2009

Stress Depletion Syndrome

Enabling factor in systemic degeneration and healing locks

Chloride Ion Balance is essential to primary detoxification and nutrient systems in the body. Chloride insufficiency assures degenerate health. This paper explores the multiple relationships of Chloride and chronic shock in progressive degeneration and healing stops in shock and toxin-related syndromes.

Mark Squibb,
Whole Health Network
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Overview

Hydrochloric acid, or HCl, is a strong acid primarily produced by the stomach to ionize foods and kill food borne pathogens.

Chlorine, the back half of HCl, enters solution as the chloride ion.

- HCL is a primary agent used by the body to oxidize and ionize food during digestion.
- Chlorides many roles outside the stomach are infrequently recognized.

This paper seeks to express special roles, multiple roles, beyond primary digestion, that chlorine plays in stress metabolism.

The functional purpose of the disclosure is to provide indications and methods to recognize and support indications of Chloride depletion resulting from use of Chlorine to neutralize/oxidize toxins elsewhere in the body.

Oxidation

Oxidized agents or fully reacted are often called ash, because they are inert, and can no longer participate in chemical reactions.

Hydrochloric acid is an ionic combination of Hydrogen and Chlorine. Ionic components are elemental hydrogen, and chlorine.

Don't confuse ionic forms in the body with the stuff poured into pools.

Generally Chlorine is an element in the Halide series. Halides generally have a high oxidation number, which reflects their ability to neutralize electronegative agents.

Many toxins require neutralization and various oxidation agents:

- Oxygen
- Chlorine
- And many more

Are used to neutralized would be toxins so they can be eliminated safely.

Salts

Salts pair chlorine, an acidic-like reagent, with an alkali-like reagent, like sodium.

In water the reagents like strongly polar water more than each other, so they hang close in water, their electrostatic closeness prevents them from easily reacting with other substances.

Seawater has a lot of chlorine, but it is neutral because the chlorine prefers to remain electrically close to the sodium.

Chlorine versus Pool Water

Free chlorine is a toxic gas.

It is toxic because it is strongly and readily bonds to, oxidizes, carbon. The affinity of free chlorine for almost any burnable substance makes it almost universally corrosive.

This only happens when the alkali mate is missing.

This attribute is what gives it a strong smell and makes it useful for sanitation. It literally burns everything it touches.

Chlorine Purification

Use of chlorine to purify water is cold burning.

Most organisms expose are made of organic building, like carbon, that can are oxidized, burned, by chlorine.

The chlorine is so strong that it bonds to any molecular electronegative area and quenches any potential reaction.

Sodium hypochlorite recently emerging as a MMS, is the raw ingredient for bleach, sodium hypochlorite, releases free chlorine when it is exposed to an acid.

Chlorine in bleach is chlorine hypochlorite. Bleach releases chlorine gas, a super strong oxidization agent which burns anything, when the pH shifts acidic.

In the body

Uncontrolled burning, like breathing chlorine gas is bad.

On the other hand, controlled burning where chlorine is precisely deployed near something that needs burning is good because it can neutralize the destructive potential of an agent.

This hidden role of neutralizing toxins is pretty much unrecognized.

Chlorine is easily transported.

Chlorine ions, or chloride, are stick near neutralizing anions limiting their oxidative potential.

Catalytic agents, like Thiosulfate, enable catalytic release of chlorine from water. There is an essential relationship where these “catalysts” enable chloride to be used to neutralize toxins within the body.

Stress Compensation

An unrecognized role, by Welt and Revici is that Chloride plays the pivotal role in stress compensation metabolism and shock buffering.

Individuals with chronic disease, or ongoing environmental stress, nearly always end up in a sustained stress pattern which causes chlorine to redeploy from its recognized digestive role to a detoxification role.

Sustained redeployment disables digestion, and primary detoxification circuits, which fundamentally disables health.

Stress Chemicals

Stress and stress toxin neutralization appears to require several minerals from the halide and oxygen series.

The group 16 elements have a valence of 2:

- Oxygen
- Sulfur
- Selenium

Group 17 elements have a valence of 1:

- Fluorine
- Chlorine
- Bromine
- Iodine

These agents, properly deployed are primary agents to neutralize toxins in the body.

Inverse Size

In water, the smaller atoms make bigger clumps. Elemental electrostatic forces organize water. Strong forces from smaller elements organize more than weaker forces from bigger elements.

Big elements make small clumps because weaker electrostatic forces don't organize as much water.

Revici articulated the inverse relationship where bigger elements were more active at lower organizational levels. The bigger the element the deeper it works.

This author suggests that Revici's observations on biological activity domain resulted from the hydrodynamic ability of elements to organize water.

He also developed techniques to incorporate minerals into lipids to deliver them deeply into an organism.

For detoxification model, big elements work at deep levels while small elements, work at higher levels.

Valence Difference

Group 16 elements present with a valence of -2, while Group 17 elements have a -1.

The numbers reflect the quantum electron vacancy that they want to fill. This "want" drives chemistry.

Stress Chemistry

Stress lock appears to be a new physiology concept.

Stress lock occurs when physiological depletion from stress is enough to make stress physiology unrecoverable.

The notion stress has is biochemical condition, in addition to neurological, and emotional, is significant.

The body responds to stress by deploying stress response chemicals, special lipids, from the adrenals, and other organs, as a trauma survival response. Revici, Welt and others documented this effect.

Medically the condition is called shock. Shock varies in severity from life threatening to chronic.

Welt and Revici documented that prolonged shock disrupted chlorine metabolism and caused systemic alkalosis.

Systemic Alkalosis

Systemic alkalosis is systemic disposal of alkali agents to compensate for imbalanced elevated use of acid substances, chloride and phosphate, to compensate for alkali swing, when acidic buffer, stress agents, deplete.

It is indicated by alkali urine, and saliva.

Urine swings alkali because the body discards alkali agents, bicarbonate, etc., to maintain blood pH balance within the narrow tolerance or survival range.

Alkalosis reflects a condition of collateral depletion of both acid and alkali reserves. It indicates rapid process which depletes metabolic mineral reserves. When sustained it indicates rapid systemic degeneration.

Acid Sinks

Revici documented a major imbalance which occurred under stress was the appearance of chloride bound to lipids in cells.

This acid loss likely reflects use of oxidation agents to neutralize, burn, metabolically active stress agents.

They asserted that chlorine is a primary agent to neutralize cellular stress response agents. Elevated levels of stress create an ongoing depletion of stress compensation agents, which if unfortified, deplete.

Stress Response

Stress is part of the survival response process. The first stage adrenal release causes special lipids to enter circulation, which accumulate in challenged cells.

The lipoids produce an immediate cellular defense similar to fight or flight, to improve trauma survival ability.

Since trauma presumes toxins, cells use these agents to manufacture anti-toxins to help them survive toxin exposure.

The anti-toxins tend to accumulate.

Pathology Indications

This was further supported by Chinese researchers who use electricity to treat cancer tumors.

They indicate large amounts chlorine gas is released when small amounts of electricity are used to treat tumors.

The entire room immediately starts to smell like chlorine gas. The phenomenon is unexplained.

So why does chlorine accumulate in disease tissue?

Why would mild amounts of electricity release noxious quantities of chlorine gas from cancer tumors?

Neutralization Agents

Chloride accumulation appears to be a neutralization agent.

It seems reasonable that chlorine is used to neutralize the noxious agents which are generated by the pathogen process.

So, when the body is under a toxic load, the chlorine goes to where it's needed most.

Since toxin neutralization is a higher priority of than digestion, then chlorine deficiency in the stomach is a natural result of too many toxins.

Stress Stops Digestion

Digestion is the first victim of most stresses because the chloride goes away.

With long term stress, the long term chlorine depletion becomes a primary factor in the condition.

Chloride depletion sets the stage for malnutrition because it disables the digestive process.

Chlorine Circuits

Chloride deficiency appears to be working factor in many disease states.

- Chloride depletion appears to be at the primary factor in chronic conditions.
- Chloride depletion becomes permanent when the chlorine drains equals free chlorine intake.

Free chlorine from salts is limited by the body's ability use the mineral component from the salt, Na, K, Mg – to enable the free chlorine for other jobs.

Since the metabolic processes that use these agents also become pathogen limited, the collateral imbalances that occur under stress, seem to reduce free chloride availability, and contribute to the lock.

The trick appears to be to balance the salt mixture so that the anionic components get used, and supplies extra chlorine to settle chlorine depletion.

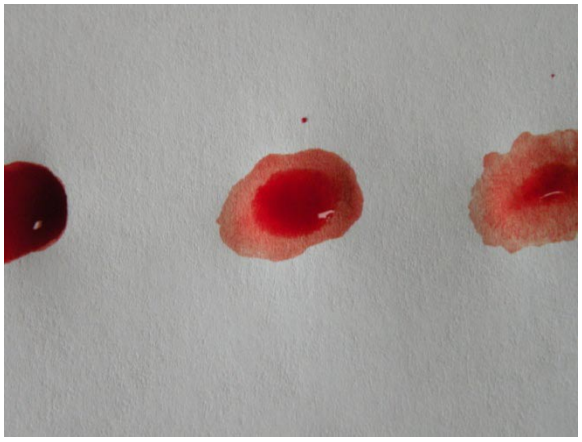
Chlorine utilization appears to depend heavily on oxygenic-column, -2, mineral cofactors:

- Oxygen;
- Sulfur;
- Selenium.

The detailed relationships are unknown – however chlorine settlement seems to work much better when the sufficient amounts of these reagents are available.

RBC Transport Inhibition

There seems to be a correlation in blood color and stress. Individuals under prolonged stress have blood which does not oxygenate well and remains dark when exposed to atmospheric oxygen.



A finger prick presents a dark colored blood which slowly absorbs oxygen.

A potential explanation for this is that the oxygen binding sites are occupied by neutralized toxins for transport to the liver.

When the liver and detox paths are inhibited, then the sludge remains bound to the RBC's limiting oxygen transport capability.

This observation proposes that hemoglobin binding sites that normally carry oxygen seem to serve a dual role.

This model suggests reason why toxic individuals have oxygenation related dysfunctions, and hypoxia, in spite of "O2" saturation levels which don't indicate a problem.

Since oxygen is a universal detox agent, and since transport becomes limited, an transport overload seems to add another lock factor to the mix: No oxygen when oxygen is critical.

Needed oxygen for detox can't be delivered when the binding sites on the red blood cells are plugged with toxins, then hypoxia is guaranteed.

This is another possible lock factor.

Degeneration

Long term depletion of chlorine for digestion leads to structural degeneration.

- Did you ever wonder that old people hunch over?
- Did you ever wonder why lung capacity diminishes with health?
- Why would muscles and organs spontaneously break down?

Cellular Starvation.

Digestive Degeneration

We propose free chlorine deficiency is the primary cause of cellular starvation.

Missing chlorine quietly but steadily limits the building materials for tissue. Long term chlorine depletion, from toxic, pathological, or other stress, redirects chlorine to toxin neutralization roles.

When this happens long enough, starvation sets in because long term digestion is weakened.

Did you ever notice that people under stress start to sag and eventually hunch?

Think about hunching.

When the muscles which hold the spine erect become weak they stop holding the spine in place. The result is shoulders head droops forward. Posture sags.

So why do these muscles get weak?

The body uses itself for food. Absent minerals and protein from digestion, resulting from chlorine drain, the body starts to digest muscle to preserve life.

If the stress resolves, the body rebuilds the muscle and life continues. When the situation goes unresolved, degeneration continues until death.

Ever notice that people with annoyingly good posture rarely get sick?

Lung Degeneration

The lungs are tender. The tendency for lung capacity to decrease under stress further reflects tendency for the body to digest lung tissue for survival.

Did you ever notice that the sicker someone is, the less lung capacity they have?

Ever notice that people with good wind are sturdy, almost regardless of age?

There is a reason. Lung capacity & integrity reflects metabolic reserves.

Individuals with sufficient cellular nutrients aren't in the process of digesting their lungs, or spine to survive.

Health exam first glance: good posture structural health and good wind indicates organ health because these people aren't eating themselves to survive.

Chlorine Depletion

Stomach chlorine is always missing in any degenerate condition.

The tendency to presume that it is an effect of degeneration instead feels dead wrong.

Chlorine depletion, driven by stress (all kinds), causes a kind of starvation.

Sturdy people have spare chlorine – and within reason, more is better.

Depletion Indications

Chloride depletion has multiple indications:

- **Vulnerability to Motion Sickness** – which is a stress tolerance indicator;
- **Decreases in resting blood oxygen saturation** – as oxygen binding sites on RBCs are fixed with chloride toxins reducing oxygen affinity;
- **Upper GI symptoms**, sluggish stomach, burping, bloating, heartburn, in upper GI tract, indicating reduced HCL available for digestion;
- **Lower GI issues** cause a compromised nutrient stream for beneficial bacteria in the intestines, resulting in ongoing inappropriate bowel flora;
- **Liver toxin persistence** – absence of digestive HCL limits bile release causing toxins to persist in the liver;
- **Upper GI bloating** – reflecting sodium imbalance resulting from unquenched bicarbonate accumulation;
- **Degenerate sleep quality** – reflects the ongoing accumulation of cellular catabolic toxins interfering with anabolic metabolism;
- **Degenerate lung capacity** – as compromised digestion causes body uses lung tissue for food;
- **Muscle Mass Loss** – As the body uses muscle to supply protein needed for survival;
- **Toxic Weight Gain** – fat cells absorb toxins unable to exit by normal detoxification pathways causing storage of lipoid toxins.
- **Severe Viral Symptoms** – depletion of acid reserves enables viruses and other forms to persist and cause unusually severe symptoms;
- **Persistent Viral/l-form infection –** These agents support stress lock where sub-acute infection results in system load that never quite resolves.

Chlorine as Detox

Revici documented that individuals with ongoing immunological or stress load exhibit decreased stomach acid.

This phenomenon is likely a result of the body's utilization of chloride for stress and noxious toxin neutralization in preference to digestion, likely because poison presents a greater metabolic threat than starvation.

Indications of this chronic condition show several telltales:

- Poor digestion;
- Systemic alkalosis / *acid depletion stress*. The body discards alkali substances to compensate for an absence of acids.

Prolonged absence of stomach chlorine prepares the gut for multiple infections which contribute to deadlock:

- Forever malnutrition;
- Continuous source toxin from gut;
- Cellular toxin backlog from inhibited liver flow.

Welt / Revici Chlorine Pathway

Welt and later Revici documented use of chlorine donors to buffer shock. In simple terms most stressors, including pathogens, cause the body to produce anti-toxins which bias metabolism to resist the influence of the toxin.

Prolonged or repeated toxin exposure tends to cause accumulation of these anti-toxins which aggregate into persistent metabolic anti-toxin bias.

Fortunately the body also creates an anti-toxin breakdown mechanism to dissolve these agents over time.

Breakdown of persistent anti-toxins is governed by anti-toxin metabolites involving primary reagents chlorine, sulfur and selenium.

Welt used Chlorine donors to buffer shock.

Resolving Chronic Chlorine Depletion

Continuous anti-toxin breakdown demand likely depletes mineral reserves, particularly chlorine, sulfur and selenium. Most autistic children tend to exhibit hyperactivity that attributes to accumulated catabolic anti-toxins.

Generally, pathogenic toxins are suppressive. In response, anti-toxins are excitatory. Interventions that evidence elevated excitatory behavior indicate a decrease in primary toxin load – and unfortunately an apparent worsening of hyperactivity symptoms in spite of therapeutic benefits.

The remaining challenge is to accelerate the breakdown of the anti-toxins, and curtail the hyper-excited response.

Use of lipid-bound selenium and sulfur with chlorine-donor salts titrations to accelerate drug detoxification has proven beneficial with individuals diagnosed with MS and ALS who exhibited similar neurological-excitation phenomenon.

Chlorine Deficit recovery & Gut Healing

This strategy proposes concurrent nutrient profile toward restoring gut:

- Dietary chlorine donor salts (not NaCl), KCl, MgCl, NH4Cl to supply sufficient chlorine to satisfy system toxin neutralization demands;
- Probiotics to aggressively seed the gut with healthy flora;
- Beet top product and choline to encourage bile flow;
- Aloe and other polysaccharides to support gut healing;
- Anabolic intestine extracts to accelerate healing of intestinal lesions.

Most importantly this program can be incorporated into food. The flavor profile of these agents is mostly salty, sweet, or tart.

Chloride Circuits

Ongoing stress demands that the body breakdown and dispose of stress response agents.

This is where the stress response reagents play a huge part:

- Chlorine
- Sulfur
- Selenium
- Probably more.

Digestion Circuit

Chloride in salt is tightly bound to Sodium. This tight binding requires a lot of effort to separate.

As a result, the body's ability to separate sodium from chloride is predominantly limited by the body's ability to use sodium for other purposes.

In the case of digestion, chloride goes to the stomach for HCl, while sodium goes to the nearby pancreas, to make Bicarbonate. The result joins in the duodenum.

In other words, separation is both close and short lived.

Any metabolic stress which pulls chloride away from the stomach pancreas digestive roles creates an imbalance. Chloride depletion results in excess bicarbonate influencing both digestion and the upper GI tract.

Shock Circuit

Shock is a state the body enters as a result of nearly any trauma. In sub acute state, it prepares the body for trauma survival.

Stress accumulates creating a persistent shock.

Long term shock depletes shock buffers, and sets the nervous system into a survival pattern of fight-or-flight, which becomes a long term, sometimes life-long metabolic state.

Shock rapidly depletes chloride. This depletion sets up a cascade of degenerative effects.

Chloride buffers, deplete, see digestion discussion, disabling first-stage digestion. Without chlorine, the lower gut becomes a pathogen incubator, which cranks out more toxins...

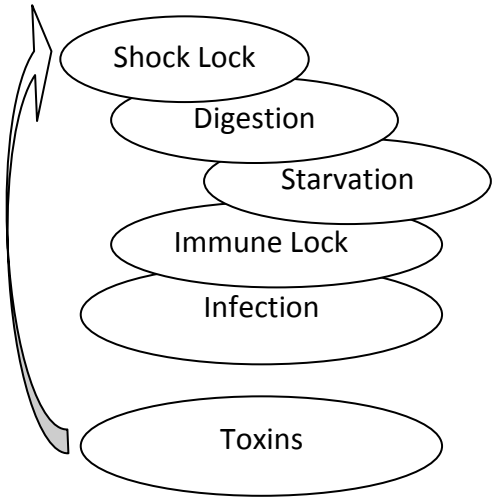
Chronic stress triggers adaptive growth patterns. Cellular and systemic metabolic development adapts to tolerate antagonistic influences which persist from

the cascade sequence.

Persisting stress drives core adaptations, which causes cumulative deviation from normal development during growth.

Eventually a portion of the deviance becomes built in and the compensatory deviance persists until the body can grow out of the condition.

In summary, the sooner the effects of the cascade resolve, the less compensation gets built in during growth.



The Digestion Problem

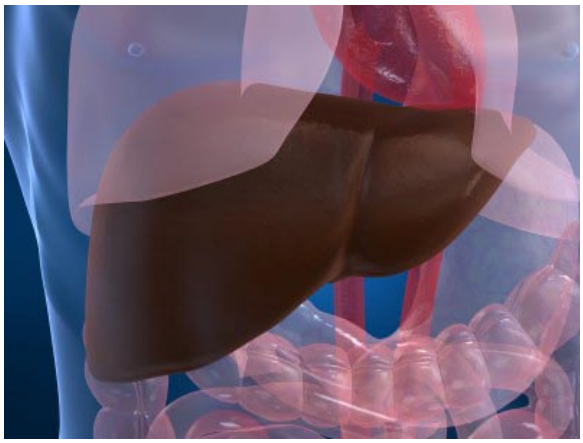
Both nutrient selection and waste disposal processes must be in good order to enable healing.

Starving cells in toxic soup cannot repair.

Digestion is often thought an "intake" process. More correctly it is the master sorting process where the body sorts food from trash.

> It seems odd to start discussion on fixing brain damage by talking about poop.

The liver serves as the top of the recycling chain where most of the bodies recycled material collects into bile, which is also used for digestion. Click here for a video tutorial.



The liver dumps body internal waste into the top of the digestive tract to sort out what to keep. That which the body chooses not to keep is exits as poop.

Digestion is a multi-phase process.

1. Chew and swallow breaks the food into preferably tiny pieces and mix in first stage enzymes from saliva;
2. Food lands in stomach to mix with Hydrochloric Acid for ionization, aka stomach acid (severely deplete in most autistics – for reasons we will discuss later);
3. Acidified food exits into duodenum to mix with bile for lipid emulsification, and enzymes from liver/pancreas break down proteins, sugars and fats for later processing in the gut;
4. Small intestine hosts many bacteria which convert foods into a massive spectrum of building blocks;
5. Intestines selectively absorb building blocks into the blood, which goes to the portal vein;
6. Which goes 80% to the liver, which extracts components needed to continue digestion and discard more toxins;
7. Everything not absorbed exits as poop.

Malnutrition Guarantee

Long term chloride stress causes malnutrition:

- Long term stress can disable stomach acid for a long time;
- Eventually liver bile flow limits toxin release, and inhibits lipid absorption;
- Chloride deficiency inhibits pancreas release;
- Absence of HCL, Bile and Pancreatic agents;
- Disable nutrient absorption.

Digestion Lock

Malnutrition inhibits healing. Toxins inhibit healing.

Gut process breakdown leads to toxin challenges, allergies, and immunological load:

Both contribute to the problem.

1. Early digestive breakdown begins in the stomach where an absence of stomach acid fails to prepare the food for digestion, ionize minerals, and kill potential pathogens normally resident in foodstuffs;
2. Absence of acid prevents the liver from bile release which fails to emulsify fat and conduct the second stage of digestion leading to poor liver flow, further leading to clogged lymphatic flow, hence cellular toxin accumulation;
3. Semi-digested food remnants feed pathogenic organisms which survive the stomach that should have killed them with stomach acid.
4. The organisms make noxious toxins which etch and eventually damage gut.
5. The damaged gut leaks toxic waste into the blood.
6. The immune system cleans clean the blood, and generates antibodies that enable future immune responses to toxic byproducts that result from broken digestion leading to food allergies.

Autism Stress Metabolism

Autistic individuals exhibit very elevated stress metabolism.

Elevation reflects extreme and ongoing metabolic and toxic challenges from multiple factors which set and freeze a stress-locked metabolic state.

Generally, either chloride ions, or chloride catalysts, sulfur/selenium, are perpetually deplete in autistic metabolism.

Autistics tend to exhibit poor liver performance and one or more cellular degenerate indicators:

- Strong tendency for alkalosis;
- Cellular degeneration indicated by very high levels of urine particulate;
- Very elevated urine urea indicating deficient protein metabolism;
- Elevated oxidation reduction potential in lymph reflecting antioxidant depletion.

Blood Type-A Hint

The first clue is the Type-A blood that most autistic kids share.

These kids have immune systems which are a bit more permissive, and enable different flavors of pathogens like viruses, mycoplasma, and who knows what else to gain foothold. We refer to this spectrum of inhabitants as *bugs*.

These bugs manufacture substances which provide them a survival advantage, *toxins*.

Many species manufacture toxins that interfere with the immune system. As bugs and toxins accumulate, the autistic kids become a zoo, where the immune system and gut are an unrecoverable wreck, which prevents almost anything from healing.

Individuals with type-A blood exhibit weaker immunity, hence are more susceptible to pathogen foothold, especially when the immune system takes a critical hit from ischemic trauma.

Stomach Acid Primer

Stomach releases hydrochloric acid, or HCl. This acid is responsible for:

- Killing potentially pathogenic organisms in food;
- Breaking down proteins into building blocks and minerals.

Upper digestion is fueled by Hydrochloric acid, which is copious in healthy children. Little known references by Welt on shock provide actionable clues to why HCL becomes and remains functionally deplete in autistic kids.

When stomach aid fails, digestion is bad from top to bottom, literally. This is typical with autism.

Autistic Chlorine Depletion

It appears likely that opportunistic pathogens present in autism.

It is further likely these agents trigger generation of anti-toxins, which in turn deplete oxidative minerals, chlorine, sulfur and selenium.

Chloride depletion, resulting from stress lock, is the root cause digestive dysfunction in autistic syndromes:

1. Chloride depletion limits Hydrochloric acid in the stomach;
2. Which limits production of secretin in the duodenum;

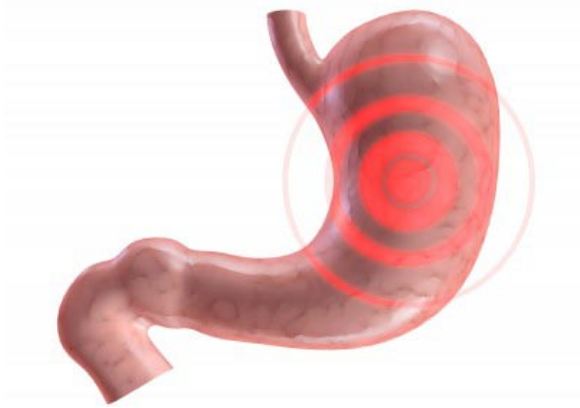
    a. Which limits release of bile from the liver;
    b. Which clogs the liver
    c. Which clogs the lymphatic system;
    d. Which assures complete systemic toxicity;
    e. From absence of lymphatic flow;
3. Which inhibits pancreatic release of bicarbonate and digestive enzymes;
    a. Which clogs the pancreas;
    b. And further limits digestion;
4. The combination assures poor nutrient stream preparation for gut flora:
    a. Poor acid processing in stomach;
    b. Poor bile supply limits lipids and fat processing;
    c. Limited pancreas output inhibits enzyme release;
5. So unprepared food enters the gut;
6. Starving healthy gut flora that require dissolved and ionized nutrients;
7. Resulting in poor nutrient absorption;
8. And virtual absence of nutrients generated in a healthy gut;
9. Feeding pathogenic gut flora which rot the under-processed nutrient stream;
10. Creating an internal supply of toxins;
11. Adding perpetual healing challenge on the intestines;
12. Contributing ongoing toxin load to the system – as rot products leach through an etched gut;
13. Which creates more stress;
14. Which consumes more toxin quenching agents;
15. And so on.

Autistic Poop

Autistic kids nearly always exhibit poor bowel flow, and develop symptoms of malnutrition almost regardless of diet.

Parents of autistic kids say “I tried diet and it didn’t work”. This is a natural and inevitable result.

Unless digestion works diet is almost irrelevant.



Both poor nutrient absorption and gut-toxins naturally result of compromised digestion.

Gut flow stalls resulting in constipation and/or a stinky mess in the toilet which looks and smells more like rot than poop.

Chloride Roles

Since chloride is readily available in salt there is a tendency to perceive that chloride deficiency is an unlikely.

Who would think that a component of table salt could be lacking in metabolism?

Remember that stress pulls chlorine into tissues as a general purpose stress quenching agent.

Did you ever wonder:

- Why people with cancer almost always have deficient stomach acid regardless of salt intake?
- Stress stops digestion?
- Digestion slows whenever you are sick?

Each of these answers telltales metabolic chloride redeployment – where chloride normally used for digestion is sent elsewhere.

Orphaned Sodium

Sodium chloride, or table salt, is a weak chloride donor.

In normal metabolism, chloride goes to the stomach, and sodium goes to the pancreas.

The two quench each other after food exits the duodenum.

Elevated chloride demand orphans sodium in the pancreas.

Sodium excess overloads the pancreas and upper GI tract with bicarbonate, which causes bloating and limits gut flow.

As a result, the amount of free chloride, from sodium chloride, is limited to the amount of sodium that can be used by the body.

As a result, stress consumes chloride, and orphans sodium.

Orphaned sodium from ongoing stress creates an imbalance.

The imbalance reflects tendency for stress related diseases to present indication of sodium excess.

Stress related diseases, atherosclerosis, hypertension, relate to sodium, likely because the stress neutralization consumes excess chloride, which in turn creates sodium excess imbalance.

The primary issue is not the “sodium excess” but rather chloride depletion. The primary imbalance is caused stress, which utilizes large amounts of chloride.

In other words, stress uses chloride. Elevated chloride use, to neutralize stress, causes the sodium-excess imbalance.

Sodium excess occurs when stress demand for chloride exceeds the body’s ability to discard or utilize excess sodium.

Chloride Pathways

We suggest that there are at least three chloride pathways necessary for health:

- Stomach HCL Path – where HCl ionizes food;
- Bile Release Path – were acid released from the stomach enables the liver to release bile;
- Bicarbonate Release Path – where Stomach HCL enables pancreatic Bicarbonate release;
- Stress Compensation – where Serum chloride is used to normalize the body after a stress response.

Sulfhydril Roles

Sulfhydril agents play two roles in stress chemistry:

- They enable chloride release from serum so that chloride can be used to neutralize tissue stress toxins;
- They detoxify Arsenic, Antimony and likely Cadmium and other metals which chelate to the Sulfhydril agents.

Overloading the stress pathways causes parallel tendencies:

- Decreased stress tolerance. Depleted reserves limit stress resiliency;
- Sulfhydril depletion enables accumulation of Sulfhydril metal toxins.

The Virus Connection

Acidic agents provide tend to majority relief from virus manifestations.

Generally individuals with viral infections will manifest *acid depletion stress* showing significant alkali tendency.

Titration of metabolic acids usually improves compensation and provides significant relief from symptoms. Revici.

This tendency is true for non-viral pathogens including cell wall deficient l-forms that accompany infectious pathogens.

Alkalosis management reduces the stress from being out of balance. Individuals with robust acid buffers seldom experience discomfort from pathogens.

Imbalance, typically localized alkalosis, driven by cellular acid consumption, drives tissue stress inflammation.

Inflammation triggers a systemic immune response. Cellular self defense failure, from sub-nuclear organisms, viruses, l-forms, etc., mostly occurs because the cells lose the ability to fight.

Revici's work with viral symptom neutralization suggests that cellular defense capability heavily utilizes cellular metabolic reserves. This assertion is also supported in research literature which indicates chloride donors, ammonium chloride, inhibits viral propagation.

These references indicate ammonium chloride is spectral in nature and limits viral propagation in multiple categories of virus: 1, 2, 3, 4, 5, 6.

Stress Detox

Stress is biochemical. Over time, stress accumulates and contributes to aging and degeneration.

Stress is part of life – and when conditions permit the body can detoxify stress agents and return to normal metabolism.

Stress agents bias cellular metabolism toward crisis, or flight or fight responses. They tend to create alertness, and suppress rest, and bias metabolism toward catabolism.

Stress agents require chloride and oxygenic agents for breakdown and disposal.

Issues

Stress detoxification can be complex:

- The body accumulates large amounts of them over a lifetime;
- These breakdown products tend to be often caustic;
- Release of these agents often causes stress to exit path organs, liver, gall bladder and sometimes gut.

Body fat accumulation typical indicator of stress toxin accumulation.

The body stores toxins it cannot discard – waiting for the time when the toxins can be released.

Exit Path Stress

Stress toxin detox increases stress on exit path.

The caustic nature of these stress agents explains why the storage is often preferred to disposal – and why stress agent accumulation is common.

Let's trace the exit path from cell to sewer, to get an idea of where and why accumulation happens:

The path:

1. Toxins in cells, mobilize because they can be oxidized and mobilized by chloride and Sulfhydril;
2. Mobilized toxins bind to Red Blood Cells using oxygen transport receptors. This means that inhibited oxygen transport limits detoxification;
3. Kidney Stress – the kidneys offload RBC toxins, which act like caustic soap in urine,
4. Caustic soaps etches cells in the kidneys and bladder;
5. Liver Load. The liver must have nutrient/antioxidant cofactors which enable it to extract these agents into bile which flows to the gall bladder;
6. The gall bladder holds the caustic agents until a digestive event, fat consumption, or other, signals release;
7. In the gall bladder, long term storage caustic storage etches the lining of the gall bladder resulting in inflammation and discomfort;
8. When the gall bladder releases the bile, it is often so toxic the gut rushes exit to avoid absorption and caustic stress causing diarrhea.

We suggest that beyond chloride depletion, these factors further serve to inhibit stress compensation metabolism.

Any breakdown or dysfunction along the stress detox path causes accumulation, discomfort or failure in the stress detox process.

Caustic Flow

Successful detoxification provides clues.

Stress toxins are bad stuff. Their mobilization often creates stress on the parts of the body that dispose them – often resulting in discomfort or rapid transit.

Flow Support

It is important to support the body during the detoxification.

Toxin storage bladders and exit paths have extra stress during detox because the fluids are more caustic during detoxification. Elevated caustic flow can disrupt normal balances:

Bile Tract:

1. Gall Bladder – Holds noxious bile. Use beet top product, choline, fatty foods, and phosphatdylcholine, stimulate bile release;
2. Gut Lining experiences stress -- Use probiotics and fermented foods to support gut flora during periods of increased detoxification bowel flow.

Urinary Tract:

1. Urine Bladder – Drink extra water to dilute toxins to reduce stress on bladder tissue.

Flow Avoidance

It is common to avoid detoxification processes because detox indications often reflect disease.

- How many people do you know that had their gall bladder removed because it was inflamed or full of stones?
- Wouldn't storing noxious bile cause inflammation?
- Wouldn't concentrating noxious bile lead to gallstones?

We assert that noxious flow – from effective detoxification -- is a hidden cause of both inflammatory gall bladder conditions and diarrhea as the body processes and discards noxious agents.

Misinterpretation is a major issue, because the primary symptoms are an essential part of the healing process.

Incidental activation of detoxification, and the ensuing discomfort, often inspires:

- Avoidance of detoxification agents;
- Which leads to further accumulation;
- This leads to bigger problems.

Mystery Flow Disease

This discussion provides a clue to the probable cause for inflammatory bladder conditions and spontaneous diarrhea –The elevated caustic nature of the bile causes ***gall bladder stress*** because the bile is too caustic to store in the gall bladder.

Bile Flushing protects the gall bladder from caustic trauma.

Toxic bile release, triggered by fatty foods or other agents, causes the gut to fast-track the toxins out of the body often causing diarrhea.

Golden Detox Rules

Recognition of the whole process of detoxification is essential to success.

First: Patience Rules

Since toxins accumulate for life – there is no telling how much detoxification you will need - or how fast you can go. Start easy, stay within your tolerance.

Second: Support Cell to Sewer

Stress toxins are stored by cells. Clearing them means they need to travel in blood, filter by kidney and liver, store in a bladder, and exit by tube. Be aware of each part of

the process and prepare to support or rest to avoid over stressing.

Third: Honor thy Bladder

Each part of the path must be able to tolerate the exit stress. The bladders often exhibit most stress because they store and concentrate caustic toxins. Stimulate release, water for the urinary bladder, and bile flow agents for the gall bladder at the first sign of stress or discomfort.

If you overstress a bladder, take a break so it can recover before continuing.

Bile Path Obstruction

Obstructions limit detoxification.

Gallstones present a key priority because of their ability to prevent detoxification by clogging bile flow.

Stones occur when suspended agents coagulate into a mass – due to persistent inability to dilute and release toxins.

Stones that limit flow stress on upstream organs compromise their ability to discard waste.

Obstruction Testing

It is often helpful to determine if there is a bile-path obstruction before starting the stress detox program.

The *choline challenge* is a reasonably safe method to discover bile path obstruction.

The challenge uses steadily increasing doses of choline to trigger gall bladder spasm.

- Discomfort indicates gall bladder obstruction which indicates unlikely tolerance for caustic bile;
- Or bladder inflammation that suggests the bladder is already stressed;
- Either condition indicates you should NOT proceed with the rest of the program.

Bile Flow Challenge

The choline challenge uses increasing 150 mg doses of choline at 30 minute intervals.

The ramped of dose enables the process to stop prior to significant discomfort in cases where either inflammation or obstruction are present.

Do not use standard 600 mg doses because this is enough to cause a severe bladder spasm.

A severe spasm can land individuals with severe gall bladder obstruction in the hospital.

- Min 0: take 150 mg choline
- Min 30: take 300 mg choline
- Min 60: Take 450 mg choline
- Min 90: Take 600 mg choline
- Min 120: Take 900 mg choline

Stop the sequence if you feel discomfort, cramps or burning, below the right side rib-cage anytime during the sequence.

This discomfort indicates either obstruction or inflammation, which means that the gall bladder is unlikely to tolerate the detox.

The gall bladder is just beneath the rib-cage on the right side of the chest.

If you complete this choline sequence without gall bladder discomfort then your gall bladder appears to be in good enough shape to tolerate the stress detox.

Obstruction Clearing

There are a variety of protocols for clearing bile path obstructions. They fall into two categories:

- Dissolve
- Expel.

Expel strategies work fast except for cases of large obstructions which are too big to fit down an exit path. Big clogs create a dam that causes flow pressure to flow outside of the liver into the bloodstream often creating a significant crisis and systemic trauma.

Dissolve strategies take longer, but work use dietary agents to dissolve obstructions. They are more comfortable but require more patience.

Stress Detox Titration

A titration uses metabolic agents to supply chloride, sulfhydril catalysts, and magnesium to enable cellular breakdown and mobilization of stress reagents.

Metabolic management is very important. Do not attempt to manage a stress detoxification without managing both urine and saliva pH.

Urine and Saliva

Saliva is lymph filtrate. Salivary pH indicates the flow needed to maintain pH balance between intracellular and extracellular body compartments.

Urine is blood filtrate. Urinary pH indicates the acid/alkali flow needed to maintain blood pH balance. Blood pH is biased alkali, and delicately balanced carbonic acid, which is controlled by breathing. Each exhale releases carbonic acid as CO2.

Buffer Stress

When carbonic acid buffering fails because of metabolic acid depletion, the kidneys discard alkali material to compensate.

This disposal of alkali agents occurs under two conditions which tend to be misleading:

1. *Acid depletion stress* when acid reagents, chloride, phosphate, etc. are deplete;
2. Optimal health when acid buffers are fully stocked and alkali intake exceeds demand (very rare in western diets).

There is a strong tendency to presume alkali indications indicate good health. This is usually far from the truth. *Acid depletion stress* is disastrously common.

Curiously consumption of acids enables preservation of alkali minerals because it stops the body from having to deplete alkali mineral reserves to compensate for depleted acid metabolic acids.

Death by Alkali

It is counter-cultural ***alkalize mentality*** to assert that acid consumption is necessary to preserve health.

> The popular emphasis that alkali is good and acid is bad disregards the metabolic balance.

Balance lost is bad -- regardless of the direction.

In *acid depletion stress* – over consumption of alkali foods strengthens the stress pattern.

It increases the need to discard alkali mineral and increases alkali depletion.

Balance restoration is essential.

pH Calculation

Alkali balance can be easily calculated by knowing the saliva and urine pH values.

Don’t succumb to the temptation to look at one or the other value because both are important:

1. Measure Saliva pH = SpH
2. Measure Urine pH = UpH
3. Add SpH + SpH + UpH
4. Divide by 3
5. What is the result?
6. Is it greater than 6.4
    a. Then alkalosis

Breath Count

Another test is the breath count. Count your breaths for 5 minutes. If you breath less than 16 times per minute, it is likely your body is retaining carbonic acid to compensate for metabolic acid depletion.

Breath Hold

Hold your breath. If you are easily able to hold longer than 40 seconds, likewise, your body is able to retain carbonic acid likely due to metabolic acid depletion.

The Detox Experience

We designed a detox program to support the entire path.

Stress detoxification is a reasonably complex process because of the challenges it creates on the organs and tissues in the detoxification path.

Detox Phases

Stage	Process	Explanation	Indication	Support
Flow Test	*Check liver flow*	Use choline to confirm bile can flow.	Absence of discomfort with gall bladder spasm.	Ramped dosage of choline, (B vitamin) to trigger increasing gall bladder release
Phase 1 Buffer Restoration	*System Buffer Stabilization*	Body absorbs enough of the deplete substance to stop dumping alkali mineral.	pH returns to normal range	Supply acid / chloride donors to restore functional balance. (Acid Buffer Support)
	Cell Buffer Absorption	Cells absorb excess acid buffers reagents	pH stable in spite of elevated acid donor intake	Continue Acid Buffer Support
	Cell Toxin Flow	Cells discard neutralized toxins into transport channels to liver and kidneys for breakdown and disposal	Elevated flow and concentration from kidneys and gut	Modulate Acid Buffer Support to tolerable discomfort. Water intake and exercise aid cellular detoxification and lymphatic flow.
Phase 2 Caustic Flow	*Exit Path Stress*	Liver, gut, and kidneys operate at maximum levels to eliminate accumulated toxins.	Increased flow, diarrhea, very concentrated urine. Bile so toxic the gut expels it rapidly as diarrhea.	Modulate Acid Buffer Support. Drink water and use liver flow support to avoid congestion and cellular stress, Silymarin, Lipoic acid, etc to support liver & kidneys
	Storage Bladder Stress	Gall and urine bladders may become irritated and present discomfort.	Discomfort in gall bladder. Discomfort in urination. Intermittent or ongoing diarrhea.	Urination – drink more water. Bile, use choline, EPL, fatty foods to trigger gall bladder release with discomfort. Pause Acid Buffer when needed.
Phase 3 Casual Flow	*Cleanup Phase*	Long term process where pH remains within normal ranges as the body discards accumulated toxins. Tissue rebuilding starts as compensatory degeneration stops.	pH average remains 6.4, even with elevated acid consumption. Weight loss, persistent health issue resolution. Digestive restoration. Lung capacity, muscle tone and oxygenation improve.	Acid Buffer Support. Consume good fats. Exercise. Maintain water intake.
Phase 4 Maintenance	*Acid Swing*	Either the body has completed detox enabled by acid buffers, or has depleted a catalyst needed to continue detox.	pH average drops below 6.3 because the body is discarding metabolic acids to compensate for acid excess imbalance.	Stop acid buffer support. Increase alkali foods and minerals.
	Done	Metabolism normalized.	Steady state health. Ability to tolerate stress and overcome infections with transient symptoms.	Use acid buffers when needed. Maintain unprocessed food diet. Salt to taste.

Acid Reagents

Metabolic acids provide buffers. They tend to swing Urine and saliva pH acidic.

Collectively the following components enable managed detoxification:

Component	Target	Purpose
Chloride Donor Salts	Cell	Enable cellular stress toxin neutralization.
Sulfhydril Donors	Catalyst	Enable chloride release at cells to catalyze neutralization.
Metabolic Acids	System Buffering	Supply collateral acids to aid buffering
Betaine-HCL	Digestion	Aids digestion when under acid depletion stress to reduce malnourishment
Exercise (with oxygen)	Blood	Improves toxin transport from cells to liver and kidneys for elimination. Increases carbonic acid enabling elevated utilization of metabolic acids.
Urine Conductivity Tester	Manage Kidney Stress	Monitor urine conductivity to protect kidneys and bladder from damage from high concentrations of caustic agents
pH meter	Manage Detox Flow	Enables a break from of protocol when the body requires rest
Bile Flow Aids	Manage Gall Bladder Stress	Accelerates bile release from gall bladder to limit tissue stress from long term storage of caustic agents