

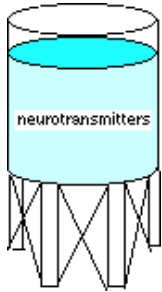
The Magic of AcuDetox®

by Brian C. Bailey M.D.

Part One, Chapter 4: Stress & the Role of AcuDetox® in Gluten Sensitivity

“Celiac disease (and **gluten sensitivity**) may present with psychiatric symptoms, which, in association with other symptoms, may be of diagnostic help... Kaser (1961) described celiac children as showing definite symptoms in all cases. The children are conspicuously quiet, turned inward, often weepy, often discontented or surly and apparently lack all joy in living. They can take on negativistic and schizoid characteristics and may execute ceaseless stereotyped movements. Paulley wrote in 1959: many (adult celiacs) showed extreme obsessional neuroses, suffering delusions, frequently believing they had cancer. Paranoid ideas were also frequent and many were considered psychotic or near psychotic.¹⁹”

Celiac Disease (CD) is a slowly progressive genetic disease, affecting 1% of the population, by which the gut’s ability to absorb needed nutrients is compromised. A lesser form of the same disease matrix, **Gluten Sensitivity (GS)**, affects as many as 20-30% of the population - is hard to diagnose clinically or by lab testing. In both forms, sensitivity to the gluten of certain grains diminishes absorption of many nutrients (including pyridoxine, **Vitamin B6**²⁰ and niacin, **Vitamin B3** and the amino acid **Tryptophan**) which, in addition to cortisol-related energy-depleting effects, depletes circulating *neurotransmitters*²¹. **Depression is seen more frequently in those with celiac disease and gluten sensitivity than in the general population - even among those who adhere strictly to a gluten-free diet**²².



While the biochemistry is much more complex than I depict here, it is as if under normal circumstances the body acts like a water tower filled to the brim with *serotonin* and *noradrenaline* - *neurotransmitters* which are drawn down to mobilize the body when one feels stressed - and then are replenished quickly, at least in part by synthesis from absorbed dietary nutrients. Once the gluten-impaired gut loses its capacity to absorb these nutrients (the malabsorption varying from person to person), the *neurotransmitter* levels are often lowered dramatically. The residual levels, after this “point of no return,” (often after a build up of 10-15 years) are unable to sustain the person when stress rears its head. A feeling of profound helplessness in the face of stress is the result sufferers describe. We know the process works more or less this way by observing that



¹⁹ Dohan F.C. The Biological Basis of Schizophrenia (Hemmings, ed; MTP Press; London, 1980)

²⁰ The primary role of vitamin B₆ is to act as a coenzyme to many other enzymes in the body that are involved predominantly in metabolism. This role is performed by pyridoxal phosphate. Vitamin B₆ is involved in the following metabolic processes:

- amino acid, glucose and lipid metabolism
- **neurotransmitter synthesis**
- histamine synthesis
- hemoglobin synthesis and function
- **gene expression**

²¹ While in in one Scandinavian study, patients with celiac disease reported no improvement in depression after a year on a gluten-free diet, 6 months of treatment with Vitamin B6 improved depressive symptoms. Hallert C, Aström J, Walan A. Reversal of psychopathology in adult coeliac disease with the aid of pyridoxine (vitamin B6). *Scand J Gastroenterol.* 1983 Mar;18(2):299-304.

²² Addolorato G, Capristo E, Ghittoni G, et al. Anxiety but not depression decreases in coeliac patients after one-year gluten-free diet: a longitudinal study. *Scand J Gastroenterol.* 2001 May;36(5):502-6.

SSRI antidepressants like *Prozac* and *Paxil* which work (in others) by making better use of existing levels of *neurotransmitters*, are seen to be relatively ineffective in the face of **gluten sensitivity** and **celiac disease**. Until nutrients begin to be replenished, there is, worsening from year to year, less and less to work with. This is further substantiated by the fact that as nutrient levels do become replenished by gluten-free dieting and nutrient supplementation, often signs of SSRI overdose begin to show up. Now the SSRIs have something to work on!



While one can, in these days of readily accessible Google-based research, find almost endless scientific papers and anecdotal blogging on the subject of gluten sensitivity, and while many of these articles²³ and personal reports report on depression, and on suicidal ideation, we have treated at least 100 of the most symptomatically severe gluten sensitives. There is a finding which remains relatively hidden, alluded to but not often spoken of overtly (*we think because people are hesitant to talk about it*) that **people with gluten sensitivity very frequently have severe bouts of suicidal thinking, unrelated to causative (stress) incidents in their lives. This occurs with sufficient frequency that if a GS diagnosis is in doubt, getting a “yes” response to the specific question “*Do you have severe incidents of suicidal thinking occurring totally out of the blue?*” will substantiate the diagnosis (*with me at least*).**

How Gluten Sensitivity Works Versus How AcuDetox Works

Adding in the often-hidden “*marker symptom*” of severe non-stress-related suicidal ideation to the variable clinical picture which more often than not keeps the diagnosis from being made for over 10 years, generally means that we are treating Gluten Sensitivity a very long time after it first presents. While in the non-gluten-sensitivity world, suicidal thinking and depression rarely occur separately, gluten sensitives are only somewhat more likely to be depressed when compared to the general population. Gluten sensitivity is also frequently hard to diagnose in the laboratory²⁴, resulting in the well known almost universal 10+ years of delayed diagnosis before treatment is given.

²³ <http://www.gotta-be-gluten-free.com/2010/06/gluten-sensitivity-how-to-heal.html>
<http://depression.about.com/b/2004/02/23/gluten-sensitivity-and-depression.htm>
<http://neurotalk.psychcentral.com/archive/index.php/t-739.html>

“I never took any prescription drugs for depression, although it certainly was offered to me by my doctors. I was determined to find a natural way to cure my depression. Not that I'm opposed to prescription drugs for depression, but the potential side effects for me were disconcerting. I never really linked the food sensitivities to my depression until I saw it clear up this past year. The B6 supplementation alone wasn't enough to clear up my symptoms. I was avoiding gluten, but certainly had not completely cut it out. I wasn't really depressed either, but just had these annoying thoughts of suicide that I learned not to take seriously. It's strange what the mind can do. Cutting these foods out of my diet really seemed to help with these disturbing thoughts.”

²⁴ Currently, tests are available to detect the genes that control the immune system's reaction to gluten. These genes are called human leukocyte antigens or HLA. There are several types of HLA genes within each person. It is a particular type called HLA-DQ that is most useful in the assessment of the probability that a person may be gluten sensitive. The reason gene testing assesses probability rather than disease itself is because some people have the genes for gluten sensitivity but have no detectable evidence of the immune reaction to gluten or have no symptoms. In such people, gluten sensitivity is still possible but the probability (or in other words the chances or the odds) is lower than in a person who may be having symptoms attributable to gluten or that has antibodies detected. HLA testing is most useful when there is diagnostic confusion about whether a person is gluten sensitive. ...

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While the patient suffers (undiagnosed) in relative silence for a decade, unless the diagnosis is made on the basis of testing relatives of known gluten sensitives, the sensitivity most often shows up initially as a dramatic deficiency, the most common presentation being severe and unexplainable-by-other-causative-factors iron deficiency anemia. This also turns the treatment, dramatically, to correcting the anemia or correcting the out-of-the-blue episode of pancreatitis, meaning, in turn, that the patient's secondary symptoms – which are often emotional – garner less attention - and less treatment.



The task remaining to be accomplished here appears to be analogous with the task seen with **Smith's** chronically substance-addicted patients. Usually, for years on end (often decades), Smith's patients had come to rely exclusively on an addictive substance to relieve anxiety as it arose. Try as they might, (and many had given up) they enter treatment having failed (or unable?) to learn how to do things differently. On seeing their brightness (and success) after **AcuDetox**, **Smith** concluded that *their very ability to learn had been restored*. It was not just that they now didn't drink or shoot up. Rather it was that the underlying dynamics which led them to be anxious in the first place had broken up. It was on this basis that Smith suggested to me in 1990 that **AcuDetox** would relieve stress in a non-substance-addicted population.

What he was saying in a nutshell was that behavioral maladaptation is, per se, an addiction to one's own primitive behavioral (or ego) defenses. Flippant as he can be, he said it more simply - "*Everything's addiction, in the end.*"

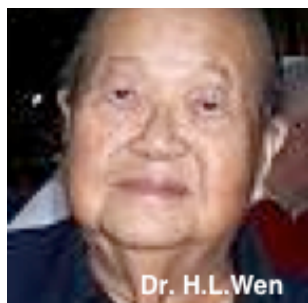
By the time **celiac** and **gluten sensitive** patients are diagnosed, a critical 10 to 15 years of neurotransmitter deficiency has passed. Over this prolonged period, neurotransmitter deficiency has deprived the sufferer from accessing usable *spontaneity, flexibility or resilience*. This has meant that instead of growing and evolving to their highest potential, whenever coping mechanisms they had at the outset have been reinforced through endless repetition, just keep one's head above water. Little of the person's fundamental relationship to life has been free to evolve. There was no opportunity for new learning to take place. Instead they were doing whatever it took to keep from drowning. I suppose this would be fine if a life devoid of new learning were the natural human condition – if life consisted of solidifying an early and singular way of responding to one's world, so as to hold onto it forever. Rather than this, it seems that the human way is to meet adversity by *rising to higher levels of human complexity* – much as described by **Ilya Prigogine** in his 1977 Nobel prize winning *Theory of Dissipative Structures*.

Prigogine, working first in the field of chemistry, described the chemistry of new compound formation as a series of energy "*perturbations,*" which gradually gain amplitude and intensity, until, eventually, they rise permanently to a new higher level of vibration.

When a similar dynamic is applied to human evolution, and the phenomenon of "*rising to the occasion*" change flows out if a conscious choice to tolerate unfamiliar territory, without retreating to old coping mechanisms – like blaming someone around one for one's misfortune. In this way a new level of functioning complexity is both grasped - and integrated. In fact, the



reader will see, in a subsequent chapter in greater detail that “*perturbations*” are experienced throughout the three weeks of **AcuDetox®** (as fragmentary insights, or as disconnected dream segments, or strange sensations). Here they are experienced with equanimity. The pump is thus primed primed for a rising to a new level of complexity. Nor is there anything about the process which draws on familiarity with the past, as everything that occurs here is new. Time has shown this to be the needed next step after replenishing one’s *neurotransmitters* - entailing a break with behavioral patterns which have long propped up the person whose *neurotransmitters* were depleted.



We will return to dissect **Prigogine’s** work in Chapter 9, but first we need to revisit the origins of the **AcuDetox** acupuncture formula (see Chapter 3). Over the decades of an acupuncturist’s work, one very occasionally sees the phenomenon of the patient who has just one acupuncture point treated on just one occasion, and is relieved of a lifelong problem - just like that. Rare, indeed! Such was the case with Hong Kong neurosurgeon **Dr. H.L. Wen’s** use of ear acupuncture for anesthesia. **Wen** brought patients in for a practice acupuncture session prior to surgery. One day, one of his patients returned excitedly to say that after his practice session his 30 years addiction to opium had suddenly disappeared. When it never returned, **Wen** knew that he was witnessing the rarest of events - a previously unknown use of acupuncture.

Through careful observation (which is fundamental to acupuncture) it has long since been established that the great majority of recipients gain the same freedom from addiction over a 3 week period of approximately 15 treatments. It has now been further established that the great majority of non-substance-addicted patients gain freedom from patterned-in behavioral maladaptations over the same period of time, with the same frequency of treatment.



With Gluten Sensitive patients, however, AcuDetox spurs the healthy return of the capacity to learn only after the biochemistry of gastrointestinal malabsorption has first been corrected. This step in treatment cannot be sidestepped (or rushed through). We must start by treating gluten sensitives with a gluten-free diet, and by correcting lowered levels of nutrients for at least three (sometimes 6) months, before expecting a favorable result. So let’s say that’s happened, and we’re prepared to proceed with AcuDetox.

How Can The Gluten Sensitive Person Restore the Capacity To Learn?

Correcting the bowel’s ability to absorb nutrients and restoring any nutrient imbalances one discovers is the essential first step in the task of treating Gluten Sensitivity. But 10+ years of not having the energy to call up *spontaneity, flexibility and resilience* has rendered our patients less likely to be able to learn how to get beyond the coping patterns they have used to survive their prolonged neurotransmitter deficit. All human beings have such coping patterns, but when we have the raw ingredients for learning the vicissitudes of life normally provide opportunities for “street learning” - by which we progress over the course of a lifetime - towards our true human potential.



Dr. Ilya Prigogine

How we learn to adapt and evolve behaviorally (transformative learning as distinct from the accumulation and memorization of facts) and how we fail to learn - is the starting point of Prigogine’s *Theory of Dissipative Structures* as it has been applied to the human brain.

The critically important feature of a dissipative structure which distinguishes it from other types of structure is that such structures continually take in energy from and give out energy to the environment in which they operate. When applied to the human brain, the passing back and forth of energy is not restricted to the provision of nutrients and oxygen - but that was pretty much the way things were seen before Prigogine began to suggest a much richer energy exchange.

A *dissipative structure*, as described by neurofeedback pioneer, **Bill Harris**, is the very essence of how we learn ...

Prigogine called these open systems that evolve and grow by taking in energy and matter from their environment and dissipating the resulting entropy "dissipative structures." Prigogine's discoveries apply to every open system in the universe, whether a chemical system (as in Prigogine's original experiments), a seed, a highway system, a corporation -- or a human being.

Such structures, to maintain their existence, must interact with their environment, continually maintaining the flow of energy into and out of the system. And, rather than being the structure through which energy and matter flow, dissipative structures are, in fact, the flow itself. In other words, this is not a universe of independent things, but rather one of process, a changing, flowing, evolving and intimately interconnected system of interactions.

Evolutionary growth: "escape into a higher order"

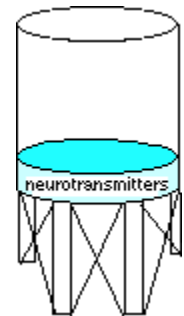
Dissipative structures (such as human beings) flourish in unstable, fluctuating environments. The more ordered and complex a system becomes, the more entropy it must dissipate to maintain its existence. Conversely, each system has an upper limit, due to its level of complexity, of how much entropy it can dissipate. This is a key point. If the fluctuations from the environment increase beyond that limit, the system, unable to disperse enough entropy into its environment, begins to become internally more entropic, more chaotic.

If the excessive input continues, the chaos eventually becomes so great that the system begins to break down. Finally, a point is reached where the slightest nudge can bring the whole system grinding to a halt. Either the system breaks down and ceases to exist as an organized system, or it spontaneously reorders itself in a new way. The change is a true quantum leap, a death and rebirth, and the main characteristic of the new system is that it can handle the fluctuations, the input from the environment, that overwhelmed the old system. In Prigogine's words, the system "escapes into a higher order."



Out of chaos comes a new order, a more-evolved system. This new system has a new stability and is able to more easily exist in the previously overwhelming environment. But if input increases again, to a level beyond the system's new and higher capacity for dispersion of entropy, the process will repeat, resulting in new internal chaos and another reorganization at an even more-evolved level²⁵.

The human brain is the ultimate *dissipative structure*, constantly taking in energy and matter from the environment, constantly dispersing entropy. This continual silently-progressing learning process is slowed to a crawl when the brain has limited *neurotransmitters* with which to work. When *neurotransmitters* are in limited quantities for years on end, the brain is forced to make use of the resources it has rather than evolving them to meet the situations it encounters head on.



If the **instinctual** aspect of our functioning is the **RESOURCE** which is evolving, we are continually acquiring an ever-increasing ability to step forward with impeccable timing when the situation calls for it. If not, we instead find ourselves in far too many situations when rather than stepping forward, we retreat. If all we know is retreat, retreat will be all we do.

If our **RESOURCE** is the reception and reading of the **emotional milieu** which surrounds us, we will be learning gradually to modulate our plans to encompass the feeling states of others, and if we are prevented from doing so, we will be living awkwardly and conflictually in an environment of which we have insufficient emotional knowledge.

If our **cognitive apparatus** (or **CONCEPTUAL RESOURCE**) would normally be evolving to allow us to prioritize life events as they come down the pipe at us, we will be gradually developing a perspective on life which allows us to exist more peaceably within it - and if we are prevented from doing so, we will find ourselves treating everything as if it is an emergency - and perhaps even something to be feared. We will have little peace.

²⁵ may I recommend reading Bill Harris's original article, seen at: http://www.acudestress.ca/startup/WEEK_TWO.html

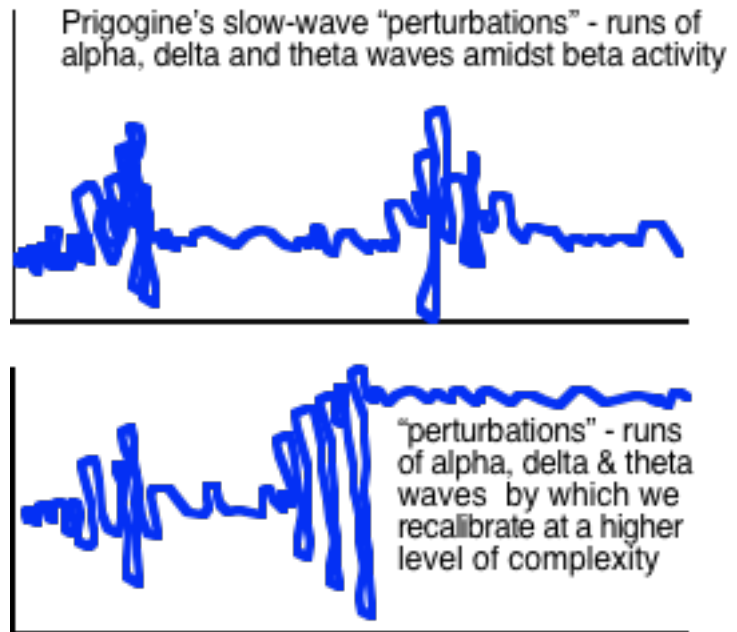
Prigogine discovered that *evolutionary learning* occurs at times when brainwave activity shifts from its normal low amplitude beta brain waves to slower but higher amplitude alpha, delta and theta brain waves. These higher amplitude waves also occur in meditation, during the performance of martial arts and during deep REM sleep. More recently, researchers have associated the activity of these slower brain waves results with appropriate release of *neurotransmitters*²⁶. As situations arise which call for new learning, our brains have bursts of slower, high amplitude brain waves which **Prigogine** called “**perturbations.**“

The brain is capable of reinventing itself at a higher level of complexity²⁷ – and this higher level is reached by the amplitude of the brain waves reaching a critical new level - and then operating at this level subsequently.

At this higher level of complexity, problems which are vexing and unsolvable at the old level, can now be dealt with, with ease. The brain regularly has *perturbations* which do not reach the critical level in the beginning. If the problem that has led to the *perturbations* is dealt with at the level of the brain already operates, the new new level of complexity is not reached. Over the long haul, if we always solve problems at a low level of complexity, a high level of complexity will never become available to us. Harris lists some of the lower level shortcuts as:

“ Some people self-medicate whenever they begin to feel stressed. They reach for a drink, a joint, a cigarette, food, a sexual partner, or an adrenaline rush - anything to mask what they are feeling. They don't realize that chaos is a growth opportunity and that by not taking advantage of it they keep their map of reality from evolving - which means that every time it is stimulated in the same way, they will become overwhelmed again. A new and more highly evolved map, however, could handle what the current map can't, ending their overwhelm. Also, most people don't take responsibility for the chaos or stress they feel. They project it onto something outside of themselves. They find something to blame: "I'm stressed because of him." "I'm stressed because I lost my job." "I'm stressed because of terrorist attacks." "I'm stressed because of my kids/parents/partner/finances/whatever."²⁸

Part of the problem of addressing this, is that we usually don't know that it's happening. We have our ways of dealing with situations which disturb us, and it is our human nature to apply them in liberal measure to restore ourselves to a comfortable state. The first important thing that we can learn from **Prigogine** is that it is a quintessential property of being human to be evolving in the way he describes. For some people, those whose levels of *neurotransmitters* have been compromised, coping with what life deals never provides an opportunity for evolutionary growth. This may be the origin of the out-of-the-blue arising of suicidal thoughts, as this happens in people with gluten sensitivity who are otherwise not depressed. Fortunately, some gluten sensitivities get beyond this on a gluten-free diet. On the other hand the predominance of programmed behavioral solutions to life's vicissitudes does not follow one's true nature, and this can be disconcerting, even if one doesn't know or has long forgotten that life rises to the occasion when needed. We shall see how it becomes resolved in the next chapter.



²⁶ <http://4mind4life.com/blog/2008/08/15/brain-waves-health-benefits-of-alpha-theta-delta/>

²⁷ a good read on this capacity can be found in Norman Doidge's The Brain That Heals Itself

²⁸ http://www.acudestress.ca/startup/WEEK_TWO.html p. 4