

# THE GUT CONNECTION TO AFIB

A Review of Digestion, GERD, Food Sensitivities, and Gut/Adrenal issues... many Influences for AF

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#### INTRODUCTION

It is estimated that 100 million people in the US suffer from some form of digestive dysfunction.

Digestive and gastro-intestinal ailments have strong connections to systemic imbalances, many of which are commonly recognized as triggers for atrial fibrillation and have been discussed previously in numerous posts.

This review is an elaboration of a few important connections that may be overlooked or ignored when addressing GI ailments. As you read, keep in mind the overall impact on the heart via the various mechanisms that are likely contributors to irritation, inflammation and interferences with electrical synchronization.

Digestive dysfunction has "many faces" and often involves several interconnected groups of associated abnormalities or imbalances that manifest in various ways with multiple symptoms... meaning that addressing indigestion or irritable bowel is not usually as simplistic as just taking Tums or Imodium or PPIs and H2 blockers. Identifying and addressing underlying, contributing factors is the only sure path to achieving any meaningful progress. Some digestive ailments are easily reversed and others can be serious and complicated.

Numerous, well-written books by experts in the field of Gastroenterology cover the details thoroughly. My goal here is to touch on or highlight some of the most common, yet important, points in this extensive topic so Afib readers dealing with digestive complaints can use as a guide.

A Functional, Restorative or Generative Medicine approach that examines all the underlying, potential contributors offers the most effective treatment plan. "Functional

Gastroenterology" is an emerging field of 'new' medicine being formally integrated into practice in some areas of the country. The focus is to get back to the basics originally fostered by Hippocrates, the first holistic physician, who looked at Mind, Body, and Spirit in the individual's well-being and care compared to the Reductionist approach of current medicine today." [Quoted source: Interview with Gerard Mullin, Integrative Gastroenterologist...see References].

Functional Gastroenterologists remind us that all organ systems function together as a web. Addressing one system without the others typically does not resolve the entire problem.... this would include the brain and the electrical system and since atrial fibrillation is a disturbance of the heart's electrical conduction system, it is important to keep in mind that this report merely covers a few factors that help weaken total-body electrical energy status (otherwise known as voltage); and, that by design, the body functions electrically. If it did not, then lifesaving efforts would not include the jump-start or re-boot by defibrillator or electro-cardioversion to reset arrhythmias to NSR or implanting pacemakers.

This connection relative to digestive ailments, reactions to food sensitivities, toxic accumulations, the impact of unremitting stress on adrenal function and digestive impairment all contribute to a lowering of energy production and transmission. Identifying and eliminating interferences is an important step in optimizing the functionality of the body; and, for afibbers, normal heart conductivity. While this report does not address the energy/voltage aspect, it would be incomplete and erroneous not to mention it lest it be ignored, dismissed or forgotten. Past posts have discussed the energy factor extensively and should be included in any total health overview. [Resources]

Neurotransmitters for Brain Function are a factor. Food cravings or food reactions are often imbalance indicators and relate to adrenal and other dysfunctions that directly influence GI function.

Tissue pH is an important element in overall assessment and is most always overlooked...other than to assume mistakenly that a person with digestive complaints has too much stomach acid and requires a remedy to prevent acid production. The importance of tissue pH is far reaching. Acidic tissue pH supports many chronic disease conditions and fosters multiple GI problems. This is not to be confused with blood pH or even the pH required in the stomach during digestion. It's important to understand what this means for your particular situation.

Stress factors are extremely significant and a fundamental contributor to digestive and intestinal disturbances. Continual, unremitting stress is a huge consideration that is not only contributory to various imbalances but often, directly causal.

Vagus nerve irritation caused by digestive irritation/inflammation is a major consideration and important to address early in the sleuthing process since calming down the Vagus is a big step toward a peaceful heart. And, in association with the Vagus, positional or postural influences are often triggers for Afib as well.

Nutritionists and physicians practicing Functional Medicine (FM) indicate as high as 80% of patients' complaints can be traced to gastro-intestinal origins and include

- inadequate digestion
- food sensitivities and antigen responses
- dysbiosis
- leaky gut syndrome
- intestinal pathogens
- IBS
- brain fog
- stress
- adrenal burnout or fatigue
- pH
- ANS imbalances affecting Heart Rate Variability
- Symptoms of autoimmune disorders and aches and pains from arthritis.
- The pathogen, H. pylori, is known to contribute to arrhythmia.

Today, unfortunately, large medical centers have moved away from looking for core causes and no longer use diagnostic tests that once were common. Rather, the quick assessment and remedy is typically prescription or OTC drugs that mask symptoms while the root cause continues to smolder behind the scenes. A comment/observation by one seminar physician/participant noted that it's common in today's medical practice "to prescribe PPIs for anyone with pain between the chin and groin."

Following is a cursory review of highlights (by no means complete or all-inclusive) from many hours of interviews with Nutritional and Functional Medicine practitioners treating digestive and gut-related issues. Other important related topics such as diverticular disease, fiber, Celiac, Crohn's, ulcerative colitis, ulcers, pancreatic insufficiency, gall bladder function, hiatal hernia, loose LES, Barrett's Esophagitis are not included. These comments are not presented any particular order of importance since they all focus on connections that interfere with functional harmony. Some segments are "note style" to save space and for quick reading. As it is, this just barely scratches the surface of all the good GI info I wanted to share with you.

The Resources section lists outstanding reference links to assist in sorting out your own digestive ailment along with important books focused specifically on the gut/digestion connection to health complaints. In complicated situations, typically, this is not a do-it-yourself project, but these resources can help readers become well-informed so they can advocate for themselves when interviewing medical professionals for treatment options.

As I frequently say: Knowledge is power... but moreover, Knowledge is Health!

Jackie

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# DIGESTION, GERD, FOOD SENSITIVITIES, GUT/ADRENAL ISSUES ... MANY INFLUENCES FOR AF

- 1. Adequate chewing
- 2. Symptoms
- 3. Dysbiosis
- 4. Food Sensitivities
- 5. Lack of stomach acid
- 6. Leaky Gut Syndrome (Intestinal Hyper-permeability)
- 7. Candida
- 8. Stress
- 9. Stress & Adrenal Dysfunction
- 10. Stress/Gut Glutamine Utilization Low Blood Sugar
- 11. Neurotransmitters and Brain Function
- 12. Remedies
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# 1. Adequate chewing... healthy teeth

The first rule for ensuring good digestion: Chew food thoroughly.

Often forgotten in the rush to address other steps in the digestive process is the mechanical function of chewing food well which prepares food by grinding (mastication) into digestible particles while mixing with saliva which contains enzymes that start the digestive process.

Studies show many people with digestive complaints eat fast, gulp down large chunks of food that aren't able to be degraded completely in the stomach and they often dilute stomach acid by drinking liquids along with meal...(gulping and washing down large pieces). By swallowing chunks of food, you miss the first step of the digestive process. Eating fast or wolfing down food also allows for air swallowing--another source of gas and bloating after meals.

Chew each mouthful until it becomes a liquid slurry. The back molars are the grinding teeth and need to be in functional condition. People missing molars have digestive complications. Their food needs to be cut in tiny pieces or mashed to help chew and mix with saliva before swallowing. Edentulous people can be well nourished if meals are put in a blender and 'mock chewed' to add salivary enzymes before swallowing.

## 2. Symptoms of Digestive Ailments

Includes gas, bloating, flatulence, pain, burning sensations, constipation, diarrhea, (overall irritable bowel symptoms), identifiable, undigested food in stools, brain fog, skin symptoms and often arthritic-like pain symptoms, anxiety, fluid in ears, chronic sinusitis ...just a few of many. Some are obvious; many are complex and hidden.

Symptoms fairly soon after a meal...30 minutes or so... typically indicate a lack of stomach acid or if the meal or snack was starchy, sugary carbs, then suspect that yeast (Candida) overgrowth from intestines has migrated into the stomach —a frequent culprit. These foods feed the yeast - resulting in fermentation, causing gas bubbles and much discomfort (gas, bloating, burning) which is typically thought to be GERD. The bloating also causes impingement/ irritation of the vagus nerve which can stimulate Afib. Acid blockers or PPIs-- typically not a solution. The Candida has to be eliminated. Candida commonly flourishes after a course of antibiotic use.

Some practitioners prefer to start the diagnostic procedure by questionnaire rather than lab testing and ask questions about digestion and bowel function regularity. They say responses often provide very good clues as to how treatment should proceed.

**3. Dysbiosis.** An imbalance between friendly and unfriendly gut flora (bacteria). Typically, it's too much unfriendly. Candida albicans (yeast) overgrowth is an example of dysbiosis.

There are 500 species gut bacteria. About 25 have official names. Besides releasing various chemicals and cytokines that cause inflammation which then gets into the blood stream (translocation) -- typical in surgical patients who develop complications – (sepsis, toxic shock). Translocation starts in the gut. Leaky gut can be the source of autoimmune disorders.

Evaluate gut flora with Comprehensive Digestive Stool Analysis (CDSA) by Genova and include parasites. Or test for Inflammatory Cytokines – Interleukin 11 in an IBD blood panel.

**SIBO** (small intestine bacterial overgrowth) was discussed in a post not long ago. Bacteria the colon or large intestine migrates into the small intestine where it doesn't belong and causes significant GI problems. [See Resources listing]

**Important** – It should be noted that people who have had severe GI-related infections such as C. diff are left with what is known as **Post-Infectious Irritable Bowel Syndrome (PI-IBS)** and this stays with them for life. They will always be highly susceptible to any type of toxin or exposure such as minor food poisoning or a gut bug. They must be mindful to keep their bowel flora optimized continually (using high-quality probiotics).

## 4. Food Sensitivities

Not true allergies to foods as in peanut or shellfish allergy where patient collapses in anaphylactic shock, but **Sensitivities** that can cause either immediate or delayed reactions which include:

..... increased pulse rate, heart palps, arrhythmia, drippy nose or sinus stuffiness, froggy throat, phlegm, headaches including migraine aura headaches, brain fog, memory, gastric reactions, lower bowel reactions, noticeable inflammatory responses in joints or silent inflammation in GI tissue... as manifested eventually in Celiac disease or Crohn's, stomach gas, bloating, flatulence, rectal itching, vaginal itching, hives or welts. The most commonly-reactive foods include, gluten/gliaden containing grains (wheat, rye, barley, spelt, triticale, oats) milk and dairy, dairy casein, eggs, peanuts and other nuts, corn, soy, shellfish, food additives, colorings, MSG and taste enhancers, artificial (chemical) sweeteners. Sensitivity is found in wheat itself in addition to the gluten/gliaden protein molecule plus the 25-cross-reactive foods that accompany a wheat/gluten/gliaden sensitivity.

Food sensitivities are typically assessed initially with questionnaires, specialized testing, special diets with food rotations and total elimination permanently from diet. Testing should be by blood as delayed reactivity does not show up in typical skin testing. Important to look for genetic factors and test for HLA-DQ genotype testing with serological markers.

It should be noted Genetically Modified foods... often called Fake Farming... can be reactive. This includes the hybridizing of grains... wheat specifically. The body does not recognize the newer, modified protein molecules. It's also not known how many labs actually test for the GM variations. If not, then those go completely undetected and the patient receives a "No Sensitivity" report when they are actually highly reactive to the GMOs which that lab may not test for.

Allergy testing by skin tests doesn't address the delayed reaction responses. Need to do the new formal testing that is now highly sophisticated such as from Cyrex, ImmunoSciences and Entero Labs. Metametrix has a Blood Spot test for 30 + allergies and can go to 90 on a serum draw. Be sure to read the report *Enhanced Testing for Gluten and Food Sensitivity:* by Aristo Vojdani, PhD of ImmunoSciences and Cyrex. [Resources]

**Peter D'Adamo, ND**, most widely known for his book, *Eat Right 4 Your Type,* is a brilliant researcher advancing the science of nutritional genomics and Generative Medicine and founded the Institute of Human Genomics. He is considered a world expert in glycobiology, principally the ABO (ABH) blood groups and the secretor (FUT2)polymorphisms. His findings on "Lectin Causes of Gut Allergy "are extensive and definitely worth investigating for those who do not find easy solutions to gut disturbances. [Resources]

If you suspect food sensitivity, eliminate that item strictly and completely for a month or six weeks (2 months is ideal) and keep a log of symptoms and improvements. Then, reintroduce ... keep a log of symptoms and status as a result of reintroducing. If you do this and eat commercially-prepared or packaged food, you have to question and screen every single mouthful and know the hidden sources of gluten, for instance. Even very tiny molecular amounts cause reactions.

If Celiac or Crohn's is in the family history, it's important to be tested by knowledgeable people who offer current, new testing modalities... as old methods and tissue sampling often miss the early diagnosis. It's important to identify early before the full-blown manifestation damages intestinal tissue permanently. [Resources - Tom O'Bryan]

#### Note:

**Lactose intolerance** is the inability to breakdown milk sugar (lactose) because the body can't produce the enzyme, Lactase. Thus, symptoms include gas, bloating, flatulence, sometimes pain.

**Dairy Sensitivity** is to the casein protein molecule found in milk and dairy products that causes an antigen response.

A person can have both responses.

#### Soy and adverse effects

Because soy is so very damaging to the gut and plays a role in food sensitivities, I'm taking extra time and space to point out the risks of soy.... mostly because soy proteins are found to increase the incidence of arrhythmias. If you eat soy and have afib...note well.

These quotes are nearly verbatim from a recent discussion with top soy expert and researcher, Kaayla Daniel, PhD, CCN... "Soy Revisited" ...adding to the facts presented

in a previous post on *The Whole Soy Story… The Dark Side of America's Favorite Health Food.* [Resources]

Since this post topic emphasizes gut damage...this info on soy is particularly important.

..."So many gluten-intolerant patients rush to substitute gluten-free packaged and processed foods but fail to realize that soy is often a component in those foods. People don't understand that sometimes gluten-intolerant people never recover from that insult and the accompanying sensitivities and health problems that result unless they also go off soy.

Soy products are a risk to the thyroid supported by more than 70 years of studies. (mostly hypo-thyroid and autoimmune thyroid disease - currently very prevalent in the population).

People who have consumed high-soy diets for a long time--vegans and those who were raised on soy formula and then have consumed soy for decades, are the most difficult to treat because the soy may have adversely affected the developing brain and body causing many problems to correct. People who decide to become vegan as adults, have a bit of an advantage in that they were already 'grown up' and thus prevented much of the early soy damage.

As with any toxin, the soy situation needs to consider dosing loads and time of exposure and also the fact that the initial reason for switching to soy was likely due to health problems... so now they are dealing with not only problems caused by soy, but whatever was underlying the initial condition as well.

Elimination is obviously the first step...but soy is in at least 60% of processed and packaged foods and 100% of fast foods. People who don't cook from scratch with whole, real foods are significantly challenged to make these changes. The frustration comes because soy apparently is not always indicated on labels so the obvious remedy is to buy and consume only whole, fresh foods and be highly selective with food you don't cook yourself from scratch. People who have true allergies to soy have even greater risks because of cross-contamination of packaged and prepared foods.

With soy, there is so much damage to the gut...and recovering from soy requires healing that damage. Dr. Daniel recommends lots of soups and stews of genuine bone broths to recapture gelatin, collagen and good, absorbable, important minerals which are life enhancing and healing. A staple would be a bone-broth soup much of the time.

No matter what the ailment... the first principle is heal the gut. Soy people tend to have multiple allergies and may have started soy because of a dairy allergy. Some need a lot of healing.

People with peanut allergies should avoid soy at all costs. The associated anaphylactic reactions have caused multiple deaths. Odwalla power drinks recently in the news... people with peanut and other nut allergies had severe reactions to the chocolate protein drinks but no nut contamination was found... yet the drinks do contain soy. It's been known from mid-to-late 90's that many people with peanut allergies react to soy as well. Others, who have consumed soy for years, suddenly become allergic to soy...so it's not predictable. In '99, the Swedish food administration warned that children with peanut allergies should avoid soy...particularly children with peanut allergies and asthma,

imperative to avoid soy. In Sweden, they had soy deaths because of miniscule amounts of soy in a hamburger. Similar cases in U.S.and in increasing numbers from hidden soy as in hamburger, burrito, deli meat. Culprit is Genetically Modified soy that created an allergen that is 41% similar to peanut allergy.

Coconut milk is a good substitute for soy milk. Others such as almond milk, rice, hemp all have ingredient problems.... too many carbs, sweeteners or too sweet naturally. Dr. Daniel says coconut milk supports thyroid and immune system. Anyone who has had too much soy is going to need help with both systems.

The FDA allows health claims for soy... that it's useful for heart health. This is the same FDA that has given us Vioxx and all those other "safe, healthy drugs with health claims, etc." First passed into law in '99 and was a big bonanza for the soy industry. Prior to the health claim... soy industry revenues were under \$1 billion/year in soy protein products. Once the health claim was on all soy product labels, sales increased to \$4 billion/year. The science to back the claim was inconsistent and even the Heart Association later announced that the soy claims are not justified, are bogus and should be retracted... which hasn't yet happened... but a retraction statement for the claims by petition to the FDA has been presented... 65 pages of all the science and arguments.. [see Weston Price Foundation website... www.westonprice.org/soy.alert]

Among the arguments is that soy doesn't reliably lower cholesterol...and low cholesterol isn't a guarantee of no heart attacks since people with low cholesterol still have heart attacks. Soy raises homocysteine and that's bad for the brain, a risk factor for heart disease, cancer, senility... and more. Soy can accelerate the incidence of cancers, especially breast. [The problem with soy phytoestrogens is another huge topic.]

There are studies showing that <u>Soy can increase incidence of heart arrhythmias</u> and increase cardiomyopathy and cause blood vessel damage, particularly in women.

Soy is also high in natural fluoride content... adding to the importance of avoiding both soy and fluoride to protect total body tissue iodine requirements (since fluoride blocks iodine receptors). Soy and fluoride toxicity affect brain function and is especially detrimental to developing brains; ie, soy formulas. Soy phytates block zinc absorption which leads into the lack of stomach acid production....and relates to the next segment on the importance of having both enough stomach acid and the natural ability to make it in the first place.

#### 5. Inadequate stomach acid

Deficiency of essential nutrients for stomach acid production

Production of stomach acid requires iodine, zinc, and vitamin B1 as well as water, salt, and CO2. Almost everyone is deficient in iodine and about 80% of the population is deficient in zinc. But if you don't have stomach acid then you can't absorb zinc so you have to take something like betaine hydrochloric acid along with the zinc to facilitate absorption. More than that, iodine is what allows the gastric cells to produce stomach acid. Correcting the stomach's ability to make stomach acid takes 3 – 4 months.

#### **lodine Deficiency.....where it all starts.**

For those with continuing gastritis/stomach distress problems, testing for iodine deficiency is a priority often overlooked in the diagnostic process. This essential nutrient/mineral (lodine) is not typically abundant in most diets in the quantities required

for optimal gastric tissue function and so therefore does cause digestive problems. Lack of sufficient iodine is commonly overlooked as causal.

lodine optimization is an extremely important part of The Digestive Web and will be covered in a separate report since iodine has many significant functions and requirements throughout the entire body. But without sufficient iodine, stomach and gut conditions are likely to continue. The pancreas requires iodine to make digestive enzymes. Bromides in food block iodine as does fluoridated and chlorinated water. Proteins require stomach acid in order to be broken down into the usable form, amino acids. Amino acids are the building blocks for new cells. Without new cells, degenerative diseases take hold.

In addition to gastric distress problems, when iodine is lacking and you can't pump chloride into stomach cells. The result is achlorhydria and this absence of stomach acid puts that person at higher risk for incidence of stomach cancer. [Resources – Flechas]

[The implications of lodine Deficiency to be explored in a separate forthcoming report.]

## **Zinc Deficiency**

People lose the ability to make adequate hydrochloric acid (stomach acid) required to digest proteins... common in many and particularly with aging. This stems from zinc deficiency and is very common in those who avoid eating red meat (best source of zinc) or who eat vegan/vegetarian diets. It's easy to test for zinc deficiency by using a screening test liquid -- Zinc Status (Ethical Nutrients) or Zinc Tally (Metagenics). An amount of the test liquid is held in the mouth and "no taste" indicates a **zinc deficiency**; a strong taste reaction indicates adequate zinc. Since it's just a screening evaluation, formal follow-up testing is in order for those who have no taste response. Most FM practitioners have patients test as an initial screening evaluation, especially if the major complaint is digestive related. [Side benefit... this zinc solution is good for sore throats...often knocks out immediately.]

**B Vitamins** - Always check B12 levels. (This gets into the extensive and very important topic of Methylation – see previous post).

B vitamins need stomach acid for absorption in the terminal ileum of the small intestine. B12 closely linked to neurological dysfunction/disorders, paresthesias, psychosis, vision disturbances. Alcoholism affects Thiamine and B12. Medications, stress, all due to elevated cortisol are linked to leaky gut syndrome (LGS) and Autonomic Nervous System (ANS) imbalance because the gut/brain axis is off.

**Vitamin B 12 deficiency** is epidemic and directly relates to the increasing incidence of Alzheimer's, dementia, cognitive decline and memory loss... all signs of the aging process. Often seen in MS and other neurological disorders including depression, anxiety, bipolar disorders and psychosis, Autism spectrum disorder. The Methylation process is directly related to cardiovascular disease and B12 plus other B vitamins. Autoimmune disease and dysregulation is noted in B12 deficiency as is Cancer

Who is especially at risk for B12 deficiency?

- Vegetarians
- Those over age 60
- Those who regularly use PPIs or acid blockers

- Diabetics on Metformin
- Those with Crohn's, Celiac, IBS or ulcerative colitis
- Women with a history of infertility or miscarriage

For the purpose of the Gut connection in this post, the B deficiency can manifest as

- intestinal dysbiosis
- leaky gut and/or gut inflammation
- atrophic gastritis or hypochlorhydria (low stomach acid)
- pernicious anemia (autoimmune condition) [Resources –B12 deficiency link]

People with GERD symptoms are often diagnosed as having too much stomach acid and are subsequently treated with acid blockers and PPIs which then means food **really** doesn't break down well. These drugs cause long-term imbalances including dysbiosis. The problem in GERD patients is almost always lack of stomach acid causing food to stagnate in the stomach due to inability to be broken down quickly and efficiently. That causes the gas, bloating, reflux etc because the food just lies there and putrefies. What happens next to that undigested food causes even more problems.

## Sodium/Potassium pump interference

Most important to afibbers, PPIs interfere with the sodium/potassium pump function which directly affects each of the 70 trillion cells in the body. In the reference section, the link to Na/K function interference is listed as CR 72. Critically important reading for every afibber. Read at least the Introduction, Interim Summary and Summary. Otherwise, your progress will be limited. Those who have had ablations are not exempt as ablations don't address these fundamental requisites for cellular function.

#### **Stomach Acid Defends**

Stomach acid is the first-line of defense for protecting against ingested bacteria, viruses, pathogens from the food supply and if the stomach is continually alkaline (from acid blockers), then all can pass through and cause intestinal and immune system problems and contribute to food allergies and symptoms along with the tendency to develop pneumonia...especially in the elderly.

#### **Osteoporosis**

When stomach acid production is blocked by drugs (and also from nutrient deficiency), the risk of osteoporosis rises from lack of mineral assimilation important for bone health.

#### **Low Carb Diet Reverses GERD**

For GERD improvement this useful tip might offer significant relief -- quickly and easily. A report published in Alternative Therapies (Nov/Dec 2001), noted that a low-carbohydrate diet provided GERD improvement and relief in a small case report of five examinations. "In these case reports, we describe the findings of 5 individuals who noted prompt and complete relief of heartburn and reflux symptoms after self-initiating a low-carbohydrate diet for weight loss."

GERD symptoms noted were the typical sub-sternal burning, gas, burping, bloating and reflux into the throat after meals and discomfort when lying in bed, interrupted sleep and each had varying dietary influences which might also have been contributory such as coffee, chocolate, potato chips, pretzels, bread, fried foods, spicy foods, tomato sauces, peppermint oil, alcohol; one drank daily red wine but still found improvement.

Most, noted complete or highly-significant improvement in just one day of restricting carbohydrates to 20 grams per day. In addition to restricting carbohydrates, limiting caffeine was suggested but not all gave up coffee. One continued to drink red wine and another cut back on alcohol but both had GERD symptom relief. Chocolate was eliminated or occasional. [Resources]

A Google search reveals supporting evidence that the Low-Carb diet helps reverse or reduce GERD symptoms beyond this small observational report.

A report that avoiding sugar also stopped GERD is also listed in the Resource section.

## What you may not know about stomach acid

Observations by Dr. Baroody (*Alkalize or Die*)

Hydrochloric acid (HCI)

- \* Is essential for life
- \* Is the only acid our body produces other acids are by-products of metabolic processes and are eliminated quickly
- \* The decline of HCl begins around age 40 sometimes sooner even seen in infants
- \* Keeps us alive by maintaining proper acid/alkaline balance
- \* Without adequate HCl, vitamin B 12 and folic acid from food sources can't be absorbed
- \* When HCl is balanced in the stomach, the alkaline hormone (secretin) is released from the pancreas in precise amounts. Secretin causes the pancreas to produce abundant amounts of highly-concentrated (alkaline) bicarbonate fluid required for appropriate pH to assist pancreatic enzyme function.
- \*Low HCl lowers production of cholecystokinin, the hormone produced in the small intestine which signals the gall bladder to release bile which disperses fat globules. Without proper bile output, there is dramatic interference in nutrient absorption, assimilation and distribution.
- \*Low hydrochloric acid causes mineral imbalances and critical for afibbers,

  <u>Potassium deficiency</u> critical for heartbeat and function of posterior spinal nerves.

  Posterior spinal nerves are seen in cancerous growths associated with low potassium levels.

Dr. Baroody says..."Potassium chloride in the gastric cells of the stomach appear to be the major source of hydrochloric acid formation in the gastric juice. Therefore, it is my opinion, a lack of potassium signals a direct insufficiency of HCl formation with all of its debilitating symptoms." [Resources]

## 6. Leaky Gut Syndrome (LGS)

Medically identified as "Intestinal Hyper-permeability" - A highly-prevalent and very common problem.

Pore-like structures in intestinal walls become damaged, open too wide, toxins get in to the blood stream such as undigested food particles, bacteria from the gut-- which accumulate and cause immunological disorders, antigen reactions, cytokines activated

and it's all downhill from there. Toxins stimulate inflammation in joints and cause skin reactions.

#### Causes:

Aging, anything that causes an infection, parasites, bacteria, viruses, yeast (Candida), diarrhea, "tourista", food poisoning, toxins that cause infections- E. coli, Salmonella, Shigella, Staph, Strep, Cancer, treatment for cancer/chemo. Celiac disease, Crohn's, anything that denudes the intestinal mucosa – cystic fibrosis, malnutrition, hepatitis...
...Anything that damages the tight junctions and lets invaders into the blood stream.

**Post infectious IBS (PI-IBS)** – **has consequences for life.** People who had severe infections such as C. diff will always have IBS symptoms.

- 1. Lack of stomach acid Undigested food particles pass out of stomach into intestine...lie there and ferment... Cause holes or weak spots in intestinal lining that then allows access of all sorts of foreign molecules into blood stream where they become reactive or antigenic to the host (you). Puts immune system on constant alert.
- 2. Overuse of antibiotics (promotes Candida overgrowth)...Useful to add probiotics away from antibiotic dosing to prevent dysbiosis
- 3. Heavy use steroids or NSAIDs, aspirin, chemicals, agri-chemicals, pesticides, alcohol breaks down gut mucosa and increases permeability.
- 4. Chronically low levels of protein consumption causes cannibalizing of gut lining

Leaky gut  $\rightarrow$  food sensitivities $\rightarrow$  arthritis symptoms $\rightarrow$  predisposition to the 'auto-immune' gene which triggers T cells and antigens which attach to synovium in joints. The whole inflammatory process is sustained by LGS and the normal mechanisms to turn off the inflammatory response don't work.

#### **Probiotics**

Rather than steroids as anti-inflammatory, high-count probiotics are found to be useful.

Often the strong types like VSL#3 (with 450 billion cultures/dose) are much too strong and people react negatively. Lower doses of 50 billion/dose away from meals seem to be better tolerated and effective. Healthy Trinity by Natren seems to work fairly well. All are pricey but cheaper versions aren't effective so put money where efficacy lies. Low-count probiotics are fine if you have no problems but you really must use high count until gut is healed.

Using Saccharomyces boulardii along with other probiotics is found to be very useful in helping with gut repair. "Saccharo B." enhances resistance to gut pathogens and increased protection of the digestive mucosa. Found to be helpful in treatment of antibiotic-associated diarrhea and optimizes GI overall health. Used successfully to treat H.pylori infections.

The probiotic content in yogurt is not enough for therapeutic measures... regardless of what the advertising hype claims.

Leaky gut principle is the same thing with the Blood Brain Barrier. Classic source of brain fog and food/brain hyperactivity sometimes resembles autism. A lot of autistic children really have hyper-intestinal permeability and gluten/casein (and dairy)

sensitivities. The BBB becomes permeable and allows toxins in. The connection to gut issues and autism syndromes is extensive with amazing results once detected and addressed.

LGS puts a toxic load on the body and requires detoxification protocols. The classic 4-R protocol is highly effective. (Remove, Replace, Re-inoculate, Repair) [Resources]

There is a formal lab test to rule out Leaky Gut Syndrome. Genova Lab's Intestinal Permeability Assessment analyzes urine for the clearance of two non-metabolized sugars. There is also the Lactulose/mannitol breath test for Leaky Gut.

## 7. Candida albicans (yeast)

It is impossible to eliminate all traces of the Candida fungus; rather, the goal should be to reduce levels to such an extent it's no longer considered pathogenic yet reside symbiotically in the alimentary tract .... not causing overgrowth or dysbiosis and not contributing to digestive reactions, discomfort or leaky gut.

Symptoms of yeast/fungal overgrowth include:

Anxiety, depression, feeling spacey, bloating, gas, poor memory, chronic diarrhea. If in the sinus region, often post-nasal drip, itchy ears, and sore throat and sinus pressure/congestion headaches and symptoms stimulated in damp weather. If in lower intestine, can cause rectal/anal itching. In females, vaginal itching, discharge and discomfort. Candida live in sinus cavity, mouth, throat, ear canal and the entire alimentary canal to the anus without pathology...it's the overgrowth that causes the symptoms.

Diets that include an abundance of high-carb foods... starch or sugar . support and feed the yeast. Alcohol feeds yeast. When the yeast is fed, the cells expand, cause gas and bloating and discomfort wherever they reside... for afibbers, often this is a trigger because of pressure/irritation of the vagus nerve from bloating. .

Remedy for depopulation besides antifungal drugs include many herbal, natural and highly-effective products... including the strong Oil of Oregano product (p73)... Grapefruit Seed Extract (GSE), Candex, the special garlic compound with 3X Allicillin or ajoene, Olive Leaf, the authentic nanoparticle silver, MesoSilver along with high-population probiotics to encourage healthy balance.

Probiotic use continually insures healthy gut flora balance.

People with Candia are highly reactive to household mold – (environmental)- often severely reactive.

#### 8. Stress

## **Eating while stressed**

- Interferes with stomach acid production.
- When the body is in the state of 'fight or flight'...sympathetic tone is in overdrive. Eating when stressed prevents the release of stomach acid. Today, many people are in stress/overdrive 24/7. Same is true with arguing or being in a state of turmoil while

eating. Food won't be broken down and will lie in the stomach and ferment causing gas, pain, bloating ...GERD symptoms.

 Inadequate stomach-acid production sets us up for leaky-gut syndrome, food sensitivities and autoimmune reactions caused by undigested food particles in the intestinal tract.

## 9. Stress & Adrenal Dysfunction

Stress not only affects digestive function but later on, also causes adrenal dysfunction.

Stress-> Weak Adrenals-> Low potassium (Weepy also equates to low potassium and low K is from weak adrenals) Low potassium -> Afib

## Signs of Weak or Adrenal Dysfunction

- Are you waking up in the middle of the night?
- Have low blood pressure?
- If bend over to pick up item off floor, light-headed when stand upright?
- Afternoon yawning?
- · Weakness and dizziness?
- Not being able to maintain a chiropractic adjustment low adrenals cause ligament laxity
- Vertical nail ridges
- Excess perspiration
- Do you wake up refreshed?

[The Standard American Diet (SAD) with high-salt content actually is helping some people with adrenal burnout remain functional and yet they go undiagnosed... they manage to stay afloat, but in the long run, overall bad news]

Emotional Stress lowers progesterone levels. Hormonal evaluations are useful... Supplementing with DHEA helps repair adrenals. Some like to use Pregnenolone as it is a hormone precursor and it replenishes only what hormones are low.

Cortisone... When adrenals are weak, some doctors like to use and monitor closely low-dose cortisone to help boost and regulate the body's natural stores of cortisol which is the body's natural anti-inflammatory. [Extensive topic for separate post.]

Some use all-natural adrenal support rather than cortisone which requires closer supervision and testing. Typical components of adrenal support and rejuvenation include B vitamins B2, B6, Pantothenic Acid, Vitamin C, Adaptogenic herbals such as Eleuthrococcus, American Ginseng, Ashwaganda, Rhodiola, N-Acetyl L-Tyrosine and licorice root. Some use adrenal glandulars.

Lifestyle changes are required and daily help from relaxation techniques recommended; absolute must is to remove reactive foods (stressors) from diet completely and permanently along with environmental stressors in food, water, air, EMFs etc.

Yeast overgrowth is a common problem with adrenal issues so important to test and control.

B-vitamins, vitamin C, zinc and magnesium are nutrients very vulnerable to depletion by stress. Most all afibbers are deficient in magnesium and undoubtedly, other nutrients as well.

#### Stress Reduction:

Of specific value are the Guided Imagery and Affirmation CDs for specific health conditions offered by Belleruth Naparstek, Psychotherapist, author and guided imagery pioneer at Healthy Journeys . One CD especially effective for insomnia and adrenal burnout. [Resources]

Low adrenal function most often also indicates low thyroid function.

## **Visual Symptoms of low thyroid**

Outer third eyebrows missing,
Wake up with headache and sluggish,
Dry skin, cuticles, toes,
Brittle nails, vertical ridges –
[Use Broda Barnes' Thyroid/Temperature test to evaluate]
Body temperatures are typically subnormal; people feel 'internally cold' continually.

## **Lifestyle changes for Adrenal Health**

Adrenal fatigue and burnout took a long time to manifest and when trying to develop a plan for healing, changes need to be made...permanent lifestyle changes...or you'll crash again. Includes reassessing demands made on you by others.

## Stress plus Anxiety is prevalent.

When you have to make more cortisol, the body produces less serotonin (the brain's pleasure messenger). Cortisol up, adrenaline up, serotonin down. Drugs like SSRIs manipulate what little serotonin you have left. Nutritional interventions increase amount of serotonin available... 5HTP, glutamine, glycine, GABA increase serotonin. Using drugs such as Prozac doesn't add serotonin, just re-circulates until there is not much left at all... that's why people find it impossible to get off Prozac because they feel so badly. Have to restore serotonin.

Elevated cortisol at night (when it should be low) is a common finding with insomnia and is typical in those who are continually stressed and in overdrive- 24/7.

# **Assessing Adrenal Function**

Many FM MDs like the Adrenal Salivary Stress Profile (Genova) as an initial screening to evaluate if cortisol is being produced at inappropriate times or if at all. This also tests for DHEA. Others prefer the urine collection test. In any event, you can't guess... must test.

**10.** Stress/Gut Glutamine Utilization – Low Blood Sugar – Sleep problems
To handle stress, body pulls glutamine from gut lining for a quick fix for low blood sugar (LBS)

Essential amino acid, Glutamine, gets completely and continually pulled out and causes problems with the intestinal villi where nutrients transfer to blood stream. Adding glutamine helps protect and rebuild. Good source of glutamine is un-denatured whey protein if you aren't reactive to that. Restoring gut lining is a silent process but people

note improved energy when blood sugar is balanced and if healthy enough, helps also to build lean muscle mass.

Suggestions – glutamine as bedtime snack to help prevent night-time awakening when blood sugar plummets and to preserve muscle mass. By the time people have sleep problems, they have lost their hunger mechanism and don't realize the culprit is LBS. [Useful tip for afibbers who experience events during sleep caused by LBS.]

Sometimes the only symptoms are very tired, very irritable, can't focus, weepy... all low glucose.

#### 11. Neurotransmitters & Brain Function

[Another critical segment that requires a separate report]

Take the <u>Brain Deficiency Survey</u> from the Eric Braverman, MD link [Resources] Results can indicate areas needing attention.

When the blood brain barrier becomes hyper-permeable (just like leaky gut syndrome) you get an over-expression of neurotransmitters, inflammation, circulatory problems, imbalances as in ANS imbalance...no good ways to measure other than what some chiropractors use.

Autonomic dysfunction is common but not always detected by cardiologists.

#### 12. REMEDIES

Not intended to be all-encompassing... rather a brief list of a few popular FM considerations for treatment.

There are many treatment plans and options by which to accomplish healing. These are just a few examples offered in these presentations.

#### **CAVEAT**

If you take medications, always research interactions before adding any new products.

- Maintain an alkaline tissue pH.... this relates directly to energy production and keeping your heart voltage/energy on an even keel. Eat an alkaline ash-forming diet. Prepare and consume daily the original Waller Water recipe that does not add lemon juice.
- All of the chemical reactions in your body depend on the movement of electrons (voltage). Every cell has its own battery pack which is the cell membrane that stores voltage and provides it to the cell as needed to keep it working. (*Healing is Voltage*-Tennant)
- When your tissues consistently run acidic, then you are unable to repair and make new cells. This affects every organ in the body and affects energy production.
- Take immediate steps to reduce stress levels... and include relaxation techniques such as meditation and non-stimulating exercises such as yoga, stretching.
- Eliminate, reduce or control exposure to EMFs and EMRs that disrupt body energy

- Focus on Sodium/Potassium intake ratios to ensure energy production and sustain voltage (Ref CR 72) ... Especially critical for adrenal fatigue and adrenal function.
- Identify culprit foods (reactive) and eliminate completely forever
- Make the study of iodine deficiency **a priority** to understand the importance of iodine and total body cellular function including stomach acid production. The production of stomach acid requires lodine, Zinc and vitamin B. [References –Flechas]
- Eliminate harmful levels of Candida albicans (yeast)
- Detoxification protocols Follow the classic 4R Protocol for Gut Repair and Health with consideration to detoxing for heavy metals
- Eliminate or reduce significantly, environmental toxins...air, water, home, office, car
- Add digestive enzymes and betaine hydrochloride with meals; using organic apple cider vinegar with meals often resolves digestive problems quickly.
- Test if possible to refine targeted protocols
- Heal gut lining Gut repair nutrients include among many options, L-glutamine, Aloe Vera Extract, N-Acetyl Glucosamine, Slippery Elm, Mucin, Marshmallow root, Okra Extract, Cat's Claw, MSM, Quercetin, Zinc, Carnosine.
- Probiotics of high population and high quality to balance bowel flora. Also use Saccharomyces boulardii as general gut healer and specific to H.pylori eradication.
- Botanicals popularly used as natural antimicrobials Tribulus Extract, Sweet Wormwood Extract, Berberine Sulfate, Grapefruit Seed Extract (GSE) Barberry Extract, Bearberry Extract, Black Walnut Extract
- •Nutrients known to assist with gut healing and health, immune response-- MSM, Glutamine, Vitamin D3, polyphenols (green tea), Resveratrol, Curcumin, Fish Oils, probiotics. High-dose Curcumin is highly anti-inflammatory and healing to gut.
- Specific Adrenal/Gut healing: use Tegricel Colostrum [Resources]
- Supplement with B vitamins, especially B12 including B12 injections
- Obviously, adding the core nutrients for heart rhythm support
- Adrenal Support supplements test when possible to determine targets
- Night-time awakening... Balanced snack two-hours before bedtime... with protein, complex carb and healthy fat and 1–2 grams glutamine if under 150 pounds, higher if weigh more. Eat consistently. Small mini-meals of protein, complex carb and healthy fat...Never go longer than 4 hours between meals so you can re-build adrenal function w/o causing more stress due to low blood glucose.

[Comment on **Trace Minerals**... An opinion by one of the speakers was that in many liquid "trace" mineral products, quite often obscure and toxic minerals are included and

are said to be needed. ... Arsenic is one that is commonly found in trace mineral products... There is no proof that minor, minor, minor trace amounts of minerals such as arsenic or aluminum belong in the body or are needed as daily supplements. To be optimally absorbed, minerals need to be in the chelated form which avoids breaking down in the stomach and forming other compounds that may not be easily absorbed or eliminated.]

Quick tongue visual assessment you can perform yourself.
 A classic sign which can range from mild to severe is abnormality of the tongue.

Check the lateral borders of the tongue (sides) if they have a scalloped appearance or if the tongue is 'fissured' as grooves in the top (dorsal) surface, it usually indicates one or all of the following:

- Immune imbalances TH2 dominant over TH1 indicating allergy, atopy, skin conditions and barrier (gut) permeability, food sensitivities and skin sensitivities.
- Hypothyroidism
- Barrier permeability... and HCl insufficiency which leads to inability to digest proteins and also the inability to absorb minerals and other nutrients that leads to deficiencies.
- Consider trying **organic ginger** (Zingber Officinalis) as a calmative herb for stomach issues as well as powerful anti-inflammatory properties. Several posts relate successes in calming both stomach and afib issues by using various forms of ginger.

Fresh, powdered, encapsulated...choose organically-grown and harvested rhizomes or powders from a country that has clean air and water sources ....or risk adding toxic environmental residues while you are trying to do something helpful.

Precautions include not using ginger when ulcers are present and be aware that ginger slows clotting if on warfarin or anticoagulants. In some individuals, ginger may elevate blood pressure. Some precautions say ginger also can cause low blood pressure and arrhythmia so be aware and research well before trying. If you take medications, be sure to research the drug interactions carefully. [Resources – Ginger posts]

- When AF triggers relate to positional changes such as bending over from the waist or turning over in bed, consider a chiropractic evaluation by a practitioner who is experienced in diaphragm-related treatments to help reduce both reflux and spontaneous triggering from vagus nerve impingement or situations where the stomach 'slides' upward when lying down.
- Consider low carb eating and avoiding sugar... as supported by numerous anecdotal success stories.

#### 13. References

Notes gleaned from 15 teleconferences related to digestive issues and transcribed in 2012-13. I'm listing just three in the interest of space just to give an example of the expertise and credentials of the participants – not listed in order of importance, authority or relevancy.

**Monica Montag, MA, HHP, CN** founder of Be Well Associates is a Holistic Health Practitioner and a certified, licensed nutritionist and Process Acupressurist. For over 17

years, Monica has helped clients achieve optimal health through her practical and energetic approach to teaching lifestyle skills and providing therapies that guide her clients to better health and internal harmony. Pine Tree. She is Registered and Board Certified in Holistic Nutrition. The 'HHP' stands for Holistic Health Practitioner and the 'CN' for Certified Nutritionist. "Registered" and "Board Certified" mean that she has documented and demonstrated exceptional knowledge in the field of holistic nutrition through peer review and through passing rigorous examinations. Also, continuing education is an ongoing requirement of these designations. She is currently the instructor for a number of Employee Wellness Programs at the Pennsylvania State University and is on the faculty of the Mt. Nittany School of Natural Health, State College, PA.

**Trent w. Nichols, M.D.** is a board certified internist, nutritionist and gastroenterologist who is a fellow of the American College of Physicians, American College of Nutrition, and the American College of Gastroenterology. He additionally is an active physician/scientist involved in pharmaceutical and nutritional research. He is a graduate of the University of Denver with a BS in Chemistry and the Northwestern University Medical School. His residency in internal medicine and gastroenterology fellowship was also at Northwestern University. He is a member of Jeffrey Blands' Health Comm Research Council. He has been in private practice in Hanover for over 20 years. He is also a coeditor and author of Optimal Digestion (currently out of print, but will be republished in a second edition), a Prescription for Inner Health, a new book published by Hearsh Publications.

Gerard E. Mullin, MD, MHS, CNSP, FACN is an internist, gastroenterologist and nutritionist who is the only physician in the USA board certified by the American Board of Internal Medicine for Gastroenterology, American Society of Enteral and Parenteral Nutrition, American College of Nutrition and the American Board of Nutrition Physician Specialist. He is presently director of Integrative Nutrition Services at the Johns Hopkins Hospital in Baltimore, Maryland. Dr. Mullin has become renowned nationally and internationally for his work on Integrative Gastroenterology and Nutrition. He has accumulated over 15 years of clinical experience in the field of Integrative Gastroenterology and has earned a master's degree in nutrition while in practice.

Dr. Mullin is an associate editor for the journal, Integrative Medicine: a Clinicians Journal. He is also recently been selected by Dr. Andrew Weil to serve as a senior editor for the first book for physicians on Integrative Gastroenterology by Oxford Press. He is President-Elect of the Maryland Society of Parenteral and Enteral Nutrition. His biography has been included in Marquis Who's Who in the World and in Marquis Who's Who in America numerous times. His contributions and discoveries have led to numerous awards and his continued selection as one of America's top physicians by Consumer's Research Council of America since 2004.

## 14. Reading Resources

Anyone with Afib and/or GI problems should read these books. The Amazon website feature, "Look Inside," allows a good preview of contents and often, quite large segments of text. Great way to become acquainted with the contents.

*Healing is Voltage* - Jerry Tennant, MD, © 2011 is the foundational reference to any and all digestive and energy complications and directly relates to all the problems and

complaints mentioned by afibbers. This is your manual to understanding how to reverse your atrial fibrillation. Make it a priority to own, read and implement to restore your energy source. http://tennantinstitute.us/

Optimal Digestion – The Complete Guide - Trent W. Nichols, MD, is a board certified internist, nutritionist and gastroenterologist who is a fellow of the American College of Physicians, American College of Nutrition, and the American College of Gastroenterology and is an Integrative Gastroenterolotist. My notes include many of his interview comments. His book is a collection of contributions from highly-respected experts in the field of Integrative Medicine. Choose the latest edition (2005) which reviewers say will still be current 50 years from now...it's that progressive. You can order a used copy online for a few dollars plus shipping. I highly recommend owning this book if you have any of these digestive symptoms.

## The Inside Tract – Your Good Gut Guide to Great Digestive Health

Gerard E. Mullin, MD (Jan 2011) Current and cutting edge, impressive information. Another must own a must-own reference for anyone suffering with GI problems. Dr. Mullen was asked to do a chapter in Andrew Weil's book and the result is another book *Integrative Gastroenterology* by Gerard E. Mullin, MD (July, 2011). Outstanding source of contributions of various recognized experts. Be sure to view the contents online. http://thefoodmd.com/

The Second Brain: A Groundbreaking New Understanding of Nervous Disorders of the Stomach and Intestine Michael D. Gershon, MD. (1998) The Gut has a mind of its own. From the back cover: The Second Brain represents a quantum leap in medical knowledge and is already benefiting patients whose symptoms were previously dismissed as neurotic or "it's all in your head."

Adrenal Fatigue –the 21st Century Stress Syndrome James L Wilson, ND, DC, PhD Forward by Jonathan V. Wright, MD. (C 2001) Often referenced by those working with adrenal fatigue patients as a 'reader friendly' intro to adrenal problems." Hormones secreted by adrenal glands influence all of the major physiological processes in your body."

## Patient Heal Thyself, Jordan S. Rubin, NMD, CNC, PhD

This extraordinary story about Dr. Rubin's recovery from an incurable intestinal illness is "one of the most dramatic natural healing stories ever told." Published 2003, this easy-to-read book covers a variety of ailments that have origins in GI dysfunction and is still highly informative ten years later. (Great reader feedback on Amazon.com) [www.patienthealthyself.net/]

Following are must-read links for anyone with digestive complaints:

Alkalinity, Healing, pH and Voltage - The Inside Story http://www.afibbers.net/forum/read.php?10,129265,129316#msg-129316

Potassium/Sodium Ratio in Atrial Fibrillation- CR 72 http://www.afibbers.org/conference/session72.pdf

## The Importance of Stomach Acid

http://www.afibbers.net/forum/read.php?f=8&i=3074&t=2891#reply 3074

# Nutrient Absorption, GI Interference, SIBO, Biofilm & Atrial Fibrillation http://www.afibbers.net/forum/read.php?9,127569,127663#msg-127663

Alkalize or Die – Superior Health Through Proper Alkaline-Acid Balance Theodore Baroody, MA, ND, DC, PhD Nutrition, CNC, Dipl. Acupuncture (I.A.M.A.), Fellow (A.S.A.) (C1991) Website <a href="https://www.holographichealth.com">www.holographichealth.com</a>

# LAF, GERD & Diaphragm Displacement – CR 28

http://www.afibbers.org/conference/session28.pdf

## GI and positional Triggers for AF

http://www.afibbers.net/forum/read.php?9,136237,136242#msg-136242

## Hiatal Hernia/Vagus Nerve Disorder: a leading cause of allergies & chronic illness

Townsend Letter for Doctors and Patients, Jan, 2004 by Steven Rochlitz [castlehighkingdom.proboards.com]

[www.wellatlast.com

http://www.afibbers.net/forum/read.php?9,129883,130146#msg-130146

#### No More Heartburn – CR 63

http://www.afibbers.org/conference/session63.pdf

#### **GERD**, Heartburn, Immunity – importance of Zinc

http://www.afibbers.net/forum/read.php?7,84171,84171#msg-84171reply 19757

# B12 deficiency – a silent epidemic with serious consequences

http://chriskresser.com/b12-deficiency-a-silent-epidemic-with-serious-consequences

# **Iodine Deficiency and Lack of Stomach Acid (Jorge Flechas MD)**

http://iodine4health.com/ortho/flechas ortho.htm

http://cypress.he.net/~bigmacnc/drflechas/iodine.htm

http://cypress.he.net/~bigmacnc/drflechas/index.htm

#### Low Carb Diet Reverses GERD

Improvement of Gastroesophageal Reflux Disease After Initiation of Low Carbohydrate diet: Five Brief Case Reports. [www.modernhcp.com]

#### **Avoiding Sugar Cures GERD**

http://www.afibbers.net/forum/read.php?f=7&i=18444&t=18444#reply 18444

# Dangerous Grains - The Gluten Sensitivity Conundrum (Tom O'Bryan) http://www.afibbers.net/forum/read.php?9,120270,127295#msg-127295

**Enhanced Testing for Gluten and Food Sensitivity**: Aristo Vojdani, PhD An interview with Nancy Faass, MSW, MPH – Jan. 2013 Townsend Letter <a href="http://www.townsendletter.com/Jan2013/enhancetest0113.html">http://www.townsendletter.com/Jan2013/enhancetest0113.html</a>

#### Soy & AF

Mentioned in a post December, 2012... **Soy May Cause AF** http://www.afibbers.net/forum/read.php?9,135385,135385#msg-135385

The Whole Soy Story by Kaayla Daniel, PhD, CCN

[www.thewholesoystory.com]

At this link: 60 years of studies relate soy to thyroid problems including

Hashimotos. [www.westonaprice.org]

The Trouble With Tofu - Soy and the Brain By John D. MacArthur http://www.brain.com/about/article.cfm?id=13500&cat id=37

Nutrient Absorption, GI Interference, SIBO, Biofilm & Atrial Fibrillation <a href="http://www.afibbers.net/forum/read.php?9">http://www.afibbers.net/forum/read.php?9</a>,127569</a>,127663#msg-127663

Probiotics & Wheat Sensitivities

http://www.afibbers.org/conference/session69.pdf

D'Adamo – Lectin Causes of Gut Allergy

http://www.dadamo.com/

http://www.dadamo.com/B2blogs/blogs/index.php/2005/01/12/more-proof-for-lectin-causes-of-gut-alle?blog=27

Bio - http://www.dadamo.com/dadamo.htm

H.pylori & AF

http://www.afibbers.org/conference/session42.pdf

H.pylori eradicated by natural means

http://www.afibbers.org/conference/session65.pdf

Brain Deficiency Survey – Eric Braverman, MD.

[www.healthilluminationproducts.com]

(It's the center-page column)

**Guided Imagery CDs Belleruth Naperstack.** 

[www.healthjournevs.com]

**Tegricel Colostrum – Writeup** 

[www.rockwellnutrition.com]

Probiotics – Steve Farber – Guide to Use of Probiotics

[www.gastroendonews.com]

[www.probioticsvideo.com]

4-R GI Health Program

[www.huffingtonpost.com]

SIBO...Small Intestine Bacterial Overgrowth: Often-Ignored Cause of Irritable Bowel Syndrome

Allison Siebecker, ND, MSOM, LAc, and Steven Sandberg-Lewis, ND, DHANP http://www.townsendletter.com/FebMarch2013/ibs0213.html

**Digestive Disorders affect 100 million people** [www.lef.org]

## Ginger & AF

(Interactions) <a href="http://www.webmd.com/vitamins-supplements/ingredientmono-961-GINGER.aspx?activeIngredientId=961&activeIngredientName=GINGER">http://www.webmd.com/vitamins-supplements/ingredientmono-961-GINGER.aspx?activeIngredientId=961&activeIngredientName=GINGER</a>

## Collection of related posts - some -- but not all

http://www.afibbers.net/forum/read.php?9,136901 http://www.afibbers.net/forum/read.php?9,136901,137010#msg-137010 http://www.afibbers.net/forum/read.php?9,135375,136844#msg-136844 http://www.afibbers.net/forum/read.php?9,136509,136789#msg-136789 http://www.afibbers.net/forum/read.php?9,135805,136167#msg-136167 http://www.afibbers.net/forum/read.php?9,135716,135729#msg-135729 http://www.afibbers.net/forum/read.php?9,135683,135715#msg-135715 http://www.afibbers.net/forum/read.php?9,135375,135676#msg-135676

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