



Do you want to heal your body, lose weight, feel healthier, look younger, and get more out of life - naturally?



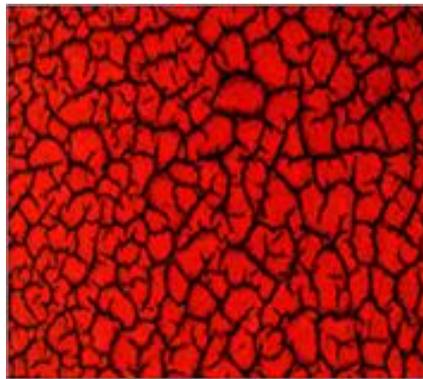
No magic
bullet



No one size
fits all



Real science
Real results



Unleash your Health Potential!

Essential body chemistry and metabolic balancing for optimal health and wellbeing



Synthesizing the primary contributions of the greatest minds in health science of the past century, join professionally trained Cellular Microscopist's, Bio-terrain Auditor, Health Coach and Holistic Health Educator Mark Hathaway for a fascinating and unforgettable journey of self-discovery & health education that just may change your life forever!

A sample of some of the many Testimonials you will find on my Facebook group

 **October 26, 2017 · Stockdale, TX, United States**

Hi all you Biosynergists!!... I'm brand new here, but MAY I just saayyy.... (I need a moment 😭).... y'all are REALLY onto something BIG here!!... I've been trying to heal all naturally for the past 3 years to no avail... *some* healing here and there came, but there's just SO much more still broken in me... How fortunate & blessed I feel to have found Mark now!... I've submitted the testing... (working on getting my blood work out today)... but ALLready, after speaking with Mark, he nailed the fact that I am highly catabolic all day (never anabolic) and extremely alkaline... My breaths were at an all time low 3.5-4x per minute (WHAT?!! How am I even alive?!!).... and sooo much more bad stuff I never knew was even going on.... WHYYY may I ask, has no doctor ever bothered to pinpoint these terrible issues going on with me in order to connect all these dots that Mark has already?.... Well, thank GOD, Mark finally did!!... 1st things 1st in all the simple but learned things I'll need to do within the next year of our coaching..... for my specific need (not everyone's), he immediately suggested I get started on "phos-drops" (phosphoric acid) and what do you know, the very next day my 30+ year severe heartburn/gerd was completely gone!!... and so was my lethargy.... Just two days ago (& all the years prior), when I had to walk upstairs in my house, I felt like I was carrying a 100lb weight thru mud.... today, that's already lifted as well.... I realize everyone's unique and all our healing will come at different times via different methods, but I just HAD to report/chronicle my early successes in case any of you are still on the fence about testing (like I've been the past few months)... Please don't waste all the time I did.... you'll live to regret it.... especially when healing is "so close, so close, but yet soo farr".... bahaaa!! I'm so happy, can you hear me singing? 🎶 😊🥰🥰🥰

It's right here at your fingertips.... JUST DO IT.... I am literally blown away by the simplicity of Mark's ability to gain knowledge of my nutritional deficiencies/needs & immediately address them.... It's no longer a shot in the dark!!... We can finally KNOW!!... Not to sound cliché or anything, but... THIS is what I've been hoping & praying for!... no-thing and no one has offered me such quick relief and thorough scientific answers to all of my conditions over the past 10 years as Mark has, and I stand here in utter amazement unable to keep in this genuine miracle... ok, off my pedestal now & back on my journey to healing.... y'all resume your normal activities.... til next time, I am done. 🙏

Michelle Laurent Absolutely changed my life! And my sons too! Hubby feels absolutely sooo much better! My son was diagnosed with kidney disease -aggressive! With doing Marks test-my sons kidneys have improved incredibly and doctors are amazed how fast! He also isn't on any pharmaceutical medications, he's normal 14 yr old now :) Myself I was weak, anemic, no energy, migraines, dealing with severe stomach issues-been a year now no longer anemic, candida gone, energy back and feeling really good, hubby found out he had parasites and just getting rid of those beasts has healed his IBS, joint stiffness, headaches, and low energy. Absolutely believe in Marks work and wish I'd found him Sooner!

11:43

Thank you Mark that really does mean a lot. I'm determined to turn my health around. After so many years suffering and not truly knowing what was going on I'm both encouraged and confident I'm finally getting to the root cause. I'm really enjoying this learning journey...knowledge is power, and thanks to you I'm taking back my power!! 😊



 **3 hrs · Brisbane · 🇺🇸**

Wow wow WOW!!!! Im so excited to have finally met **Mark Hathaway** today & have a full consult. I've been following him on line, tuning into his webinars, listening to him respond to peoples questions from all parts of the world and nothing matches meeting him face to face and hearing his intelligence (laced with such common sense!!). Learnt so much and everything was explained so simply. Thank you so much 😊

Mark Hathaway has saved my life when main stream doctors said I was fine, yet I was suffering severe anxiety, extreme fatigue, bloating, IBS, severely aching joints/muscles, headaches...with his work he set me on right path!

Ethan has improved 10 fold and is back to being in remission for his kidney disease! With adding more and more foods to his diet with no problem!

What Mark does is amazing and should be in every clinic!! No more guessing!! No more experientments with drugs, supplements, to get better! His group:

<https://m.facebook.com/groups/1560807000818033>

You won't regret knowing the truth!



42 mins · 🇺🇸

A huge thank you **Mark Hathaway** for the fantastic consultation you gave me yesterday! It was so thorough and enlightening! Your knowledge is invaluable. 💖



Sheree Tompkins

I vouch for what Mark can do. I've tried several protocols trying to regain my health. Some worked for a while before I crashed and others made me feel worse right off the bat. In implementing the first few things Mark suggested for me per my test results, I feel so much better. It's been a month now and I haven't crashed! If you're debating if this testing is worth it....I can say with absolute certainty that it has been for me. My only regret is that I didn't do his testing sooner.

Monday at 22:55 · Edited · Like · Reply

11:43

Thank you Mark that really does mean a lot. I'm determined to turn my health around. After so many years suffering and not truly knowing what was going on I'm both encouraged and confident I'm finally getting to the root cause. I'm really enjoying this learning journey...knowledge is power, and thanks to you I'm taking back my power!! 😊





Karen Cook
Yesterday at 19:45

Few people have the privilege of having such a supportive and giving professional like **Mark Hathaway**. I am beyond lucky to have had him available during my medical episode tonight. Just by providing Mark with the relevant numbers, he was able to talk me through a protocol to balance my irregular heart beat, low BP and high pulse rate. I would have had to go to E.D if not for Mark. Thankyou for being there for me yet again. I am so grateful. Please accept my warmest thanks for your thoughtfulness and words of comfort. Really do appreciate you and you work. Anyone who has any health issues should seriously do this world wide testing. He can teach you so much about your health.

Thank you Mark! I really love and appreciate what you do and the results that we get from your guidance.

It is so rare to get results and to actually be enlightened to know what is going on in our selves.

Cristine Rogge

Pure science is what people need ... one size doesn't always fit ... when we are born doctors actually prick your heels and analyse your blood for genetic diseases. That procedure is called dry blood testing. 1 drop of blood can see every disease and imbalance within your body. No guessing , pure science, learn about your body and your blood never lies. Have a look at this photo I post and if your serious about your health then add yourself to biosynergy Health on Facebook closed group and learn. Dry blood testing is cheap to do and Giving your body the right conditions it is able to heal. **Mark Hathaway** is miraculous and the practioner. Speak with him and finally see what your body chemistry is doing.

Anyone here that is on the fence about doing Marks testing, do it!!!! Your health is worth it. I did the testing and had my consult and started the protocol and my life has changed. I used to be on BP meds and have quite them because my BP is back to normal. I even had a cup of coffee this morning and it is 118 over 80. I have more energy than I have had in years, my insomnia is gone, I used to go 3 nights without sleep and now I am sleeping 7-9 hours a night. Who knows what else is going on in my body but these are BIG. I am currently doing the parasite cleanse so I cant even imagine how good I am going to feel once that is done. If ANYTHING, start the MSM in water and the juice of one or two lemons in the morning. I put a bit of maple syrup and cayenne pepper in mine.



November 29, 2017

Just wanted to have a little boast about Marks program!! I'm a hairdresser by trade and haven't been able to do anyone's hair for 4-5 years without feeling like I'm going to pass out after 10 minutes. Well 2 days ago I stood for hours and did someone's hair and not once did I feel faint and was full of energy afterwards, I truly thought my career had come to an end!! I also had a sensitive wisdom tooth that was quite painful but the pain magically disappeared a few months ago, just discovered yesterday that it was because the tooth had a hole in it, but it's healing itself!! Thank you Mark for finally giving me the correct tools to heal my own body properly!! I am forever grateful 😊



Michèle Laurent Absolutely changed my life! And my sons too! Hubby feels absolutely sooo much better! My son was diagnosed with kidney disease -aggressive! With doing Marks test-my sons kidneys have improved incredibly and doctors are amazed how fast! He also isn't on any pharmaceutical medications, he's normal 14 yr old now :)) Myself I was weak, anemic, no energy, migraines, dealing with severe stomach issues-been a year now no longer anemic, candida gone, energy back and feeling really good, hubby found out he had parasites and just getting rid of those beasts has healed his IBS, joint stiffness, headaches, and low energy. Absolutely believe in Marks work and wish I'd found him Sooner!



42 mins · 📍

A huge thank you **Mark Hathaway** for the fantastic consultation you gave me yesterday! It was so thorough and enlightening! Your knowledge is invaluable. 💕

Also to my health issues, I just found out as I went to my Swiss dentist, that i have two dead teeth and an area with chronic infection, I probably had for 25 + years and it is highly linked with my history of sinus infection, cause it still feels the same in high humidity or with an actual s infection, as dental care sucks the same way in the US, as Western medicine. All dentists prescribe are root canals; nothing else!!!

I have a plan for fixing this with getting two implants and artificial teeth eventually, probably next year, so my body isn't burdened by this no more, plus I know I have to support my body to work out the heavy metals, especially the mercury which is deep in my tissues, I know it and my local healer and kinesiologist told me so. Otherwise I am in very good shape and all I can say is thanks to your wisdom and you being this messenger and sharing all this knowledge with us in the biohacker group. Again thank you from the bottom of my heart as I feel so much more vibrant. Without this blood test I would not be where I am now with my health! THANK YOU AGAIN AND A MILLION TIMES MORE!

Where my work comes from

I am just the messenger

I am but the messenger.....

Synthesizing *the primary contributions* of the greatest minds in health *science of the past century* and *sequencing the best of their strategies* into a hierarchical structure that logically *points you to the most important concerns, balance points, and interference patterns* causing problems *in fluid dynamics*.



Dr. Emanuel Revici

Cancer Therapy
Cell Membrane Physiology
Lipid/sterol mechanics
Anabolic/Catabolic
Diphasic nature of human life



Dr. Carey Reams

Fluid dynamics
Uncovered what he believed to be the mathematical equation for perfect health in the human body.
Reams Biological Theory of Ionization
 $CS + [1.5 \ 6.4/6.4 \ 6-7 \ C \ .04 \ M \ 3/3] = PH$
CS (Common Sense) plus the equation for [the ideal line of least resistance in body chemistry] equals PH (perfect Health).



Dr. T.C. McDaniel

Cardiovascular expert
Zeta Potential - the measured ratio of an-ions to non-ions and cations in the body's circulatory terrain.
Wrote the book, Disease Reprieve
- Living Into the Golden Years



Dr. George Watson, PhD.

Nutritional Psychiatry for Emotional Health & Cognitive Performance.
Cellular metabolism and energy production.
Coined the terms "fast / slow oxidiser"
Fuel for Proper Brain Function and Balanced Emotions

Do you want to lose weight, feel healthier, look younger and get more out of life?

Unleash your health potential!

Do you have a specific illness or disease you're dealing with now? Do you ever think that you don't feel like you used to feel? Are you fatigued, or hyperactive, overweight, underweight or have aches or pains? Are you an athlete looking to 'get the edge' and tweak your system in order to maximise performance in all areas of your physiology? If you answered YES to any of the above, I would like to introduce you to a very unique, innovative and powerful science and objective based method of rebalancing, healing and optimising your physical and mental health.

Have you

- Read books on diet, nutrition and nutritional supplements?
- Been amazed at how many books have been written on the subject?
- Ever wondered how there can be so much contradictory and conflicting information?

Have you ever wondered....

- Why degenerative disease is skyrocketing?
- Why younger and younger people are falling prey to diseases of the aged?
- Why cancer, heart disease and diabetes are increasing each year?

The million dollar question

- How can someone eat the best organic foods, take the finest nutritional



supplements that money can buy, get plenty of rest, exercise regularly..... and **Still Not Feel Well ?**

- If nutrition is so important, why doesn't it work for so many people?

Answer...

Because we are all biologically unique and unless we address our health on this fundamental unique level we will be forever confused, frustrated and sick.

“The doctor of the future will give no drugs, but will interest patients in the care of the human frame, in diet, and in the cause and prevention of disease.” -- Thomas Edison --

Nutrition and supplementation specific to YOUR biological individuality

Precision nutrition

What makes nutrition & supplementation complicated is BIOLOGICAL INDIVIDUALITY. This means simply that no two people are biologically identical - therefore, no two people need exactly the same diet and nutritional supplements to build, maintain and optimise good health. You and your neighbour are likely to be entirely different individuals biologically. Food that is nutritious for you may be unsuited to his individual type of body chemistry. A vitamin supplement that gives a big boost to his energy level may leave you feeling tired and weak.

Most people either give up in frustration or suffer through a lifelong series of trial and error guessing in an attempt to find what works for them. Compile that with the fact that our "natural" environment isn't very natural anymore - full of all sorts of pollutants, chemicals, toxins and mineral depleted, genetically modified food and it's no wonder why staying healthy is such a difficult challenge!!

So.... the simple truth: There is no one ideal diet for everyone; there is no vitamin or mineral supplement that will improve or

optimise everyone's health. The question of specifically what diet and supplements are best for you can be accurately answered only in one way - with a comprehensive, scientific, metabolic & body chemistry testing, profiling and rebalancing program.

In order to determine the ideal diet and supplement protocol to fit perfectly with YOUR body (and to bring your healing metabolic control mechanisms back into balance), I have developed a program that involves a comprehensive physiological & body ecology assessment which involves assessing two very powerful perspectives of health:

- **The visual perspective (dry blood assessment)**

Observing a qualitative reflection of health as expressed in your blood (our blood doesn't lie).

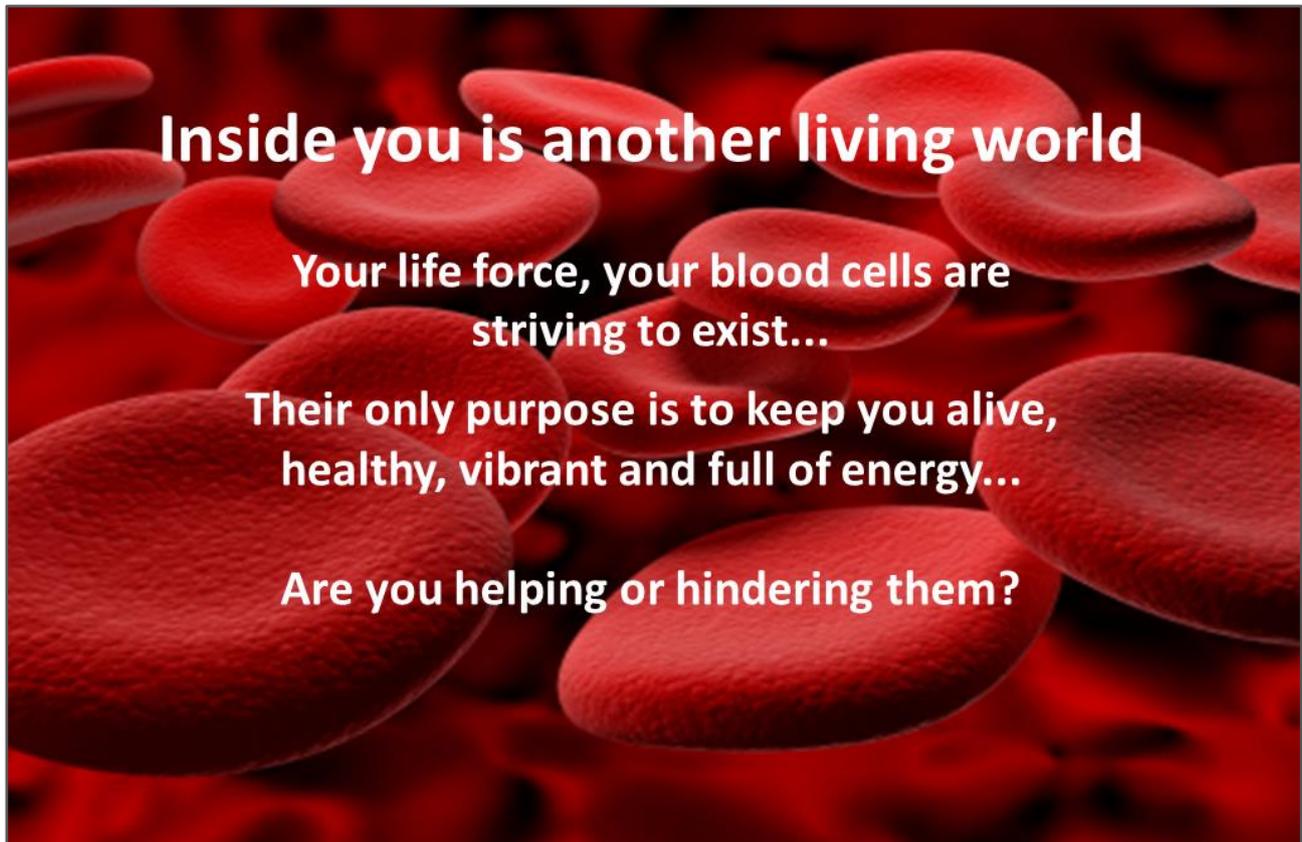
- **The quantitative perspective (metabolic analysis)**

Assessing the mechanical and electrical measures of health.

*Edgar Cayce, the seer of Virginia Beach, predicted in the 1930's that in the future, a person's state of health would be determined by the evaluation of one drop of blood. **This time has arrived!***

The visual perspective (world-wide dry blood assessment)

Observing a qualitative reflection of health as expressed in your dry blood (*sample taken from a simple pin prick to the finger and done by you at home*)



It is absolutely fascinating to watch the play of life at the cellular level - something that never fails to amaze my clients!

Using one of the most powerful forms of health education available - a high powered biological video microscope, you will be taken on a fascinating and unforgettable journey into the microscopic world of your internal terrain (body ecology).

The purpose of looking at blood under the microscope is to determine the state of the terrain – whether it is in a state of balance or

imbalance. This knowledge is of utmost importance because changes in the blood precede any physical manifestation. When the blood and terrain become compromised, disease is soon to follow, and by correcting the imbalance in the terrain we are able to re-establish a state of balance and health.

While conventional medicine is concerned with eradicating disease by killing bacteria, cancer cells or by replacing hormones and suppressing symptoms, I am more concerned with the state of your terrain because disease will only be able to thrive in a suitable soil.

Just like plants that have been grown in poor soil and are subsequently weaker and more prone to disease, so are the cells in the body affected by our terrain.

The visual impact this experience has on my clients is incredibly powerful and ensures that they stay motivated and committed to making positive, health-promoting changes in their lifestyles. You will be amazed at the degree of detailed information that can be obtained from a tiny sample of blood from a pin prick on your finger (carried out by you at home).

Who wouldn't want to know this invaluable information?



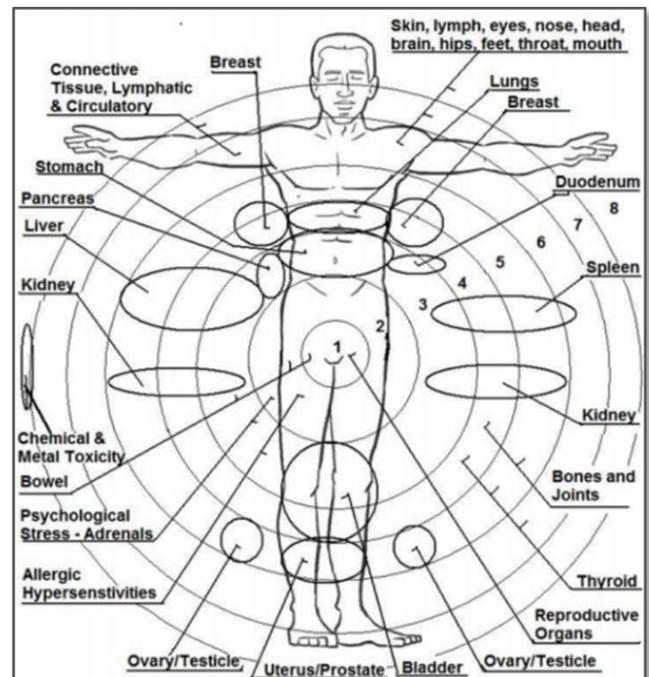
The analysis of dry blood specimens (taken by you – a simple pin prick to a finger) provides me with a valuable insight into the body's internal terrain, which constitutes the blood, lymphatic fluid, cerebrospinal fluid and the interstitial fluid that surrounds every single cell in the body. Just like a fish swimming in unhealthy water will become unhealthy, so the cells in the body are poisoned by the toxins and acids in the fluid in which they are bathed.

Some of the things I can see in dry blood...

- The condition of the red blood cells
- Liver, kidney, pancreas, heart, lung, prostate, ovary, breast and other organ stress.

- Detection of the presence of parasites, yeast, fungus, mould, and the degree of pleomorphic activity.
- Observation of features associated with blood sugar imbalance.
- Observation of features associated with malabsorption of fats.
- Observation of features associated with protein malabsorption.
- Observation of features associated with nutrient malabsorption and vitamin/mineral deficiency.
- Observation of features associated with gastro-intestinal tract dysfunction.
- Observation of features associated with pre-cancerous conditions.
- Observation of features associated with heavy metal contamination.

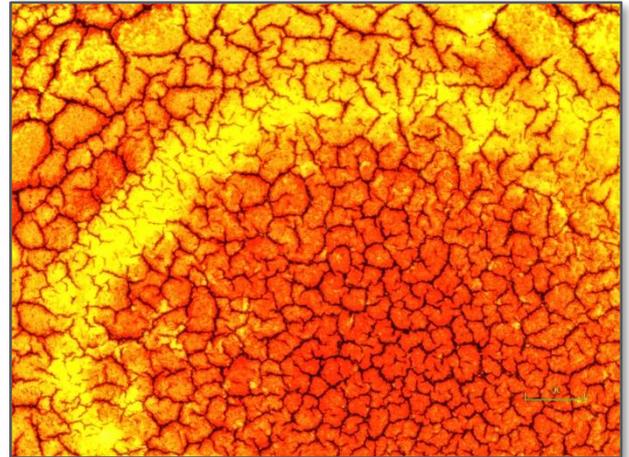
Some examples of what can be seen in a dry blood sample.



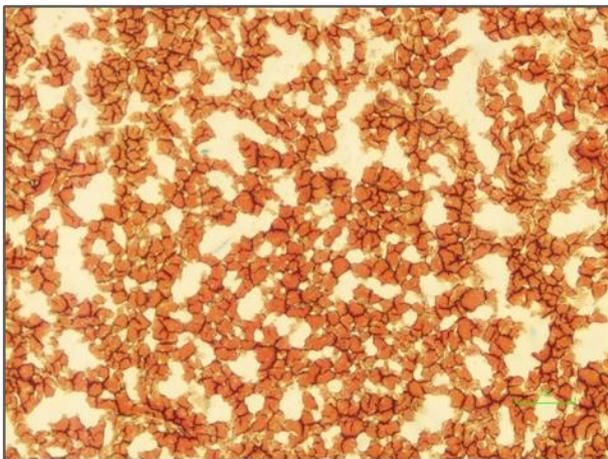
Some of the stresses in the body I can read from just a single drop of blood (from pin prick)



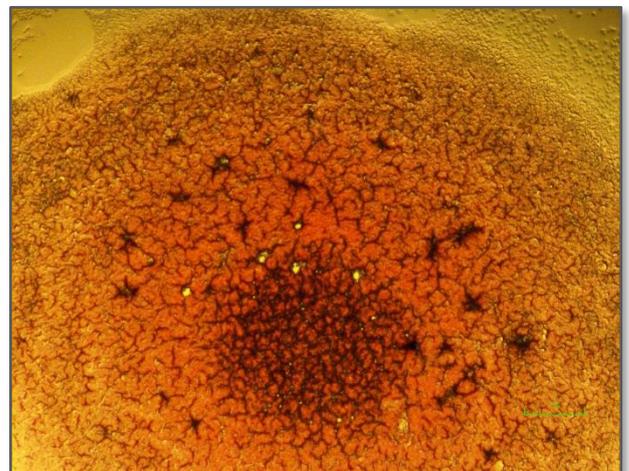
I'm healthy and energetic! I love my body and my body loves me



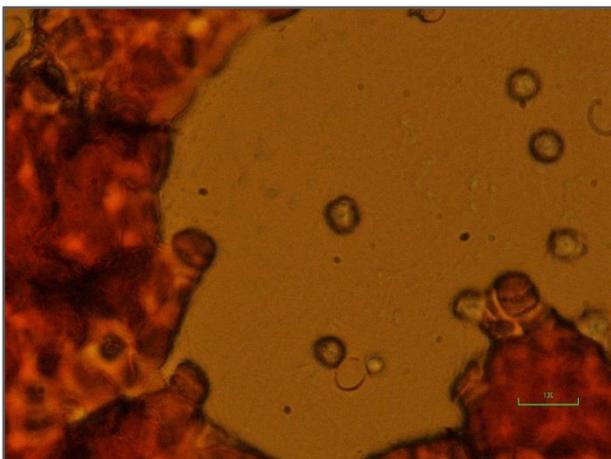
My lymphatic system is congested



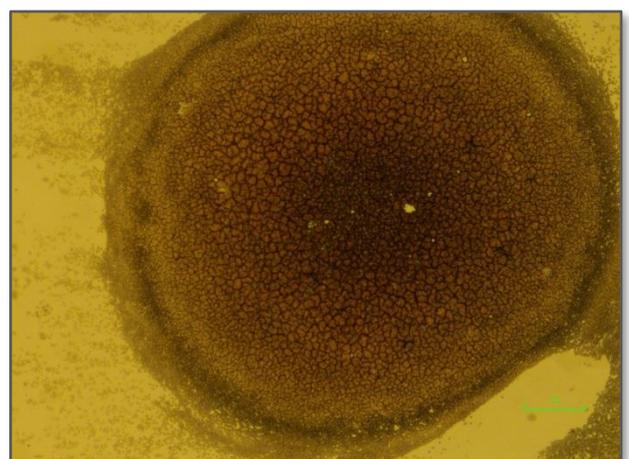
I have cancer



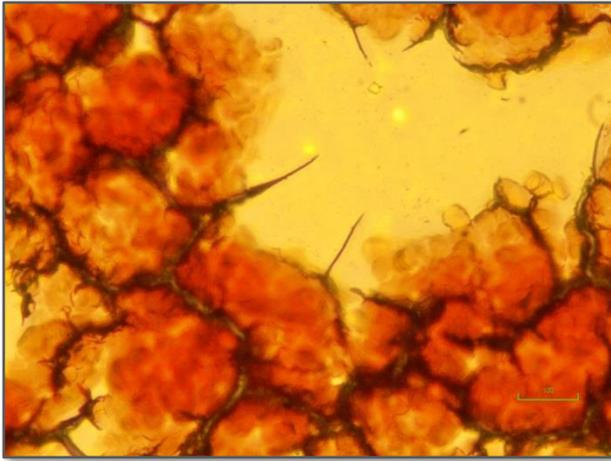
I have toxic gut and high levels of parasites, poor protein digestion and liver stress



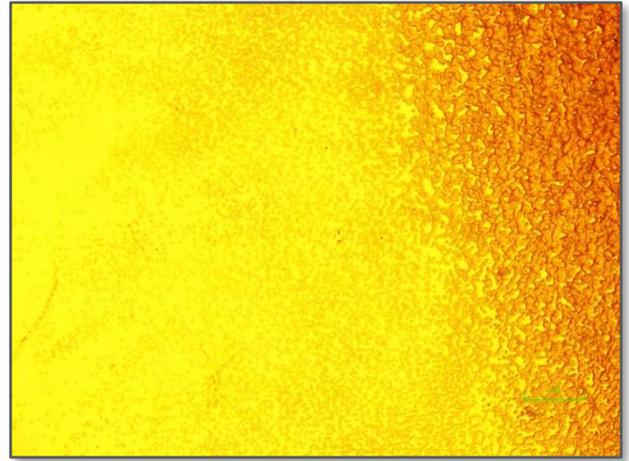
My tissues are very acidic (sialic acid beads), I have low energy, lots of body pain and my environment is conducive to tumour growth



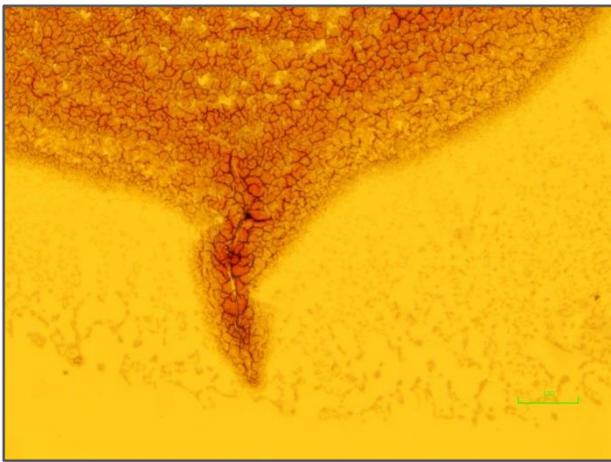
I have heavy metals



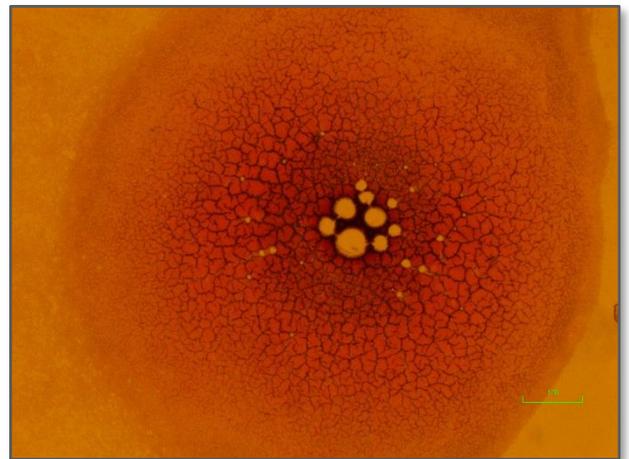
I have liver stress (liver spikes)



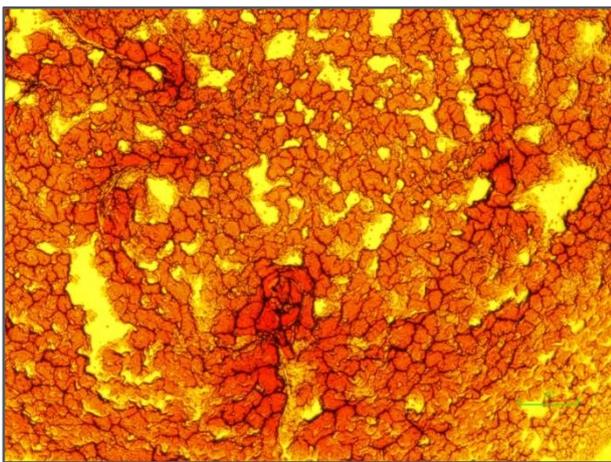
My body is lacking vitamin C



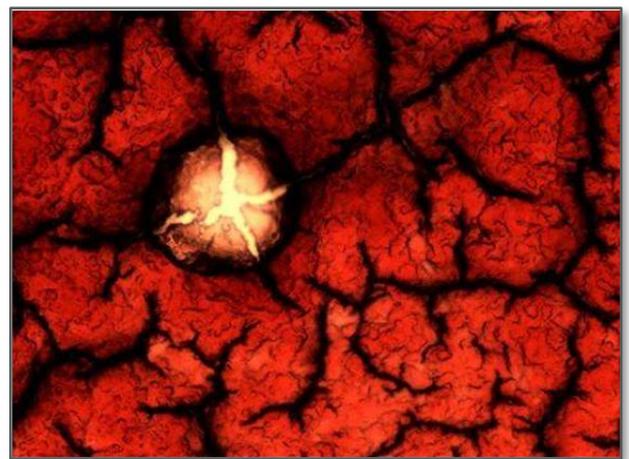
I have structural stress (head/neck)



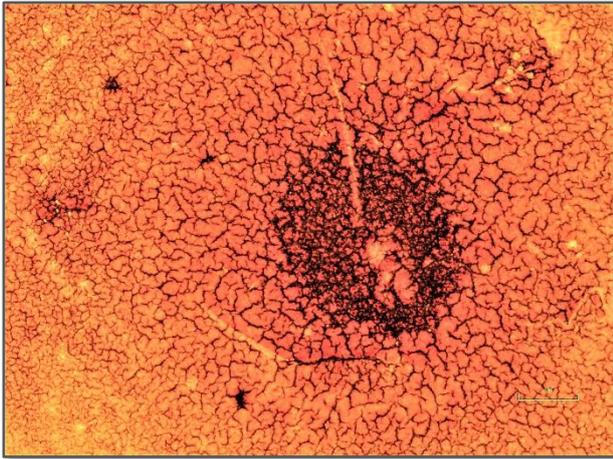
I have a severely toxic bowel



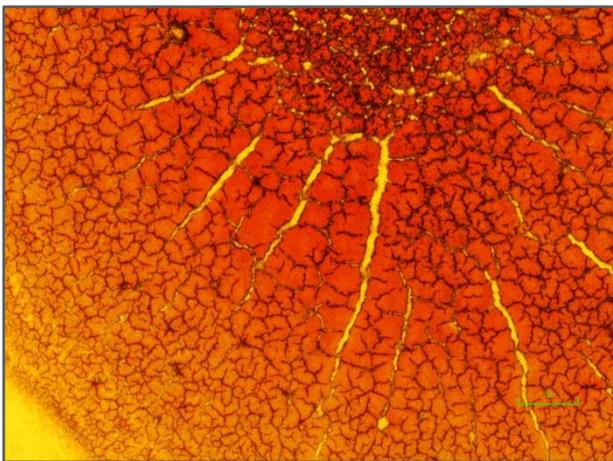
My cardiovascular system is struggling



My liver is struggling greatly



have dysbiosis (toxic gut) and some structural stress (neck, back or shoulders)



My body has been struggling for minerals and is pulling minerals from my bones to help balance blood pH

The quantitative perspective (metabolic analysis)

Assessing the mechanical and electrical measures of health (through some simple self-testing done by you at home).



Metabolic Analysis is an innovative health technology that measures 10 key indicators of your personal metabolism. Your metabolic indicators identify what is right for you, not simply what is right for everyone else. These indicators provide the keys to understanding your metabolism – how to speed it up, when to slow it down, how your body produces energy, and how it heals, recovers and rebuilds itself.

Essentially our metabolic control mechanisms.....

- Control your energy production;
- Control the function of your heart and circulation;
- Control the function of your brain and nervous system;
- Determine your efficiency of digestion and assimilation of nutrients;
- Control the chemical balance in your blood and in your cells;
- Help regulate your hormone balance;
- Help you efficiently eliminate the toxic waste products of metabolism and;

- minimise the degenerative changes associated with the aging process.

In other words, these fundamental metabolic control mechanisms are the engines that drive your body and mind. When these engines are working efficiently, you move through life with strength and vitality. When one or more of these systems loses efficiency your body and mind simply cannot perform at their best. When the metabolic imbalance is severe enough or exists for a prolonged time, pathological changes occur and you suffer the symptoms of disease.

The goal of Metabolic Analysis

The goal of Metabolic Analysis is to restore balance to your Metabolic Control Mechanisms, thus increasing your adaptive capacity. Increasing your over-all adaptive capacity is the only way to assure that you are living to your maximum potential. The result will be:

- Better resistance to disease.
- Renewed strength, such that functional and pathological symptoms can be overcome faster.
- More complete tissue repair and regeneration.
- More effective handling of stress and a high level of vitality.
- A slowing of the aging process.

Did you know? Low blood pressure can be just as big a problem as high blood pressure. Proper blood pressure is needed to deliver oxygen and nutrients around the body. Having low blood pressure is like driving around on flat tyres!

And what specific problems does metabolic balancing address?

Each of the Metabolic Imbalances found in you disables your ability to perform the following essential functions:

- Maintain glycaemic control.
- Maintain normal oxidative metabolism.
- Maintain ideal pH levels throughout the body.
- Maintain ideal concentrations of electrolytes and biologically active water.

How important are these four essential functions? They are the whole story. If you are talking about health vs. disease – they are the difference between living stronger longer or being sicker-quicker.

You are probably interested in a little more information on what these four essential functions mean to your health:

Maintain glycaemic control

Glycaemic control is all about your ability to maintain normal blood sugar levels and normal brain sugar levels. All of your 5 key metabolic control mechanisms are involved in glycaemic control.

When you lose glycaemic control you suffer to some extent from either hypoglycaemia or diabetes. These two conditions have a major impact on how you feel and how you look. But more than that, poor glycaemic control is tied in with a breakdown in many body systems.

For example, it is estimated that 75% of all cardiovascular disease is directly associated with poor glycaemic control.

Now look at that fact in the light of what you have just learned about Metabolic Analysis. Does it make sense for people with cardiovascular disease to take remedies or drugs for the heart and blood pressure without making any attempt to restore glycaemic control - when loss of glycaemic control was the cause of the cardiovascular disease?

Chronic fatigue is almost invariably associated with poor glycaemic control. Does it make sense to take stimulants to give the illusion of increased energy when the lack of energy is due to poor glycaemic control? The only real cure for the low energy is to restore normal blood and brain sugar levels - and the only way to do that is by restoring balance to the five metabolic control mechanisms.

Maintain normal oxidative metabolism

Every cell in your body produces its energy with oxygen. In the state of health, sufficient oxidative energy production occurs in each cell to perform its essential functions, while at the same time excessive free radical oxidation is minimised. Your goal, of course, is for each cell in your body to produce enough oxidative energy to keep all your cells humming happily and healthfully while avoiding the accelerated tissue destruction and aging processes that occur when oxidation gets out of control. In other words, you want to be eating just the foods that your body oxidises most efficiently, while avoiding the foods that will oxidise out of control. You also want just the vitamins, minerals, trace minerals and amino acids that will act as oxidants to keep your body highly

charged with energy, while at the same time taking just the right types and quantities of antioxidants to protect you from free radical damage. What is this ideal balance between oxidants and antioxidants? It is different for every individual. Only through this testing will you know.

Maintain ideal pH

There is a very narrow range of pH which is ideal for your blood; an ideal pH range which is ideal for the tissue fluids; and an ideal pH within your cells. There is probably no pathology that is not associated with abnormal pH changes in either the blood, the tissues, or the cells. You may be too alkaline or too acid in any one of these three important fluid compartments in your body. Furthermore, you can be too alkaline in one area while at the same time being too acid in another. Metabolic Analysis is the only means to determine where you may have abnormal pH, why that pH is abnormal, and what exactly you must do in the way of diet and supplementation to correct the abnormal pH's.

Maintain ideal concentrations of electrolytes and biologically active water

Not only must the blood, the tissues, and the cells all maintain normal pH - each of these compartments must also maintain ideal concentrations of electrolytes and water. Each of the five metabolic control mechanisms influences electrolyte and water movements within and between these three body fluid compartments. Correcting your metabolic

imbalances will move the electrolytes and bio-active water to exactly where they are deficient. This will facilitate the movement of nutrients and waste products into and out of all the cells of your body. It will improve the strength and efficiency of your heart and blood vessels and normalise either high or low blood pressure. It will also strengthen the hormone systems that are associated with control of electrolyte and water levels.

What you are learning is that if you can maintain glycaemic control, normal oxidation, normal pH and normal flow and concentration of electrolytes and water, then you will be in a state of health. Your adaptive capacity and vitality will be at a level approaching your innate potential. Metabolic Analysis can show you the way. Once you have been so empowered you will have done everything for your health that you can do nutritionally. Once you are so empowered, you will likely scoff at the idea of taking remedies for this and that condition - as so many people do in a disease-specific desperate attempt to control symptoms without any regard to the cause of those symptoms.

With Metabolic Analysis you will never need to resort to trial and error to determine which foods or which nutrients might be best for you. It is all shown very clearly by an analysis of your tests. And trial and error is what everyone else is stuck with who does not have the benefit of Metabolic Analysis. For all those who take an unscientific trial and error approach to nutrition, error is what they get almost all of the time.

My Metabolic Analysis tests for...

Digestion

How your body extracts the nutrients and energy it needs out of the food you put in. We are not what we eat, we are what we assimilate!

Hydration and Electrolytes

Are you getting the right balance of electrolytes and quality fluids vital for sustained energy production? Is the power switch turned on in the first place?

Anabolic or Catabolic (cell membrane permeability)

How effectively is your body shifting between energy output and repair, recovery and building healthy new cells?

Carbohydrate and Fat Metabolism

What is your body's preferred fuel source, Carbohydrates or fats? This is vital for energy production, weight loss and achieving your health goals.

Free Radicals and Antioxidants

The balance between oxidative energy production and antioxidant induced cellular repair.

Protein Metabolism

How is your body making use of your protein intake?

Autonomic Nervous System

Is your nervous system coping with your daily demands? Are you sympathetic dominant or are you parasympathetic dominant – understanding the difference and keeping them balanced is one of the key foundational principles for optimal health & wellbeing.

Acid or Alkaline

The Acid/Alkaline balance and its relationship with energy production and health.

Vitamin C Levels

Vital for healthy tissue – vitamin C is the “glue” which holds us together.

Your Physiology

A series of practical readings which determine how your body is adapting to your individual metabolic chemistry. This is where we make your goals real for you.

“We are all metabolically unique and it is the understanding of this uniqueness that is the secret to optimal health”



Outline of Metabolic Control Mechanisms

And their imbalances

Electrolyte balance (electrolyte excess/deficiency)

Electrolyte Balance comes in at the top of the hierarchy of all the points of stasis that I am looking to bring into balance. Certain issues with digestion may take priority from a point of view of processes that need to be corrected before anything else can get better, but as far as those ideal ranges of things to watch, our electrolyte balance is the most critical. Why is it so important? Well, if our electrolyte balance falls too far out of range, either towards electrolyte excess or electrolyte deficiency, then the delicate electromagnetic suspension that holds our blood cells apart (a state of dispersion, or colloidal suspension maintained by an electromagnetic force known as Zeta Potential) could fail and our blood could clot together, resulting in widespread clotting of the blood known as disseminated intravascular coagulation. This is pretty much what happens in nearly 30% of deaths in Australia. Every 12 minutes an Australian dies of cardiovascular disease - the end stage being congestive heart failure. What often fails to be mentioned is that in the mass majority of cases, it's not a problem with the heart itself so much as the state of the blood that it has to pump.

Revolutionary insight into the national epidemic that is cardiovascular disease has been made by an osteopathic physician, Dr. T.C. McDaniels. He was the first, or one of the first, to note that blood is a "colloidal suspension maintained by zeta potential".

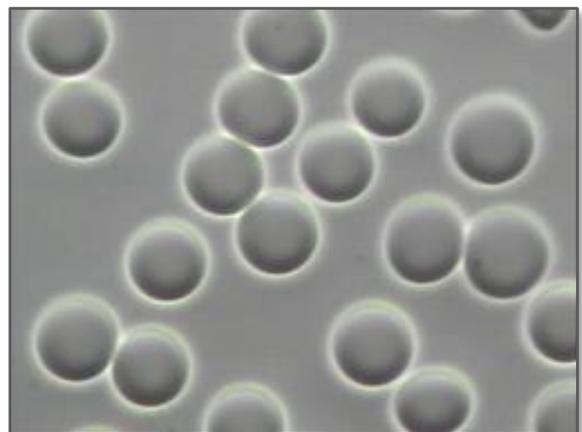
What exactly that means is that our blood cells maintain proper spacing and circulation so long as there is sufficient anionic energy to keep the cells dispersed. If we eat and drink in such a way as to support healthy electrolyte balance, then our blood will have the ionic energy to maintain healthy circulation.

Definition of terms

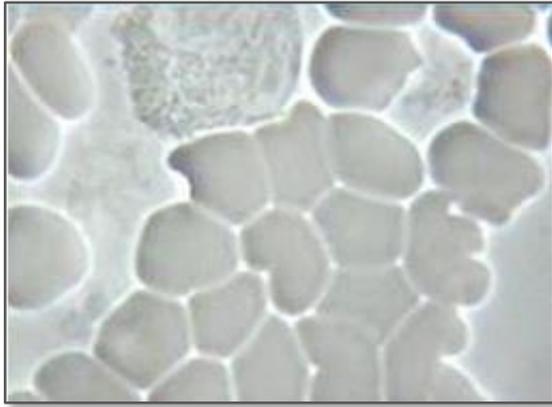
Zeta Potential- Zeta potential indicates the degree of repulsion between adjacent, similarly charged particles in a dispersion.

Anionic (-) negative charged. Anionic substances in the blood repel each other and keep the blood dispersed.

Cationic (+) positive charged. Cationic substances in the blood causes the blood to aggregate or clump together.



*Red blood cells showing good zeta potential
(discreetness / separation)*



Red blood cells demonstrating low zeta potential (coagulation)

Either too many or too few electrolytes, or electrolytes with the wrong electromagnetic charges, can result in a collapse of the colloidal suspension with severe disease consequences.

If you or someone you care about has a history or risk of heart failure, heart disease, cardiovascular disease or kidney disease, I highly recommend you take an active role in preventative health care by monitoring your electrolyte balance and reading the work of Dr. T.C. McDaniel, whose insights have contributed greatly to the information presented here.

Electrolyte excess imbalance

The electrolyte state is defined by blood pressure. When blood pressure is high, it's an indication of high amounts of minerals in the system. (Sugars and proteins are also in the mix.) High blood pressure is usually caused by high electrolytes (mineral/ salts), sugars, or protein or any combination of those three.

Basically, high blood pressure can be an expression of insufficient, or lousy kidney function, meaning that when excessive electrolytes become concentrated in the body fluids, it's usually a result of a lack of hydration (not drinking enough pure water),

or impaired excretion of mineral salts. High blood pressure can also result from a constricted vascular system.

Most commonly, drinking more pure water is a priority for someone with high blood pressure, but if a catabolic (cell membrane) imbalance also showed up on your test, you may need to work to improve that imbalance as well so the body will send more water through the kidneys.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but people with this imbalance will typically experience one or more of the following issues at some point:

- High blood pressure
- Hardening of the arteries
- Heart attack
- Stroke
- Poor circulation
- Inability to properly transport oxygen, nutrients, waste products, antibodies and more, throughout your system.

Electrolyte deficiency imbalance

This means you appear to have a deficiency of certain mineral salts in your body fluids. Your low level of electrolytes may be due to either an inadequate intake of needed minerals, an inability to properly digest your food and assimilate the minerals found in your food, or some individuals may have a hormonal issue in which they don't make enough anti-diuretic hormone from the post-pituitary gland and they will pee out most of their salts. In any case, you may be losing minerals faster than you are taking them in.

The minerals, or salts, in the system represent the conductivity, or ability for electricity to flow through the system. When the mineral content is low, there's no spark and energy can be low. Without this energy, the brain can't function at it's full potential due to the lack of minerals required for signals to travel through.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but people with this imbalance will typically experience one or more of the following issues at some point:

- Chronic fatigue
- Low blood pressure
- Menstrual cramps
- Poor circulation
- Decreased libido
- Depression or anxiety
- Vertigo or dizziness when standing
- Cravings
- Insomnia

Cell membrane physiology (anabolic / catabolic)

This point of balance in the body is second only to the Electrolyte Balance. You may wonder why I've ranked this balance above the others. As in each ranking in the hierarchy of points of stasis, the higher ranking points of stasis hold greater sway and are more influential factors impacting the lower ranking points of stasis. For example, if someone is in either an anabolic (lacking oxygen) or catabolic (oxygen out of control) imbalance, cell walls are less able to properly regulate the flow of acid and alkaline elements throughout the body.

Summary of the anabolic / catabolic distinction

Our bodies are designed to swing from a more catabolic state in the morning to a more anabolic state in the evening. During the catabolic state, cell walls are more permeable, allowing more energy exchange to happen and produce more metabolic waste in the process.

Think of the catabolic state as one where an individual is burning the candle at both ends. As the day progresses into evening & night, our bodies ideally shift to a more anabolic state, where cell membranes become less permeable, in a sense, closing down shop for the evening to restock, regenerate internal supplies, rest, repair and grow.

Think of the anabolic state as one where a person isn't burning the candle at either end - they're resting or even sleeping. That's a natural ebb and flow that we should all go through each day. It helps us be energetic when it's time for action and lets us rest up at night to prepare for the following day's activity.

A brilliant physician named Emmanuel Revici, M.D., discovered that most seriously ill individuals were stuck in either catabolic or anabolic states. I just talked about the advantages of being in each state, but you may already be able to guess some of the problems with being stuck in either one state or the other. If we were stuck in the catabolic state, burning the candle at both ends, we may soon find ourselves exhausted. Energy stores would run thin and we'd be generating excessive metabolic waste. Further, being stuck in this state makes cells less stable, age/die faster, and makes the body more prone to bacterial, yeast and fungal infection.

We generate more oxidative stress and tend to be less able to sleep well or ever feel really rested and energetic. On the flip side, someone stuck in an anabolic state, not burning the candle at either end, has a really hard time tapping into the potential energy present in the body. The anabolic cells are also more closed off to oxygen and, as such, produce energy through what's called anaerobic fermentation. This produces an intracellular (inside the cell) environment that is more hospitable to viral infection. The cells also tend to last longer than they should and run into more problems with DNA replication, making the anabolic individual prone to certain types of tumour growth. There are other issues that each state has with it and things we can do to restore balance in each scenario.

What determines if cell membranes are built right and healthfully swing from the catabolic state in the a.m. to the anabolic state in the p.m. and back again the next day? There are many factors including vitamin, mineral and amino acid balances that impact this swing, but one of the most important factors is a balance of the types of fats that make up the cell membrane.

Our cells are bi-lipid membranes ("bi" means two) - these two types of fats that make up our cell membranes are fatty acids and sterols (sterols as in cholesterol / saturated fats). If a cell's membrane has an imbalance of too many fatty acids and not enough sterols, as is often the case for someone who, due to pop culture, has avoided saturated fats for a long time, then the cell wall will be too permeable and the person will likely fall into a catabolic imbalance. On the other end of the spectrum, if someone has too many sterols making up their cell membranes (as might be the case in someone with elevated cholesterol levels)

then the cells will not be permeable enough and the person will likely be in an anabolic imbalance. Specific recommendations and further elaborations of each state follow, but first, a little bit about the genius whose insights most heavily inform the content of this information...

What can you say about a man that continued to go into the office after his 100th birthday. Crazy? Or maybe it is dedication beyond the call to duty. This was Emanuel Revici, MD. A physician whose genius and dedication to research rocketed past his peers. In fact he was so far past his peers that the State of New York saw fit to take away his medical license when he was in his 90's for doing things they did not agree with. (He eventually got his license back.)



Emanuel Revici

With brilliant research in lipid/sterol mechanics and cancer, one culmination of Revici's work was his textbook titled "Research in Physiopathology as Basis of Guided Chemotherapy, With Special Application to Cancer". It should be required reading for every medical and oncology student though it is basically an unknown work in those circles (Probably due to the extreme academic, political and corporate influence in this area).

What Revici did was nail the benchmarks for easily determining the anabolic/anaerobic or

catabolic/dysaerobic condition of the body which is the ultimate reflection of the diphasic nature of human life.

The elements largely responsible for the diphasic swing of anabolic and catabolic states is the lipid / sterol cellular balance. This directly relates to cell membrane permeability issues. If one were to be pushed into either extreme (typical of someone that is not well), cells would either be locked up and fail to communicate (that's one way of saying it), or would be so wishy washy they could easily give way to a loose structure and wreak havoc on the other extreme. These states are reflective in the numbers provided through urinary pH and surface tension results, and steadfastly correlated to suggested protocols gleaned through years of painstaking research by Dr. Revici. The clinical power this holds for practitioners willing to learn these concepts cannot be understated.

Catabolic Imbalance

This is a cellular permeability imbalance. During the day, our cell walls are intended to open up (much like a flower when the sun comes up) so nutrients can get in and out more easily. At night, our cell walls are intended to become more closed (again like a flower when the sun goes down) so nutrients cannot get in and out as easily. This "more open" state is called a catabolic state. Though it is very appropriate for the cells to be in a catabolic state during the day, some individuals will stay in a more catabolic state most of the time. These individuals are said to be experiencing a catabolic imbalance.

Our cells are made up of different types of fats. (Fatty acids and sterols.) With too many fatty acids, in the cell membrane, and not enough sterols, we could be predisposed to

get stuck in a catabolic state. If there are too many sterols and not enough fatty acids, our body can be predisposed to become stuck in an anabolic state (The opposite of a catabolic state).

To make the body operate correctly we need to oscillate back and forth from the anabolic state at night, while we sleep, and a catabolic state during the day, while we're active. Without this natural oscillation, problems like insomnia or bacterial problems are more likely.

Since an overly catabolic state can be described as a lack of sterols at the cellular level, increasing your intake of sterols, such as butter or coconut oil, can be one method to help improve this imbalance. However, I find that most individuals with this imbalance really need to use more nutrients like specific vitamins, minerals and amino acids as well in order to see lasting improvement, but increasing your sterol intake can be a great place to start.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but you may have already found yourself experiencing one or more of the following issues at some point:

- Insomnia
- Migraines
- Chronic Diarrhea or Loose Stool
- Hair Falling Out
- Muscle Loss
- Chronic Pain
- Loss of Connective Tissue or difficulty in healing
- Aging Quickly - Joint and muscle pain; arthritis (especially rheumatoid)
- Bacterial Problems

- Oliguria (Insufficient Urination, perhaps often but in small amounts)
- Low Body Temperature

Anabolic imbalance

If your tests gave some indications that you have an Anabolic Imbalance, you should know this is also a cellular permeability imbalance, but opposite of the catabolic imbalance.

During the day, our cell walls are intended to open up so nutrients can get in and out more easily. At night, our cell walls are intended to become more closed so nutrients cannot get in and out as easily. This "more closed" state is called an anabolic state.

Though it is very appropriate for the cells to be in an anabolic state at night, some individuals will stay in a more anabolic state most of the time. These individuals are said to be experiencing an anabolic imbalance.

Weightlifters take anabolic steroids in order to be in the tissue-building, anabolic state when they are not playing fair with muscle building.

Our cells are made up of different types of fats (Fatty acids and sterols). If there are too many sterols, in the cell membrane, and not enough fatty acids, our body can be predisposed to become stuck in an anabolic state. With too many fatty acids and not enough sterols, we could be predisposed to get stuck in a catabolic state (The opposite of an anabolic state).

To make the body operate correctly we need to oscillate back and forth from the anabolic state at night, while we sleep, and a catabolic state during the day, while we're active. Without this natural oscillation, problems like constipation or viral problems are more likely. When the body shifts from anabolic to

catabolic, that's when the endorphins in the brain are released, which can help people from becoming depressed.

Since an overly anabolic state can be described as a lack of fatty acids at the cellular level, increasing your fatty acid intake can be one method to help improve this imbalance. However, I find that most individuals with this imbalance really need to use more nutrients like specific vitamins, minerals and amino acids as well in order to see lasting improvement, but increasing your fatty acid intake can be a great place to start.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but you may have already found yourself experiencing one or more of the following issues at some point:

- Constipation/hard stool
- Tachycardia
- Anxiety/panic attacks
- Frequent urination
- Difficulty awakening in the morning
- Viral problems
- UTI or Bladder Infections

Energy production (metabolic tendency)

Every wonder...

- What's the best diet to lose fat?
- What does mental performance and emotional health have to do with burning fat?
- What is the underlying physiological cause of most depression/anxiety/ mental illness?

- How can I tap into the tens of thousands of calories of real energy I carry around with me every day?
- Why can't I burn this body fat no matter how hard I work-out or however strict I diet?
- What's the key to happiness? (Really though, at least part of the puzzle is answered below in understanding the relationship of energy metabolism and brain function.)
- How can I have the body of my dreams AND my sanity at the same time?

Fortunately for us, burning fat, emotional health and mental performance all go together in a balanced body. So while the full answer to the questions above is a bit complicated, the combined rewards are great enough to merit a little cognitive effort on our part.

The rate at which we burn through different energy sources, and which types of energy sources (fats, carbohydrates, and proteins) significantly impacts the amount of energy we have to think, move, exercise and also how we feel emotionally. To simplify matters though, let us talk about the metabolic behaviour in terms of one's Metabolic Tendency. Your Metabolic Tendency refers to your body's tendency to burn through carbohydrates for energy quickly or slowly. If your body burns through carbohydrates quickly, you may be classified as a "Fast Oxidiser". If you burn through carbohydrates slowly, you could be classified a "Slow Oxidiser". Further, if you do not burn through any energy source efficiently, you could be classified as a "Sub Oxidiser".

Sometimes this Slow/Fast /Sub oxidiser status has been referred to as a Metabolic Type, but "Tendency" is a more accurate and useful

term to use because, whether you have a slow, fast, or sub oxidation rate you can correct your body's tendency through intelligent nutritional & dietary choices. These intelligent choices can resolve imbalances in oxidation speed and optimise your metabolism. Once your metabolism is optimised, are you still a fast or slow or sub oxidiser? No. Once corrected, you're not that type anymore. So, to label yourself a "Type" is misleading and disempowering because it can make people assume they are stuck as that type when, in fact, remedy exists.

For maximum energy production, we have a balanced oxidation rate - which would mean that our body has a steady stream of energy available to it at all times - which requires that we are efficient at metabolising all fuel sources (carbs, fat & protein) AND that our diet provides the right kinds and ratios of fuel sources and the cofactors necessary to process them.

There are various reasons that our body may have a tendency to lean towards being a fast, slow, or sub oxidiser and they can all be corrected. Once they are corrected, you will experience a huge increase in your vitality, your ability to burn fat, be happy and to think effectively and with borderline superhuman endurance.

Usual Causes of Undesirable Metabolic Tendencies

Slow Oxidiser

- Vitamin &/or Mineral Deficiencies
- Insufficient carbohydrates in diet
- Weak Insulin due to pH imbalance
- Hypoglycaemia

- Impaired glycolysis due to allergy, poison, infectious disease, parasites, antibiotics and/or medication.
- Physical, mental and/or emotional stress
- Lack of sleep

Fast Oxidiser

- Vitamin &/or Mineral Deficiencies
- Impaired ability to digest fats and protein
- Insufficient fat and protein in diet
- Overly powerful insulin due to pH imbalance
- Hyperglycaemia
- Impaired liver function due to liver damage or mineral deficiencies
- Impaired bile production &/or bile secretion
- Poor carbohydrate choices (high glycaemic or processed/fibreless sugar or starch)
- Impaired protein &/or fat metabolism due to allergy, poison, infectious disease, parasites, antibiotics and/or medication
- Physical, mental and/or emotional stress
- Lack of sleep

Sub Oxidiser

- Vitamin &/or Mineral Deficiencies
- Poor protein intake
- Insufficient oxidation due to pH imbalance or overabundance of anti-oxidants
- Lack of exercise
- Lack of sleep

Scientifically Speaking...

The fast oxidiser produces pyruvate and o-acetate faster than he does acetate, and is thus deplete of the most potentially bountiful source of energy in the body/diet: acetate. The slow oxidiser is in essentially the same problem, but for opposite reasons: while he is not deplete of acetate as the fast oxidiser is,

he cannot access it because he is not producing sufficient quantity of cofactors that are required to metabolise acetate: pyruvate and o-acetate.

In either Metabolic Tendency, the same problem occurs: an insufficient breakdown of acetate in the citric acid cycle (impaired fat metabolism). This is what generally causes and/or significantly contributes to low energy (i.e. chronic fatigue), mental and emotional disease and obesity.

Simply Speaking...

If you burn through carbohydrates too quickly (fast oxidiser) due to poor diet choices or ineffective digestion of proteins or fats, then you cannot tap into those most abundant sources of energy (protein and fat) that could come from your diet & body energy reserves. If you burn through carbohydrates too slowly (slow oxidiser) then your body lacks all the pieces of the metabolic puzzle needed to burn fat and protein for energy.

Metaphorically Speaking...

Think of carbohydrates as the kindling needed to start a fire. Your salivary enzymes are the match that initially lights the kindling. The kindling provides some immediate warmth and light (energy), but it's not the real fire. Your body fat and dietary fats and proteins are the major fuel for the fire - they are the big logs that will give you abundant warmth and light (real metabolic energy). The energy from the kindling literally dims in comparison to the potential fire from the big logs, BUT you can't get the fire going with the big logs if you didn't start with the kindling first. Same so in our body - essential digestive intermediaries created as sugar is metabolised as necessary to start the

metabolic utilisation of energy from stored body fat and dietary fats and proteins.

Beta slow oxidiser imbalance

If your tests gave some indications that you have a Beta Slow Oxidiser Imbalance you should know that it is an imbalance deals with energy production and how the body uses food for fuel. To create energy, for the most part, our body burns either fat or glucose (to keep this explanation simple). Your body is made to burn both types of fuel for different purposes. But changes can occur in our body or in our lives that will train the body to prefer one fuel over the other and it may stop burning the other type of fuel almost altogether.

If your test showed that you have a Beta Slow Oxidiser imbalance, then you most likely are burning much more fat than glucose. If you also have high cholesterol, high triglycerides and a high fasting glucose, any of these markers can be another indication that you are not processing glucose effectively.

In order to process sugar or glucose, the body is having to take all sugar or glucose coming into a person and turn it into fat before it is able to be "burned" for energy.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but you may have already found yourself experiencing one or more of the following issues at some point:

- Lack of energy; physical and mental fatigue
- Type II diabetes
- Metabolic syndrome (or insulin resistance)

- High blood pressure or cardiovascular disease
- Weight gain
- Gall bladder trouble

Tri-Carb fast oxidiser imbalance

If your tests gave some indications that you have a Tri-Carb Fast Oxidiser Imbalance you should know that a Tri-carb is a person who is predisposed to burn off all his glucose and does not like burning fat. Now, it's not that he won't burn fat, but he will always prefer to burn off all of his glucose first. This is what is commonly referred to as a hypoglycaemic. But the hypoglycaemic can also be a step away from becoming diabetic.

But if he's hypoglycaemic, how can he be a step away from becoming diabetic? Well, it's because many hypoglycaemics have way too much insulin in the system and their system responds as though there were five furnaces in the house. And every time the house gets cold, instead of one furnace coming on and slowly warming the house up and then turning off, FIVE furnaces turn on and the house is hotter than a son of a gun before the furnaces shut down. And so that's how it goes with the insulin. These individuals have become insulin resistant but they have not been insulin resistant long enough that the cells have stopped responding to the insulin altogether. We're at that stage where we are still responsive enough to the insulin that when the pancreas produces up to 5 times the amount of insulin it normally would, it reaches a critical level and all the sugar goes into the cells at one time. This person can get very severe headaches in the front of his head. This person may also complain that the head feels full or he'll get fuzzy brained, and

this is due to the blood sugar dropping far too rapidly. This can make a person extremely miserable.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but you may have already found yourself experiencing one or more of the following issues at some point:

- Lack of energy; physical and mental fatigue
- High or low blood sugar
- Shortness of breath
- High cholesterol
- Over-weight or under-weight
- Irritable when hungry

Autonomic nervous system orientation

The autonomic nervous system (ANS) is the part of the peripheral nervous system that acts as a control system functioning largely below the level of consciousness, and controls visceral functions. The ANS affects heart rate, digestion, respiratory rate, salivation, perspiration, pupillary dilation, micturition (urination), and sexual arousal. Most autonomous functions are involuntary but a number of ANS actions can work alongside some degree of conscious control.

Everyday examples include breathing, swallowing, and sexual arousal, and in some cases functions such as heart rate.

Our Autonomic Nervous System has two main modes of operation: Sympathetic Nervous System Activity and Parasympathetic Nervous System Activity. The Sympathetic Nervous System mode, is often referred to as the "fight or flight" mode, while Parasympathetic

mode is usually referred to as the "rest and digest" mode.

Each orientation of the nervous system has its usefulness, and a healthy body can and should easily oscillate between the two modes in response to the surrounding environment and life circumstances. In a healthy individual, when a threat arises or some intense physical activity must be performed, the ANS should shift into sympathetic mode, but when the activity/stress subsides and the person goes to do something more relaxing, like eat dinner, the nervous system should shift into parasympathetic mode.

If the nervous system performs these shifts well then all the body organs, enzymes and internal processes follow suit just fine and all's well, but if the ANS is out of whack due to nutritional deficiencies, mineral imbalances, excessively stressful circumstances, or even excessively sedating circumstances, then the body's attempts to perform even basic metabolic functions such as digesting food or producing energy may falter. If the ANS is out of balance for an extended period of time, this can lead to major hormonal imbalances and metabolic disorders.

Sympathetic imbalance

Sympathetic Dominance refers to the Autonomic Nervous System (ANS). The ANS is a mechanism in the body that happens without you consciously thinking about it. We don't have to think about whether our heart is beating, it just does. The other side of the nervous system is the Parasympathetic Dominance or the part of the nervous system that you can control.

The Sympathetic side is the speed side of flight or fight response. And the

Parasympathetic side is the slow side- or rest and digest- side. These two systems are hardwired in a sense to the heart, the entire digestive system, and all the lower level glands, organs, and systems.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but you may have already found yourself experiencing one or more of the following issues at some point:

- Large Pupil Size
- Low Levels of Urination
- Increased Temperature
- Sweaty Hands
- Dry mouth/eyes/nose
- Get chilled often
- Extremities Cold
- Unable to Relax
- Strong Light Irritates

Parasympathetic imbalance

If your tests gave some indications that you have a Parasympathetic Imbalance it will help to know that this imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but you may have already found yourself experiencing one or more of the following issues at some point:

- Allergies
- Asthma
- Small Pupils
- Frequent Urination
- Increased Saliva
- Muscle Cramps at Night
- Eyes or Nose Watery
- Eyelids Swollen
- Gag Easily

- Poor Circulation

Dynamic pH balance

To start off this section, I would like to first clear up some rapidly spreading misinformation regarding pH balance. It has become a popular health fad to promote the idea that alkalinity is somehow "better" than acidity. To this, we'd like to respond by citing the astute words of Dr. Guy Schenker, D.C.:

*"In truth, excess alkalinity is just as harmful as excess acidity. To clear the confusion, all physiological systems are maintained through a negative feedback mechanism that operates in a dualistic manner. Dualistic means that for every normal condition, there are 2 abnormals – abnormally high and abnormally low. To say that there is only one abnormal with respect to pH balance is to display total ignorance of the most basic fundamentals of physiology."-'An Analytical System of Clinical Nutrition',
-Guy Schenker -, DC, 1989-2010*

When I talk about Dynamic pH Balance, it's important to remember that the body is made up of many different fluid compartments and types of cells that are meant to have very different pH's. To say that someone is simply too acidic or too alkaline is a gross and usually erroneous oversimplification of the situation. While this can get complicated, it's important to understand the nuances of what's going on here in order to really sort this out, after all, your health & vitality, and for some of you possibly even your life may depend on it.

The Reality is this:

There are numerous kinds of acid/alkaline balances in the body:

- Respiratory alkalosis
- Potassium depletion alkalosis
- Metabolic alkalosis
- Metabolic acidosis
- Potassium excess acidosis

- Respiratory acidosis

Your blood pH is reflected in your personality, or as I like to say your behaviour range.

Acidosis

When in a state of metabolic acidosis, the enzyme systems of the body are running on high speed. This pushes the sympathetic nerves of the body, and forces the adrenal glands into overdrive. In this state a person will:

- Have Agitation
- Feel Nervousness
- Have Anxiety
- Feel more like the 'hare', less like the 'tortoise'
- Feel physically tired but mentally wired
- Compensate by tending to take deeper inhalations
- Have a low tolerance for carbon dioxide and can hold breath for less than 45 seconds in metabolic acidosis

Alkalosis

When in a state of metabolic alkalosis, the enzyme systems of the body are running sub-par. This pushes down pulse and blood pressure, inhibits sympathetic activity and can contribute to low thyroid activity. In this state a person will:

- Have a difficult time getting out of bed in the morning
- Feel more like the 'tortoise', less like the 'hare'
- Feel sluggish
- Feel burned out and tired
- Have a much higher tolerance for carbon dioxide, and should be able to hold breath for 60 seconds or more.

- In metabolic alkalosis and in potassium depletion alkalosis, the saliva pH will be less than 6.6 and the urine pH will be greater than 6.3. In respiratory alkalosis, the saliva pH will tend to be higher than 6.8.

Acid imbalance

You should know that there are multiple causes of acidosis. One cause can be an imbalance in potassium or an inability of the kidneys to properly excrete the acid and balance is lost. The breathing rate in these individuals becomes accelerated because the kidneys, being unable to easily control the acid levels in the blood stream, can be helped by the lungs huffing off Co₂, because Co₂ acidifies into the blood stream. These individuals will normally have a short breath-holding time and a rapid breathing rate, exposing the fact that the kidneys are not having an easy time controlling the pH of the blood.

This can be remedied (depending on the cause) by assisting the system to buffer the acids more effectively and excrete them. But this is not just a failure to excrete acids, it's a failure to buffer them. An inability to properly digest protein can often be an issue in these cases since the biggest buffer of acids in the body is protein.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but you may have already found yourself experiencing one or more of the following issues at some point:

- Shortness of breath
- Rapid heart rate
- Allergies

- Poor retention of important mineral nutrients
- Fluid retention
- Poor function of your kidneys, lungs, adrenal glands and many other organs and glands
- Digestive Issues

Alkaline imbalance

In a metabolic alkalosis, there are increasing levels of bicarbonate ion in relation to H⁺. There are 3 main causes of bicarbonate increase:

Direct administration or production of alkaline-sodium bicarbonate, or other antacids, can lead to metabolic acidosis. Excess bicarbonate is absorbed and the Co₂ levels begin to rise.

Acid-Losing Alkalosis - The loss of H⁺ from stomach from chronic vomiting or pyloric stenosis is a major cause of acid-losing alkalosis.

Potassium Deficient Alkalosis -This is most often caused by an excessive loss of potassium from the kidney. Intracellular potassium will move out of the cells to replace the potassium being lost in the plasma and urine. Sodium and H⁺ move into the cell to replace the potassium that has moved out. This leaves a deficit of H⁺ in the plasma. Also, H⁺ is excreted from the kidneys along with potassium. The net result of renal excretion and extracellular H⁺ loss is an increased production of H⁺ to replace that which has been lost. This results in a concomitant rise in bicarbonate or Co₂ levels (Guy Schenker).

The blood stream has a very narrow pH value that it must stay within in order for our body

to function properly. If it moves too far acid or too far alkaline, we can literally die. The body doesn't want this to happen so it does whatever it can to keep the blood stream at a balanced pH level. Alkalosis is an imbalance where the blood stream is too alkaline. When the blood leans alkaline, oxygen can't leave the bloodstream and go to the tissue level where it needs to be to help your body create the energy it needs to run properly. In science, this is known as the "Bohr effect".

If a doctor checked your oxygen levels, he would put a pulse oximeter on you and say, your oxygen is great... you have plenty. But because the blood stream is too alkaline, the oxygen cannot be released from the blood stream and go into the tissues where it needs to be and we can often feel wiped out. So, when the blood stream is too alkaline, the body will slow the rate at which you breathe. Carbon dioxide (Co₂) is acidic so the body tries to reduce the amount that you breathe so it can hold on to more Co₂ allowing it to acidify the blood stream so that some oxygen can be released from the blood stream and make it to the tissue level.

This imbalance may show itself in the form of a number of different symptoms or "conditions". The outcome may be different depending on the individual, but you may have already found yourself experiencing one or more of the following issues at some point:

- Chronic fatigue
- Sleep apnea
- Joint and muscle pain; arthritis
- Allergies; asthma
- Muscle cramps
- Fluid retention

My World-Wide Dry Blood & Metabolic Analysis Package

AU\$199.00

What's include?

- ✓ Dry blood assessment (from a sample taken from a finger pin prick yourself). Sample kits are shipped out to wherever you are in the world.
- ✓ Some self-tests (blood pressures/pHs/Breath rates etc.) will need to be taken by you.
- ✓ Extensive questionnaire (online)
- ✓ A detailed customized healing protocol (road map) designed for your body type, bio-chemistry and metabolic profile (I talk you through this step-by-step).
- ✓ A 1 hour Skype consult with me to talk you through your results and detailed healing protocol
- ✓ ✓ Email and Facebook follow up support.
- ✓ ✓ An opportunity to TAKE BACK CONTROL of YOUR health and well-being.
- ✓ A very powerful educational experience.

ALL TESTING CAN BE CARRIED OUT AT HOME BY YOU.

The testing process.

1. Once you have purchased your testing program you will receive an email confirming your purchase and links to my self-test and questionnaire web-pages so that you can get moving straight away.
2. A dry blood sample kit will be mailed out to you immediately (world-wide).
3. Results of self-tests and on-line questionnaire are to submitted back to me as soon as possible. Please don't wait until you've done your dry blood sample before submitting these results.

4. Once I receive your dry blood sample back, it will be assessed, photo's taken and a PDF created. As long as I have your questionnaire and self-testing results submitted back to me I will then contact you to book in your skype consult.
5. A Metabolic profile PDF covering all 5 metabolic control mechanisms & digestion will be generated.
6. A customised supplement & dietary protocol PDF specific to your metabolic and body chemistry including any recommended lifestyle changes will be drawn up.
7. All PDFs will be emailed to you before we meet for our consult.
8. During our consult I walk you through your results and recommended protocol step by step. Everything will be explained including precisely why certain supplements and dietary changes have been recommended

Notes:

- Through this process you are going to learn more about your health and biological individuality than you've ever learnt before. This is incredibly powerful information.
- Your health issues didn't manifest overnight – don't expect them to be necessarily fixed overnight. My aim is for you to start seeing improvements within 10 days. Sometimes great things start to happen almost immediately, other times they take longer. It all depends. When you get your body back into balance, magic

really can and often does start to happen quickly.

- I obviously cannot guarantee results. However, being committed to making the changes in your diet and lifestyle necessary for positive change to happen is a prerequisite to me working with you. It would not be fair on me and it would not be fair on you if we do not have this commitment.
- I cannot heal you – you cannot heal you. Only a properly balanced metabolic system with sufficient resources and robust adaptive capacity can do this.

Essentially, I am doing little more than ‘enabling’ the body’s built in healing mechanism’s to do this job for you. Just as nature has intended.

Some important things to keep in mind are that:

- Taking charge of your own health includes understanding as much as possible about how the way your body functions or malfunctions. This is the primary focus of everything we do – education, education and more education.

For more information and to order this testing please visit: <http://www.biosynergypro.com>

I highly recommend that you join over 6,000 members of my Facebook group where you will find a wealth of information about the work that I do and talk to many of my clients who have been following me for years. You can join my group here: <https://web.facebook.com/groups/biosynergyhealth/>



My Story (Mark Hathaway)

And how I ended up getting into this work!

In 2012 my health came to a sudden halt when I suffered a minor heart attack and as a result of further investigations, discovered I was suffering from a number of quite serious health issues - Chronic fatigue, fibromyalgia, systemic inflammation and chronic liver congestion. In addition, my digestive system was completely out of balance which was no doubt the reason why I manifested these issues in the first place.

This is where the confusion and frustration for me really started to hit. I wasn’t interested in conventional medicine so I went crazy researching natural health and reading any book I could find on the subject that I could get my hands on. However, I was immediately confronted with a HUGE array of contradictory and confusing information about what I should or should not be doing in order to heal my body and decided it was time to take things into my own hand and find out for myself why so much of what I was researching was giving me different answers.

Much of my work in the past involved analysing and understanding the structure of human behaviour and how it impacts on the performance of mining operations across Australia. Through

this work I learnt that behaviour in the workplace is directly influenced by the environment of that organisation at the time and by analysing and ‘tweaking’ the environment, behavioural changes would subsequently follow soon after. Just like magic!

I had great success following this philosophy for much of my career and after being confronted with my health issues and the high levels of contradiction and confusion surrounding healing them, I thought ‘hey! our body is not unlike an organisation where symptoms (behaviours) were under the direct influence of the environment we provided it with’. Maybe if I forget about the symptoms and focus on the environment instead, the symptoms would also ‘magically’ disappear. And of course, as I discovered over the months and years that followed, I was right.

It’s the environment, it’s always the environment!

During my initial research into natural health I came across live and dry blood microscopy which focuses on the study of our ‘river of life’ (our blood stream) and decided that this is something I needed to see first-hand – to take a journey into my own internal terrain and see for myself the state of the environment my body was having to deal with. I researched this subject extensively and it wasn’t long before I found a naturopath in Brisbane who had a Biological Microscope and was willing to let me come and have a ‘play’ with it. Well, to say that I was both amazed and confronted with what I saw the minute I looked into the microscope eye piece is an understatement. I knew right then and there that the direction in my professional life was about to take a major turn.

It wasn’t long before I purchased a state-of-the-art high powered Biological Microscope and booked in for some professional training with the best Microscopist in Australia, Chris Ravesi. I then spent 100s of hours over the following few months pricking fingers and analysing both the live and dry blood from anyone who would be game enough to let me, including my workmates at the time. It was during this time that I discovered that I was able to help many of these people with their health issues, many of whom had struggled for years to find answers. I’m also happy to say that during this time I was able to turn my health around incredibly quickly. I knew I was on to something special.

Over time however, even though I was having some great success, I started to realise that many of the people I was helping at the time who had similar health issues, responded differently to the similar healing protocol I was providing them. This intrigued me greatly and I soon realised that I needed to venture deeper down the biochemical rabbit hole of healing.

Through my microscopy training with Chris, I was introduced to a testing technology called bio-terrain auditing and a company called Biomedx in Chicago who ran specialised training programs for natural health and conventional medicine professionals from all over the world. This training focused on the testing and analysis of urine (what the body is letting go of), saliva (what the body is holding on to), blood and understanding the biological uniqueness that separates us from each other when it comes to what’s going on at the deep metabolic level. It wasn’t long before I was off to Chicago to train with Steve Denk and George Atkinson at Biomedx. All I can say is WOW! I

thought the microscopy work I was doing was amazing but soon discovered that I had only scratched the surface with this healing thing. The technology I was learning at Biomedx was absolutely mind blowing!!

On return to Australia it wasn't long before I established a successful professional practice in Brisbane and then later relocated to the Gold Coast. I have since moved away from working with clients directly and have established a very powerful world-wide dry blood and metabolic balancing program which has allowed me to get this work out to 1000s of people around the world. I now also run Biohacking webinar training programs for other natural health professionals around the globe which not only teaches them this incredibly powerful testing technology, but also how to integrate this work into their own practice regardless of what healing modality they are practising.

My Facebook group <https://www.facebook.com/groups/biosynergyhealth/> is followed by over 6,000 members, many of them clients who have been following my work for years.

My journey continues.

Contact details

Email: m_hathaway@hotmail.com

Facebook Group: <https://www.facebook.com/groups/biosynergyhealth>

Some legal stuff

I understand that Mark Hathaway provides educational assistance, tutoring, consulting and coaching services to help me understand concepts in nutrition, diet, food and other areas deemed important in order to live a fuller and healthier life, and in association with this education to learn specifically the foods, dietary supplements or more that can assist in balancing my state of health.

I further request and accept the use of any tools of the "health trade," and at my sole discretion under retained right, in whatever form available in a free market that may be provided for my use to further my health education be it software, workshops, testing or health auditing apparatus, clinical or laboratory equipment.

I understand that Mark Hathaway has received certification in Flow Systems technology for health auditing through professional training programs from Biomedx (Chicago), but is neither offering nor providing a service under this agreement under any official government certification and/or license as a health, or diet professional.

I understand that the health coaching services under this agreement does not, cannot, and will not provide any diagnosis, prescription, or treatment options for any medically or otherwise defined health ailment wherein only a licensed professional may be competent to address such issue, and further, should miscommunication result in a perception that such is the case, I acknowledge that I alone bear full responsibility for any actions taken due to the miscommunication. At no time is this coaching service intended as a substitute for regular medical or other licensed care.

I understand that I assume all risks from the use, non-use or misuse of information, materials or opinions provided by Mark Hathaway during his health coaching sessions, presentations, world-wide testing programs, live trainings and webinar based training programs.