WARNING!

What you are about to read in this introductory e-book will *challenge your beliefs* about health and weight loss.

"Your Hidden Barriers to Weight Loss"

Introductory e-Book

By: Yegyan C.N.C., H.H.P.

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E. Powell, WA Jan 27, 2010

About a week later ...

... Everyone is starting to tell me how good I look. My mom could not believe my size 8's are really loose I had got up to a size 10 and it was tight boy that came quick I have tried for months to do what you have got me to doing. I am a tarus born in April and my head is hard but I am listening to you and doing as you say. This is not easy but I guess nothing that is really good for you is. Thanks yegyan
PS I wil be in bed by 10 that is really a drag (smile)
E. Powell 3 Feb 2010

One Week after Starting ...

When I first started changing my diet, I couldn't believe it. I definitely started to feel the difference. My mind was clearer. It felt like a fog was lifted. My energy was increased. I wasn't dragging myself around to do things. I had a lot more energy, even my hair improved. It wasn't as dry as it was before I changed the way I was eating. It has a lot more body and not as frizzy and it was. I was using a special conditioner to make it less dry and frizzy. I don't have to use that anymore.

My skin is different also. I have been told so many times by a lot of people that I look younger. I even notice it myself. I don't look so worn out anymore. My skin has a different look to it. It seems like my wrinkles are not as pronounced. The rest of my body isn't as dry as it was, I don't use half of the lotions I did before.

I have lost ten pounds and 1 inch of my thighs and hips. My life is changing for the better. I haven't even started to exercise yet. But I don't feel that it will be as hard as it would have been if I didn't change my diet. I'll update you with my results.

Thank you so much for all of your help and the knowledge that you are giving me. What a difference a diet can make in your life.

I think once you get the knowledge on how food affects your body, the easier it is to change the way you eat. Knowledge it half the battle. So many people eat the wrong way because they have been given bad information. There are a lot of people on diets that are really not eating the right way or eating the right things. They seem to gain the weight right back the minute they stop the diet. They feel hungry all of the time and get tempted constantly by the things they can't eat. Well I don't feel deprived. I don't feel hungry and I haven't been tempted by anything, which is unusual for me. Nobody ate more sugar and sweets than I did. I was always putting a cookie in my mouth. Eating chocolate or cake any chance I got. I thought it gave me more energy. I don't need that anymore. I never thought I would not want any sweets, but I don't. I feel satisfied, which is a great feeling.

Feb 2 2009

Follow up ….A year later and still having success! Thats what I call lasting weight loss!

Ye Gyan, I am now down to 128lbs from 156lbs!! You're great!! I can now wear anything I want!! I feel so much better at this weight! Wait until you see me. We need to take another after picture!

Jan 20 2010

C. DeHaan. Oregon

Really enjoying the book! Learning a ton.
J.V. Jan 30, 2010

One day after an impromptu consult with this wonderful lady ...

Yegyan I got to bed on time last night I woke up a few min at 12 am but after that I stayed asleep the rest of the night ... I have droped a few pounds and I feel so good. I went to the ice skating ring tonight with the little girl I told you about I feel so good. I am smiling right now thank you.

E. Powell, WA

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ok so today (my saturday morning) i started the 3rd week of CE and i am surprise at how strong i am feeling, ... I am lifting little stronger weights and doing more reps (from 10 to 12) with certain exercises. This feels good man!

1/8/10 10:56 PM

Also noticed that i do not worry about getting parking close to a shop when i need to go to a shopping mall, hey because i now have the stamina to walk! haha

1/8/10 10:57 PM

the place where i renew my car license is up stairs in a mall. Last year i remember huffing and puffing climbing those stairs....this week i could do it that much easier.

1/8/10 10:58 PM

Yes i know you say this is only the beginning BUT gee this transition is sure nice

1/8/10 10:59 PM

the CE video also helps to cool down while doing it with her, if i had to do the cool down on my own, i might skip it at some days

1/8/10 11:00 PM

so al in all i feel really privileged to have all the tools , help and support AND thanks to you, i am making this life style change

1/8/10 11:02 PM

realy yegyan in so many ways this is a dream come true for me. Know that you have such an influence in changing one person's life and helping her to realize a very long held dream....to be fit healthy, strong and feeling great

1/8/10 11:04 PM

I do so appreciate your attitude, approach, wisdom and commitment to helping me. It is as though a totally new world has opened up to me.

1/8/10 11:04 PM

Ur a star! 

At 48 years old, I had spent the better part of 25 years running, working out, eating healthy food, and taking care of my body. Being somewhat of an exercise junkie, I was certain I had all the answers. I went to the gym constantly and although I was committed like a fiend to exercise, I was frustrated that my body was stuck in a state of "I'm not budging, just try and make me." I can honestly say that I thought I knew exactly what I was supposed to be doing for myself and for my health, however, I was working in vain. What I wanted was completely eluding me. I wanted to be physically better than I had ever been before. Although it may seem like a shallow goal to some, I thought that at 48 I finally had the time, the space and the energy to have the body that I wanted, and dammit, I was going to get it. I thought I would try this workout routine, and that workout routine, try eating later, try eating earlier, try eating two meals a day, trying eating breakfast for dinner, and dinner for lunch, try not eating after 4:00 p.m., try not eating carbs during the week, and try two hours of exercise a day instead of one. I tried to tweak my diet and exercise routines in every way I could think of, but nothing was working.

Although I was keeping up a rigorous routine of daily exercising and relatively (at least that is what I thought) healthy eating, nothing was changing. On top of that, my body was physically hurt, as my years of running had taken their toll on me, but I was unwilling to give up running. I considered it my drug of choice. I knew that I was missing (or most likely ignoring) something, but I didn't know what it was. I had hit a plateau that I was unable to overcome on my own.

I had been following a raw food diet at the time, and my weight was yo-yoing up and down between 128 and 132 pounds. In addition to not feeling as fit as I

should have been for how hard I was working, I literally had zero energy, even though I was constantly exercising and eating what I thought was an extremely healthy raw food diet. The problem was not only was I not losing the weight I wanted to, I was fatigued, lethargic and in pain from over-exercising which was not showing any benefit to me at all. I was stuck in limbo, so I did what most people do nowadays; I turned to the internet for answers.

It was my lucky day, when, just over six months ago I stumbled across Yegyan's website, www.natural-weight-loss-myths-revealed.com. I came about it when I was looking for juicing recipes to help with my lack of energy. I contacted Yegyan, and immediately he took an interest in my situation and wanted to do what he could to help. Yegyan's approach to diet, exercise and overall health and well-being are unlike anyone else's. I have read countless books on diet and exercise. I have had personal trainers and diet coaches. However, I have never felt as good or, in my opinion, looked as good as I feel and look today after following Yegyan's advice and approach to repairing the body by correcting hormonal imbalances through nutrition and proper exercise.

I know that I am a stubborn girl, and full of fits and starts. And at first, I did not want to do all the things I was instructed to do: Slow down, listen to your body, rest, eat more often, meditate a bit (torture for me), nurture your body with the proper combination of foods, and again slow down, slow down, slow down. I resisted for a while, but then once I started to take Yegyan's advice, everything switched into high gear for me, and I broke through my stubborn two-year plateau in a few weeks.

Since September 21st, when I actually decided to listen and stop trying to figure it all out on my own, I have lost those stubborn 6 pounds, 8% body fat and 12 inches overall. I am overwhelmed with excitement, not just because I look so much better, but more importantly, because I actually FEEL so much better. I feel more alive, more alert, more energetic, more rested, and healthier than ever. I am running again with a new sense of purpose, well-being, peace and calm, and my pain has almost completely subsided.

If you believe in destiny, as I do, I think the people that have the most impact on your life come to you when you are ready to listen and ready for a change. When I met Yegyan, it was my time to listen and learn, and in doing so, everything else in my life changed.

With so much Love -- Me.
L. Quintanilla Dec 8 2009

Hello. Greetings from Dungarvan, Co. Waterford, Ireland. Your site popped up when I googled the following question: What is the physiological process involved when the body stores up when there is insufficient ingestion of food, leading to maintaining instead of losing weight? Someone asked me that question today but I did not have a detailed answer for them. I'll also pass on your info about adequate sleep, water consumption, body recovering after exercise, etc. etc. Great site. Thank you :)
First Name: Mary Nov 27 2009

NOT A QUESTION - A THANK YOU - A BIG THANK YOU!!! Read The Right Exercise and do not exceed a certain heart rate... I have adrenal stress - excess cortisol. So this was most useful .... I got most of my life back .... ANYHOW - THANKS A BUNCH
MaryLou July 22

Just started have been doing it for about six months. I listened to what you had to say about exercising and now can understand what I am doing wrong. I mostly walk on the thread mill no weights. I walkng at a speed of 3 and the level is set at 7 for 30 minutes. I have lost inches .... Thank you for helping me to understand that.
Chuckey Aug 25 2009

I got a great comment from someone today she said "Hanan your getting skinny" ^_^ May 20, 2009 5:18:23 AM

Couldn't sleep because of excitements and day dreaming of how my body is reshaping, I feel that I am splashing and cleaning my inter body with fresh cool clean water with lemon ^_^, I feel like water is sculpturing my body from inside, to make it look good outside. Sat 23 May

Wins (These are benefits you have gained or successes you had. It is important to acknowledge these shrinking waist ^_^ Mon 25 May

ok here's what happened last night, first, EVERYBODY was asking me what am i doing!!! and that i lost a lot of weight YAY!!!!!

today , my in laws came over for lunch .... it's amazing how i could finally control my cravings that easy. THANK YOU YEGYAAAAAAAAAAAN!! 6/4/2009

Date: **Sat July 4**

Started Program: May 12, 2009

	Beginning	Today's	Difference
Weight	189 kg	179 kg	10 kg
Upper Arms (Combined)	74 cm	64 cm	10 cm
Upper ab.	90 cm	82 cm	8 cm
Waist	103 cm	84 cm	19 cm
Hips	120 cm	110 cm	10 cm
Thighs (Combined)	148 cm	124 cm	24 cm
Total	**724 cm**	**643 cm**	**81 cm**

"Before I met Yegyan, I had been working out at the gym, but struggled to lose 10 pounds over a period of many months. When Yegyan and I talked about that, he explained that my heart rate should not go over 126 while working out in order to be burning fat. I had had no idea, so prior to that I had been working as hard as I could push it, out to 135 and even 140 and believing I was doing the best thing possible to lose weight in a healthy manner. As soon as I began to keep my heart rate under 126 and increase the length of workouts as he had also suggested, the

next 10 pounds came off much more quickly, and I was a believer! Thank you Yegyan, for helping me to restore myself to fitness."
Melody Haines 22 Nov 2009
http://www.stress-management-through-empowerment.com

I know it is still early days but this morning I realized a miracle is happening. Let me share:

I use to overeat and drink, especially wine, at night because of emotional reasons. That has not happened for weeks now. Last night we had an outage of electricity, so no TV. In the past I would grab the wine and food and "entertain" myself until I am so spaced out that I just fall asleep. Last night there was no panic, no urge to drink or binge and all was well. I only realized what miracle that was this morning.

So on wins: THis is a BIG one and I did not realize it until now!

This is truly a lifestyle change, not a diet.
THanks Yegyan for sharing your knowledge and gift with the world.
T.J. Pretoria South Africa Nov 22 2009

"Your advice really helped. I thought I would not be able to do this program. But I now have my system down. You made it so much easier." C. W.

"I never had a diet coach tell me to keep eating so much.

But then again, I never got results!

It's working!

And I'm never hungry! Thank you!"
P. C.

"Your coaching made things so much easier.

My friend lost a lot of weight using your methods just from reading the book.

I needed someone to talk to on a regular basis.

I want to understand what is going on."
H. A.

"Thank you.

The coaching was so helpful. It made applying the tools in the book so much easier.

I am losing weight. It is working. After 15 years I am losing weight finally.

Thank you."
S. R.

"Thank you so much for your consults and training. I read your book and though I was doing everything correct but the weight loss stopped even though other other symptoms like energy, sleep, flexibility relaxation were still improving.

After doing the coaching with you for 4 months I realized that there is more to this than meets the eye. You were able to spot many things that were giving me trouble. Better yet, you told me in advance what I would be running into. Not generally, but specifically me. From your experience you were able to tell me I would have a hard time with something and sure enough it was a brick wall.

Then you walked me through it every single day for three weeks straight.

There is no way you can put everything in a book.

I have reached my goal and know I have given myself the greatest gift - long-term health and knowledge.

Please put this email on your site!"

L. S.

"Every program I have tried worked. Then stopped. I felt like I was a hamster in a wheel.

I can write a book on how to have weight loss plateaus.

After your consulting and training, I can see the whole picture.

Remember that story about the blind men trying to describe the elephant? Each could only describe the part they experienced.

You showed me how to see the whole picture. Every single diet and exercise in the world has its place. I didn't need to find the right exercise or diet. I needed to find out where I was first. Then APPLY the right diet and exercise.

The missing part was not seeing everything as a whole.

In the last three months I have changed my diet and exercise 3 times and each time was correct because they kept giving consistent results.

I know I am on my way.

Thank you for your training and coaching.

I have it for the rest of my life"
J. K.

"Thank you so much for being so patient with me. After my first month with no weight loss I was losing hope. Even though you assured me that was normal I was still thinking it was over.

What kept me going besides your consults, was the other results. I was sleeping deeper than I ever remembered. I was getting asked what conditioner and moisturizer I was using because my skin and hair looked so good. I had more energy than I ever had before.

So KNEW something WAS happening. I knew that there were changes even though the weight was not coming off.

Then it started.

I am at my goal now. I am fitting into clothes I wore BEFORE I WAS MARRIED!

I feel AMAZING. There are not enough words to describe how good I feel.

I have progressed to resistance training now. My face has changed shape. My body is getting chiseled.

It is not round anymore.

Thank you thank you thank you thank you.

You have given me skills for life."
K. A.

"Thanks for the checkup. It has been a year since achieving my goal weight with you.

"I have not kept my weight because I have gained a lot of muscle and workout a lot now, By fat percentage is now 12% when it was 48% when I met you.

"That fast was so profound for a meat and potatoes guy like me that I keep doing it. Even though I take one day out of the week and use it for a juice fast I find I get more muscle gain by doing that.

I also did another 2 week fast and when I got back to lifting weights I got stronger and recovered faster."

Jeff K.

"Now I understand the difference between health and weight loss

"Even though the first 2 months I did not lose a lot of weight, there were so many other changes in my life and body there was no doubt that my body was changing and changing for the better.

Then it just started to happen, the fat started to melt off and my boyd started to transform.

Now 6 months after attaining my goal weight, I am an athlete and I understand how to keep it off. It is more than diet and exercise. Thank you so much for the education."

Eric M.

"Increasing the fiber content and moisture content from your list in my diet have made me much less hungry and I just don't feel the need to eat as much any more.

"There are so much greater reserves of energy"

Suanne C.

Dear Yegyan

Thank you so much.

As of now, I cannot believe that I am the same person who approached you 4 months ago.

I have to admit I thought you were a little bit crazy for making me eat so much when I was trying to lose weight and get healthier but you were right.

There was no way I would have continued if I ate less and felt worse.

It has been 3 months off my heavy use of anti-depressants and my friends and family keep saying, "You're back" I didn't realize I was gone until I saw a video of my son's birthday party and SAW myself. It was not so much the extra weight that I noticed. I looked what you described as "wooden".

Like I was looking at a shell of myself and I was truly gone. I feel so bad for what I put my friends, family, husband and most importantly my son, through.

My son is off Ritalin and his sweet personality is back. He loves cucumbers and zucchini of all things! We make food together.

Never again. I will never go back on that road again.

So I tested my adrenals and they are normal now which is pretty fast as the cortisol was so below normal a few months ago.

When you said I should be feeling waves of pleasure when I eat I had no idea what you were talking about but it is true. Especially when I moved from the high protein in the beginning to high fiber, and plant based diet,
there is like this electric fuzz of delight surrounding my whole body and I feel ... waves of pleasure. Just like you described.

I appreciate you treating ME, the person. Not my body. That one fundamental difference was what was missing with others. It allowed me to look outwards at my life and not just at and within my body.

I have attained my weight loss goal, I know how to monitor it, what to expect, what to do. I am in control now. Not drug and not marketing companies and not magazine ("girly magazines" as you call them) articles.

I have one last thing to say that brought tears to my eyes. I had to hold them back at the time because I was out in public but when I got home I went to the bathroom and cried tears of relief and joy.

I didn't realize it got this bad.

But my son Kyle and I both went for a walk and looked at things. I was looking at the sunset and said how beautiful it was. He stopped, turned around and hugged me and said, "Mommy, I missed you when you were gone."

I was caught off guard and asked what he meant. He said since I started taking "the pills" I went a way and he didn't know where I was. That was why he started crying a lot and that was why he was put on Ritalin.

I made absolutely sure he did not see me take them, but kids I suppose kids do see everything.

Well ... I am back!

And here to stay.

Thank you from the bottom of my heart.

Melissa

These individuals and many more, have all gone through my method. They have lost fat and gained muscle and raise their health markers and added many, many years to their life.

I admire their courage and conviction to do the right thing. I want you to join them!

Introduction

Thank you for dowloading the e-Book.

The Metabolism Makeover book answers the question, **"Why Can't I Lose Weight?"**

This introductory ebook is just a ***fraction*** of the material contained in the full ebook

I have only taken excerpts from the book and put it in here.

Having said that, let's go over how your body loses its ability to lose weight ...

You could be a person that loses weight on a new exercise or a new diet but it stops and the weight comes back on. Then you go to a new diet and/or exercise program and the same thing occurs.

There is the other situation you could be in where nothing you do will cause you to lose weight.

Often times, especially for women, one goes from the first scenario to the next.

There is also another category and that is the person who gains weight when they exercise and diet and they also feel horrible to boot!

In studying health and weight loss, I wanted to know what were the underlying physical processes that caused fat to be stored and reduced on a human body and the healthy and unhealthy way to lose weight.

What I found was that there are common denominators to health weight loss.

I will go over those items in this ebook but before I do they all show one thing.

When your body is healthy on the inside weight loss should occur with teh correct effort.

When internal health is compromised, this will be the block to weight loss.

Many of you have sensed this but you did not know what to do and where to look.

It is not your fault. Current western medical technology does not look for the indicators of health that are needed for you to attain optimal health.

You see, medicine is the study, diagnosis and treatment of illness. Western doctors will look, through their technology for test results that show

something unusual. When they treat you and the test results go back to "normal" then you are "cured"

The problem is that the current technology does not look deep enough and also the "normal" is arbitrary. It is the absence of illness or the absence of anomalies.

An analogy is that it takes a negative (the illness) and brings it to zero (lack of illness)

Wellness includes this but attempts to take you above a zero. Its purpose is to take you to infinity of health.

Holistic is wellness but takes into account the effect of the mind.

I get clients from doctors telling patients they need to lose weight. I can tell you with certainty that doctors do not know how to help people lose weight.

Set Aside Preconceived Ideas

I don't know if you are familiar with wellness based or holistic type treatments or methods.

In general it is based on using natural, non-invasive, drug-free ways to resolve an illness or non-optimal condition and also take you to higher levels of health.

If you are someone who's only experience with dealing with health has been to take a pill then you may need to adjust some of your ideas.

Drugs and surgery are needed far less than you think.

Also when it comes to healthy weight loss, a drug will make you dependent at best and heavier at worst.

A better solution is to change your body from the inside so that it can adapt to its environment and become "fat resistant".

A healthy and fit body is "fat resistant".

There is no drug, or surgery that will cause this because if weight loss comes from the outside, the way your body works still has not changed. It has not changed its response to your food and lifestyle.

THAT is the key with my method. I am not interested in changing your diet and exercise for the sake of doing it. I am interested in changing how your body is wired. So it resists storing fat and encourages using fat for energy.

Yes, diet and exercise are important but what is more important is WHY DOES YOUR BODY REACT THE WAY IT DOES.

That is the inside out approach.

Will you need to exercise? Yes.

Will you need to change how you eat? Yes

Will you need to change your lifestyle to some degree? Yes

Will you need to do somethings you don't want to do? Yes.

But if you don't change what you do, you will not get the results you want.

It is a part of life.

You will need to change and do new things.

However, you WILL WIN!

You will start to LOVE exercise. It will replace the feelings you get from bad foods.

You will start to LOVE fat loss foods! They eliminate cravings. You will crave nutritious, juicy, whole foods. You will need to avoid getting hungry and you will need to eat as much of these foods as possible.

Your new lifestyle will make you love the results. You will feel sharper mentally, have deeper reserves of energy, high emotional levels.

I ask that if you have concerns and failures from the past failures to lose weight, set your concerns aside for a while and be willing to look at some new ideas.

Demand More

The inability to lose weight can be a slow and intensely frustrating experience. Even a painful one.

How do I know? From clients.

I have a daily report that clients send me and I used to ask for them to measure their weight everyday so I can monitor it.

When I started focusing on people who cannot lose weight, I found many of them hated weighing themselves. When they did it was a very emotional experience to find there was no change. There was a high level of demoralization.

It is also hard in a society that focuses (however, illogically and unfairly) on weight.

But there are other reasons for wanting weight loss.

I define health as the degree to which your body is a barrier to your goals or propel you towards you goals.

For many, being overweight meant they cannot partake in activities they know they could otherwise.

For some, you have had this problem all your life, for others is started after giving birth. Others after menopause, others after an injury or trauma.

No matter what the situation, what used to be a physical weight problem to solve, has now become an emotional weight problem. Which drives you to apathy.

Being overweight is more than a cosmetic issue. In the U.S. the primary cause of death is heart disease. This is a weight related issue.

If your health is compromised it affects all areas of your life, and also the lives of the people around you. The people who love you.

Over time, the body ages. Without restoring the internal health imbalances, will get worse and you will have more and more symptoms of poor health. Tiredness, pain, discomfort, onset of diabetes, joint pain among the few.

No matter what path you take you need to keep demanding answers that work. You need to keep demanding at least within yourself, solutions that improve internal health. You must not get apathetic and give up because of past failures.

What Does the Metabolism Makeover Focus On?

My method starts by looking at the cell and what are the ideal conditions to allow this cell to exist at its highest level?

That was the driving question.

What I found took my on a very long and winding journey that lead to answers that work.

And they are not found in other places.

There are 4 health indexes and when any of them are out you will not be able to lose weight or lose weight permanently -

- **pH Balance**
- **MIneralization**
- **Oxygenation**
- **Hormone Balance**

I will putting excerpts from my book here to explain some of these barriers.

The Barriers to Weight Loss

These are barriers that are not monitored in other weight loss programs. They are each a fundamental Of health and prevent weight loss when they exist.

Get these corrected and you

PH Balance Of The Body

What is pH? pH is the level of alkalinity to acidity any solution is at. Vinegar is a low pH solution so it is an acid. Lye is a very high pH solution so it is very alkaline.

Definition of pH

A measure of the acidity or alkalinity of a solution, numerically equal to 7 for neutral solutions, increasing with increasing alkalinity and decreasing with increasing acidity. The pH scale commonly in use ranges from 0 to 14

Problem with excess acid? What can it do to harm?

The letters p and H stand for Potential Hydrogen. A lot of pH means there are a higher level of hydrogen ions present and a higher pH has a low level of hydrogen ions.

The human body needs to be at an internal pH of 7.36 pH. That is slightly alkaline. 7 is the neutral level of pH.

If the pH balance of the body goes to either extreme, it is fatal to the human body. The body will just die. The problem we have in most of society, however, is not excess alkalinity but excessive acidity.

If you are in America and watch TV, you will not be able to escape the advertising for antacids. As I will explain later in this book, the pH of your body is a prime indicator of your health and also of your weight loss. Remember the flying papers and the windows that are open? This is one of the big windows!

Several Things Cause Excess Acidity:

- Processed, lifeless foods
- Dairy products
- Animal products
- Stress
- Toxic substances

pH balance as an indicator of health has been a new science, primarily pioneered by Robert Young, PhD. What has been found is that illness cannot occur in an alkaline environment. This includes viruses and harmful bacteria. Yes, even cancer. It cannot physically exist in an alkaline environment. All these require an acidic environment to thrive. This is opening a new era of healing and understanding of health.

Beyond illness, acid is simply destructive. Acid can burn through steel if it is acidic enough.

You all know what an ulcer is, right? An ulcer is a hole burned in your digestive tract. It is burned by an overproduction of acid. Excess acid in the blood also corrodes the arterial walls. The body builds arterial plaque to protect against this corrosion. When the blood acidity level is restored to normal, arterial plaque disappears and ulcers heal. There are a host of other illnesses that are connected to excessive acidity but the point I want to drive home is the point of how excess acidity is a prime indicator of health.

How the Body Raises pH

Your nervous system detects this and will do what it has to do to restore this balance. One of the fastest ways it does this is to saturate the blood with mineral content. The problem with this, however, is that it will get minerals from your cells, muscles and bones to balance pH.

So much so that if you look at three foods that drop your body's pH like a rock, dairy, animal meat and sugar, in the countries that consume the greatest amounts of these foods, you also see the highest incidence of osteoporosis and hip fractures. There are other attendant illnesses but for this example I want focus on osteoporosis.

One mineral that can return the pH balance toward alkalinity is Calcium. When your blood gets too acidic calcium is one of the minerals leeched from wherever it can find it. That includes bones. (Yes, if you are screaming now about how important protein from meats is you are right, not wrong. OR, if you are screaming that I am tricking you into becoming a vegetarian, relax. I will pull it together at the end.)

Calcium is one of the primary building blocks of your bones. It is the practical brick and mortar of your bones. Without it, your bones become brittle and porous. They lose their natural flexibility. It also is a key nutrient in allowing muscles to extend to their full length and relax. Muscle cramps are a result of lack of calcium. Menstrual cramps are also contributed to by lack of calcium. Tense muscles are stressed. Stress causes more acidity which leeches more calcium out of the vital organs. Do you see how it can become a downward spiral?

Let's take the reverse. The countries with the lowest incidences of osteoporosis, are also countries whose diet is predominantly compromised of phytonutrients (nutrients from plants - which are very alkaline forming) very low animal meats, practically no dairy and very low sugar.

pH and Malnourishment

So there are direct and indirect correlations between acidic pH balance of the body and illness and internally caused malnourishment.

Especially malnourishment of minerals. (This will be a key component in later chapters)

The Tie Between pH and Fat Loss

With regard to weight loss and fat loss, here is how it ties together. Understanding the harmful and destructive effects of excess acid, your body's nervous system will try to protect the organs.

Because pH is so fundamental to survival it will prioritize the balancing of the pH of the various parts of the body. It will steal nutrients from other body parts and systems.

This will cause a form of cellular malnutrition that leads to fat storage. You will see how this happens on the next section.

Now that you have a basic understanding of pH balance and how it affects the mineral content of the body, I want to go in to what demineralization causes.

Demineralization

Water is a key nutrient. Many of you have heard that the body is mostly water.

Depending on the temperature of the body, it can survive only 2 to 10 days without any water. The hotter the body, the less time it will take for the body to die.

Body-Fat/Water Scale

The rudimentary body-fat/water scale below illustrates the clear relationship between being overweight versus being fit and lean and the amount of water that your body comprises.

Obese individuals have a lower percentage of water in their bodies (about 48%). Morbidly obese individuals are only about 36% water. In addition, the older one gets, the less water is retained in one's cells. As a result, old skin looks drier and wrinkles appear.

The American Council on Exercise has categorized ranges of body fat percentages as follows:

Body Fat Scale		
Description	Women's Fat Percentage	Men's Fat percentage
Essential Fat	10-12%	2-4%
Athletes	14-20%	6-13%
Fitness	21-24%	14-17%
Acceptable	25-31%	18-25%
Obese	32+%	25+%

Note that the essential fat values in the chart above are lower than the recommended minimum body fat percentage levels. A small amount of stored fat is required to be available as fuel for the body in time of need.

So how does this relate to weight loss? When the body water is measured against different body fat percentages, you see a clear inverse relationship. The Body-Fat/Water Scale below shows this relationship:

Body-Fat/Water Scale			
Female: Body-Fat/Water Scale		**Male: Body-Fat/Water Scale**	
Body Fat %	Body Water %	Body Fat %	Body Water %
4-20%	58-70%	4-14%	63-70%
21-29%	52-58%	15-21%	57-63%
30-32%	49-52%	22-24%	55-57%
33%+	37-49%	25%+	37-55%

From this you can see there is a relationship between water and fat. It is an indirect relationship.

The reason for this is that oil and water cannot occupy the same physical space.

This is a physical fact.

Fat is oil.

The question to ask is,

"Why is the nervous system choosing to make the body this way?"

Here's the answer:

Definition of Hydrate

"hydrate"

Noun: [Chemistry] a compound in which water molecules are chemically bound to another compound or an element.

Verb: cause to ***absorb*** or ***combine*** with water.

[1802, "compound of water and another chemical," from Fr. hydrate, coined by Fr. chemist Joseph-Louis Proust (1754-1826) from Gk. hydr-, stem of hydor "water" (see water (n.1)). The verb is first attested 1850.]

From this you can see that hydration has to do with water **"binding"** to something. Having water poured onto something and having it drop off without attaching to anything, is not hydrating. That is probably washing, rinsing or wetting, but it is not hydration when water has not attached to something.

In your body, drinking water can hydrate if it has something to attach to. If not it will be urinated or eliminated through various expelling functions.

What is needed to hydrate? Minerals. There are two problems to solve when it comes to hydration:

One: Water has to go *into* the cells

Two: Water Has to Stay Long Enough In the Cells to Become Metabolically Active.

Water has to stay in the cells long enough to combine with other nutrients and promote anabolic metabolic processes. Another way to say this is that water has to become "metabolically active".

Water can go in and out of the body and not have an effect on your metabolism.

Minerals determine the flow of water in and out of the cells.

"You can trace every sickness...and every ailment to a mineral deficiency."

Dr. Linus Pauling
Two-time Nobel Prize winner

Water balance in the cells is determined through osmosis. If the salt content in the liquid outside the cells is balanced with the potassium content inside the cells, then water will be stable and exist within the cells long enough to become metabolically active and combine with other nutrients.

If salt content outside the cells is too low, water moves out of the cells. When someone sweats they lose a lot of salt. Sweat is salty. When salt content drops water does not go into the body.

So an athlete, like a marathon runner, for example, will have to consume salt. Drinking water alone will make him more dehydrated because the water will go into the body, not be able to go into the cells because there is not enough salt balance, and it will be urinated and sweated out thus pulling more salt out.

If there is too much salt in the extracellular liquid, too much water is forced into the cells. It can cause rupturing of cells and malformed cells. Because of this excess salt in comparison to the amount of potassium inside the cells, a potassium deficiency exists.

Potassium is necessary for creating the conversion of glucose to energy storage molecules! A reduction of potassium in the potassium-sodium balance causes a lowered ability to create these important molecules.

The Second Step to Cellular Hydration

So let's say the salt and potassium balance is corrected and water is now ***in*** the cells.

At this point the trace minerals are needed to make water ***"metabolically active"*** in the cells.

These are trace minerals such as iron, zinc, copper, chromium, fluoride, iodine, selenium, manganese, and molybdenum. Some others, such as arsenic, boron, cobalt, nickel, silicon, and vanadium, barium, bromine, cadmium, gold, silver, and aluminum, are found in the body, though little is known about their role in health.

Cellular energy production requires many trace minerals, including iron, copper, and zinc, which act as enzyme cofactors (chemical compounds that are required to combine with proteins to make the protein active and available for synthesis) in the synthesis of many proteins, hormones, neurotransmitters, and genetic material.

If these trace minerals are missing, water will not be able to **combine with anything** and become metabolically active.

For the subject of hydration you cannot talk about water without talking about minerals. They go hand in hand. Without minerals water does not do much for weight loss.

What Causes Dehydration?

It's Not What You Think.

The Foods You Eat

The simplest reason for why you get dehydrated is because the foods you eat contain very little water. Most popular modern food has very little moisture content.

For example, starches like fries, white bread, meats, cheeses, and condiments. Let's take a sandwich. Bread, has very little moisture, the meat has very little moisture, the condiments like mayonnaise mustard, etc. have low moisture, and, if cheese is used, it also has very little moisture.

The second reason that people are so dehydrated is because the liquids they consume dehydrate them. Sodas, coffee and fruit juices, all dehydrate the body. Excess sugar dehydrates, and caffeine is a diuretic.

Drinking Too Much Water

Drinking too much water is another reason for dehydration. Water ***without balanced minerals*** will have a diuretic effect on your body.

pH Balance

Eating foods that make the blood acidic also dehydrate your body. When your blood gets acidic, your body, in your defense takes minerals out of your cells and bones to restore pH. Without these minerals in your cells water is ineffective in hydrating you.

Dairy is a major culprit. So is sugar, and meat. They are very acid forming.

Processed foods are very low or devoid of micronutrients like vitamins and minerals. They also contain toxic substances such as preservatives. These artificial chemicals are toxic and your body uses micronutrients to process these out of your body. Again without these micronutrients like minerals you will get dehydrated.

So as you can see dehydration can occur in more subtle ways.

The Payoff:

So back to the question of how does the body choose to have a high percentage of water content versus fat content?

To understand this you have to understand that there are two ways that your body creates energy.

It gets the food you eat and stores it as small molecules in your cells. These molecules are called ATP. ATP are the molecules we all have in our cells that store our potential physical energy.

When your cells have created all the ATP it needs the excess food will be stored as fat.

So when there is not enough ATP your nervous system will look for ways to create more ATP.

Body fat is one of the ways it does this. ***Body fat is one of your fuel sources for ATP.***

The ideal is to break apart these ATP molecules so energy is released. This uses up a ATP. Then the nervous system goes into action to create more. With the right diet and exercise, it will use fat to replenish the used up ATP!

Sugar and ATP

The first thing to know is that the fastest way to create energy is through sugar. Sugar converts to energy very fast.

This is why your nervous system will quickly resort to this method of energy creation.

The less fit you are and the less healthy your body gets the faster your nervous system will use sugar and not fat.

So it starts to *rely* on sugar more and more for the creation of Energy.

Over time, your nervous system uses only sugar for energy. This causes all the remaining nutrients you consume that are not eliminated to turn to fat for storage of future energy needs.

A person that has a high fat percentage is mainly using sugar to create Energy.

Guess what causes ATP to be used up?

Muscle use and WATER!!!!!!

For now I want to focus on water.

When water is used to combine with ATP to release the energy. If we can get more water into the cells and combined with ATP, there will be a constant deficit of ATP and if you withhold sugar from the diet, you will force the body to use body fat to replenish it.

The only thing that releases cellular energy is water.

Water needs to go into the cell to do that.

Lack of minerals and an imbalance of minerals prevent this from happening.

Chemically it is also water molecules that break fat tissue at a molecular level. This process is called hydrolysis.

Hydro – water.

Lysis – Lyse > break apart.

ATP energy molecules are broken down through hydrolysis.

Incidentally, lipolysis (breaking apart of fat) is also done through hydrolysis.

Lipid - Fat Molecules

Lysis – Lyse > break apart.

So ***water is needed for fat breakdown AND Energy release of energy.***

This is why low water content people have high fat content.

The body cannot use and retain water as part of its metabolic processes.

The use of water by the body must result in high water content and low fat content because water causes a demand for cellular energy which then uses fat for its fuel and water also breaks apart fat cells.

Hydrate properly ***with organic minerals*** and you kill two birds with one stone.

You will assist in breaking down fat and you will also break apart Energy molecules. Both of which reduce body fat very quickly.

Oxygenation

"All chronic pain, suffering, and diseases are caused by a lack of oxygen at the cell level."
Dr. Arthur C. Guyton, M.D.
Author *"The Textbook on Medical Physiology"*

Role Of Oxygen In The Human Body

The need for Oxygen is the most important need of the human body. The body cannot function without it. Most people already know this.

What is less known is the distinction between **oxygen *usage*** as opposed to **oxygen *intake***. Just because you breathe more does not mean your body is demanding and using more oxygen.

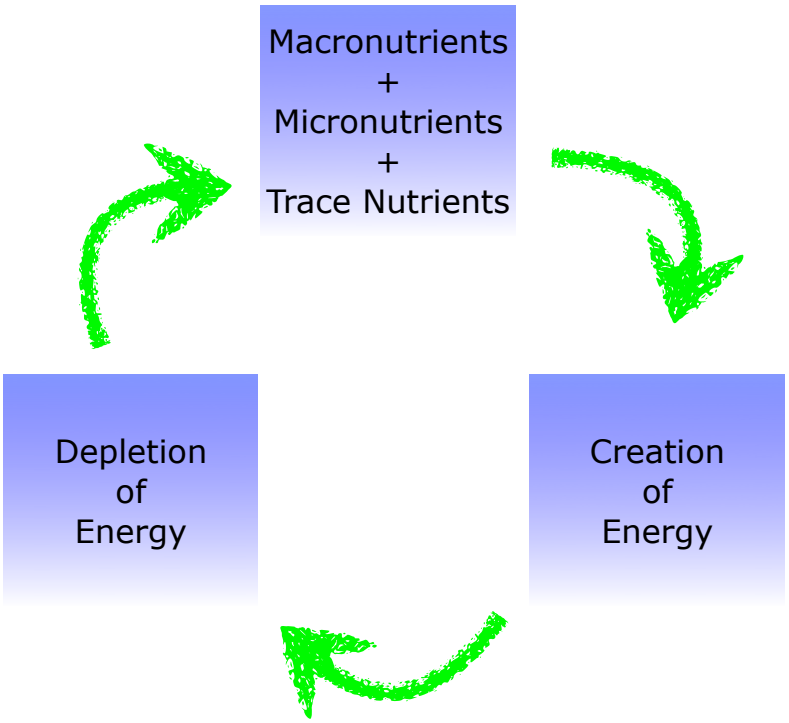
A top-notch endurance athlete and the average Joe can breathe the same amount of oxygen in a day. The same amount can go into their lungs in one day. But the top-notch endurance athlete will have more oxygen go into his cells per unit of time than the regular Joe.

So the point here is that there is a clear distinction between **oxygen *intake* and oxygen *usage*.**

The reason I am going over this is that like water usage by the body, or hydration, oxygen usage also has a **direct effect on *body fat.***

Here's How

Back to energy creation! Let's look at the energy cycle formula again:



All foods breakdown to carbohydrates, protein and fat. These are called *macro*-nutrients. Macro means large amount.

All three of these things can create ATP. They each have their own pathway to be turned into Energy.

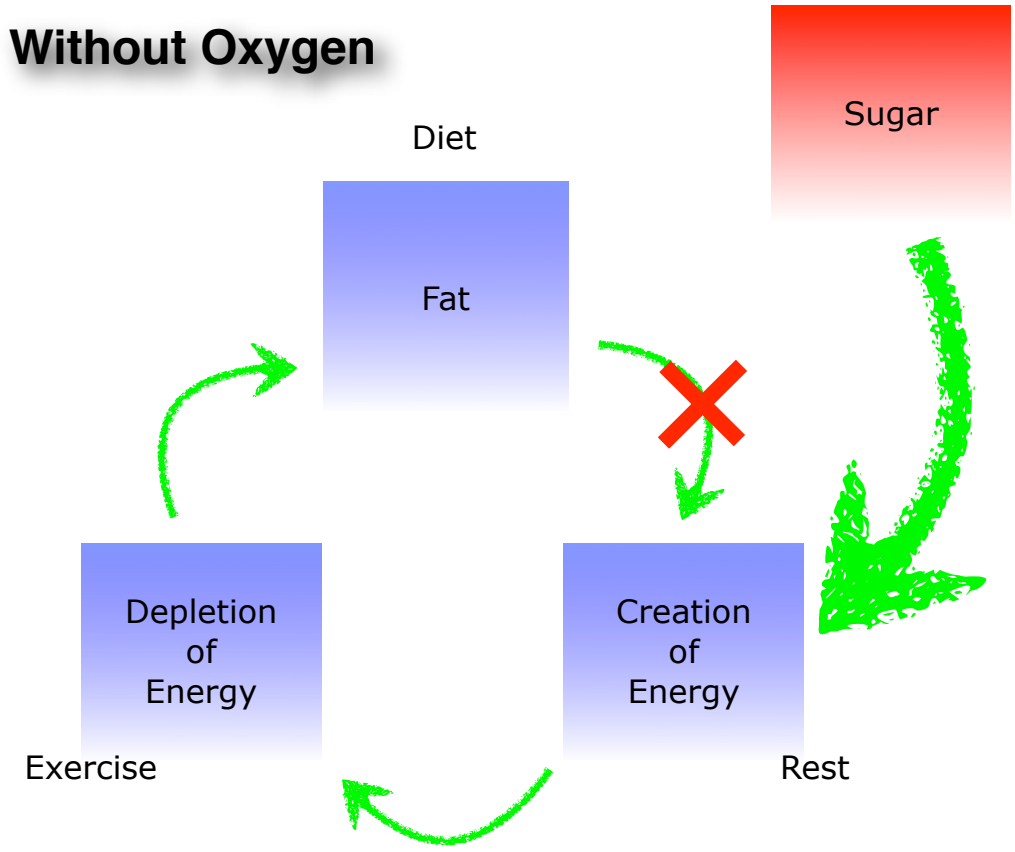
Oxygen content can drastically change the way energy is formed. When oxygen is absent, your nervous system stops using the macronutrients to create Energy and it only uses sugar.[1]

I will repeat that.

When oxygen is absent, your nervous system stops using the fat to create energy and it only uses sugar.

When Oxygen Is Absent

When oxygen is absent the **ONLY** way energy can be created is by getting glucose (sugar) and converting it to Energy.



This has tremendous ramifications on your body fat.

When there is no oxygen, the sugar in the blood and sugar stored in the liver are gathered and routed to the cells to be converted to Energy.

Why is this the case? Chemically, ***sugar converts to energy very quickly***. It takes very little time.

Protein, fats and carbohydrates, a much much ***longer*** time to create cellular energy when oxygen is involved.

The times when you do not use oxygen are when you do intense exercise or are undergoing a **sudden drastic increase in stress** to the nervous system as well.

If the nervous system believes it is being attacked or in anyway needs to prepare for drastic action, it **shifts it's energy pathway from using oxygen to using no oxygen.**

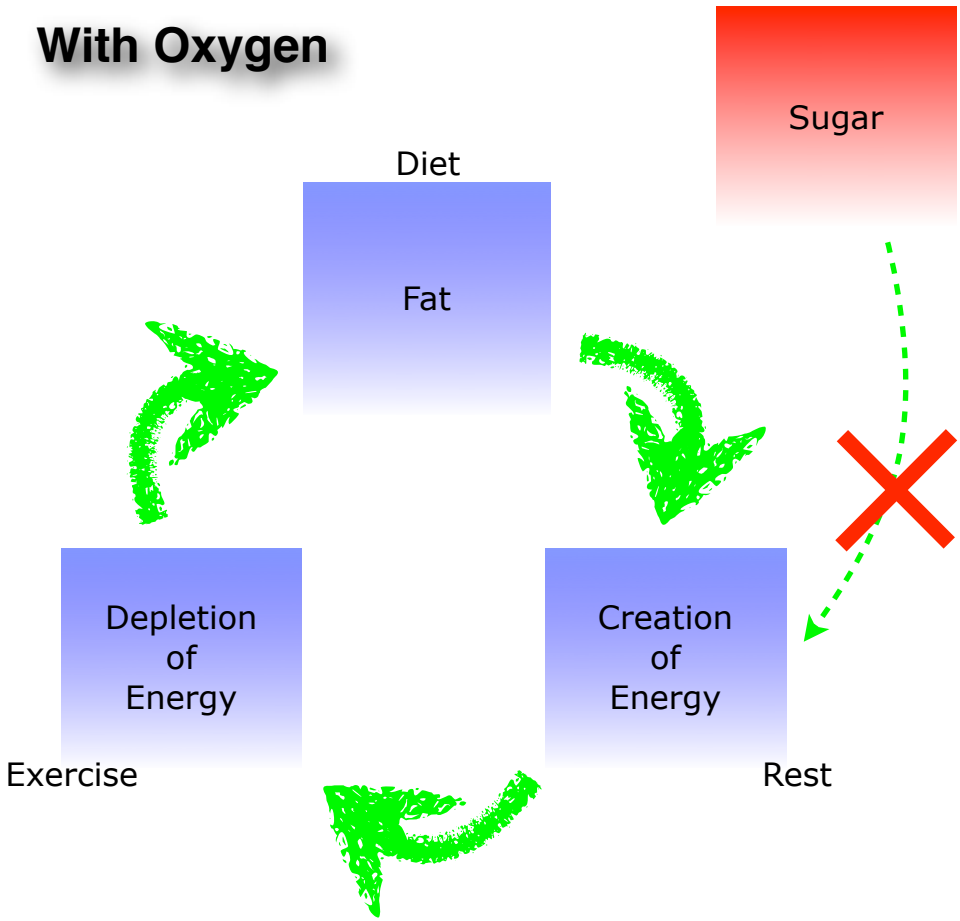
When you run very hard or when you lift heavy weights, you notice that you are out of breath and gasping and breathing hard. This is because your body is making up for the lack of oxygen in the blood. Your heart is also racing. This is an effort by your nervous system to provide oxygen to the cells!

Condition of Oxygen Usage

When a person is fit and in shape, the **threshold** of aerobic activity is higher. That person can do a lot of work and exert much more and for longer periods of time **before** the nervous system stops using oxygen. When a body is sedentary for a long time this threshold **lower**s. So it takes **less** exertion to get to the point where the body creates energy without oxygen.

Mitochondria are the parts of the cells that create stored cellular energy. When you study the **muscle tissue** of endurance athletes, you will find they have **MORE** mitochondria AND the mitochondria are also **LARGER**.

With athletes, the amount of mitochondria **increase in their size**, **increase in amount**, increase in the **amount and density of blood capillaries** around the muscles, increased **enzymes that convert nutrients to energy**, and **increased protein transporters** (transporters are proteins that transport a crucial chemical that converts nutrients into energy, into the mitochondria to be converted to Energy).



The point and message here is that **your body changes at a *cellular level* to be able to provide for more Energy creation**! Let me repeat that …

The body has changed at a *cellular level* to be able to provide for more Energy creation.

Your body rebuilds itself to DEMAND and USE more oxygen.

Are you seeing why breathing oxygen is different from USING oxygen?

This is important because **to stop the rebound of weight and keep the body lean and resistant to weight gain, it has to change at a cellular level**. This is easier than you think!

Aerobic Exercise

Aerobic exercise is a very direct way to condition the body to change the way it uses oxygen. The problem with aerobic exercise for most people is they think they are doing aerobic exercise when they are not.

They are using a DVD that says the word **"Cardio"** and the lady or man on the screen is saying it is **"aerobic."** Or the class they are in has the word "aerobic," like **"Aerobics *Class*."**

Your exercise is aerobic to the degree that it is using oxygen. ***Period***. That is the *end* of the story.

The Problem With Your Aerobic Exercise

If the exercise is *too intense* it is ***not*** using oxygen. The reason is that when the intensity increases, your nervous system switches from one energy pathway to another.

It is shifting from using **oxygen and all macronutrients (including body fat)**, to using no oxygen and using **only sugar** to create Energy.

The problem in for most of you is you don't know whether you are really doing aerobic or anaerobic exercise. It is common for clients to say they do aerobic exercise everyday. I have them do a formula and wear a heart rate monitor and **they find out to their surprise, they have been doing anaerobic exercise every day!**

Then it starts to make sense why they are not losing body fat percentage and also getting injuries and also craving sugar all the time! **They have been training their bodies to believe its existence depends on sugar.** And they've been doing it every day. For an hour and a half every day, and ***paying money for it***.

Save your money. Take a walk in the park for an hour. Get some space. Get some fresh air.

I do want to clarify here that I am not saying that intense anaerobic exercise is not good. I am saying you need to know how to use it to melt fat off your body.

You will learn about this later in The Metabolism Makeover.

How Your Hormones Keep You Fat:

Definitions

Hormones:
They are chemicals in body: a chemical secreted by an endocrine gland or some nerve cells that regulates the function of a specific tissue or organ.[2]

Gland:
A gland is: secreting cell mass; in animals, a cell or group of cells that secretes a specific substance. Endocrine glands secrete directly into the bloodstream, while exocrine glands secrete through ducts into a cavity or to the surface of the body.[3]

Endocrine:
Endocrine" means: relating to internal secretion; relating to the endocrine glands or their secretions.[4]

Receptors
A molecule, group, or site that is in a cell or on a cell surface and binds with a specific molecule, antigen, hormone, or antibody.[5]

Role of Hormones in the Development of the Body

- Stimulation or inhibition of growth
- Mood swings
- Induction or suppression of cell death
- Activation or inhibition of the immune system
- Preparation of the body for fighting, sex, fleeing, mating, and other activity
- Preparation of the body for a new phase of life, such as puberty, parenting, and menopause
- Control of the reproductive cycle
- Regulation of metabolism
- A hormone may also regulate the production and release of other hormones.

In short, **Hormones are the MOST Powerful Anti-Aging and fat burning substance in your body**.

Obviously we are most interested in the effect hormones have on metabolism and fat.

There are two basic sets of hormones: Fat-Burning and Fat-Storing.

All hormones promote life. But when the fat-storing hormones are over–produced, the effect is a breakdown of health.

Effect On Fat

When there is an imbalance of these two groups of hormones, health is compromised and weight loss is prevented.

There is a natural progression of growth and decay. Most of society is moving to an unhealthy and mutative condition.

What is needed is to restore this balance towards the other end of the bell curve, and then keep progressing.

The Players

- Fat Burning:
  - *Growth Hormone*
  - *Testosterone*
  - *Adrenaline*
  - *Thyroxine*
  - *Glucagon*
  - *Leptin*
  - *Insulin*

- Fat Creating:
  - *Cortisol*
  - *Estrogen*
  - *Insulin*
  - *Ghrelin*
  - *Insulin*

- Double-Edged Hormones
  - *Insulin*
  - *Glucagon*

Fat Burning Hormones

This section will go over hormones that **burn fat *and* build muscle at the *same time***.

They also make you feel strong, vital and resilient.

In short, they are ***anti-aging***.

Growth Hormone

Human Growth Hormone (HGH) is a very powerful hormone that changes the chemistry of the body so that it starts using fat for energy instead of just sugar. It reduces the age of your metabolism. In other words it turns the age of your metabolism to that of a younger body.

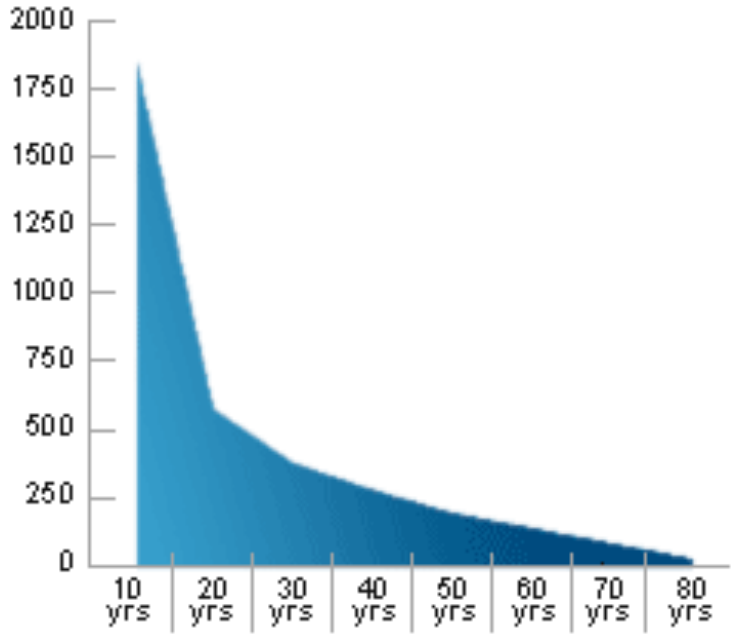
Some of the things HGH Does For You:

- Increases calcium retention, and strengthens and increases the mineralization of bone
- Increases muscle mass
- Promotes lipolysis (breaking down fat for fuel)
- Increases protein synthesis
- Stimulates the growth of all internal organs excluding the brain
- Promotes gluconeogenesis in the liver
- It stimulates the immune system

It doesn't take much to see how this affects your weight loss and fat loss progress. All the above allows your muscles to recover faster, grow stronger and burn fat (lipolysis).

Internally, it makes your metabolism younger. If you are someone who used to be low fat and very lean when you were younger, and now you are having a hard time getting there when it was so easy before, there is a different internal environment in your body.

One of the changes is the amount of HGH that is released and present in the blood. As a person grows older, the amount of HGH produced decreases. The graph below shows the natural decrease of HGH.



Natural Hormone Replacement Therapy. *Alternative medicine: the definitive guide*. Celestial Arts; 2nd edition (September 1, 2004). Page 359

What Promotes HGH?

Deep Sleep. Most HGH is secreted during deep sleep.
Intense Exercise (in particular resistance training)
Low levels of blood sugar (hypoglycemia)
Dietary protein

What Stops HGH Secretion?

- Chronic Stress
- Cortisol
- High Blood Sugar
- Lack of Sleep
- Starvation

HGH and Sleep

Other than intense exercise, the bulk of your HGH is produced and secreted in **deep sleep**, especially in the **first two hours of sleep**. This is the reason why fat is burned when you sleep and not during exercise.

That's right ... fat is burned when you are in deep sleep.

In fact sleep deprivation and weight gain are interconnected. So much so that with a client I will usually have them first start with a sleep diet before anything else!

Professional weightlifters and bodybuilders all make sure recuperation is a part of their entire program. This includes making sure there is enough sleep.

Testosterone

Testosterone is another hormone that regulates the production of fat. Testosterone for fat loss is another factor in natural weight loss.

Specifically, it builds lean muscle which in turn can assist with fat burning. Testosterone changes your body shape into the shape that you want it to look like.

There are other lesser known effects as well. Testosterone also chisels the appearance of a person.

This hormone is created in the testes, adrenal glands and in the ovaries. It is a fat- burning hormone.

It **increases lean muscle development** and strength, **mental and physical energy** and **maintenance of muscle nutrition**.

There are a few things that increase and decrease Testosterone for Fat Loss

Sleep (REM dream) increases nocturnal testosterone levels.

Resistance training increases testosterone levels.

Zinc deficiency lowers testosterone levels but over-supplementation has no effect on serum testosterone.

Similarities to Growth Hormone

The above list looks very similar to what increases human growth hormone (HGH). That is because testosterone follows where human growth hormone (HGH) goes.

Facial Features

Some of the effects that testosterone has are unique to changing appearance. The person has a more chiseled look. Testosterone reduces subcutaneous fat in the face and other fat deposit areas that are associated with children.

The jawline becomes more defined and the body frame also becomes more defined. The shoulders broaden appropriately and the waist narrows. This gives both men and women a better body shape. This is particularly true for testosterone.

As a tool, you want testosterone for fat loss and the good news is that you just need to do the same things needed to produce HGH to produce testosterone.

Adrenaline

Adrenaline is the hormone that *starts* the process of breaking down body fat. It is the prime factor. The instigator of this. After this, other factors (hydrolysis) continue the process of breaking down fat to be used for energy and body tissue.

Adrenaline is produced by the adrenal glands. The adrenal glands are two star-shaped cones on top of each kidney.

It is also called epinephrine. The term epinephrine is derived from the Greek roots epi- and nephros, and literally means “on the kidney,” in reference to the gland's anatomic location.

When in the bloodstream, it rapidly prepares the body for action in emergency situations.

Adrenaline boosts the supply of oxygen and glucose to the brain and muscles, while suppressing other non-emergency bodily processes (digestion in particular).

It increases heart rate and stroke volume, dilates the pupils, and constricts arterioles in the skin and gastrointestinal tract while dilating arterioles in skeletal muscles. It elevates the blood sugar level by increasing catabolism of glycogen to glucose in the liver, and at the same time begins the breakdown of lipids in fat cells.

Like some other stress hormones, epinephrine has a suppressive effect on the immune system so when it it is the blood stream for too long or too much it can be detrimental.

Insulin-Like Growth Factor-1 (IGF-1)

Insulin-like growth factor is a fat-burning hormone that is stimulated by HGH. Its primary purpose is to provide fuel to your body in between meals. The way it does this is by **releasing stored fat as well as stored sugar to create energy**.

It works together with insulin. Insulin regulates blood sugar during a meal. Insulin is an important hormone that carries sugar into the cells. But after the meal and in between meals, IGF, or insulin-like growth factor raises the blood sugar level when the blood sugar gets low.

IGF raises the blood sugar level by breaking down fat.

It is mainly secreted by the liver as a result of stimulation by growth hormone (GH), so human growth hormone is a prerequisite.

Almost **every cell in the human body is affected by IGF-1**, especially cells in muscle, cartilage, bone, liver, kidneys, nerves, skin, and lungs. In addition to the insulin-like effects, IGF-1 can also regulate cell growth and development, especially in nerve cells, as well as cellular DNA synthesis.

In terms of creating a weight loss plan, the way this hormone comes into play is dependent upon the health of the liver. If the liver is weak, you will need to reduce the amount of times you eat to stimulate this hormone. It only is activated on an empty stomach.

Thyroxine

Thyroxine is one of the hormones created by the thyroid and is another one of the powerful hormones that burn fat.

It is also called tetraiodothyronine (T4). T4 is the main hormone secreted by the thyroid gland. The function of this and the other thyroid hormone, triiodothyronine (T3), is to increase the cellular **rate of carbohydrate metabolism and of protein synthesis and breakdown**.

Increases Energy Expenditure

Thyroxine makes the cells use more energy per unit of time. This hormone makes the **mitochondria larger and makes more of them**.

If energy is not being used in the cells, it does not look for more fuel. That means that the food you eat is not used for fuel, so it gets stored as fat.

By getting cells to "spend" more energy molecules it creates a greater demand for energy and the nervous system takes the food you eat AND the fat stores in your body and uses both for the energy stores in your cells.

Exercise

The most practical way to increase thyroxine is **intense exercise**. Exercise stimulates the production of this thyroid hormone. To increase thyroxine exercise has to be done to muscular failure. I talk about this concept in my book, Metabolism Makeover.

You do not want to **over-exercise** as that stimulates the other group of hormones that **shut down** these powerful fat-burning hormones and cause the storage of fat.

There are other ways to stimulate thyroxine. They all revolve around removing the barriers to healthy thyroid function.

Heal the Glands

Healthy thyroid function is related to multiple factors. First is the liver. The liver is the main gland that stimulates the function of the thyroid. Detoxing and removing foods that tax the liver is a good step to take when you can afford a few days of rest.

Fat Storing Hormones

These hormones in this section both directly and indirectly cause fat storage and creation on the body.

When These are reduced you will find your body can then move into a fat burning mode.

These have been a hidden cause for people’s inability to lose weight.

After this section I will go over the sources of these hormones such as the glands and toxic chemicals in the environment.

Cortisol

The first hormone is the most powerful one called cortisol. Cortisol is also called the stress hormone. It is secreted during times of stress. That is any kind of stress: Mental, emotional or physical. Over time, when this hormone is released consistently, it causes fat to be stored on your body, specifically your belly. There are other negative things this hormone does to not only sabotage your weight loss but also cause a host of other unwanted physical problems.

Cortisol and belly fat are almost always going to be found together. When trying to find the constant common denominator between successful weight loss and unsuccessful weight loss, hormone imbalances were a constant. Especially Cortisol.

Cortisol is a hormone that is released to help us deal with a fight or flight response. As such, it is called the "stress hormone."

In the short term, it helps prepare the body for the effects of stress. In that sense it does burn fat ... in the short-term.

There is another trait of cortisol and that is that it remains in blood plasma for a long time. Adrenaline, for example which is also produced and released from the adrenal cortex, is metabolized relatively quickly in relation to cortisol. This is an important point to know when losing weight through restoration of hormone balance.

However, with continual stress, cortisol will cause fat to be stored. Especially belly fat. There are other negative effects of excess cortisol.

Let's Take a Trip and Discover All Cortisol Lane

Cortisol breaks muscle down and uses it for protein which is broken down into sugar for energy. So your metabolism starts to use your muscle for fuel, specifically your thigh muscles. You will also see the arm muscles looking atrophied.

Because fat in the midsection contain the greatest amount of cortisol receptors, fat is created and stored in the midsection. So you get belly fat, love handles, and inability to fit into clothes through the midsection. You will see a pendulous abdomen and a sagging abdomen.

Increased stomach acidity and "sour stomach"

A buffalo hump or a fat pad on the back and below the neck also forms.

Hips and thighs become weaker as a result of this. Things like getting up and down from a chair or walking up stairs is hard now.

You will notice that some people have large midsections but thin legs and arms.

There is fat accumulation on the face. There is extra facial hair for both men and women. The eyes and face get puffy as well and a double chin develops.

Raised Insulin

Excited adrenals and their respective hormones will release blood sugar to provide quick energy for physical activity. But since most are not active there is just a lot more sugar in the blood, which releases insulin - which is a fat storing hormone.

For women is can be aesthetically devastating: receding hairline as in male-pattern baldness is also a result, excess acne during menstruation, atrophy of breasts and a deepening voice.

Muscle Cramps

Excessive adrenal hormones will also cause a depletion of potassium, which then causes the inability to absorb calcium into the muscles and bones. Over the short-term, this lack of calcium in the muscles causes cramps and inability to relax muscles. Over the long term, lack of calcium absorption will result in osteoporosis.

Because calcium is the mineral the muscle uses to elongate and relax, muscles just do not recover after exercise anymore.

Water Retention

Due to the decrease in potassium, the hydration balance becomes unhinged. As I explained hydration is a matter of mineral balance. Specifically, sodium and potassium. With too much potassium decreased there is an imbalanced amount of sodium. This imbalance of excess sodium excess will cause water retention and all the other problems associated with excess sodium.

The imbalance of the fluids in the body now cause a craving for salt and cheese. Cheese balls are about as addictive as crack now.

The person also starts to simply feel dehydrated but drinking water actually makes them feel MORE dehydrated.

As a further result of the potassium sodium imbalance, part of the chain reaction involves inability to absorb calcium. The calcium, since it is not

absorbed and used by the muscles and bones is urinated out and/or deposited on the organs. You will also find in these cases, bursitis, heel spurs, arthritis, tendonitis, arteriosclerosis, calcium deposits in the kidneys, and twitching of the muscles.

Muscle-Tension
The lack of muscle relaxation will also make it hard for a person to relax and sleep. The sleep/awake rhythms get skewed. It is difficult to get to sleep and have deep sleep. You will have tiredness during the day and wakefulness during the night. This is simply due to the fact that adrenal hormones are produced to help you counter something stressful and prepare your body for action. This, combined with tense muscles make it a recipe for insomnia.

There is frequent urination, especially at night.

Immune System

Cortisol can weaken the activity of the immune system.

Collagen

In rats, loss of collagen from skin, caused by cortisol, is ten times greater than loss from any other tissue.

Pain

There is pain in various parts of the body because you are depleted of anti-inflammatory hormones.

Suppresses production of Growth Hormone. In the past, when the Growth Hormone was discovered as an important hormone to help people, the solution was to increase it. But now it is seen that cortisol, in excess, and in constant stimulation undoes all that growth hormone does. So the problem is not insufficient GH, it is too much Cortisol.

Forgetfulness and Poor Memory

Studies have also shown that excessive and constantly high levels of cortisol reduce memory.

From My Experience:

There is sometimes a constant fatigue and a manifestation of a person dragging around. They look washed out and drained. This is constant now.

They also have brain fog. It is hard to think and remember simple things during the afternoon.

The person is out of breath while climbing stairs when there is no reason they should be. They work out and are not physically debilitated yet they experience being out of breath doing simple physical activities.

In the afternoon they feel sleepy.

Then there is tightening of blood vessels. Part of the function of adrenal hormones is the contraction and relaxation of blood vessels. When there is not enough adrenaline, also known and epinephrine, a very important blood vessel called the coronary artery can get too tight and not relax which then leads to the tightening of the chest and chest pains.

Then there is excessive worry and impatience. There is constant fidgeting and twitching. This is very exhausting to the individual (and to the people around them). This exhaustion leads to the need for stimulants.

He is more sensitive to foods and food combinations.

Excess cortisol makes your thigh muscles weak making it harder to climb stairs or get up from a chair.

Other than that it is a joy!

One very common thing I hear from clients is how they cannot find how they can be stressing themselves so much. Well, stress on the nervous system and the body comes in many subtle ways.

Not eating enough is stressful on the nervous system.

Exercising too intensely is stressful.

What is too intense for exercise? You have a specific level of fitness. It is easy to find. You can go to "Best Exercise to Lose Weight" to find that level of fitness. If you are exercising beyond this point, cortisol is released.

Not eating breakfast.

The greatest amount of cortisol is in the morning when you wake up. Without food, the muscle cells do not get energy, and this causes more cortisol to be secreted longer throughout the day.

The highest levels of cortisol are present in the early morning, and the lowest levels are present around midnight, or 3-5 hours after the onset of sleep. So therefore, another hidden source of stress is: Lack of Deep Sleep!

Cortisol and Weight Gain: Belly Fat

Another claim to fame (or notoriety) for cortisol is belly fat. Belly fat is increased and decreased by the level of cortisol. Belly fat has more cortisol receptors than other fat and so it is much more primed to store fat from the cortisol hormone.

Visceral Fat is also caused by cortisol or excess cortisol. Visceral fat is part of belly fat. Belly fat is two types of fat. Visceral fat is the fat under the skin. This is what people think is belly fat, but that is not it. Inside the abdominal cavity, visceral fat grows around the liver, stomach, and other organs. It fills up the space it can occupy. Visceral fat pushes the abdominal cavity outwards and changes the shape of the midsection. A person can lose the subcutaneous fat and have definition of the abdominal muscles but still have visceral fat!

Visceral fat is dangerous to your health. It is the precursor to the Metabolic Syndrome. If you do not know what the metabolic syndrome is, it is a syndrome that begins with belly fat and ends in one of the various forms of heart disease and then death.

The good news is that visceral fat and all belly fat are both directly correlated to cortisol. So by reducing the cortisol levels the belly fat goes away!

Estrogen

Estrogen and fat are related. Estrogen is the antithesis of Testosterone. While testosterone is created by men and have certain effects on fat, estrogen is created by women from their ovaries.

Estrogen produces fat. Because of the difference between estrogen receptors in men and women, you will find a natural difference between fat levels in men and women.
Here are some key things to know about estrogen:

Body Fat Acting as a Gland

Estrogen produces fat around the female body. This is pretty commonly known. What is not so commonly known is that fat itself acts as a gland! It has been discovered that fat itself produces and secretes estrogen! This is a downward spiral that rivals a Six Flags Magic Mountain ride! Again I want to validate you who have tried and tried every diet and exercise and are not losing weight. You may be up against one of the most formidable enemies you have ever had.

Abnormal Estrogen

Estrogen regulates the sexual development in the female body. It is a necessary hormone for the development of the female body into maturity. It also is responsible for sexual reproductive development and secondary sexual characteristics for women. This characteristic of estrogen is something I will be elaborating on in the next section.

One of the things that has been happening in the US is the development of female sexual reproductive systems and female secondary sexual characteristics at younger and younger ages. Understanding that hormones are the key drivers of physical development, you can connect the dots and see that there has been an increase in estrogen levels at earlier ages than ever before.

Estrogen and Thyroid

It can also inhibit thyroid and liver function. Without getting into it too much here, the thyroid is the key gland that regulates the metabolic rate of the body. All other glands assist and have an effect but the thyroid is THE gland that regulates the metabolism of a body. The liver a key gland that affects all other glands. A weak liver causes abnormalities in the way other glands operate and therefore how your body deals with fat. Estrogen inhibits the function of the Liver and the Thyroid.

The Estrogen Problem

The problem with estrogen and fat is not about being a man or a woman. What has become evident is that both men and women now are exhibiting estrogen characteristics at younger ages. Both young boys and young girls are also exhibiting mature estrogen characteristics earlier and earlier in life.

Young boys are developing extra breast tissue and fat deposits usually associated with females. Young girls are also developing breasts earlier, beginning menstruation earlier and earlier, and girls are developing larger breasts. As a whole, these changes are date-coincident with increases in obesity and obesity in younger and younger people in the US.

There is also evidence that immigrants and visitors coming to America will develop one or more of these characteristics, but almost always increases in fat. However, upon returning to their homeland, they lose all these symptoms.

Estrogen in the Environment

The common denominators are: **Hormones in the animals** we eat that mimic estrogen and **toxic chemicals in the environment** that mimic estrogen.

As a note here, this book is about weight loss. I can go on for hours about all the effects of the artificial chemicals that are proliferative in our society. However, I am focusing on weight loss.

I also do not want to cause alarm and fear. That will not help anything. I will provide things you can do to help.

Animals grown for meat are grown in mass quantities. They are sold by weight, not lean muscle mass. Meat producers are paid based on the weight of the animal.

Doctors have known about the effects of synthetic hormones for five decades yet animals grown for meat production are fed extra hormones and specific diets to increase their weight. Increasing muscle is helpful but it is also expensive. Increasing fat is cheaper. It is cheaper because it is faster.

Estrogen causes excess fat.

We eat these foods and ingest these estrogens. So do our children.

So even an Atkins or South Beach Diet can cause a person to ingest foods that contain hormones that cause fat to be created.

Later in this e-Book you I will be presenting you with specific ways these estrogen affect you and what these specific estrogens are.

Double-Edged Hormones

These are hormones that cause fat storing muscle-reducing effects when they are either ***too high* OR *two low.***

These hormones will create fat-burning effects when **contained within a range**.

These hormones are also very important because when they are too high or too low, it stops fat burning.

When they are in a certain range all **fat burning hormones are available**.

They are:

Insulin

Glucagon

Insulin - Double Edged Sword

Insulin is another hormone related to weight gain. This is a peculiar hormone because it can be used both ways and it is equally **effective for losing weight and fat as well as gaining muscle**.

The purpose of insulin is to transport nutrients into muscle cells. Glucose is one of them. When glucose in the blood rises, insulin is secreted and the glucose is transported via insulin into the cells together with other nutrients.

If insulin was not secreted to shunt glucose away, blood sugar levels from starch consumption would rise too high and induce coma and death.

Muscle-Builder

Insulin has major fat-burning and anti-aging benefits such as enhancing muscle growth, recovery, and repair by delivering to the muscles the raw materials needed for protein synthesis. It also inhibits muscle breakdown. Additionally it is needed for the creation of IGF-1.

Promoter of Death

However, *chronically* high levels of insulin, **lead to death by way of diabetes and heart disease**. This is done gradually and slowly and the road is riddled with poor enjoyment of life and addiction to food.

But at the same time insulin lowers the **fat set-point** of your body. It makes it very easy to build fat. A study published in *Journal of Comparative and Physiological Psychology* in 1978 showed that rats injected with insulin got fat increases and rats injected with glucagon decreased fat.

The difficulty with insulin is that its secretion from the pancreas is very extreme in both directions. It is not fine-tuned. Insulin is usually secreted in excess amounts and when the muscles have received enough glucose and nutrients, they block the inflow of insulin.

Insulin then circulates in the blood taking the sugar supply away and bringing the glucose level too low. This is a state of hypogycemia.

This is the sugar low you experience after eating a very starchy meal.

So the drop in insulin now takes all the benefit away and prevents the muscle cell from receiving nutrition. Over a prolonged basis, muscles will atrophy.

Insulin blocks the human growth hormone (HGH) growth hormone and other fat-burning hormones. So after reading about all the hormones relating to fat, you will see that it is an either-or proposition. Either fat-burning or fat-storing hormones are going to be present or dominant.

Glucagon

Glucagon regulates and creates more sugar in the blood. JUST LIKE INSULIN. But it goes in the **other direction**.

When insulin converts sugar to glycogen, glucagon converts glycogen to sugar.

When your body goes for several hours with out glucose, glucagon will go to work trying to generate glucose. It does by getting glycogen stored in the liver breaking it down by activating a enzyme called phosphorylase.

Then, due to the rise in blood sugar, insulin is increased again to shunt the sugar in to the cells.

When liver glycogen depletes, your metabolism switches to using fat to create blood sugar.

Liver glycogen depletes in about 24 hours without food. Physical activity will shorten this period.

So you can conclude here, that the liver being depleted of glycogen store will eliminate a source of blood sugar. Without this, there becomes only two sources: **Diet or body**. This will be a key in your program and ability to reset your metabolism.

In terms of dietary carbohydrate and whether it gets stored in muscle or the liver, there is a difference. Sugar in cakes and cookies for example, is actually part fructose and glucose. Fructose is primarily used to refill liver glycogen stores and glucose is primarily used to refill muscle glycogen stores. After both as refilled, both are stored as body fat.

The next question or concern that arises out of the above fact is that sugar in fruit is fructose. Sugar in fruit when consumed in moderate quantity has so little sugar content because they are so full of **fiber**. Fruits also have so much micro and trace nutrients. So fruits in small quantities will not have fat storing effects.

Glucagon Muscle-Destroyer

Because fat burning is a much more complicated. involved and slower process than sugar burning, the nervous system will ALWAYS chose sugar burning over fat burning for energy creation.

And for this reason it will be easier for the nervous system to create blood sugar from glycogen stores in the muscle preferential to using body fat. In the process of creating blood sugar from muscle glucose, muscle protein is

degraded to amino acids to convert to glucose. **This is the muscle *destroyer* aspect of glucagon**.

Trigger for Glucagon

Where carbohydrate is the trigger for insulin, protein is the trigger for glucagon.

Protein does trigger insulin but at about a 30% strength.

Also glucagon is triggered by too little food.

Glucagon is another fat-burning hormone that is secreted after **intense exercise**. They key here is that unlike other methods of creating sugar in the blood, glucagon does so by **breaking down body fat** to do so.

The Solution to Insulin and Glucagon

Since both are harmful and fat storing when there is too much or too little of each and also destructive if there are wild swings of both, the solution is to keep them both in a fat burning range.

Keeping a steady flow of dietary trigers to keep insulin and glucagon at adequate levels to prevent exhaustion, fatigue and hunger is all that is needed.

Once insulin and glucagon are *in this range stably*, **ALL ANTI-AGING, FAT BURNING HORMONES CAN WORK.**

When insulin and glucagon are *out of this range*, **ALL ANTI-AGING, FAT BURNING HORMONES CANNOT WORK.**

Focus on Control of Insulin

With the group of people who cannot lose weight, insulin is one of the prime targets. Lack of knowledge of this hormone can also cause you to be eating foods that spike insulin without even knowing it.

Hidden Sources of Insulin

There are hidden sources of excess sugar. I hear the strangest things when talking with people, especially in an office.

Oh, "I don't consume sugar. The 12 'Full Throttles' I drink a day are *sugar free*. And that liter of ZERO Coke has 'no sugar' and 'no calories!' And

these protein bars that taste of cookie dough and caramel are 'sugar free'." Or something like that.

Look guys, here is the deal. If it is man-made and tastes sweet, there is sugar in it or it has something in it that does the same thing sugar does or worse.

Artificial sweeteners are toxic. Even if it is not man-made and it tastes sweet, it has sugar in it, but probably not as concentrated as man-made foods.

Environmental Toxins Cause Obesity

This is another barrier to weight loss. It is probably the **least known** reason but it is a prevalent one.

There are chemicals in our environment that have been proliferating throughout the biosphere for decades and more and more data is being discovered as to how they affect our health.

When it comes to weight loss the way they affect us is by altering the way our endocrine system works.

Endocrine Disruptors

Endocrine means relating to internal secretion. Hormones are secreted by glands. The endocrine system in the body is the system that regulates the secretion of hormones from these glands. When a gland secretes a hormone, the hormone goes through the blood. When the hormone reaches the place where it is supposed to go and the receptor at the other end receives it, it sends a message through the nervous system and the gland stops secreting it.

Disrupts Hormone Process

An endocrine disruptor is something that disrupts the endocrine process (the process of glands sending and receiving hormones). These chemicals act as if they were hormones.

But they are not. They can block, excite, or inhibit. Some of these chemicals go into the receptor and **block the real hormone**. Some go into the receptor and give a signal strength that is **too strong**. Others will go into the receptor and give a signal strength that is **too weak**.

Imagine stepping on the breaks while driving and the brakes have a blocker or inhibitor which prevents the brakes from receiving the signal. Your car won't stop. Or worse, it can be putting your foot on your car breaks and having your car accelerate!

Examples of Endocrine Disruptors:

- Pesticides: pest killers
- Insecticides: insect killers
- Herbicides: weed killers
- Fungicides: fungus killers

- Plastics
- Solvents
- Heavy metals

Feedstock

Cattle and Poultry feed are laden with toxic chemicals. Livestock are grown close together and because of this the spread of illness moves swift and this is very costly for the livestock business. As a preventative measure, animal feeds used contain a myriad of hormone-disrupting toxins including pesticides, antibiotics, and drugs to combat disease when so many animals are packed closely together.

Where Do They Come From?

One half of all antibiotics produced in the US is used on livestock feed.[1]

If you eat in any developed country, you are eating pesticides from fruits and vegetables, many of which are known endocrine disruptors.

Approximately **5 billion** (billion with a "B") pounds of pesticides, herbicides, fungicides, and other biocides are being added to the world each year. In the past 100 years, several hundred billion pounds of pesticides have been released into the environment.[2]

Pesticides that are banned in the US, such as DDT, are being used in some other countries freely. It is estimated that a person eats illegal pesticides 75 times a year just by following the USDA's recommendation of five servings of fruits and vegetables a day if these are purchased in regular supermarkets.

Vegetables grown in developing foreign countries such as South America and Africa find their way back to our dinner table in this global community.

Many endocrine disruptors are also **Persistent Organic Pollutants** as well. This means that they stay in the environment for a very long time, travel vast distances and accumulate in tissue and proliferate through the food chain.

Cause Confusing Hormone Symptoms

Pesticide residues have chemical structures that are similar to estrogen and are classified as xenoestrogens. Though there are "normal" level of estrogen in the body, your body is exhibiting signs of having much more estrogen.

Many also have proven to **alter thyroid hormone production** and cause hypothyroidism and subclinical hypothyroidism.

Another cause of inability to lose weight is excess estrogen or the symptoms of too much estrogen. Yet blood and saliva tests are showing that estrogen and progesterone levels are normal.

That's where endocrine disruptors called “Xenoestrogen” enters the picture. Let's go over the definition of this newly discussed term ...

Definition: Xeno-
foreign, strange, different

Derivation
[Via modern Latin< Greek xenos "stranger, foreigner"]

They are a class of endocrine disruptor (chemicals in the environment that go into your body and act like hormones). Xenoestrogens are endocrine disruptors that act like estrogen. Estrogen is a fat storing and fat creating hormone.

They are industrially made compounds, that have estrogenic effects yet differ chemically from normal estrogens produced by living organisms.[1]

Petrochemical Compounds

Petrochemical compounds are xenoestrogens found in general consumer products such as *creams, lotions, soaps, shampoos, perfume, hair spray and room deodorizers*. Such compounds often have chemical structures similar to estrogen and indeed act like estrogen.

Industrial Solvents

Industrial solvents are a common source of industrial xenoestrogens often overlooked is a family of chemicals called solvents. These chemicals enter the body through the skin, and **accumulate** quickly in the lipid-rich tissues such as myelin (nerve sheath) and fat. Some common organic solvents include alcohol like methanol, aldehydes like acetaldehyde, glycol like ethylene glycol, and ketones like acetone.

They are commonly found in *cosmetics, fingernail polish and fingernail polish remover, glues, paints, varnishes, and other types of finishes, cleaning products, carpet, fiberboard, and other processed woods*.

Pesticides and Herbicides

Pesticides and herbicides such as lawn and garden sprays and indoor insect sprays are also sources of minute amounts of xenoestrogens. While the amount may be small in each, the cumulative effect from years of

chronic exposure can lead to an imbalance of too much estrogen in your body.

More Research

The EPA (Environmental Protection Agency) has and is still doing major research on the effects of these endocrine disruptors.

What has been found is that tiny amounts can create hormone damage.

Also, schools, restaurants, golf courses, yards, foods, etc. are sprayed with chemicals that mimic estrogen. These toxins accumulate in bodily organs.

3 99% percent of over 100,000 recently introduced chemicals are underregulated, according to the European Commission.[4]

Commonly Used Xenoestrogens

- Bisphenol A (monomer for polycarbonate plastic and epoxy resin; antioxidant in plasticizers)
- DDT (insecticide)
- polychlorinated biphenyls / PCBs (in electrical oils, lubricants, adhesives, paints)
- Alkylphenols (intermediate chemicals used in the manufacture of other chemicals)
- atrazine (weedkiller)
- 4-Methylbenzylidene camphor1011 (4-MBC) (sunscreen lotions)
- butylated hydroxyanisole12 / BHA (food preservative)
- Dieldrin (insecticide)
- endosulfan (insecticide)
- erythrosine / FD&C Red No. 3
- ethinylestradiol (combined oral contraceptive pill) (released into the environment as a xenoestrogen)
- heptachlor (insecticide)
- lindane / hexachlorocyclohexane (insecticide)
- metalloestrogens (a class of inorganic xenoestrogens)
- methoxychlor (insecticide)
- nonylphenol and derivatives (industrial surfactants; emulsifiers for emulsion
- polymerization; laboratory detergents; pesticides)
- pentachlorophenol (general biocide and wood preservative)
- parabens (lotions)
- phenosulfothiazine (a red dye)
- phthalates (plasticizers)
- DEHP (plasticizer for PVC)
- Propyl gallate (used to protect oils and fats in products from oxidation)

Organochlorides (OC's)

Most frequently studied types of environmental toxins are organochlorines (OCs) and were found in insecticides, plastics, and industrial oils. Best known is DDT which has been banned from the US because of its toxicity but still remains in the environment. The reason they are studied so much is that they get stored in our fat cells for long periods of time. One study stated that OCs are found in virtually every person on the planet.[6]

OCs are frequently studied with obesity.[7]

Study shows that OCs was the most important factor in influencing resting metabolic rate. IT showed that they lower the metabolic rate by affecting the thyroid hormones. Specifically T3.[89]

Specific Toxins:

Dichlorodiphenyltrichloroethane (DDT)

Most recently, it has been suggested that exposure to DDT in utero can increase a child's risk of childhood obesity. DDT is still widely used as an anti-malarial insecticide in Africa and parts of Southeast Asia.[10]

Bisphenol-A (BPA)

A 2008 review has concluded that obesity may be increased as a function of BPA exposure, which "merits concern among scientists and public health officials".[11]A 2009 review of available studies has concluded that "perinatal BPA exposure acts to exert persistent effects on body weight and adiposity".[12]Another 2009 review has concluded that "Eliminating exposures to (BPA) and improving nutrition during development offer the potential for reducing obesity and Associated diseases".[13]Other reviews have come with similar conclusions.[14][15] A later study on mice has shown that perinatal exposure to drinking water containing 1 mg/L of BPA increased adipogenesis (fat generation) in females at weaning.[16]

Thyroid Disruption

A 2007 review has concluded that bisphenol-A has been shown to bind to thyroid hormone receptor and perhaps have selective effects on its functions.[17]

Another 2009 review about environmental chemicals and thyroid function, concluded that "available evidence suggests that governing agencies need to regulate the use of thyroid-disrupting chemicals, particularly as such uses relate exposures of pregnant women, neonates and small children to the agents."[18]

Yet another 2009 review also showed that environmental toxins such as BPA have adverse effects on thyroid hormone action.[19]

Polychlorinated Biphenyls (PCB's)

PCBs were used as coolants and insulating fluids especially in components of early fluorescent light fittings, electrical transformers, plasticizers in paints and cements, stabilizing additives in flexible PVC coatings of electrical wiring and electronic components, pesticide extenders, cutting oils, reactive flame retardants, lubricating oils, hydraulic fluids, sealants (for caulking in schools and commercial buildings), adhesives, wood floor finishes, paints, de-dusting agents, water-proofing compounds, casting agents, vacuum pump fluids, fixatives in microscopy, surgical implants, and in carbonless copy ("NCR") paper.

Reduce Thyroid Hormones

PBC's chemically resemble thyroid hormones and have been documented to affect thyroid function in animals[20] and reduce thyroid hormone production.[21][22][23]73 They are stored in fat tissues and can be passed on to the fetus in the womb.

Interference of Leptin

Toxins can affect the reception signals of Leptin. This causes leptin to be in effective is delivering its message of feeling full.[24] Leptin is the hormone that tells your brain that you are full.

Polybrominated Diphenyl Ethers (PBDE's)

This chemical is used as flame retardants. They have also been used in a wide array of products, including building materials, electronics, furnishings, motor vehicles, airplanes, plastics, polyurethane foams, and textiles.

Reduce Thyroid Hormones

PBDEs have the potential to disrupt thyroid hormone balance and contribute to a variety of neurological and developmental deficits, including low intelligence and learning disabilities.[25][26]

Banned in the EU

Many of the most common PBDE's were banned in the European Union in 2006.[27]

Behavioral Problems

Studies with rodents have suggested that even brief exposure to PBDEs can cause developmental and behavior problems in juveniles.[2829]

Neurotoxin

Research has correlated halogenated hydrocarbons, such as PCBs, with neurotoxicity.[30]

Chemically Similar to PCB

PBDEs are similar in chemical structure to PCBs, and it has been suggested that PBDEs act by the same mechanism as PCBs.[31]

Environmental Estrogen

As I mentioned earlier, estrogen is a hormone that produces fat. The presence of this as well the lower amount of testosterone in a woman's body is the primary reason women have more fat than men.

Today, the problem with estrogen and fat is not about being a man or a woman. Both young boys and young girls are also exhibiting mature estrogen characteristics earlier and earlier in life. Young boys are developing extra breast tissue and fat deposits usually associated with females. Young girls are also developing breasts earlier, beginning menstruation earlier and earlier, and girls are developing larger breasts and young boys are also developing female secondary characteristics.[32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47]

There are sources of estrogen coming from all directions and people are unaware of it. After learning some of what you are going to learn here, you will wonder how anyone could lose weight in the first place.

Estrogens in Meat Products

In modernized societies animals grown for meat are grown in mass quantities. They are sold by *weight*. Meat producers need to make animals heavier than before and faster than before.

Doctors have known about the effects of hormones for five decades. Animals grown for meat production are fed extra hormones and specific diets to increase their weight. Estrogen causes excess fat. So animals are fed and implanted with estrogen.[48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75]

The EPA also did a study on the effects of estrogen being placed into the ground from the manure of cattle. Below is an excerpt from a report produced by the EPA. A CAFO is an acronym for "Concentrated Animal Feed Operations."[76]

"CAFO Contributions of Estrogens - Cattle

- Growth Hormones-Estrogens (*estradiol, estradiol benzoate*)
- Androgens (trenbolone acetate, testosterone propionate)
- Progestins (progesterone)
- For cattle, the *estradiol* concentration in the urine averages 13 ng/L
- Estimated that at least 90% of feedlot cattle slaughtered in 1995 were administered growth-enhancing hormones

- Cattle subjected to growth hormones generate urine with *estradiol concentrations* five-to sixfold greater

"CAFO Contributions of Estrogens - Poultry
- Average estimated hormone concentrations per kg dry weight litter:
- 14 µg *estrogens (estradiol, estrone)* in male broilers-65 µg *estrogens (estradiol, estrone*) in female broilers-133 µg testosterone in male and female broilers
- Field study shows sizeable edge-of-field losses of *estradio*l (20-2530 ng/L) and testosterone (10-1830 ng/L) in runoff from litter-amended grasslands (Finlay-Moore et al, 2000)
- No growth hormones added: natural production of estrogens and testosterone
- In 1998, the U.S. poultry industry produced almost eight billion broilers with a total production of almost 12 billion kg litter
- *Estimated estrogen production: 160,000 –760,000 kg/ year*"

We eat these foods and ingest these estrogens. So do our children.

So even an Atkins or South Beach Diet or any other high protein diet can cause a person to ingest foods that contain estrogen that cause fat to be created.

DES

Between 1938 and 1970, doctors prescribed an artificial estrogen called DES (diethylstilbestrol) to prevent miscarriages in women. It was not until 30 years later that doctors discovered that DES caused miscarriages in women, and their daughters developed a rare form of cervical cancer, and other health problems.[77][78][79] One dose of DES was equivalent to 5,000 birth control pills. DES was the main growth hormone being given to animals during the same time.[80]

DDT

DDT is another chemical that mimics hormones and was recently found in fat tissues of 99% of children, even though this was banned in 1969. As mentionned, many foods, especially produce, are purchased from countries that do not have these laws. So fruits and vegetables from other developing countries imported here are bringing the problem straight back.

Bisphenol A

(bis-feenol -A). Bisphenol A is used primarily to make plastics, and products containing bisphenol A-based plastics have been in commerce for more than 50 years. **It is a xenoestrogen**.

The first evidence of the estrogenicity of bisphenol A came from experiments on rats conducted in the 1930s,[81][82] but it was not until 1997 that adverse effects of low-dose exposure on laboratory animals were first reported.[83]

The amount of BPA used in the US is equivalent to six pounds per habitant per year.[84]

The U.S. Centers for Disease Control (CDC) found traces of BPA in nearly all of the urine samples it collected in 2004 as part of an effort to gauge the prevalence of various chemicals in the human body.[85]

The CDC data shows that 93 percent of 2,157 people tested between the ages of 6 and 85 had detectable levels of BPA's byproduct in their urine. "Children had higher levels than adolescents and adolescents had higher levels than adults," says endocrinologist Retha Newbold of the U.S. National Institute of Environmental Health Sciences

Bisphenol A has been known to leach from the plastic lining of canned foods[86] and, to a lesser degree, polycarbonate plastics, especially those that are cleaned with harsh detergents or used to contain acidic or high-temperature liquids. A recent Health Canada study found that the majority of canned soft drinks it tested had low, but measurable levels of bisphenol A.[87] This exposure through metal cans is due to the fact that BPA is an ingredient in the internal coating of food and beverage metal cans used to protect the food from direct contact with metal. While most human exposure is through diet, exposure can also occur through air and through skin absorption.[88]
BPA is found in high concentration in thermal paper and carbonless copy paper.[89][90][91]

Studies by the CDC found bisphenol A in the urine of 95% of adults sampled in 1988–1994[92] and in 93% of children and adults tested in 2003–04.[93]Infants fed with liquid formula are among the most exposed, and those fed formula from polycarbonate bottles can consume up to 13 micrograms of bisphenol A per kg of body weight per day (µg/kg/day; see table below).[94]The most sensitive animal studies show effects at much lower doses, while the EPA considers exposures up to 50 µg/kg/day to be safe.[95][96] In 2009, a study found that drinking from polycarbonate bottles increased urinary bisphenol A levels by two thirds, from 1.2 micrograms/gram creatinine to 2 micrograms/gram creatinine.[97]

Consumer groups recommend that people wishing to lower their exposure to bisphenol A avoid canned food and polycarbonate plastic containers (which shares resin identification code 7 with many other plastics) unless the packaging indicates the plastic is bisphenol A-free.[98] The National Toxicology Panel recommends avoiding microwaving food in plastic

containers, putting plastics in the dishwasher, or using harsh detergents, to avoid leaching.[99]

A 2009 small US study funded by the EWG has detected an average of 2.8 ng/mL BPA in the blood of 9 out of 10 umbilical cords tested.

Several studies have connected BPA's to *obesity*[100][101][102][103][104][105] and *diabetes*.[106][107][108][109]

Is it becoming less of a surprise why females are going into puberty sooner and sooner? or why child obesity is climbing? Not to mention all the other illnesses such as cancer, breast tumors, Alzheimer's, deformities, decreased cognitive development, acne, skin lesions, etc that result from exposure to these chemicals

Hormone Replacement Therapy

Hormone Replacement Therapy (HRT) with estrogen is another source of extra estrogen. Taking estrogen supplements alone without sufficient opposing progesterone is another way estrogen imbalance occurs.

Premarin, an estrogen only drug commonly used in the past 40 years, is the mainstay of estrogen replacement therapy (ERT).

It is a patented, chemicalized hormonal substitute that is not the same as what you have in your body. It contains 48% estrone and only a small amount of progesterone which is insufficient to have an opposing effect.

The indiscriminate overprescription of Premarin to many who may not need it is the problem.

Symptoms include water retention, breast swelling, fibrocystic breasts, depression, headache, gallbladder problems, and heavy periods. The excessive estrogen from ERT also leads to increased chances of DNA damage, setting a stage for endometrial and breast cancer.

Estrogen supplementation is another source of excess estrogen.

Body Fat is an Estrogen Producing Gland

Estrogen produces fat around the female body. This is commonly known. What is not so commonly known is that fat itself acts as a gland! [110]It has been discovered that fat itself produces estrogen!

Body fat contains an enzyme called aromatase. Aromatase is an enzyme that helps produce estrone locally within fat cells.

This enzyme is involved in the production of estrogen and acts by speeding up the conversion of testosterone to estradiol (an estrogen).

Aromatase is located in estrogen-producing cells in the adrenal glands, ovaries, placenta, testicles, adipose (fat) tissue, and brain.[111]

Estrone (one of the three main estrogens in the body) in turns fools the pituitary gland into thinking that there is a sufficient amount of estrogen on board.

Ovaries are therefore instructed not to produce hormones.

Progesterone output is thus reduced, setting up an environment of estrogen dominance.

Premenopause and Postmenopause

In dealing with postmenopause you want to look for symptomology during premenopause. If the symptoms existed premenopause, they will be **exacerbated** and magnified postmenopause.

An example is **fatigued adrenals**. If, prior to menopause, they were weak, after menopause the symptoms of fatigued adrenals will magnify in volume and amount.

Hot Flashes, for example, are actually a result of adrenals that are being overworked due to the hormonal changes that occur during menopause.

Having strong healthy adrenals, when going into menopause, results in a very different experience.

Another very common example is when the fat distribution. If during premenopause, fat was only on the lower belly, hips and thighs, after menopause, the fat distribution starts to become the adrenal fatigue type fat distribution; i.e., when there was no fat on the midsection, it starts during menopause.

Hypothyroidism

This condition is a state in humans and in animals caused by insufficient production of thyroid hormone by the thyroid gland. It is another source of weight gain and inability to lose weight.

If there is a disorder that prevents thyroid hormone such as thyroxine to be produced in adequate quantity, your body's ability to convert nutrients to energy is reduced.

As a result insulin converts this unused amount of nutrients and converts it to body fat. This rate of conversion is what people commonly mistake for the definition of metabolism. This conversion or rate of creation of nutrients to energy is just one part of your metabolism.

Thyroid hormones directly affect the way your cells work and can change the inner working of it.

> ***Clinical*** **hypothyroidism** is usually diagnosed when there is a physical problem with the thyroid gland itself. This is often handled medically through surgery or hormone replacement therapy.
>
> There is another category of this condition, however, that is more prevalent and is affecting many more people with weight loss.

Subclinical Hypothyroidism

This is a situation where doctors cannot find a problem with your thyroid and also cannot find a problem with your thyroid hormone levels. Yet you have hypothyroid symptoms.

This is frustrating as in the person's mind, even the doctor cannot find proof there is a problem, yet you know there is. This is the **"subclinical"** world. What a lot of people do not realize is that almost every diagnostic test Western medicine uses today on a regular basis was once a test to find something that other tests could not.

At that former point in time, the "establishment" agreed what was considered an illness or a condition. They agreed on the parameters to objectively determine whether someone fits into this category. Those who did not simply were not considered to have that illness.

But others developed other tests that were outside the "established" parameters. Many times these other test would indicate something was there that the establishment did not recognize. When the illness was treated regardless, the person's symptoms were relieved.

Tests Not Detecting It

Over time, however, these other tests became the "norm" and the establishment considered their findings "medically relevant."

An example is hurting teeth. This is a general feeling of teeth hurting. Not a tooth ache. A generalized dull hurt across all teeth. This is now a "clear" indication of scurvy (deficiency of vitamin C) but at one time, this indication was relegated to "old-wives" diagnoses.

Subclinical hypothyroidism is the same.

Western science and medicine has come a long way and is extremely valuable. There are many doctors and researchers that I admire very much. But I find the most ignored aspect of medicine is the actual person himself and what he or she is communicating.

Subclinical hypothyroidism is different than hypothyroidism because tests show an adequate level of thyroid hormones but there are still the symptoms of low thyroid hormones.

There is also the case of an apparent signal to the brain that there is low thyroid hormone despite the tests showing there is an adequate amount. The way this shows up is when Thyroid Stimulating Hormone, or TSH levels are elevated but thyroxine (T4) and triiodothyronine (T3) levels are normal.

If this is confusing, let me explain. Normally, TSH is elevated when thyroid hormones are low. When they get low, your nervous system signals your pituitary gland to create more TSH, or thyroid stimulating hormone, to well ... stimulate the thyroid. That is how it works normally.

It is called a negative feedback mechanism because when there is an absence a hormone, that absence triggers the release of a hormone.

In the case of subclinical hypothyroidism, the feedback mechanism is not working correctly. Because the amount of TSH is elevated as if there is a signal that there is a insufficient amount of thyroid hormone. Yet tests show they are normal.

Only recently have there been discoveries that explain this phenomenon.

There are a few reasons this occurs. One is that your liver can be congested and not be working properly. All hormones go through the liver. They are metabolized through the liver, are activated through the liver, and activate other hormones through the liver.

If your liver is congested and does not allow the hormones to do what they need to do through it, then you can exhibit hormone imbalances even though your glands are producing the correct amounts of hormones.

Tests for Subclinical Hypothyroidism Cause Problems

Also the type of tests use became a factor. Most clinical tests for thyroid hormone are blood tests. This shows a different value of thyroid hormone than a saliva test. This immediately makes the test a variable instead of a constant.

As it turns out the saliva test was able to show the presence or absence of free thyroid hormones. You see when a hormone is released, most of it binds with another hormone, coenzyme or chemical. Often times this is done through the liver. This leaves a small amount of free and available hormone left circulating through the body.

It is this free and available hormone that is used by your body. When I have done tests I found that the blood value and the saliva value were almost always different.

Simply put, hormone saliva testing tells us the amount of hormones in our body that are actually usable by our cells; where as blood testing evaluates all circulating hormones regardless of their availability to our cells.

So when a blood test was showing a high level of hormone, the saliva test was showing a very low level of bioavailable hormone.

The Solution

What I have written in this introduction is not nearly everything i teach. It is a ***fraction*** of what a lot of people do not know about their body, health and weight loss.

I have not even gotten into anything regarding exercise and how that can help or hurt your weight loss efforts. There are times exercising will cause you to get more fat!

In the book, "Metabolism Makeover," you see all of this and much, much more.

There is a ***severe*** abundance of misinformation regarding diet exercise and health floats all around.

I clarify all of this **so you can see clearly where *you* should go**.

It is not esoteric and theoretical. **It is practical and doable**. You will be able to read what I write and see what you need to do.

I also provide **step-by-step** guides for you to follow. It is not a replacement to my direct coaching but it is a valuable education and it gets you the overall

This is so you don't have to make the mistakes I have made and that others have made.

The **Metabolism Makeover** is a method that corrects all the barriers in one system.

There is a **eating pla**n and **exercise plan** that is ***"dynamic."*** It changes **with** your body as it changes.

It shows you where to start and where to go. It gives options that take your lifestyle into account. You can adjust so you are winning at every stage.

Metabolism Makeover is a system that **resets** your glands, **balances the hormones** through eating and exercise, **mineralizes your cells** so they get ***hydrated***, ***increases oxygen content*** and **restores pH balance**.

The crux of the Metabolism Makeover is the **Metabolic Reset**. It is one thing to adjust your food and exercise. It is entirely another thing to reset your

metabolism so it turns into a metabolism that **uses fat** rather than sugar for fuel.

It reverses the age of your metabolism so when you are done, and you have attained your goal, you can eat the foods you used to **without** the same body responses.

What I gave is a small sample of all the health data contained in "Metabolism Makeover".

Read the Metabolism Makeover

http://www.natural-weight-loss-myths-revealed.com/metabolism-makeover-book.html

You can also receive personal coaching and guidance from a variety of services I offer. You can read about it here …

http://www.natural-weight-loss-myths-revealed.com/weight-loss-program.html

Feel free to email me if you would like at

yegyan@natural-weight-loss-myths-revealed.com

Gain an education in your health and your life. This will last the rest of your life.

I have read more book on weight loss that I care to remember and many of them are shameful. Some e-books do not address your specific needs.

Wishing you the best!

Yegyan
Certified Nutritional Consultant
Holistic Health Practitioner.

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