Why I Like Rapid Weight Loss (and how I do it)

James Hardiman, For Freedom from Obesity

When I first started this odyssey I was "morbidly obese": I had a Body Mass Index (BMI) just over 40. That meant I was 9 stones (126 lbs, 57 kg) overweight.

Conventional wisdom suggests a safe rate to lose weight is 1 lb per week. At that rate it would have taken me about two and a half years to get to goal weight. Actually, on the sort of nutritional regime that achieves a one-pound-a-week weight loss, it will take forever, because the last few pounds just won't come off.

The first time I did this, I lost 7 stones (100 lbs, 45 kg) in 30 weeks, cured myself of various problems along the way (like Type II diabetes), and was never healthier in my entire life.

That same conventional wisdom that says only lose a pound a week also suggests, variously, only weighing yourself once per week, or once per month, or throwing the scales away altogether.

Nonsense. Weigh yourself every hour for two days, then every day.

I guess I better justify these bold assertions. After all, I am not medically qualified, and I'm not a professional nutritionist.

I am a fat bloke who wanted to stay alive. I am also an intelligent man, capable of reading, researching (I have a Master of Philosophy, M.Phil. degree; that's a sort of "PhD Lite"), and forming reasonable hypotheses that I can test on myself.

Safe Rate for Weight Loss

So let's examine where this "1 lb per week safe limit" argument comes from, and to do that, we need to get into a little (very simple, I promise) science.

Our bodies need food. I want to use the a metaphor: "The Body is Like a Car".

The *body* (I'm just considering physical stuff here; mental, emotional, creative, spiritual, social and cultural considerations I'll deal with elsewhere) needs food for three things:

1. Fuel (Petrol, Diesel, Gas)
2. Maintenance (Spare parts)
3. Get maintained (the motor repair person)

Fuel is calories. The body uses it up doing absolutely everything it does, from just staying alive, through thinking hard, to running a marathon, and everything in between.

Maintenance is vitamins, minerals and amino acids. These are the building blocks that are used for constantly repairing, growing and rebuilding our bodies.

The "repair person" function is carried out by certain enzymes and other substances that catalyze (cause to happen) changes in our bodies.

All foods contain these three components in different proportions. The reason why people criticize "junk food" is because it contains loads of fuel and almost no spare parts or repair people.

The body, like a car, can store fuel for later use. However, a car has a fixed-size fuel tank. When it's full, adding more just causes a mess on the filling station forecourt.

The body, however, just grows the fuel tank to contain all the extra fuel you add. In extreme cases that means the body is almost nothing but a great heaving, wobbling fuel store. The trouble there is that the body becomes so ungainly and difficult to move, that it's really hard to actually use up this excess fuel. That means you have more fat (doesn't use fuel) and less lean muscle (does use fuel), so your fuel consumption drops whilst your fuel store goes up.

How much fuel do we need?

Well, that depends. If you were lying in a coma in a hospital bed, you'd still be using fuel.

When I first owned a car, cars were very simple things. If you turned off the lights and the ignition ... that was it; it was totally inert.

But my big blue Mercedes uses electricity all the time, whether I'm driving it or not. The clock, the car's engine computer, the security system are all using power, whether I'm driving it or not (as I learned to my cost when I came back from a three-month trip and had to pay £200 for a new battery, and silly money to the Mercedes garage for resetting all the systems so they worked again).

This underlying rate of energy consumption is called your "***Basal Metabolic Rate***", and differs, based on your gender, weight, height, . Here's how Wikipedia defines ***BMR***:

> *Basal metabolic rate (BMR), and the closely related resting metabolic rate (RMR), is the amount of daily energy expended while at rest in a neutrally temperate environment, in the post-absorptive state (meaning that the digestive system is inactive, which requires about twelve hours of fasting in humans).*
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> *The release of energy in this state is sufficient only for the functioning of the vital organs, the heart, lungs, nervous system, kidneys, liver, intestine, sex organs, muscles and skin.*

BMR changes with age, gender, height and weight.

On top of your BMR requirement is the energy you need for normal daily functioning: getting up, getting dressed, washed, fed, to work, etc. This total amount of energy is called your ***Daily Calorie Needs***, and can be anything from 1.2 to 1.9 times your BMR.

And here's the simple truth. Eat more calories than your Daily Calorie Needs, and your body will store the excess energy. Eat less and your body will make up the difference from the energy store.

In even simpler and balder language: eat more than you need and you'll get fat, eat less than you need and you'll get thin.

HOWEVER ... if all your requirements come from food, then eating less calories means you are also eating less spare parts and "maintenance people".. To avoid linguistic clumsiness, from here on I will just divide food into fuel and nutrition.

Here's the danger; cut down on food in order to cut down on excess calories, and you're in danger of cutting down on nutrition, too. Do that and you'll get ill; maybe even die.

Where does the boundary lie between reducing calories to lose weight and not endangering your health? Let's do a little sum.

A pound of fat contains 3500 calories. So, to lose a pound a week you'll need to consume 3500 calories a week less than you use. An average woman probably needs around 1250 calories per day, or 8750 per week. So to lose a pound a week, she needs to cut her food intake dramatically. If all she does is stay on the same diet, but just reduce quantities, you can see she's going to be in BIG trouble.

But how about if there was some way to get 100% of the nutrition you need, at very low calorie levels?

Welcome to the ***Very Low Calorie Diet***, or ***VLCD***. My diet is incredibly well formulated to give me all the vitamins, minerals and enzymes I need to get top-notch, fabulous nutrition, but only 500 calories per day.

I'll do a worked example, but, for the math-phobic among you, I'll put all the sums in an appendix. It comes out that on my 500-calorie a day VLCD I will, based on my today's weight, lose 6.6 lbs a day.

Of course, tomorrow I'll be about a pound lighter, so the BMR equation will change, so I'll either get *very* good with a calculator, or I'll build a spreadsheet (which I did; I will make a copy available).

There's one more thing to explain (because if you're following my Facebook posts, you'll know I've lost 9lbs in 4 days).

How The Body Stores and Uses Energy

The body stores energy in two forms, one available for quick access in the short term, and one for longer-term use.

The evolutionary need was for, on the one hand, a rapidly available energy store that could be used for flight or fight, or chase or sex. On the other hand, we needed a slower-release energy store to get us through the winter and spring, when there wasn't much food around.

For short-term, rapid uptake use, our bodies store glycogen in our liver and our muscles. For long term use, energy is stored as fat, which has a second use to keep us warm.

When we start a VLCD the glycogen is the first thing to go, and glycogen bonds with five times it's own weight of water, hence for the first few days we pee every 90 minutes, morn-

ing, noon, and night, and the weight absolutely *falls* off. It looks exciting on the scales, but it is only water!

How do we know when the glycogen is all gone? We enter a state known as "ketosis"[1]. We know we are in ketosis when:

1. We stop feeling hungry,
2. We stop peeing every 90 minutes,
3. If we pee on a "ketostix" strip (get them from the pharmacist) it goes purple,
4. Our teeth start to fur up, and we start leaving toothbrushes and toothpaste around the house for immediate use,
5. Our weight loss conforms to the above equations.
6. Our brain starts to get sharper.

It's important to stay in ketosis for reasons 1 and 6. And you do that by sticking *strictly* to the diet. Any little extras (not so much as a slice of lemon in a glass of water) are liable to kick you out of ketosis.

I have experienced (6) above. Apparently it's because ketones fuel the brain[2] instead of glucose.

I've Been Told to Throw My Scales Away

No. Go on to the internet, and Google "Withings". It's a very accurate, WiFi scale that will weigh you and measure your body fat percentage, as well as calculate your BMI. They are (Dec 2010) £115 from Amazon, and worth every penny.

When you get them, weigh yourself every waking hour, day and night (and when you get up for a wee). They record your weight on a central website (only you can see it, unless you allow your Dr access), so you can do it half asleep.

Do this without dieting; just your normal lifestyle. After two days, look at the results. You will find that your weight can fluctuate by as much as 5-8 lbs (2-4 Kg) during the day.

This means that you can "lose" a pound simply by weighing yourself an hour later! And it means that a target weight loss of 1 lb per week can't be detected … it's lost in the "noise".

Would you trust an airline pilot who didn't look at his instruments? I wouldn't. Your scales are your instruments: they tell you how you're doing. And when you're feeling all miserable because you can't eat your favourite food, go weigh yourself; you'll be so excited at another couple of pounds lost, that all your motivation will come back!

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1 Ketoacidosis is a pathological metabolic state marked by extreme and uncontrolled ketosis. (Normal ketosis, by contrast, is a functional aspect of fat-based energy metabolism, induced by prolonged fasting or a low-carbohydrate diet.) In ketoacidosis, the body fails to adequately regulate ketone production causing such a severe accumulation of keto acids that the pH of the blood is substantially decreased. In extreme cases ketoacidosis can be fatal.
Ketoacidosis is most common in untreated type 1 diabetes mellitus, when the liver breaks down fat and proteins in response to a perceived need for respiratory substrate. Prolonged alcoholism may lead to alcoholic ketoacidosis. Fasting leads to ketosis but not ketoacidosis.
Ketoacidosis can be smelled on a person's breath. This is due to acetone, a direct byproduct of the spontaneous decomposition of acetoacetic acid. It is often described as smelling like fruit or nail polish remover. Ketosis may also smell, but the odor is usually more subtle due to lower concentrations of acetone.
(Wikipedia)

2 http://www.keto.org/summary.htm

Won't a VLCD Damage my Muscles?

No. I went from obese couch potato to walking 500 miles with Walking for Happiness. I did my first 200 miles whilst on my VLCD, and my longest walk was 15.5 miles in a day. VLCD's (Ketogenic, low-carb diets) are known to be "muscle sparing"[3], and that has certainly been my experience.

Won't a VLCD Cause My Metabolism to Slow Down?

No. That's why weight loss is slow rapid. It does that by sparing lean muscle mass. Check out footnote 2 below. Something like 25 year's research on Lipotrim has shown you can stay on it as long as you need to, to get to your healthy body weight.

I've Been Told to Come off a VLCD After 4 weeks

NO NO NO NO NO! At least, not if you're on a decent, nutrient-complete VLCD. That rule was invented by the US Post Office, 30 years ago, because, after a completely charlatan poisoned people with a rubbish VLCD, they were worried that they could be sued if they delivered a VLCD to someone, and they died. Legal advice said that people could go with no nutrition at all for four weeks, so if they made that restriction, they were legally safe!

Why you shouldn't come off, and go back to normal food, I'll explain in greater detail elsewhere. Basically, there is a "re-feeding protocol" to use at the end of a VLCD, and then a "new you" protocol, for on-going maintenance. Ignore these and your food addiction will come back in spades, and you'll pile all the weight back on. I know. I've been there.

Do it once. Do it properly. Follow the rules. Live healthy forever.

What VLCD Should I use?

Ah, this is where I can't recommend, only tell you what I did, and am doing. I followed, and am following the Lipotrim[4] diet. The problem for anyone not in the UK I that Lipotrim is only available in the UK, and only through your GP or your pharmacist. Check out this video, made by the chairman of the UK National Obesity Forum: http://www.lipotrim.co.uk/haslam.html

I have experienced all the advantages mentioned by Haslam in that video.

Originally, Lioptrim was developed by Dr Alan Howard, whose career at Cambridge University spanned 60 years. He has been responsible for developing a number of VLCDs, including Lipotrim, the Cambridge Diet, and, I believe, Lighterlife. Lipotrim is probably the most heavily researched of all the VLCDs; there's masses of research documented on the Lipotrim website.

When I'm not on Lipotrim, I miss it. It tastes OK, and it is simple. I have tried varying Lipotrim with Cambridge, Exante, and Be-Yu. I'll write those up elsewhere. I only trust Lipotrim

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3 **"Increased muscle dynamic endurance associated with weight reduction on a very-low-calorie diet",** M *Krotkiewski, G Grimby, G Holm and J Szczepanik (1990)*, Department of Rehabilitation Medicine, Sahlgren's Hospital, Gothenburg, Sweden, American Journal of Clinical Nutrition, Vol 51, 321-330

4 http://www.lipotrim.co.uk/haslam.html

100% because of all the research that has been done, because of the clinical supervision, and because it worked for me.

What Else Do I need?

You need psychological, emotional, cultural, spiritual and social help and support, and that isn't provided anywhere in the world … yet! I am bringing mine and my wife's 70 year's experience between us to provide that support. If you would like to work with us in the development stages of this work, please contact us at James@JamesHardiman.co.uk.

Appendix: The Maths

English BMR Formula

Women: BMR = 655 + (4.35 x weight in pounds) + (4.7 x height in inches) - (4.7 x age in years)
Men: BMR = 66 + (6.23 x weight in pounds) + (12.7 x height in inches) - (6.8 x age in year)

Metric BMR Formula

Women: BMR = 655 + (9.6 x weight in kilos) + (1.8 x height in cm) - (4.7 x age in years)
Men: BMR = 66 + (13.7 x weight in kilos) + (5 x height in cm) - (6.8 x age in years)

I'll do mine, in kg (because that's what my scales register). This morning I was 133 kg, I am 193 cm tall, and 63 years old.

So my BMR is:

66 +(13.7 x 133) + (5 x 193) - (6.8 x 63)

66 + 1822 + 965 - 428 = **2424**. That's what I need just to stay alive; my BMR.

Next we use something called the Harris-Benedict equation to see what my daily needs are.

With this amount of exercise	Multiply the BMR by this
Little to no exercise	1.2
Light exercise 1-3 days/week	1.38
Moderate exercise 3-5 days/week	1.55
Intense exercise 6-7 days/week	1.73
Extremely intense exercise 6-7 days/week	1.9

(That's the same for men and women.) I reckon I should multiply by 1.55. That gives me a Daily Calorie Requirement of **3758**. Let's call it 3800 to make life easier.

But on my Very Low Calorie Diet, I only get 500 calories a day. That means each day I am 3300 calories short. Over a week that's 3300 x 7 = 23,100 calories short each week.

And at 3500 calories per pound of fat,
that means I'll lose 23,100 / 3500 = **6.6 lbs per week**.