraines and muscle soreness from exercise will decrease.

After leptin sensitivity is restored, what practices should I follow?

Once you realize things have changed, you need to immediately begin HIIT (high intensity interval training) exercise. I am a huge believer in lifting heavy weights at low reps. At this stage, I want most people lifting at 85-95{a7b724a0454d92c70890dedf5ec22a026af4df067c7b55aa6009b4d34d5da3c6} of their maximum weight, 2-3 times a week. The exercise rotation can be simple. A good resource is the Body for Life workout found at the end of the book in the weight lifting section. You do not need anything but a good set of dumbbells. You should do this for about three weeks.

Women especially need to regularly lift weights. Women never listen to me about this, but they should! Ladies, you will never get huge muscles doing this, I promise. The reason that weight lifting is so important for women is because their pregnenolone level declines fast after the age of 30. This causes steep declines in the sex steroids (known as*perimenopause*), in growth hormone secretion, and in vitamin D status. The muscle strain from weight lifting is the best way to stimulate the pituitary gland to say, “We are not aging yet, and we need to continue to make these hormones.” Leptin sensitivity controls that switch. **And ladies, your body composition is directly tied to this action**! If you lift, your curves will be maintained until you’re ninety or greater.

Both men and women need to consider their HS CRP levels. High levels indicate a person you have entered perimenopause or andropause at a much faster pace than others. This means your time to a total reset and optimization will take longer. It does not mean it is not possible! Do not compare yourself to others. Compare yourself to how bad your own labs were when you began. The worse your labs were, the longer it will take

you to get to optimal. Do not forget this biologic fact, you can’t run away from it!

After three weeks of lifting, you should add two days of running sprints. The sprints should be no longer than 40 yards and you should not exceed 20 sprints. If you can’t do twenty, work up slowly and steadily. Walking in the beginning is fine. Do not stress about this. If you do you, will raise your cortisol and the rest will take longer. Your thoughts will drive your cortisol.

As for your diet, you can begin to increase or decrease macronutrients slowly to see if it affects your cravings, weight, and your moods. If your symptoms start to return, return to your original diet.

Why should I avoid aerobic exercise during the reset?

This will require some explanation. If you’re LR, you are a sugar burner, not a fat burner. That means you can not do glycolytic exercise until your muscles and lever become completely LS as well. Your brain being LS is not enough. If your muscles are still LR, they can’t properly use the glucose or the fat delivered to them. This is detailed in the post Why is Oprah Still Obese? Leptin Part 3.

Another to avoid aerobic exercise at this stage is because the AMPk pathways are not working well yet. (This will be the focus of an upcoming blog post.) AMPk is stimulated by re-teaching your muscles and liver how to deplete glycogen and metabolically respond to hypoxia and cellular stressors. AMPk is directly stimulated by chronic cold environments to limit the effects of IGF 1 and mTOR activation. This is why cold thermogenesis is not hormetic and provides all eutherian mammals with longevity when they use this strategy. Any time metabolism is stressed, AMPk should respond in kind with big

results. In LR, AMPk does not, and cannot work well at all. This is why body composition is trashed in LR states. If you do aerobic exercise when you are still leptin resistant, you send signals to the mitochondria that conditions are really bad. Instead of making new mitochondria to help out, you wind up killing your cells via apoptosis. New stems cells are recruited to replace the suicidal cells. Sounds good? The problem is those stem cells were going to help extend your life span, and, well, you just shortened it! This is why NFL players, bodybuilders, and marathoners don't live long as group, and why they get many disease early. They sustain things like heart attacks, Alzheimer's disease, and cancer. No of it is good. Longevity always mandates we protect our stem cells. Cold exposure is the best way to stimulate AMPk to provide a long life. We only want to use them when we really need them. If you use them early in life, you're subtracting years from the end of your life.

Why do you need to eat within 30 minutes of waking?

When you're LR, your diurnal clocks in the brain, the liver, and muscles are all disordered. This is how we will reset those organs to once again act in unison, like an orchestra. If you break this rule, you can still find success, but it will make your reset take longer.

What exercise can I do during the LR Protocol?

My personal advice it to do none. If you must, swim, walk, or have a lot of sex right before bed. Yes, timing of sex is important, too, in the reset. Oxytocin is released at climax and it is the best chemical a brain can have prior to sleep. It jump-starts the conversion of serotonin to melatonin

without the four hours of complete darkness it usually takes. This is why orgasm can make you sleepy, and why moms and babies fall asleep in a rocking chair after breastfeeding.

Does everybody need 50 grams of protein at breakfast during the LR Protocol, regardless of size or sex?

My answer is yes, 50 grams is the minimum for success. The reason is tied to our modern microwaved world we live in. It was not true in 1930. If you're bigger and more obese, you can go past 70 grams, truthfully. If you can't eat that much protein, add fat to make up the rest. Fat replacement in the leptin Rx helps with eating disorders but it requires yoking it to light because of an up-regulated ubiquitination cycle.

If you are obese, add coconut oil to your coffee or tea, or eat a tablespoon of it. I use Nutiva brand and love it. If you're underweight, eat more hashbrowns cooked in pastured butter. Eat breakfast until you're stuffed. If you don't get to 50 grams of protein, don't sweat it – I don't want the stress to raise your cortisol! Just make sure your hunger is killed. If you get hungry before, during, or after lunch, you need to eat more protein or fat at breakfast.

What are examples of a 50 gram protein breakfast? If you can't figure this out, you have bigger problems than the reset can fix. Use the internet or go read my book or read brain gut 6 blog post. You could also contact grassfedgirl – she'll tell you to just eat a shit-load of seafood and bacon. She has my stamp of approval. Her new Epi-paleo cookbook can help teach you to cook Epi-paleoliciously.

Does breakfast need to be just protein, or can there be vegetables or fruit? What about fat?

If you are overweight, avoid fruit. Veggies are fine as long as they are not nightshades and have a low glycemic index. If you are underweight, you can eat fruit, and I suggest blueberrries, blackberries, and grapes over all others.

Fat is great. The obese can use coconut oil as their “number one diesel.” If you don’t like coconut oil or Nutiva coconut manna, you can use heavy cream, but you won’t lose weight as quickly.

For the thinner LR crowd, I recommend pastured raw heavy cream. Get some saturated fat raw cheeses from France. If you must use pasteurized stuff, go ahead, but it’s not my top choice.

What if I can’t eat a big breakfast?

Don’t complain about your leptin problems then. To get where you want to be, you must do things you have not done before. The leptin Rx is all about light and not food, but would would not expect this.

How strict is the 50 grams of carbohydrates per day limit?

It is strict for the overweight and not strict for the underweight. How should they be spread out over the day? The most carbs should be eaten when cortisol is the highest, in the morning. Dinner should be the meal with the least amount of carbs. Eat the most food in the morning, with decreasing

amounts as the day goes on. As you progress, you will notice yourself naturally falling into this pattern.

Can I use whey as a protein source during the LR Protocol?

Can you? Sure, but you should have asked, “Should I?” The answer is no. It is too insulinogenic and raises NPY. (If you are underweight, however, you can do so without any restriction.)

Can I have coffee or tea between meals, with cream?

You can have them plain, without cream. But again, should you? Nope. No snacks are allowed at all, just three meals a day. Drinks without calories don’t count as a snack and don’t even ask me about artificial sweeteners because the answer is “no freaking way.” (Stevia is allowed as long as it doesn’t have any fillers such as maltodextrin. Generally the liquid forms are fine.) The really obese or metabolically broken (such as people with fibromyalgia) may need four meals a day, but most people who eat a BAB (Big Ass Breakfast) will do fine with three meals.

Can I skip lunch during the LR Protocol if I’m not hungry?

Yes, it is good if you can make it until dinner without being hungry. Then, you can eat more at dinner if need be.

Can you do IF (Intermittent

Fasting) in conjunction with the LR Protocol?

No way. I love IFing, but don’t try it until you are leptin sensitive again. IFing requires the AMPk pathways to be working optimally.

What if we can’t eat dinner before 7 p.m.?

Drink water, have sex, and go to bed early. Turn the lights off early, too.

What if my family isn’t participating in the reset?

You’re not here to save them yet. Focus on you. You are worthless to them and the world if you’re not working optimally. Trust me, when they see where you are going, they will all change. Just ask my wife how that road goes.

What should I do about meal timing if I work night shift?

This one will piss you off. You will never be optimal until you quit your job and work normal hours. I have no answer for you here. Do your best, but you’re screwed. You can’t fight circadian rhythm biology.

If I fall off the wagon on the LR Protocol do I need to restart the

clock?

Yes and kick yourself in the ass. If you’re not ready to change your life, keep doing what you’ve been doing. During the initial reset period, there is a 10-14 day setback each time you fall off the wagon.

Will the Leptin Reset fix insulin resistance?

It is designed to eradicate it completely, if you do it correctly.

Will the Leptin Reset fix thyroid problems?

If you read the Hormone 101 blog,you’d know this answer already. Anyone with a leptin problem has a thyroid problem by definition. So if you fix leptin, you can easily fix the thyroid. If you have an extreme case, you may need a doctor to help guide you back to optimal.

Will the Leptin Reset fix adrenal problems?

It depends on the severity of the condition, as most are tied to cortisol issues. High cortisol levels are harder to treat than low cortisol levels. If they are really bad, I treat both the same time. Most often though, with fixing your light cycles, occasional adaptogenic support and some good doctoring of your envionment, you can fix most adrenal problems. For adrenal fatigue read the brain gut 16 blog.

How do you handle cravings and headaches from the initial carb withdrawal, or the urge to snack?

Magnesium is the answer, and lots of it, but avoid supplements with magnesium oxide. Start with doses of 400 mg and then increase the dose.

Your cravings will go away in a few weeks, if you don't give in. If you read the Leptin Reset thread at the Mark's Daily Apple forum, you'll see that some people who gave in to their cravings had to start the process over. It takes two weeks to regain what you lost from breaking the rules. (If it's a minor issue like only eating 49 grams of protein or eating 55 grams of carbs, you're fine.)

If you drink a twelve pack of beer or soda and eat Domino's, you're cooked. Family gatherings or Chinese dinners should just be handled with beef jerky and nuts in your pocket, and tell them you have a virus. If your spouse rolls their eyes, no happy ending for a week. And make sure you announce that the public embarrassment will alter their behavior going forward.

Can I drink alcohol or wine on the reset?

Norcal Margaritas? Can you? Sure. Would I? Nope, not even Malbec!

Will this have any affect on my pee or poop?

Yes it will. With time, your pee may smell like cat pee. If this occurs, increase your B complex vitamins to 2-4 a day,

and your vitamin C intake to 2000 mg a day. Your poop should be followed using the Bristol stool chart. Yes, I even evaluate poop.

What's Dr. Kruse's personal story?

You can listen to my podcast on Jimmy Moore's site (episode 474) or read my story here. Here is an edited version of post #206 from the monster Leptin Reset thread from Mark's Daily Apple.

I have had a lot of requests for my personal story and how I lost weight and improved my health. You need to understand that this was *my* game plan and it can't be used as a "plug and play" game plan. As I evolved, I adapted my eating and my exercise plan.

I began as a "fat ass" at 6 feet 2 inches and 351 lbs. Most of you need to hear how bad I was – I was B. A. D., bad. I was dying ever so slowly, but I could still lie to myself about my condition. As I stood in Orlando, FL, in a mall, I knew a change was coming to me; no one around me did, however. As a neurosurgeon, I knew I was a bright guy, but I also realized I was not too bright to get this fat and ruin my health and my life. My life really changed at the foot of a statue in Italy.

So I started to listen to people who had already overcome this health trap. I also began to read about both basic science and the latest scientific discoveries. As I read, I found out that everything I had learned in medical school was based upon "faulty opinion-based science". I then took a leap of faith and did what the *real* science told me to do. I ate a high fat, high protein diet. I ate very few carbs and loaded up on saturated fats.

A funny thing happened after three months – my fat began to melt away! The more I lost, the more I experimented with this

new diet, changing it as my blood test results changed. (I am a big tester. Sometimes I run labs every few weeks.) I began to take more supplements and do more exercise that was complementary to my new way of eating. I shunned aerobics for heavy weight lifting and running sprints. If I worked out too hard, my cortisol levels went up and fried my sleep and my weight loss. I began to monitor my blood levels for general biochemistry and lipids. I also began to include hormone levels. I checked vitamin D, HS CRP, reverse T3, and salivary cortisol levels.

I fired my primary care doctor three times back then. I had a torn knee meniscus and I needed surgery, but none of the surgeons I saw really understood why my meniscus had torn. None of them understood why I shunned what I had learned in medical school in favor of what I had found by reading about my injury.

I distinctly remember one orthopedic surgeon I saw in consultation. I told him that my plan was to eat a ton of saturated fat and protein, get my knee repaired, and never see another doctor for the rest of my life. He laughed, and I left him. I was dead serious and I still feel this way.

Next, I went to see a guy who was an old acquaintance. He remarked about my early transformation and he never critiqued me. He listened, even though he was a skeptic. I was fine with that. He told me regardless of my new way of living, I needed surgery on my knee. As a surgeon myself, I knew he was correct. I decided to let him do it because he was non-judgmental.

I had my surgery in May 2009. I operated on my own patients the next day. I never filled the Rx I was given for Percocet. I never, to this day, even went back to my surgeon for any follow up. I took my own sutures out and have never looked back. I optimized my labs and retooled my supplements and my meds based upon my N=1 and my own medical theories.

I lost a total of 133 lbs during my surgical recovery. I discovered how altered light cycles caused leptin resistance and how to treat it. I discovered that the timing of when I eat, was more important than what I ate. I found out that I can't get away with snacking. At the time, I ate a fairly low-carb diet, seasonal diet, loaded with seafood for most days below 50 or even 25 grams of carbs.

These days, I can eat anything I want. After I became leptin sensitive again, I also began IF (intermittent fasting). When I had previously tried it, when I was still leptin resistant, it caused plateaus in my weight.

I found that many things changed about me. The first change was my mind. Every morning at wakefulness I jumped in the hot tub and thought about three things to make my life better that day. I posted the best thought to my Facebook wall. I still do this, even today. (I also make it a personal task to view every sunrise and sunset.) I then got out of the tub and made a monster breakfast (BAB) with 50-70 grams of protein to start my day. Next, I did yoga or stretching, before heading off to work.

I usually was able to skip lunch (IF) or eat nothing but rabbit food at lunch. I came home and loaded protein and fat again, and I worked out with HIIT and sprints. I did everything consistently and my family and wife kept commenting on my dedication. I went from a 48″ waist to a 32″ waist in 11 months. Everyone asked "How? What? Why?" and I remained silent. I would only say, "I am not close to done yet. Talk to me when I get there."

Later, I told people about the speedo bet. I told them about the Thanksgiving dinner speech to my family. I told them about buying new wardrobes when I was fat – 6 different wardrobes. I told them what I told the salespeople when I shopped. For example, I distinctly remember going into a Nordstrom Brioni store and buying a size 42 R royal blue blazer for $5,000 when

I was currently wearing a 50 L sports coat. The person I bought it from thought I was out of my mind that day. Her name was Sara and she was from Croatia. I told her what I told everyone else. It is not crazy when you know what is coming.

Eleven months later, I flew to Orlando and took my kids to Disney World. I walked into the Nordstrom's where I bought the Brioni jacket. It was still in the plastic when I purchased it. I walked up to the salesman and asked to see Sara. I was told she was busy. I said I'd wait for her. I had a very big smile inside of me. Sara approached me from behind. I asked her if she remembered me as I handed them a picture of me as a fat ass buying the jacket for 5K on my iPhone. She stood there with her mouth open wide and could not believe her eyes. I was now 6'2″ and 197 lbs.

I dropped my jeans, pulled off my sweat shirt, and pulled the plastic off the Brioni jacket I had bought from Sara. I stood there in my Speedo underwear as I asked Sara to get me a pair of Brioni pants to match my current attire. She quickly obliged. I distinctly remember Seal was playing in the background, and acoustic version of "Crazy."

I put the pants and put the jacket on over my bare chest. I saw about 35 people watching the whole miracle unfold for Sara. I put my shoes on, threw Sara my AMEX card, and left her a tip. After I checked out, I left all my clothes on the floor, right there. Sara called to me and asked my if I wanted my old clothes. I told her, "No, this new guy thinks a new way on this brand new day."

I walked out of there and knew my thoughts of eleven months earlier had dictated every move I made that day in Nordstrom's. I hope you go get yourself some of what you know you can have, if you want it badly enough.

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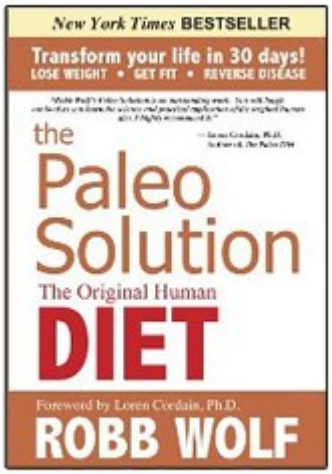	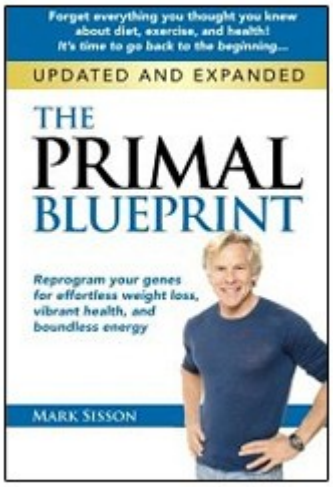
The Paleo Solution: The Original Human Diet	The Primal Blueprint

Nutiva Organic Extra Virgin Coconut Oil	Life Extension Neuro-Mag Magnesium L-Threonate	Now Foods Stevia Liquid Extract

- View All Recommended Products from the Leptin Rx
- View The Epi-Paleo Store

Additional Resources

- Hormones 101: Clinical thoughts revealed
- My Leptin Prescription
- Why is Oprah Still Obese? Leptin Part 3
- Leptin Reset
- What are the optimizing labs?

Cites

- If you have any other questions that I deem FAQ worthy, I will add them.