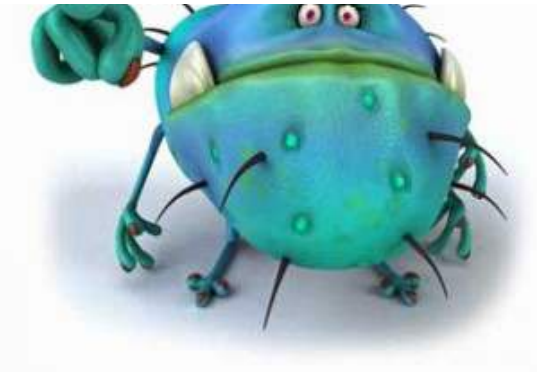
Change Agents: Ken Lassesen on Prescription and Herbal Antibiotics to Alter the Gut Flora in Chronic Fatigue Syndrome

by **Ken Lassesen** | Jan 20, 2014 | **Gut** | **64 comments**

Part III: Changing the Gut Microflora in Chronic Fatigue Syndrome

My favorite conference paper is Faecal Microbial Growth Inhibition in Chronic

Fatigue/Pain Patients because it identifies both undergrowth and overgrowth in a set of chronic fatigue syndrome patients. I made a major assumption and assumed that it reflected my situation with CFS and proceeded logically to correct the imbalance.



Not having the right bacteria was one problem; removing the bad bacteria that took their place was another

Low E.Coli was dealt with by Mutaflor (E.Coli Nissle 1917).
Low Bifidobacterium was corrected with pure Bifidobacterium probiotics, low Lactobacillus with Lactobacillus Reuteri. I dealt with these probiotics on my last post (see below). Bacterium like those in Prescrip-Assist were not measured.

- Ken Lassesen on Changing the Gut with Probiotics

Reducing Bacterial Overgrowth

Reducing bacterial overgrowth was a slightly different challenge. The reported overgrowth was in these families:

- Klebsiella/Enterobacter group, 30+ x more
- Enterococcus spp., 24x more

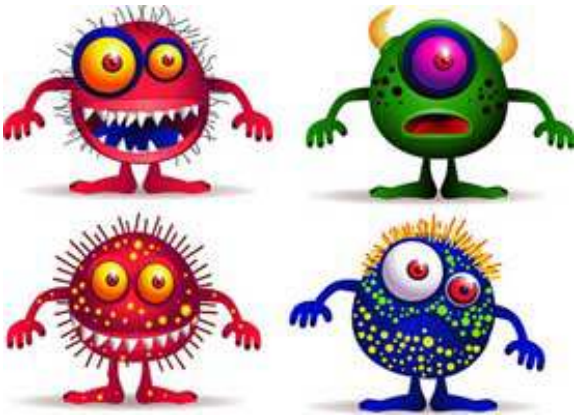
So the question becomes how to reduce them. There are two approaches (and a synthesis between them is also possible):

- Prescription antibiotics
- Herbal antibiotics

The problem is identifying a substance that would not kill E.Coli, Bifidobacterium or Lactobacillus, but would effectively kill off Klebsiella/Enterobacter and Enterococcus. That took a lot of reading, and the results were less than ideal, but they were acceptable and I moved forward.

Jadin and Occult Infections

Cecile Jadin, M.D., has had great success with an antibiotic rotation that the Pasteur Institute had used 70 years ago to deal with what they felt were occult infections[Presentation]. In retrospect, I can see how she came to that conclusion.



Ken proposed that the original infection that triggered his ME/CFS also changed the flora in his gut and that his gut was now the main problem

If the symptoms of an infection that was successfully treated returned, but the infection could not then be detected then the infection was assumed to be "occult" or somehow hidden. Since that time it became clear that infections that began outside the gut can alter the flora in the gut, it made sense, I thought, to look for the 'occult' infection, in the flora of the gut.

Dr. Jadin's antibiotic-rotation disrupted the gut flora, removed unhealthy bacteria, and opened the door to insert new ones and build a stable flora.

Many people will not take antibiotics because they kill gut bacteria — not all gut bacteria, just some species, but something is needed to disturb

all gut bacteria, just some species, but "something is needed to disturb the stable and unhealthy floral ecosystem that has been produced. Antibiotic use is controversial but done correctly, they can, in my opinion, shift gut flora ecological regimes more quickly and definitively than any other substance . Dr. Jadin's regime of rotating antibiotics is an excellent way to disrupt the stable but unhealthy gut ecosystems enough to be able to create new, healthier ecosystems with probiotics and other treatments

- I constructed the table below 'unscientifically' by googling the antibiotic families recommended by Jadin and the gut bacteria family and found a good general match between the antibiotics and flora we want to reduce. Jadin's protocol was based on *experimentation on people* with the appearance of occult illness due to Rickettsia. They did not have the labs we have. They went down a logical path that said "Oh we have a resistant version — we need to try other antibiotics!" This was exactly the logic that my MD used for my first onset of CFS (before it was a known condition).

Antibiotic Family	Klebsiella/Enterobacter	Enterococcus	Streptococcus
In CFS Patients	**HIGH**	**HIGH**	**HIGH**
Tetracyclines	**Effective**	Resistant	Resistant
Macrolides	**Effective**	Resistant	Resistant
Quinolone	Resistant	**Effective**	Resistant
Metronidazole	**Effective**	Resistant	Resistant

Antibiotic Family	E.Coli	Bifidobacterium	Lactobacillus
In CFS Patients	*low*	*low*	*low*
Tetracyclines	Resistant	Resistant	Resistant
Macrolides	Resistant	Resistant	Resistant
Quinolone	Resistant	Resistant	*Effective*
Metronidazole	*Effective*	Resistant	Resistant

We can see that the probably overgrowths as reported in the 1998

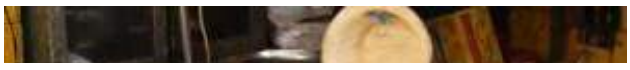
species." The viable count of D-lactic acid producing Enterococcus and Streptococcus spp. in the faecal samples from the CFS group.. were significantly higher than those for the control group " Increased d-lactic Acid intestinal bacteria in patients with chronic fatigue syndrome. [2009]

Research papers back up some of Jadin's findings.

- Antimicrobial susceptibility of bifidobacteria.
- http://www.ncbi.nlm.nih.gov/pubmed/9759315 found for many species up to 90% have become resistant

A Trip to India

Some people are



understandably worried about taking prescription antibiotics. Others couldn't get an MD to prescribe them even if they wanted to take them. Is there an alternative? I believe there is and you can find it via traditional (tribal) medicine practiced in India not by Ayurvedic practitioners but by tribal medicine men. (Ayurveda and modern medicine both share a formalized structure and approach. Tribal medicine men work off their experience without understanding necessarily why a treatment might work.)

Ken turned to Indian medicine to find natural antibiotics to knock out the bad bacteria in his gut

Natural Antibiotics from India

In Australia we learned of a possible shift in gut bacteria in ME/CFS; from South Africa we found a protocol derived from a doctors experiments that corrects the shift in most patients (not all) by rotating antibiotics from different families (the theory may be wrong, but the results were right!). In a prior post I addressed increasing the growth of health-promoting species of bacteria using non-prescription probiotics.

- Ken Lassesen on Using Probiotics to Correct the Gut Ecosystem

We now come to the use of natural antibiotics. Caution. Just because herbs are natural, do not assume that they are milder than prescription drugs. Some research studies, in fact, suggest they may be more effective (i.e. powerful) than some of the most potent prescription antibiotics. In other words, you may experience significant "die off" or herx reaction using them

herx reaction using them.

A study found Neem was effective against some unhealthy gut bacteria

The most important paper that I came across was a 2009 study, Antibacterial Activity of Medicinal Plants Against Pathogens causing Complicated Urinary Tract Infections. Laboratory testing found three three herbs/spices effective in reducing the overgrowth of two common unhealthy bacterial families. These herbs/spices are readily available via Amazon or other online providers (or local Indian Grocery Store):

- Neem
- Tulsi
- Haritaki

These can be purchased in bulk for $20 or less per pound. Putting into "00" capsules and working up to 6 per day was what helped put me into remission (with the help of the probiotics, and ongoing minocycline prescription). As with probiotics, and Jadin's protocol — rotation, rotation, rotation! Rotate each herb regularly to get the full benefits – and be sure to start slowly.

Still more resources available today, some significant articles are:

- Phytochemical Screening and Antimicrobial Activity of Some Medicinal

Plants Against Multi-drug Resistant Bacteria from Clinical Isolates. (2012)
- Immunomodulatory and therapeutic potentials of herbal, traditional/indigenous and ethnoveterinary medicines. (2012)
- A clinical study of some Ayurvedic compound drugs in the assessment quality of life of patients with Eka Kushtha (psoriasis). (2011)

Also, of special interest are many reports on ethnic biological studies which are available on PubMed. A few examples are below:

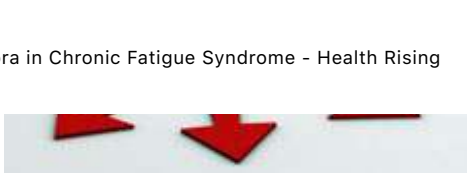
- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3206407/
- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2856531/
- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2639547/
- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3473258/
- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633329/

If the three herbs above do not suffice, and you have oriental herbalists available, you may wish to hunt through the articles for additional herbs. The ideal herb is one that is traditionally used for digestive issues AND which has been demonstrated effective in the lab against the species that are reported to be overgrown AND does not kill off the species with undergrowth. As you can imagine finding a herb like that can be challenging and research intensive.

Putting it all Together

I dislike “canned treatment plans” because of the complex interaction between DNA, epigenetics and microbiota (gut bacteria) found in chronic fatigue syndrome. As I understand it, epigenetics includes

infection altered DNA behavior, (which includes DNA includes inherited coagulation defects (over a dozen types).)



Ken provides a possible protocol to use as a starting point. (Check with your doctor first)

I prefer careful note taking, appropriate labs (if available and affordable) and observations to a canned approach. However, this kind of careful methodological approach can be difficult, particularly for the very fatigued and cognitively challenged. So below is my suggested plan for you to discuss with your Medical Professional (if you cannot get one thing, just skip that item and move on to the next).

Addendum: I have added a Where to Start on my own blog.

First Pass

- 200 mg/day of minocycline (as a neuroprotector — for those can persuade MDs to write an ongoing prescription) – on going
- Week 1: Haritaki: Work up to 6 “00” capsules per day then stop
- Week 2: Prescript-Assist: Work up to 2 capsules per day then stop
- Week 3: Tulsi: Work up to 6 “00” capsules per day then stop
- Week 4: Align or a 100% Bifidobacterium probiotic (preferably with mainly Bifidobacterium Infantis)
- Week 5: Neem: Work up to 6 “00” capsules per day then stop
- Week 6: Mutaflor or other E.Coli Probioitcs (work up to 2x recommended dosage)
- Week 7: Lactobacillus Reuteri (work up to 2x recommended dosage)
- Week 8: Take a break — ideally review your notes to find what had the greatest effect and use that for 2 weeks, working your way down the list for effectiveness
- Week 9: Turmeric (breaks down a form of coagulation that seems to

occur with CFS) – up to 10 capsules per day. If you have piracetam, also take that.

Second Pass

Repeat the above, with the following additions. I excluded these in the first pass because they can, by themselves, produce massive herx. By "antibiotics", I mean natural (Neem, etc), prescription (minocycline, etc) and biological (produced by probiotics).

- Week 1: NAC and EDTA – these are biofilm breakers, and you should repeat every 3 weeks of this cycle *in addition* to whatever else you are doing. Biofilms are "domed cities of bacteria" – the antibiotics kill the outer level and the dead bacteria bodies protect the inhabitants.
- Week 2: Bromelain, Nattokinease, Serrapetase, Lumbrokinease – these are antibiotic potentators. They in general dissolve fibrin deposits allowing antibiotics to penetrate deeper (up to 10x greater concentration in tissue). Bacteria will often trigger fibrin so they have their own little world shielded off by the fibrin. Repeat every four weeks *in addition* to whatever else you are doing.
- Week 3: Boswellia, Myrth – these are anti-inflamnatories. Inflammation keeps antibiotics away from the bacteria (just like fibrin and biofilms) — you want to reduce the inflammation. Repeat every two weeks *in addition* to whatever else you are doing.

Over time items:

If the above does not work well, i.e. zero herx and zero improvement — the following should be tried:

- Week A: Olive Leaf Extract
- Week B: Worm Wood

- Week C: Monolaurin

All of the above should be discussed with your health professional before starting. You and your medical professional should be aware of "die off" and herx effects. This can happen from any of the above — if something kills off a bacteria that causes a symptom then all of the chemicals from their "rotting corpses" will cause symptoms to worsen. In some cases, the chemicals will suddenly stop (without a herx) and you will find yourself climbing the walls with energy. If this happen, keep disciplined on taking and rotating the list above — and do not overdue activities causing a relapse.

Post Script: Low vitamin D levels and low magnesium levels may need to addressed first. Studies have found that pain (and other symptoms) in ME/CFS and FM patients decrease as their magnesium levels increase. Magnesium may be the more important one because low magnesium levels will reduce the effectiveness of vitamin D supplements. Vitamin D is a known regulator of gut bacteria.

Check out Pts I and II in Ken's Changing the gut microflora series

- Changing Your Gut Flora Pt I: Food to Feed the Good Bacteria in Chronic Fatigue Syndrome
- Changing Your Gut Flora II: Changing the Gut Ecosystem with Probiotics
- Find more of his gut blogs including his recovery story

(Note Ken is a former chronic fatigue syndrome patient, not a doctor. This blog is for informational purposes only. Please check with your medical

practitioner before employing any of the suggestions in this blog.)

64 Comments

Darden Burns on January 20, 2014 at 4:01 pm

Have you ever tried reducing bacterial overgrowth with Allicin extract? The brand AlliUltra is particularly effective. Preventing the cause of unwanted bacteria overgrowth to begin with is important. Stomach acid is the first line of defense in our immune system and persons with CFS are typically low in stomach acid. One easy way to address this is to drink a teaspoon of apple cider vinegar in water before each meal.

r.dernister on January 20, 2014 at 4:31 pm

Or you could just eat raw garlic if you don't want to buy an allicin extract, although some people aren't fond of the odor of hydrocarbon sulfides.

Ken Lassesen on January 20, 2014 at

5:20 pm

Checking on garlic/allicin, I find that it kills E.Coli which is bad because CFS patients are reported very low for this species. A healthy person actually has more E.Coli than Lactobacillus!

r.dernister on January 20, 2014 at 4:21 pm

Two brief points: First, there is a wealth of important information contained in Chinese-language periodicals and books about traditional Chinese medicine that has not been, and is not being, translated and is therefore overlooked. I note that Medscape presented an article on 17 January 2014 entitled “Chinese Herbs Reduce Progression to Diabetes by a Third” (regarding the use of Tianqi, particularly the berberine component). This is hardly “news” to TCM practitioners and it’s not difficult to imagine that a couple thousand years of TCM has discovered many things potentially useful to treatment of, for example, fibro, that has not

been translated into English and is therefore ignored in the US and UK. Second, turmeric is said to be more effective when combined with black pepper (if anyone's interested). Stephen Harrod Buhner's books (e.g., "Herbal Antivirals", "Herbal Antibiotics") are excellent resources for up-to-date and reliable information about herbal treatments, although there are several other reliable books and authors as well.

Ken Lassesen on January 20, 2014 at 5:23 pm

Excellent point — my sweet spot is where there is both traditional usage with modern medical studies. The problem is getting the right herb that decreases the overgrowth without decreasing the undergrowth. In short, shift the entire microflora to a healthy spot. I believe just killing or just supplementing will likely be insufficient for most CFSers (based on the fact that both approaches have been tried in isolation without great success).

Yes — I agree very much about

adding 1% black pepper to turmeric.

Cort Johnson on January 21, 2014 at 11:42 am

Thanks for the info 🙂

Holly on January 20, 2014 at 4:59 pm

I was wondering what you think of taking a combination of xifaxan and flagyl for three weeks. This was recommended on a webinar I "attended" held by Dr. Klimas. I believe it was Dr. Peterson's recommended treatment. I have found a combination of probiotics that is helping some. I am wondering about trying these two medications as well. Thank you for presenting your research, Ken. Cort thanks for a great blog!

Ken Lassesen on January 20, 2014 at 5:36 pm

I prefer not to give opinions about specific combinations — rather describe the model and what you need to look for. So the first question to ask is what does xifaxan(rifaximin) does to each of the family of bacteria

listed in the table. Same question must be asked of flagyl.

For **http://en.wikipedia.org/wiki/Rifaximin**, I know it kills E.Coli; so unless you have Mutaflor available at the end of the course, I would advise caution. Flagyl is Metronidazole which kills both the good and the bad… again, Mutaflor is recommended after use.

Holly on January 22, 2014 at 3:10 pm

I wish I had access to Mutator. Maybe those of us in the US will be able to get it again. I can try the d- ribose you mentioned in a comment but as I understand that will not replace the good ecoli, just encourage it's

growth. Thank you for the reply!

Holly on January 22, 2014 at 3:11 pm

Mutaflor – autocorrect got me! 🙂

Betsy on January 20, 2014 at 5:20 pm

Sheesh Ken I can't believe all the study and time it must have taken to come up with your treatment protocol. Are there symptoms that could clue one in that this might be part of their ME/fibro issue or did you just get a lab to check your stool?

Ken Lassesen on January 20, 2014 at 5:45 pm

If there was a lab that would give the needed detail information, I would have had it done. The type of details are typically from research studies.

I accepted the reality that I will likely not find the appropriate testing (with reference values), and just assumed that the

research results likely apply to me.

For me, this third round of CFS had me controlling almost all of the symptoms well so the digestive changes (although dismissed by my conventional MD), stood out as “odd” … because my existing model (occult infection) did not predict that. Once on sick leave, I slugged thru every PubMed article to see if there was anything that would improve my odds of recovery. Because of my own digestive issues, I paid more attention to the 1999 conference paper.

At that point, it was “well, let us assume that it is true — there are some very low risk items that should cause a change, let us try them and see if the assumption holds true” it did, and then I just logically kept on that course (revisiting my old model and realizing that it was in agreement).

lisa on February 22, 2019 at 2:40

Ilsa on February 22, 2019 at 2:46 pm

Holly,
You can legally purchase Mutaflor in Canada via mail. Just did it myself (2/2019)

Phillida Bunkle on January 20, 2014 at 6:16 pm

Just a note: have you come across a book called the 'New IBS Diet'? it fits here. The author had serious IBS, She came across a British specalist academic doctor who said that IBS could be completely cured in many people by a totally starch free diet, and for her it worked AND cured alkoysing spondalitis with its chronic \pain as well.

The specalist doctor, who was from a leading London Hospsitall was demolished by his peers But the reason he gave for the success of this approach is interesting.He said that IBS is caused by Klebsibela overgrowth in the gut and that starch fed this and caused the flare up of IBS. By starving the klebsibela the author got rid of the IBS and the spoldaltis, ut remained pain free only fit she avoided ALL straech which she did by testing her food with a drop of iodine.

This does fit with thesis but forward by Ken and does directly link one of the main CFS

symptoms with gut overgrowth.

Ken Lassesen on January 20, 2014 at 8:17 pm

I have not read that book. Many thanks for the citation — if IBS is cause by Klebsibela overgrowth and we know that Klebsibela overgrowth happens with CFS — then that explains why the two conditions have close to 80% co-morbidity.

Starving is one way of addressing it, other bacteria out-competing the Klebsibela is another way. My recommendation is to always do as many methods as is practical. Each one may have 80% change of success, doing two means you have a 96% chance of remission, three – 99.2% (assuming all of them are independent mechanisms).

Chris on January 20, 2014 at 7:14 pm

Minocycline is an interesting drug. When do you stop taking it on this protocol? Also, any

recommendations on boosting E. coli if you can't get Mutaflor. Last question, did you and do you have PEM – post – exertional malaise?

Ken Lassesen on January 20, 2014 at 8:25 pm

I actually kept it using it until I was cleared of cognitive issues sufficiently. In my case that meant passing a full day interview of technical questions in computer science well enough to get a job offer!

If you cannot get Mutaflor, then in terms of documented items, add D-Ribose, it feeds E.Coli AND also been tries on CFS patients resulting in significant improvements.

The use of D-ribose in chronic fatigue syndrome and fibromyalgia: a pilot study.
Teitelbaum JE, Johnson C, St Cyr J.
J Altern Complement Med. 2006 Nov;12(9):857-62.
http://www.ncbi.nlm.nih.gov/pubmed/17109576
also

http://www.marketwatch.com/story/new-multicenter-study-shows-d-ribose-increases-energy-61-in-cfs-and-Fibromyalgia-patients-2012-07-16

and L-fucose stimulates utilization of D-ribose by Escherichia coli MG1655 DeltafucAO and E. coli Nissle 1917.....
http://www.ncbi.nlm.nih.gov/pubmed/17709419
— which is specific to Mutaflor!

issie on January 20, 2014 at 9:43 pm

Interesting blog. I too take low dose antibiotics and also antimalarial herbs and use lumberkinase to break down biofilm. There is a method for this to work. You first use the lumberkinase at least two hours before either the antimalarial or antibiotic to break down the biofilm. Then at least two hours after either the antibiotic or the antimalarial herb you use a probiotic. Working for me.

Issie

Patrick on January 20, 2014 at 10:21 pm

Great article. One of the things that is overlooked is the other pathogens that

infect the gut. For me I contracted a protozoa parasite from hell. Traditional testing missed it completely, it was not until I did a PCR stool that revealed a protozoa parasite, though they could not identify it exactly. That lab (Metametrix) is no longer doing the PCR but opted to revert to OOP (microscopy). PCR offers distinct advantages over OOP.

Parasites cause major damage and severe HPA shifting, Dr. Galland says it is the first thing he looks for in a ME patient. I have a forum for parasites and I can tell you that every one on there is chronically sick. My post about parasites **http://patrickrambling-pb.blogspot.com/2012/12/lessons-from-parasites.html**

Biofilm environments are another consideration – without addressing these then antimicrobials are unlikely to work effectively. The research and feedback indicates Lactoferrin or Lactoferrin with Xyltiol to be most effective. **http://pptu.lefora.com/topic/4468734#.Ut4Do0Qo5w0**

issie on January 21, 2014 at 3:20 am

This is true in my case. Dr.

Stephen Fry in Scottsdale AZ has discovered another protozoa that is causing havoc for many. Following his suggestions for treatment for this is helping me more than anything else I've done. (I also have a co-infection connected to Lyme.)

Side note *lactoferin is in the Immune formula of Symbiotics Colostrum. That has been helpful to me as well. According to research I've done it can be used as an alternative to IVIG.

Issie

Patrick on January 21, 2014 at 4:23 pm

Good to hear Issie. I would be curious to know the treatment strategy for the protozoa. I used straight lactoferrin which has a higher concentration

than colostrum.

Protozoa are vastly understudied and very detrimental to health.

Mira Ballard on January 21, 2014 at 6:40 am

Dear Ken
Your tribal Indian herbal treatment sounds really good and I would be grateful if you could recommend a herbalist who could assist me with it. I feel very unwell and dipressed and desperate for help.
I have been strugling to emplement any kind of treatment or regimne to combat ME/Fibro/IBS for many years and failed due to, not enough right support, will power and inssufficient finances. Please help if you can.Mira

Ken Lassesen on January 21, 2014 at 8:25 am

Usually herbalists like to see the person. The “herbalists” whose expertise I made use of are in tribal areas of India (I used the information they conveyed to the researcher).

My own physician was / is Dr. Kim Iller, in Seattle, **http://www.functionalmedicinenw.com/**. She is aware of, and co-operative of my approach. Every item was reviewed by her for risk during treatment.

Sandra on January 21, 2014 at 7:01 am

Ken
In your antibiotic sensitivity chart you have klebsiella and E coli susceptible to Metronidazole. Do you have some reference for this? To my knowledge Metronidazole is only effective against strict ANAEROBIC bacteria. E coli and klebsiella are not in this category.
Sandra

Ken Lassesen on January 21, 2014 at 8:21 am

http://www.ncbi.nlm.nih.gov/pubmed/23356908 [2014]
"Enterococcus faecalis, Streptococcus pyogenes, Streptococcus mutans, Staphylococcus aureus, Klebsiella pneumoniae and Escherichia coli ..

metronidazole displayed activity against the tested strains. “

Grant nancarrow on January 21, 2014 at 6:43 pm

Hi ken
I’ve been doing some research and found that mycobacterium vaccae helps the brain produce serotonin

Lacto bacillus sedating produce dopamine

Bifido longum ncc3001 helps with neurotransmitters

Bacteriophage fragillis boosts overall health

Do you know of any products that contain these or have any other probiotic products that you recommend besids the prescript assist, mutaflor and rhamnousus and reuteri?

Ken Lassesen on January 21, 2014 at 7:07 pm

You have hit on the biggest challenge — finding the probiotic!

* I don’t understand “Lacto

bacillus sedating" Lactobacillus is a family containing both rhamnousus and reuteri (plus our old E.Coli killer, acidophilus)

* Bifidobacterium longum: I would suggest 4X Pro-B Digestive Care Natural Probiotic (on Amazon). – it contains Bifidobacterium infantis, Bifidobacterium lactis, Bifidobacterium longum, and Bifidobacterium bifidum. Bifidobacterium infantis is the species in Align which is effective for IBS. Any "just Bifido" blend should be fine — usually they are marketed as digestive probiotics.

* I know of no commercial source for Bacteriophage fragillis

Anon on January 22, 2014 at 12:00 am

"Bacteriophage fragillis" is a sort of mashup of two scientific names. And there are so

many scientific names and so much very-specific language that it's no wonder this kind of mixup occurs.

A bacteriophage (informally, phage) is a virus that infects and replicates within bacteria. The term is derived from 'bacteria' and the Greek φαγεῖν phagein "to devour

A bacteriophage is a virus that infects bacteria.

Let me say it again, because for most people it will be such a startling idea: a virus that infects bacteria.

It "replicates

inside a bacterium.”.

The word “phage” means, in ordinary English “eat.” In ancient Greek it meant “devour.”

So it’s a virus that eats bacteria.

It’s very interesting to read the entire Wikipedia entry. Other countries use bacteriophages in the manner of antibiotics. (And why does the U.S. not do this? Three guesses . . .)

On the other hand, Bacteriodes (not bacteriophage) is a genus of bacteria.

(And please note:

the word bacteria is PLURAL. A single bacterium. More than one, and they are bacteria.)

Bacteroides fragilis — (only one “L” in fragilis) — is on the list within the genus.

Wikipedia says that the classification goes like this:

Kingdom: Bacteria

Phylum: Bacteroidetes

Class: Bacteroidetes

Order: Bacteroidales

Family: Bacteroidaceae

Genus: Bacteroides

Castellani & Chalmers 1919 Species

B. acidifaciens

B. distasonis (reclassified as • Parabacteroides distasonis)

B. gracilis

B. fragilis

B. oris

B. ovatus

B. putredinis

B. pyogenes

B. stercoris

B. suis

B. tectus

B. thetaiotaomicron

B. vulgatus

• etc.

DH on January 21, 2014 at 10:03 pm

DH on January 21, 2014 at 10:03 pm

Ken,

I have really enjoyed your series here as well as all of the additional time and detail you go into on your blog. I was going to comment on one of your posts about putting together a treatment plan to follow, but you've outlined a clear one here so thanks for that.

I don't remember reading anything about you using Minocycline on your blog or in previous posts. I'm wondering if you are concerned at all with long term effects from Minocycline use like lupus and other autoimmune conditions.

I'm also curious about how long term Minocycline use could possibly effect your theory of gut dysbiosis being cause of CFS and related conditions. (A theory that I happen to believe wholeheartedly in and one that explains so much of my ten year health journey and what treatments have worked and what haven't). I see on PubMed and other sources that Mino has proven anti-viral and anti-inflammatory efficacy. There is also the issue of Minocycline being effective against Lyme and other infectious agents. Again, I'm not questioning your protocol, I'm just curious about your thoughts regarding this.

Also, I found a Canadian supplier of MutaFlor that is willing to ship to the US. My order was supposedly shipped on Monday, I'll keep you updated on it's status. I know there are a lot of people who ask you how they can get ahold of it.

Thanks again for sharing all you've found, Ken.

Ken Lassesen on January 21, 2014 at 10:21 pm

I have mentioned the minocycline but intentionally kept it relative quiet for two reasons: most CFSers will gave trouble getting a MD to prescribe; many CFSers tend to be antibiotic-probic.
I usually mention minocycline as a neuroprotector. There are some 300+ PubMed articles that states that! Of the tetracyclines, it is the most effective to cross the blood-brain barrier.

Both Jadin and Garth Nicolson (and many others) use the tetracyclines with moderate success. They appear to be

effective against one of the families of bacteria that are overgrown.

I look forward about the Mutaflor update....

DH on January 22, 2014 at 9:45 am

So no concern about the long term effects? How long did you take it?

Also, it seems you took it continuously alongside the probiotics. Did you just time it separately, at opposite times of the day?

In your opinion, or personal experience or helping others with CFS, do you think this protocol will work

without the Mino?

Dfox on February 2, 2014 at 7:49 pm

I hope the Mutaflor source works out, please post!!!

Thanks

Ken Lassesen on January 22, 2014 at 9:55 am

Once I verified (via PubMed) that minocycline did not impact the probiotics aimed at the undergrowth, especially Mutaflor, I took it 12 hrs apart from the others. Minocycline and doxycline are both used long term for Acne and periodontal disease, so I was personally comfortable with it. I believe I took it for about 6 months.

"will work" is an absolute question. Each factor: antibiotics, herb, probiotics increases the odds of working. Omitting one does not mean it will fail, how much it reduces your odd is unknown. My attitude was to do everything that was helpful according to PubMed studies and the model. So… d-ribose, magnesium supplements, vitamin D supplements, etc etc etc.

Grant nancarrow on January 22, 2014 at 3:12 pm

Hi ken
Would somento and olive leaf extract be of benefit? Or would they kill the undergrowth bugs too?

Ken Lassesen on January 22, 2014 at 3:42 pm

" At low concentrations olive leaves extracts showed an unusual combined antibacterial and antifungal action… Escherichia coli and Klebsiella pneumoniae"
http://www.ncbi.nlm.nih.gov/pubmed/17873849
[2007] Streptococcus
(**http://www.ncbi.nlm.nih.gov/pubmed/21501041**
)

Samento,Uncaria tomentosa, effective against Enterococcus (
http://www.ncbi.nlm.nih.gov/pubmed/20881342), Streptococcus
(**http://www.ncbi.nlm.nih.gov/pubmed/17426895**
),

There were no studies that I could locate on the undergrowth species (except E.Coli) so there is uncertainty there. I will try to do a little more research over the weekend

Grant nancarrow on January 22,

2014 at 4:29 pm

Sorry Ken, so is that saying the samento is effective against strepto and entero with no known effect (so far) against e.coli but the olive leaf may kill our already low e.coli bacteria?

Grant nancarrow

on January 23, 2014 at 6:11 pm

Hi Ken, not sure if you missed this post? Have I come to the correct conclusion? Thank you

Ken Lassesen, M.Sc.

on January 23, 2014 at 7:11 pm

Correct. If I get time this weekend I will see if I can tease more information

out of PubMed. I recall reading in 1999 that someone recovered from CFS with Olive Leaf, but this was not repeated with others.

There can be a little cycle that people get into: If you take X (say Olive Leaf for an example), you may herx and feel better because some specific bacteria were eliminated... but other symptoms remain. You keep on it, and the other bacteria (and their friends) that tolerates X, start growing and your symptoms start increasing again.
Conclusion: X does not work

does not work.

IMHO: the key is rotation, rotation, rotation, hitting different families until the CFS cartel of bacteria can no longer maintain themselves....

Grant nancarrow on January 22, 2014 at 5:09 pm

Hi I also think I've found an alternative to the natures way reuteri as it contains lactobacillus. How about, blackmores woman's bio balance? It seems to only contain rhamnosus and reuteri.

Ken Lassesen on January 22, 2014 at 6:08 pm

Biogala is another choice — however Blackmore's also has Blackmores Lactobacillus Reuteri 20 chew tablets... which you may wish to also try.

John Barrow on January 23, 2014 at 4:00 am

Your posts have been very interesting and

Your posts have been very interesting and investigate a very important area. Thank you for sharing this. I would, however, like to add a possible reservation about some the material you present here, in particular about the Jadin protocol. I want to emphasise that this is anecdotal and should be treated as such.

I was a patient of Dr Jadin ten or more years ago, and undertook her protocol for five or six months. I deteriorated steadily during this time, and in the end felt I had no alternative but to abandon the treatment. It took me about six months to recover to the state I had been in before starting on the treatment. I have heard of a number of other cases where patients have terminated before concluding the treatment. I have also heard that the test she employed at the time had already been discredited locally for showing false positives.

I am hesitant about posting something like this, and do not want to cast aspersions, but I feel I must also mention that questions have been raised around this protocol. I would like to suggest to anyone embarking on it to satisfy themselves about it before embarking on what, for me at least, was a very damaging treatment.

Ken Lassesen on January 23, 2014 at 8:22 am

Your comments are appreciated. I know (personally) some CFSers do not respond, in fact 10-20% was reported in her presentations.

My read of this failure is that the cartel of dyfunctional bacteria are a combination of resistant and different — for example, it may contain a dysfunction lactobacillus bacteria (there are known species of lactobacillus that have killed people), in which case — no impact on those members will likely occur.

The person that I know was a non-responder, is also extremely sensitive to probiotics. A bottle of Kefir will cause her to herx. In fact, different brands of Kefir (because they have different probiotics) will cause different herxing!

Annie on January 26, 2014 at 10:24 am

Above you write ‘and different’ but then no following word. Did you mean to write bacteria? If they are different strains does this mean that adding probiotics won’t make any difference to numbers as they are not the usual strains?

When you say resistant do you mean as in resistant to antibiotics and herbs that are trying to kill them? Many thanks

Ann on February 10, 2014 at 4:58 pm

Ken, the person you know who has difficulty with kefir may have developed a histamine intolerance. Kefir has very high histamine levels.

Gut dysbiosis (and bacterial infections themselves) can cause histamine intolerance (due to excessive mast cell degranulation triggered by the infections and toxin release etc.; histamine-production by certain gut bacteria; the DAO enzyme which breaks down histamine not being produced in sufficient quantity due to gut mucosal lining damage, nutritional deficiencies – copper, B6, B3 – and/or DAO enzyme production being blocked by medication…..etc.).

Ingestion of high-histamine/histamine releasing/DAO blocking food/drink/medication/supplements can cause the 'histamine bucket' to overflow and results in an increase in symptoms and sometimes 'histamine attacks' (akin to panic attacks, pseudo-anaphylaxis).

I suspect that histamine intolerance is one of the reasons why many CFS and Lyme disease sufferers get worse during/after treatment. Herxes may sometimes actually be symptoms of histamine intolerance (and salicylate intolerance).

Histamine intolerance also partly explains why many people with CFS and Lyme can't tolerate alcohol, excessive heat/cold (and other mast cell degranulation triggers).

When someone has reached a crisis point, due to what they believe are herxes, it is worth taking an anti-histamine to see if it helps. It is also helpful to

lower one's intake of histamine-rich/histamine-releasing/DAO blocking foods, drinks, medicines and supplements for a few weeks to see if symptoms reduce.

Your extremely helpful information on correcting gut dysbiosis will go along way to helping people improve their histamine tolerance – reducing their symptoms and allowing them to pick-up their treatment again.

issie on January 23, 2014 at 10:16 pm

Some of the things you speak of are the same as what is used for Lyme and other protozoa, as spoken of above. I use low dose antibiotics and antimalarial herbs. My doc has me using doxycycline. Doxy and minocycline are the two antibiotics used for this and co-infections. Because of the potential issues with yeast from these meds and it being released with the biofilm breakdown, I also use probiotics. And strong enzymes to break down biofilms. You also mentioned wormwood, I use Artemisin SOD as the antimalerial herb. When a person has a positive result from a reputable lab

(Labcorp) and a magnified picture of your biofilm with these protozoa in it -you can't deny that something is there. This also will address the autoimmune system.

*Note-this does create a very bad herx. You have to go slow. This along with diet have been my best treatments to date. I also find addressing Mast cell dysfunction extremely helpful.

Ken, I was wondering if you or your family was ever checked for this? It is hard to detect.

Issie.

Ken Lassesen on January 23, 2014 at 11:23 pm

There are many possible causes for a change of gut bacteria. There are really two main classes:
* Change caused by active infection (protozoa, virus, bacteria) which reprograms the gut bacteria to produce the chemicals that they need
* Change caused by PRIOR infections where the gut bacteria gets locked into a dysfunctional collection. This includes vaccines (vaccines induces a mild infection reaction which are capable of changing the gut bacteria).

Technically, the first class is not CFS because

Technically, the first class is not CFS because these active infections (if accepted to be valid) would be deemed to be the cause of the fatigue etc. There is a fuzzy area where whether or not there is an infection cannot be determined. I was positive on a lab for lyme — however, the small print indicated that false positives will occur for EBV. Since EBV is found is 60% of CFS patients it means that the labs are not definitive and a MD concluding you have Lyme may be a faith-based-diagnosis, not supported by clean hard evidence.

Regardless of class, I believe that correcting the gut bacteria would:
1) Deny the needed chemicals to any active infections (thus allowing the immune system to handle the infection — which is effectively starved and unable to reproduce as much)
2) Allow a healthy gut bacteria to occur.

Where there need to be caution is to know what the impact of each item you take is **fully**. We know there are at least 6 families of bacteria involved: three needs to be reduced and three needs to be increased (in terms of simple numbers).

While eating yogurt appears to be “the right thing to do”, there is a major problem — first L.Acidipolous does not stay in the system.. so it does not increase your low lactobacillus (L.Reuteri is the species that stays!), and

(Lifeguard is the species that stays!), and further more it kills E.Coli which you are also low in. So does eating yogurt does a CFS patient good or harm? I believe it does harm, it reinforces the disease and does not fix it. I have read conference papers where CFS MDs state they have seen no positive results from probiotics (meaning the normal ones) — I believe they are 100% correct for normal commercial probiotics that you can pick up in health food stores.

Those probiotics do help healthy people …. just not CFSers.

issie on January 24, 2014 at 8:10 am

Thanks for the reply.

As I mentioned, diet has been one of my greatest helps. That includes elimination of all animal products which would include dairy (thus yogurt). One of the first things suggested for autoimmune dysfunction is to eliminate dairy. The second thing is gluten. This also helps with inflammation.

There is a lot of controversy around a chronic lyme DX. I

around a chronic lyme DX. I never knew this until I started having to deal with it. I did not test positive for lyme, but a co-infection that can go with it and another protozoa that is in research. I feel that the treatment is starting to give me back my life. I do feel that the main effect is that it is treating the autoimmune system and inflammation. And whether or not one believes its because of protozoa, virus, bacteria in a biofilm being broken down and recognized by the immune system and eliminating what should not be there or if its just a correction of the function of the autoimmune system and correction of too much inflammation – whatever the cause…….the results are still the same. BETTER HEALTH.

I love it when the pieces come together and the puzzle starts to make sense.

Issie

Annie on January 26, 2014 at 10:19 am

When you refer to the pathogenic gut bacteria are you assuming they are in the colon a opposed to small intestine? Does it make any difference if they are in the small intestine? Many thanks

Mary Lewin on January 28, 2014 at 3:58 am

I have a question. In 2010, Klimas tested me for CFIDS. I had high readings for several inflammatory cytokines. TNF IL-1B were the highest. My IL-17 was very low. She said she thought my case indicated an autoimmune illness rather than CFIDS. IL-17 is emerging as a major player in autoimmune disease. But it is usually elevated. Low IL-17 indicates reduced immunity to mucosal pathogens and viruses.
I feel as though many of my problems are coming from the gut. Did I inherit a poymorphism that resulted in this problem (can result in polyendocrine illness with candidiasis and is seen in AIDS). I have been very sick for a long time. I have an elevated sed rate and amGenov HLA-B27 positive.
I have major gut issues as my mother did and my sister does. My gut is extremely sensitive to any kefir, etc and I have neuroinflammation. I am being tested for lyme through Advanced Labs and have tested positive on Fry's test. (Many people question his findings as everyone tests

question. His findings as everyone tests positive). I feel as if I have a genetically deficient gut immune system. How will I ever fix it.

I live in Pittsburgh and there are no alternative doctors here. I also had an elevated blood HHV6A, but Klimas apparently didn't think that was significant. Can anyone offer any comments/suggestions. I know I am low in glutamine from Genova test that was done years ago. I;m so much worse and wouldn't know how to begin,

Ken Lassesen on January 28, 2014 at 9:25 am

Hello Mary, there are some alternative doctors that do phone appointments because they are accepting of the problems of getting into the office. My own ND, Kim Iller (**http://www.functionalmedicinenw.com/**) does them, she has prescribing authority and teaches at Bastyr University on occasion.

The family pattern does suggests that inherited gut bacteria (yes, it is inherited to some extent) and DNA may be combined. How to fix it is the

challenge! I just posted a new page on my blog listing the explicit probiotics that you should discuss with your medical professional: **Recommended Probiotics (backed by PubMed Studies)**

You may also wish to get analysis by **http://americangut.org/** of all of your living family members with these issues. The comparison may identify the explicit species that are problematic and may lead to additional treatments by herbs or antibiotics.

issie on January 28, 2014 at 9:38 pm

I had one of Dr. FRY's nurses tell me that not everyone test positive on the test. But, I'm sure more do test positive than not. If a person goes into his office, its with the idea that this may be a contributing problem. When I had my testing, I knew I had a tick bite and what my symptoms were

when I found it. Also being from the South and having had lots of mosquitoe bites, even more chance of an issue. I did compare my report with a friends and she had few and I had alot. Her immune system was/is not as compromised as mine is. I think that makes a difference too. If the immune system is more efficient, than it may not be as big of a problem. But with a compromised immune system, things compound and symptoms intensify.

Issie

Mary on January 28, 2014 at 12:56 pm

Ken,

Your system is extremely complex. I would have to have a doctor who is very familiar with gut issues. I could not strike out my own. Do you know what HLA-B27 + is. And are you aware of the cytokine IL-17 I mentioned.
You don't seem to rely on testing to pinpoint specific problems, so it seems as if it's a lot of guess work.

I am not in a position to have my family's guts analyzed.
Working by phone is a real long shot. I have done this. It is extremely expensive and didn't work out for me.
I know that anything I take creates more problems. I have lost my appetite and this is a big problem.This is a complaint of many people who are HLA-B27+ with ankylosing spondylitis.
The gut is very complicated and they are only beginning to unravel some of the pieces of the puzzle. You were able to hit on a combination of antibiotics, probiotics and herbs that helped you. I think it is wonderful that you were able to do this. But for most of us who are very sick, this is a daunting task. There are not doctors who understand how to treat these problems–it is very individualized and requires a lot of knowledge. Sounds as if you designed your own protocol and your naturopath simply wrote prescriptions, etc.We don't have the medical resources available to us that we need. While your blog is very interesting and you achieved success for some of us who are beaten down, it can be daunting and discouraging,

Ken Lassesen on January 28, 2014 at 1:16 pm

I have been involved with the "CFS world" for almost 15 years and have not seen any "spectacular results" from the usual testings. Some testings I view as "bed-side manner" testing. If (a BIG IF)

There was a lab that provided detail and comprehensive results showing the percentage of every bacteria species (ideally strain) in your gut — I would jump for joy
If medical science knew how to specifically increase or decrease each bacteria species (without adverse effects on the others) … more joy jumping!

Yes, I was lucky – because **my main assumptions** was that my gut showed the same type of dysfunction that was reported in the literature as occurring for CFS patients. I proceeded from that to identify what increases the low ones and what decreases the high one (without impacting the low ones).

I would not describe it as

writing my own protocol, it evolved with my ND. I followed her advice – took the lyme antibiotics she wanted me to take (at the high dosages she wanted), check with her for anything that I was wanting to try (providing the PubMed articles to support). She now stocks some of the probiotics that worked for me and recommend them to her other patients.

I absolutely agree that there are very few MDs and NDs that have in depth understanding (especially after reading the Jan 2014 Townsend Letter). This leaves CFS patients having to fend for themselves, or wait (likely another 40 years) for things to change.
Some will elect to wait. Other's will take suggestions to their medical professionals (who will often say OK – because they cannot see any harm in taking probiotics or herbs) and then do it. It is a very unfortunate situation.

Taking probiotics is the path

> Taking probiotics is the path that will likely get the least resistance from MDs/NDs. Does not require a prescription. Easy to obtain over the internet. The one gotcha is this: **any random probiotic is not the path**. In fact, most common ones contains a species, Lactobacillus Acidophus, which you want to avoid because it will take an important family of gut bacteria that is low, even lower!

Annie on February 1, 2014 at 8:23 am

Hi Ken,

I have bought the herbs and probiotics you have recommended as a trial. Just one question in the rough protocol you outlined above when do you know when to stop? Do you repeat pass one which is about 8 weeks long and pass two until you have significant clinical improvement? Presuming it will help as it realise it may not. Also when you say build up to six capsules is this within the week you are taking them or do you mean with each pass build up, using your reactions, good and bad to decide when to build up to six?

build up to six?

Many thanks . I appreciate there probably is not a one size fits all method with this approach but I do appreciate you giving a rough protocol for us to try and modify according to our responses. I feel I can give it a go at least

Ken Lassesen, M.Sc. on February 1, 2014 at 9:10 am

You have a good understanding of the model,. one size does not fit all. I may be one of those edge cases that crossing from remission to cfs and back has a lower threshold (I hope not for others sake).

To you question, I kept going until all signs had disappeared: labs became normal and a full day of testing by a neuropsychologist (since cognitive impairment was a characteristic) showed nothing below the normal range. Additionally, I had no problem doing mountain hikes of 10 miles with no post fatigue. When you have been sick for a long time, a significant improvement can lead you to believe you have reached normal ("the new normal"), At that point, I did not stop, I slowly reduce the amount adding in one week without any periodically. Small steps, safe steps.

Go slow, take notes. Make a master check

Go slow, take notes. Make a master check list of symptoms and intensity and track them at least weekly (if not daily). And may you have a successful voyage!

Annie on February 2, 2014 at 3:17 pm

Thank you Ken. I appreciate your time and help

Grant nancarrow on February 6, 2014 at 9:01 pm

Hi Ken

Do you happen to know if mutaflor is susceptible to banderol?

And if s. Boulardii is susceptible to banderol and the other herbs that you recommend?

> **Ken Lassesen** on February 6, 2014 at 9:34 pm
>
> Although I see on marketing sites there are claims for studies being done — none are on PubMed (thus not peer-reviewed if they were actually done).
>
> Antiprotozoal activities of Colombian plants.

(**http://www.ncbi.nlm.nih.gov/pubmed/11694364**) found a specific species effective — whether that is the species in the bottle is uncertain.

So — there is no information available from trusted sources.

For effective against Boulardii, type the herb name and Boulardii into PubMed search box. Using **http://www.ncbi.nlm.nih.gov/pubmed/?term=boulardii+herbs** I found nothing.

Grant nancarrow on February 7, 2014 at 3:42 am

Thanks Ken
I couldn't find anything either. How do we increase bacteroids? Is there a product for this? I thought I seen you say once before that there isn't but I have found a case of someone online saying that there is?

Raoul T on February 14, 2014 at 11:38 pm

Hi Ken, With respect to Lactobacillus acidophilus to killing off limited amounts of E coli. I happen to have the opposite condition with high levels of E coli and I

condition with high levels of E coli and I came across this interesting study "Reversal in fatigued athletes of a defect in interferon γ secretion after administration of Lactobacillus acidophilus" Reduced concentration of IgA in the saliva and increased shedding of Epstein Barr virus (EBV)http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2577537/ I may experiment with this a little bit.

Carol on April 3, 2014 at 9:48 am

Raoul, how did you find out you had high levels of e-coli?

Natalie on February 15, 2014 at 9:20 am

Hi Ken,
Thanks so much for all this information. I am wanting to try your treatment plan. As mentioned previously, I saw Dr. Jadin in 2003 with some results, but not complete recovery. I live in South Africa, do you think it's worth doing the tests with Cecile again? Can you suggest a doctor I should approach to help me with this treatment (homeopath, naturopath, GP?) do you think I should have any tests carried out beforehand? Or do you think I should just see how the treatment goes?
Many thanks, Natalie

DH on May 13, 2014 at 10:38 am

Hi Ken,

After tons of research, I found a Canadian supplier who is willing to ship Mutaflor to the US. My shipment arrived yesterday! I simply called and asked them if they carried Mutaflor and would ship to the US. They said, yes and required express shipping. So it wasn't exactly cheap. Also, it arrived lukewarm, even though it was correctly packaged in a Styrofoam container surrounded by ice packs. Short of flying to Canada from Los Angeles, this was my best option. I don't want to get the company in any trouble, but please contact me at damonhowe AT g m ail dot com for info. If anyone else wants this info I will gladly share as well.

I noticed you're collecting stool test data, mine is from Doctor's Data and not very detailed. Under the Bacteriology Culture, here were my results: Bacteroidis Fragilis Group +4, Bifidobacterium spp. +3, Escherichia coli +3, Lactobacillus spp +1, Enterococcus +1, then below that Clostridium spp +3. There were no results under the Commensal (imbalanced) flora or the Dysbiotic flora sections. Do you think these results are helpful at all? Since my Lactobacillus results are low, does this mean

Lactobacillus results are low, does this mean I SHOULD take acidophilus? And since E. coli is already high should I not take the Mutaflor?

Thanks again Ken. I hope you continue to post and lend your obviously big brain to the cause of CFS.

Ken Lassesen on May 13, 2014 at 4:08 pm

Re: "And since E. coli is already high should I not take the Mutaflor?" You should take it because it will out compete the bad E.coli. There are two questions: General E.Coli population and the content of the population (good/bad).

High E.Coli may be a precursor for getting a Crohn's Disease diagnosis, which is characterized by very high E.Coli. You may wish to scan my site, **http://cfsremission.wordpress.com/** for posts on treating Crohn's Disease — specifically the high E.Coli issue with CD.