

GREEK MEDICINE'S BLOG

INTESTINAL INDIVIDUALITY AND PROBIOTIC SUPPLEMENTS

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This blog posting discusses the phenomenon of intestinal individuality as an aspect of constitutional individuality, and how probiotic supplements fit in to therapeutically benefit our intestinal health and well being.

Intestinal Individuality and Biochemical Individuality

The whole of Greek Medicine is based upon the constitutional precepts of humor and temperament, and constitutional body/mind types, as embodied in the Four Temperaments, which are Choleric, Sanguine, Melancholic and Phlegmatic. Each of these four basic constitutional types is characterized by a predominance of a certain pairing of the Four Basic Qualities, as well as a certain humor. Although Greek Medicine has four basic constitutional types, each person has their own constitutional uniqueness, which is composed of their own unique admixture of these basic four types. Constitutional individuality expresses itself in other ways as well, many of which have been elucidated and developed by other pioneering figures of modern holistic medicine. Even when I was in acupuncture school, one of my professors stated that one can be just as individualized on the inside, in terms of their internal organs, as they are on the outside, with their unique facial features. One person can be blessed with amazing lungs but a stomach that is chronically weak or sluggish, whereas another could be blessed with great kidneys, but a liver that is vulnerable, for example.

Greek Medicine sums up its notions of constitutional medicine in the concept of *Physis* – the individualized uniqueness of the body as a whole, which is much more than the sum total of its individual parts. The body experiences health as a whole, gets sick as a whole, and makes the recovery back to health as a whole. The Four Humors, and their individual constitutional balance, admixture or *krasis*, is fully manifested in the digestive tract of the individual and its balance and interaction of the Four Humors in the digestive process. The large intestine, sitting at the bottom end of the digestive or GI tract, is the final result or consequence of all the individualized digestive alchemy that went on before, and a strong case could be made for calling it the most particular and individualized portion of the whole GI tract. In fact, the individuality of the large intestine and the lower GI tract goes way beyond its gross, visible anatomical features, and extends into its microbial biome of intestinal flora as well. Talk about *Physis*, and the unique and ineffable whole being much more than the sum total of its parts – the human intestinal biome exhibits that principle in abundance.

There are billions of microbes populating the large intestine and the GI tract, which could be functionally categorized into three basic groups: beneficial probiotic bacteria, harmful pathogenic bacteria, and a neutral group called commensal bacteria, which lies somewhere in between the two, having a function that is neither beneficial nor harmful. Beneficial probiotic bacteria include mainly lactic acid forming bacteria of the *Lactobacillus* and *Bifidobacterium* geni; they facilitate the final digestion or breakdown and absorption of vital nutrients in the gut and promote a healthy immune response. In fact, many holistic physicians consider our intestinal biome of friendly bacteria to be the largest single part of our immune system – yet, strictly speaking these friendly bacteria are not part of our bodies, but exist in a symbiotic relationship with it. The intestinal biome of an individual consists of the sum total of all three major groups of intestinal and digestive organisms, be they beneficial, harmful or indifferent, and the particular balance and dynamics of their interaction as a whole, which can be extremely complex – kind of like politics, which can confound even the most experienced pundits.

The Problem – And My Awakening to Intestinal Individuality

I have always been plagued with intestinal problems, and sensitive, quirky guts. In spite of daily supplementation with probiotics, intestinal problems and complaints have dogged me all my adult life. Looking for relief from intestinal challenges I was then going through, or at least something that would change the ballgame and put it into a more positive phase, I went into a health food store and bought some capsules of *Saccharomyces boulardii* – a yeast-like microbe that I heard had recently been touted by Dr. Oz on Oprah as being a magical panacea for many different types of imbalances or disorders of the intestinal flora. Whenever Dr. Oz or Oprah tout something on their shows, there's a big run on it, with health food stores usually selling out of it within 24 hours. But here I was, lucky enough to be able to get my hands on a bottle of the stuff. I quickly popped a couple of capsules, eager to see miraculous changes in my gut health, but, sorry to say, was severely disappointed when I developed adverse symptoms within a couple of hours after taking it. Since then, I have assiduously avoided *S. boulardii*.

How could something that was so highly praised as being a panacea for your gut health have gone so wrong in my case? Well – with the genus name *Saccharomyces*, which is also the genus name for Brewer's Yeast and other yeast-like organisms, its very biological kinship with yeast could have been a problem. I knew that I was allergically sensitive to Brewer's Yeast, so it's only natural that a biological cousin to it would provoke a similar allergic reaction as well. Also, for years I had struggled with another yeast-like pathogenic organism, *Candida albicans*, which was probably the result of a previous immune weakness engendered by all the mercury fillings I had in my mouth (over thirty of them!), which I had taken out and replaced with plastic composite resin fillings when I was in my thirties. So, ok – I could see how, in my case at least, the highly touted miracle cure for intestinal flora problems didn't work. This little personal case study of mine also pointed to a thorny little problem that is inherent in the mass marketing of any health product – you have to market it to a hypothetical “common man”, or to a statistically normal or average person – keeping in mind that there will always be certain individuals who defy the statistical norms.

My memory of this disappointing incident from my past was rudely reawakened when I received an email from someone seeking to promote the results of their own study into the supposedly best probiotic supplements on the market. And indeed, for the vast majority of those within the statistically normal range, their results might prove to be accurate. The only thing is that you have to take these findings with the proverbial grain of salt when it comes to your own guts, and how they might react to the highly touted product. Luckily, with the wide range and diversity of probiotic supplements that have recently flooded the health food marketplace, there is a high degree of probability that at least one supplement that's out there will work for you. Anyway, when I looked at the findings of this study, and the microbial breakdown of their recommended probiotic supplements, I found that my old nemesis, *Saccharomyces boulardii*, was in a majority of the top products cited. Of course, *S. boulardii* wasn't the only probiotic organism that was in those supplements – which were a mixture of many different strains – and just because I had had an adverse reaction to pure *S. boulardii* didn't necessarily mean that I would have a similar adverse reaction to these blends. I would just have to try them, and see how my own guts responded – while holding on to my receipt, so I could get a refund if necessary.

The whole phenomenon of intestinal individuality can most readily be seen in another area as well – that of laxatives. For example, although many people find Senna a great laxative to take, those with sensitive, colicky intestines tend to have problems with it. When it comes to Senna, you can either be in the “no problem” group, the “OK if properly buffered and blended” group, or the “absolutely not, not even in small doses” group. Again, another episode comes to mind: I was preparing the night before getting a colonoscopy from Romania's top gastroenterologist when I took, instead of the synthetic Dulcolax he recommended for emptying my bowels, a natural herbal laxative from a Romanian herb store. Unfortunately, it contained *Crusin*, or Buckthorn Bark (*Rhamnus frangula*), which, although being a very gentle and reliable laxative for most people, had the opposite effect of constipating me. Finally, with only a few hours to go before my colonoscopy, and sweating bullets, I had to take a large dose of Castor Oil to get my colon cleaned out, so I could watch my colon live on TV – you see, the good doctor didn't believe in anesthesia, since there is a very slight, but real, possibility of death while under its influence. To show you just how finicky my guts are, a close botanical relative of Buckthorn bark, Cascara Sagrada (*Rhamnus purshiana*), of the same *Rhamnus* genus, but native to the New World, works great as a laxative for me.

Finicky guts usually equals an entire GI tract that is finicky as well. The intestines, both large and small, are all part of the same hollow tube that extends, with various modifications and adjunct structures, from the mouth at its top end to the anus at its bottom end. Again, another colorful episode from my past comes to mind. I was taking a yoga teacher's training course in south

India, and one particular morning upon arising, we were trying our hands at a particular yogic cleansing technique that involved gradually swallowing a long moistened strip of soft cotton cloth until it reached the stomach, then slowly drawing it back out. I was having a very rough time of it, to say the least, gagging on every inch of the cloth, which absolutely refused to go down. I then turned around and saw that the guy next to me had swallowed the whole length of cloth in a mere ten seconds or so, with absolutely no problems at all. That's gastro-intestinal individuality for you!

The Great Complexity of the Human Gut Biome, and Modern Threats to It

So, we have within the greater *Physis* of the human body, a smaller micro-*Physis* that is the human gut biome, or community of microorganisms living in the human gut; and as I said before, it is incredibly complex. First, you have the intestines themselves, and their mucosa and secretions, existing within the larger digestive system, which also contributes to the mix. Then, you have the gut biome of the individual, a mini-*Physis* in its own right, a complex, interactive microbial population consisting of various factions of microbes, either beneficial, harmful or neutral, and the complex interplay between these various factions and sub-populations. And then, you have various factors born of the interplay between the GI tract and its organs, and the individual gut biome, which can generate such diverse phenomena as food allergies and sensitivities, leaky gut syndrome, intestinal flora imbalances and disorders, and a whole host of other complex reactions and developments.

To put it frankly, our toxic, denatured modern world has not been very friendly to the human gut biome. Among factors that are injurious to it are smoking, drinking, a poor diet, sweets, junk foods, antibiotics, pesticides and herbicides, and genetically modified foods. Toxic metals in the mouth, such as mercury amalgam fillings and other metals used in dental work, also take their toll. Bt toxin, or *Bacteria thuringensis* toxin, which has been genetically engineered into many of our staple food crops, is a toxin that kills insects by exploding their guts; don't you think, then, that it might be able to poke a few holes in our own guts as well? Another pathogenic organism that is very prevalent in our guts these days is *Candida albicans*; it, along with Bt toxin, can cause micro-lesions in our gut mucosa that can let foreign proteins into the bloodstream, generating food allergies and sensitivities galore. Although pathogenic organisms like *Candida* exist in virtually everyone's guts, they only do real damage if they get out of control and are allowed to proliferate due to a deficiency of protective probiotic bacteria; it's all a matter of balance. The indiscriminate overuse of antibiotics these days has led to the harmful mutation of other bacteria; when I was young, for example, *E. coli* was a perfectly harmless and innocuous gut bacteria – now, harmful new strains have developed that can do real damage.

To counter all these newfound threats of modern life, science and research into probiotics has really exploded in recent years, with new strains being discovered, catalogued and researched all the time. In general, all beneficial probiotic bacteria will improve the digestion and absorption of vital nutrients from the food we eat; they will also have a beneficial healing and balancing effect on our immune systems as well, with some experts affirming that they may even be beneficial in treating autoimmune disease. Collectively speaking, these newly discovered and researched probiotic strains have become valuable therapeutic tools in the holistic healer's arsenal; in addition to their common beneficial effects on digestion and immunity, different strains have become recognized for other auxiliary therapeutic benefits as well. In addition to the probiotic organisms themselves, prebiotics are also being utilized, since they provide valuable food and nourishment that enhances the growth and proliferation of the friendly bacteria.

Chief among the prebiotics is a complex carbohydrate, a FOS, or fructo-oligo-saccharide, called Inulin; Inulin is so-called because it was first discovered in Elecampane root, or *Inula helinum*; other related herbal roots, like those of Dandelion, Burdock and Chicory, are also rich sources of it as well, as is the Jerusalem Artichoke. Although they don't contain Inulin in any appreciable quantities, there are many other herbs and spices that are useful in promoting healthy bacteria in the gut, and getting rid of intestinal fermentation and putrefaction. These include Asafoetida, Cardamom, Frankincense, Galangal, Garlic, Marjoram, Myrrh, Oregano, Patchouli (those hippies got it right!), Star Anise, Thyme and Turmeric. One of my favorite ways to correct and balance my digestive and intestinal flora is to chew on Mastic gum or resin (*Pistachia lentiscus*). If one is gastronomically inclined, one can make one's own sauerkraut and bran pickles, which the Japanese call *Nuka Miso Tsukemono*. I even made my own bran pickles when I was living in Romania; although they didn't have the traditional Japanese rice bran over there, the available wheat bran worked just as well. Another great prebiotic supplement is Colostrum.