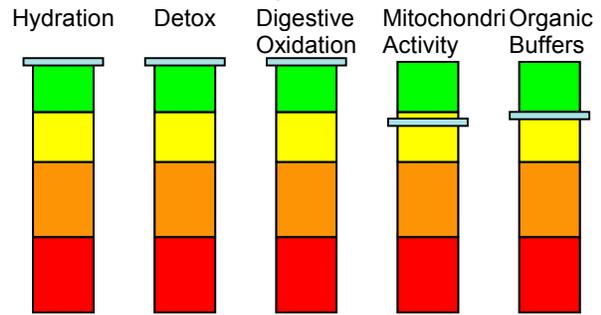


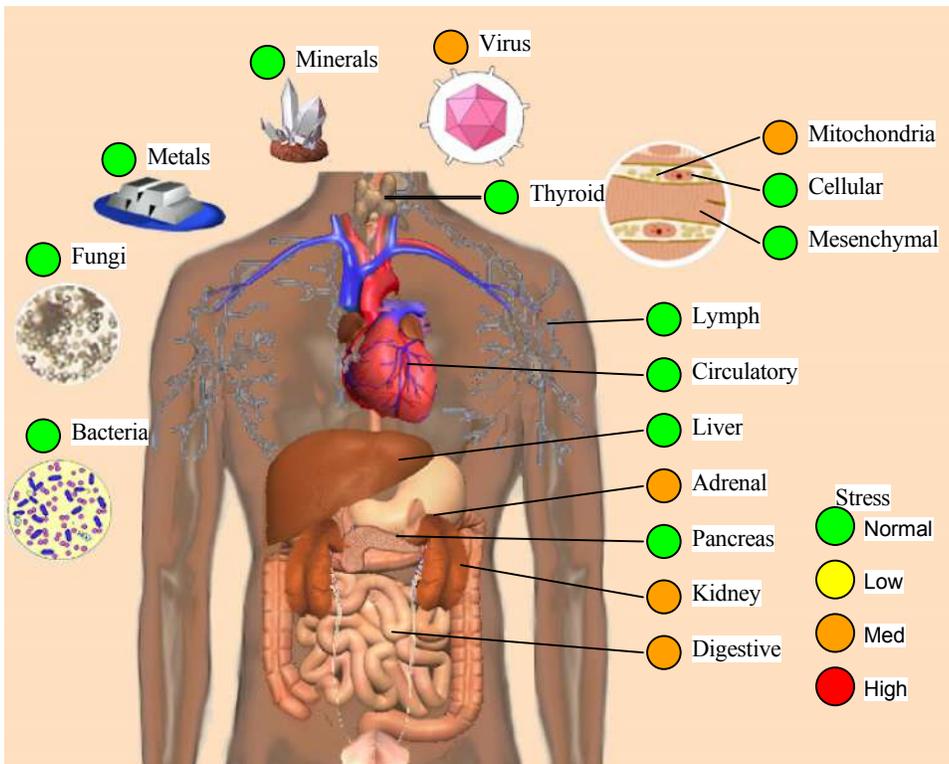
Test Results

	pH	rdx	R
Blood	7.4	25.6	245
Saliva	6.27	21.8	249
Urine 1	6.68	24.7	58
Opt Blood	7.30 - 7.35	21.5 - 23.5	190 - 210
Opt Saliva	6.50 - 6.75	21.5 - 23.5	180 - 220
Opt Urine	6.50 - 6.80	22.5 - 24.5	30 - 45

Analysis Chart



Additional Notes:



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### Test result: Blood redox Moderately Increased

#### Evaluation:

In this case the rH2 value of the blood has increased from the optimal range. This indicates that the relative concentration of electron donors to electron acceptors has decreased. This scenario translates into a lowered ability to produce high-energy cellular fuel (ATP, GTP). Corrective therapies aligned at improving mitochondrial function and production should be considered. Additionally it must be understood that increased levels of stress will also often times create elevated rH2 readings. Removal of the primary invading xenobiotic should be considered, along with the stimulation of the liver and lymphatic system to increase the body's production of naturally occurring anti-oxidants. A number of pilot studies have demonstrated that the frequent utilization of alkaline-reduced electrolyzed water has decreased the blood rH2 value.

#### Therapy:

- 1) Rule out and treat heavy metal toxicity (L-Cysteine, L-Lysin, L-Methionine Vitamin C, Chlorophyll, Sodium Alginate)
- 2) Rule out and treat viral toxicity (Vitamin A, Glycyrrhia glabra, L-lysine, Huang Qi),
- 3) Support the immune system (Vitamin C Therapy, Echinacea purpurea, Zinc, Goldenseal)
- 3) Increase anti-oxidant therapy (Vitamin C Therapy, Protease, N-acetyl Cysteine, Reduced Glutathione)
- 4) Improve liver anti-oxidant production (N-Acetyl Cysteine, Silybum marianum, Taraxacum officinalis)
- 5) Improve TCA production of electron rich intermediates (Alpha-Gluteric acid, L-carnitine, Lipoic acid, Vitamins B2, B5)

### Test result: Blood r Moderately Increased

#### Evaluation:

The r value of the blood is elevated. When the r value of the blood is elevated it may indicate a lack of adequate and normal mineral concentration. This condition can often times be caused by malabsorption, which restricts the minerals from being properly absorbed, and transported into the blood.

Therapy aimed at the normalization of the digestive system and re-introduction of minerals is essential. While potassium and magnesium are almost always essential in this scenario, sodium should also be considered. Leaky-gut syndrome or even lack of proper enzyme utilization can cause malabsorption.

#### Therapy:

- 1) Increase available minerals (Magnesium, Potassium, Trace Minerals)
- 2) Improve breakdown of food products (Digestive enzymes and probiotics)
- 3) Enhance the reabsorption of the blood's primary electrolyte, sodium (Adrenal Therapy)
- 4) Rule out over hydration

### Test result: Saliva pH Moderately Depressed

#### Evaluation:

The saliva will become more acidic when the concentration of available hydrogen ions can not be adequately removed by the body's normal drainage and detoxification mechanisms. Diminished salivary pH may be associated with hypogastric reflux, hyperchlorhydria or primary renal acidosis. Primary renal acidosis is caused by an inability of the kidneys to remove free hydrogen ions and in exchange unload valuable bicarbonate ions instead. This shift results in a loss of alkaline reserve and an accumulation of acids. In this scenario careful attention should be paid to the kidneys and to increasing the invaluable mineral-based alkaline reserve.

Correction of an acidic saliva will usually involve therapy focused on the digestive, lymphatic and renal systems. Checking and then eliminating materials in the mouth that are highly acidic should also be considered.

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Therapy:

- 1) Improve digestion (Digestive enzyme therapy and probiotics)
- 2) Remove excess acids (Asparagus officinalis, Solidago, Bucco)
- 3) Rule out hypo-gastric reflux
- 4) Balance minerals (Magnesium, Potassium, Trace Minerals)

**Test result: Saliva r Moderately Increased**

Evaluation:

The r value of the saliva is elevated. When the r value of the saliva is elevated it may indicate a diminished concentration of available minerals. This condition can often times be caused by malabsorption, which restricts the minerals from being properly absorbed.

Therapy aimed at the normalization of the digestive system and re-introduction of minerals is therefore essential. Potassium and magnesium are the primary minerals that should be considered to normalize this imbalance. Leaky-gut syndrome or even lack of proper enzyme utilization can cause malabsorption. Nutritional considerations might include acidophilus/bifidus, primary stomach and pancreatic digestive enzymes, glutamine and intestinal anti-inflammatories like rutin and hesperidin.

Finally, special attention should be considered for the gland of the pancreas. Many clinicians have seen more than a casual similarity between the bicarbonate producing acinar cells of the pancreas and those of the mouth. This clinical pearl has translated into focusing nutritional therapy on digestive enzyme replacement and most importantly pancreas support. Pancreas support should revolve around the exocrine/digestive capacity of the gland much more so than the endocrine function and should include amylase, lipase and protease as well as assuring an alkaline environment to function within.

Therapy:

- 1) Balance digestion (Digestive enzyme therapy, probiotic therapy)
- 2) Increase available minerals (Magnesium, Potassium, Trace Minerals)
- 3) Support Adrenal Function (Glycyrrhiza glabra, zinc, Vitamins B1, B5, B6)
- 4) Rule out over hydration
- 5) Support Pancreas activity (B-complex, amylase enzymes)

**Test result: Urine r Moderately Increased**

Evaluation:

When the r value of the urine is elevated it indicates that the overall mineral concentration of the urine is diminished. This depletion of minerals may indicate a lack of available minerals in the body, most notably the blood. A depletion of minerals may be due to an imbalance in normal dietary factors, or perhaps even intestinal malabsorption.

Additionally, this scenario may be created by a deficiency in the concentrating capacity of the kidneys. As the human kidney ages and or moves towards degeneration, its ability to consistently and efficiently remove waste products is greatly compromised. When this occurs, the resistivity of the urine will increase substantially.

Finally, the last possible physiological causation might be adrenal exhaustion. The adrenal gland is paramount in the regulation and elimination of specific minerals. These minerals comprise a vast majority of the waste product calculated in the urinary resistivity factor.

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Therapy:

- 1) Increase mineral buffers (Magnesium, Potassium, Trace Minerals)
- 2) Improve digestive system (Digestive enzyme therapy, probiotics)
- 3) Support Adrenal function (Glycyrrhiza glabra, zinc, Vitamins B1, B5, B6)
- 4) Increase Kidney capacity (Kidney Drainage, Asparagus officinalis, Solidago, Bucco)

Test result: Urine R high and blood R high

Evaluation:

At first glance it would appear that the kidney is not concentrating the urine to the degree that is needed. However, when comparing this finding with the finding in the blood we find that the blood is not contaminated or overly concentrated. A conclusion about the kidney's ability to remove excess waste and maintain optimum mineral concentration is impossible to ascertain. This is due to the fact that there are no minerals or electrically conductive ions in solution for the kidney's to concentrate.

The underlying cause of this scenario is usually due to a lack of adequate minerals in the body. The blood is void of minerals and therefore, the kidneys do not have the ability to concentrate. Determining if malabsorption or demineralization is present is highly recommended.

Therapy:

- 1) Increase available minerals (Magnesium, Potassium, Trace Minerals)
- 2) Improve breakdown of food products (Digestive enzyme therapy, probiotics)
- 3) Enhance the reabsorption of the blood's primary electrolyte, sodium (Adrenal support, Glycyrrhiza glabra, zinc, Vitamins B1, B5, B6)
- 4) Rule out over hydration

Test result: Blood pH, redox and R all high

Evaluation:

These findings in unison can often indicate chronic viral infestations. A chronic fatigue individual, or a positive Epstein Barr titre may be seen in this category. An individual that is experiencing a chronic condition of heavy metal may also demonstrate this specific pattern. Additional testing may be necessary to confirm or rule-out these potential scenarios and should be considered. Special attention should be placed on lowering the rH2 concentration of the blood and increasing the needed minerals.

Therapy:

1. Increase inter and intra cellular minerals (Sodium, potassium)
2. Lower elevated oxidative stress (Vitamin C, N-Acetyl Cysteine, Reduced Gluthathione)
3. Improve liver anti-oxidant production (Milk Thistle, N-Acetyl Cysteine, Dandelion, Selenium, Vitamin A)
4. Improve TCA production of electron rich intermediates (L-Carnitine, Alpha-Lipoic Acid, Alpha-Ketoglutaric acid)
5. If Viral, treat with (Vitamin A, Glycyrrhiza glabra, Huang Qi, L-lysine)
6. If Heavy Metal, treat with (L-Methionine, Chlorophyll, Sodium Alginate)

### Topic - pH:

Whether a substance is considered alkaline or acid is determined by its pH (potential of hydrogen). pH is the measurement of the hydrogen ion concentration and is expressed in terms of a logarithmic expression. pH is quantified in a scale that ranges from 0 (which represents a complete saturation of hydrogen ions) to 14 (which represents a complete void of hydrogen ions).

A pH measurement which falls between 0 and 6.99 is considered acidic while a pH measurement from 7.01 to 14 is considered to be alkaline. A pH reading of exactly 7.00 represents the middle point and is considered to be neither acid or alkaline. As the pH of a sample increases, the hydrogen ion concentration decreases. Conversely, as the pH of a sample decreases, the hydrogen ion concentration increases.

An accurate and precise measurement of the bodily fluids' pH is essential to understanding and then creating optimal health. The fact that hormone receptor sites, enzyme kinetics and mitochondrial function are all pH dependent, sheds a light of importance on comprehending the relative value of pH, while also providing effective means to controlling its variance.

### Topic - rH2:

rH2 is a measurement of oxidation-reduction potential under a specific pH measurement. It indicates the amount of electron potential that exists in a tested solution.

The rH2 scale ranges from 0-42, where 28 represents the mid-point where the relative concentration of electron donors is approximately equivalent to the relative concentration of electron acceptors. Any rH2 value noted below 28 is considered to be reduced and contains a greater number of electron donors than electron acceptors. Conversely, if the value is greater than 28 the fluid is considered to be oxidized. Oxidized fluid has a lower number of electron donors than electron acceptors.

A high number of available electrons in the cells and more specifically in the mitochondria is a highly desirable condition. The electrons are produced as a result of an active and productive Krebs Cycle. The electrons are carried in high-energy biochemical intermediates. These intermediates are converted to usable energy (ATP, GTP) through the electron transport, oxidative phosphorylation mechanism. In this case the rH2 value of the blood has increased from the optimal range. This indicates that the relative concentration of electron donors to electron acceptors has decreased. This scenario translates into a lowered ability to produce high-energy cellular fuel (ATP, GTP).

### Topic - r:

r is a measurement of resistivity in ohms. This reading is synonymous with the relative concentration of electrically conductive ions in solution. When biological fluids are being tested, r is an excellent indicator of relative mineral concentrations. r is inversely proportional to this relative concentration of minerals in such a way as when mineral concentration increases, r decreases. Conversely, when mineral concentration decreases, the r value increases.

When the r value is elevated it may indicate a lack of adequate and normal mineral concentration. This condition can often times be caused by malabsorption, which restricts the minerals from being properly absorbed, and transported into the blood.

### Topic - Hydration Index

The Hydration Index is a quantitative value that can aid in the determination of the relative state of patient/client dehydration. Research has proven that as we age or experience degenerative conditions, the relative levels of available water to and in our cells are diminished.

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By utilizing this new assessment index, insights into the severity of this condition can be illuminated. Obviously, increasing biologically pure water must be the first step in restoring this value to optimal ranges. However, evaluating and then treating the kidneys as well as the relative mineral supply should also be considered. This Index is based on distortion found in the resistivity values.

### Topic - Detoxification Ability

While removing toxic waste from the body should always be considered in the very first line of therapy, it must be noted that all patients do not detoxify equally. A certain amount of base cellular energy is necessary in order to facilitate the removal of waste products. If the underlying source of energy is not sufficient to allow for active transport and removal of waste products, then detoxification will not occur. By monitoring the detoxification ability information, a broad-spectrum assessment of these capacities can be realized. The resistivity values as well as the redox levels determine the detoxification ability factor.

### Topic - Digestive Stress Factor

Many distinguished authorities have held onto the paradigm that the beginning of all dis-ease states begins in the digestive system. If the digestive system is functioning properly, then food products are effortlessly broken down to bio-available energy to run the many formal aspects of metabolism. If, however, the digestive system is distressed, then every subsequent metabolic process will also be compromised. The scientific data that precludes the degree of digestive stress is found in pH and redox information.

### Topic - Mitochondrial Activity Level

All life is dependent upon the ability to produce useful energy packets that can be converted into functional metabolic pathways. In the human cell the organelle that is responsible for this crucial conversion of electrons into energy (ATP) is the mitochondria. If the mitochondria do not adequately produce life-giving energy, then the system will deteriorate and eventually die.

Maintaining optimal mitochondrial function and energy production is essential. Additionally, to insure that the mitochondria is functioning properly there must exist a delicate balance between free radical production and elimination. If no oxidative stress is found in the mitochondria then it has lost its ability to protect itself against xenobiotic toxicity. If however, too great of a degree of oxidative stress occurs then permanent damage to mitochondrial sensitive DNA might occur. The mitochondrial activity level indicators, which are based on the degree of oxidative stress found within the fluids, might be a valuable means of monitoring this intercellular structure.

### Topic - Organic Buffer Capacity

The quantity and capacity of the body's many buffer systems are essential to regulating pH sensitive metabolic processes. For instance, all enzymes that function within the body are dependent upon a specific pH range to function properly. If the pH varies outside of this defined range, the enzyme will not function.

The body has a very limited and exhaustive supply of buffers. If this supply is depleted, the pH values of the critical tissue will not remain stable. It is therefore essential that the buffer capacity never be drained and that there always remains a reserved amount to maintain adequate pH balance. This factor is determined by assessing the body's compensatory mechanisms to alterations of pH. If the body has an excellent ability to help compensate a significant alteration in pH then the overall buffering capacity of the system is excellent. If however the body has lost its ability to compensate for a pH shift then increasing organic salts and supporting the buffering capabilities of the body becomes crucial.

### Topic - Biological Age

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Biological age is a mathematical calculation based strictly and solely on the levels of oxidative stress. There is a direct relationship between an increase in oxidative stress and an increase in the biological age factor. The converse is also true, a decrease in oxidative stress will cause a decrease in the biological age factor.

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