

Mycoplasma Infection - From GWI To Chemtrail Illness - Extremely Important

8-18-00

Note - We suggest you print this out and take it to your physician or medical care provider.

Mycoplasma Information Package
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8-18-00

The curse of Gulf War Vets, and now purportedly those suffering from chemtrail sicknesses.

While it is still not known what causes CFS, FMS, and MCS, we are hearing of reports that a very high number (75-80%) test positive for a pathogenic form of the organism called Mycoplasma. While there are several species of this organism, most of us have been found to have active infections in our bodies of the Mycoplasma fermentans (incognitus), Mycoplasma penetrans, and Mycoplasma pneumoniae types. These organisms are a pathogenic form of Mycoplasma which are very slow-growing, invasive into deeper parts of the body (i.e., brain, central and peripheral nervous system, muscles and joints, bone marrow, gastrointestinal system, lungs and heart, and the immune system, itself), and are very difficult to treat. These are the same organisms that have been found in AIDS patients and Gulf War Syndrome patients.

Those who test positive for active infection with a Mycoplasma are realizing a tremendous improvement &/or recovery in their health with appropriate antibiotic treatment. This treatment is long term (1-2 years of continuous antibiotics). The initial segment of the treatment can be difficult and the continuous antibiotic dose is very harsh on the body.

Many people with CFIDS are concerned (and some are even frightened) to take antibiotics for prolonged periods of time. However, years of medical experience in the use of antibiotics to treat chronic infectious conditions such as rheumatic fever, acne, recurrent ear infections, Chronic Obstructive Pulmonary Disease, bronchiectasis, and others, have not revealed any consistent dire consequences as a result of such medications.

Indeed, the very real consequences of untreated, chronic persistent infection with Mycoplasma can be far worse than the potential consequences of this treatment. If you begin treatment, it is recommended that you be monitored closely by a knowledgeable physician. If your physician is not familiar with long-term antibiotic therapy, or if he/she is unsure of the pathophysiology of the Mycoplasmas, they are invited to call Dr.'s Garth or Nancy Nicolson (see Resource List).

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Since this form of treatment is so new for CFS, FMS and MCS, we are all involved in research of a sort. Because of that, we need to keep in touch and share triumphs and problems encountered. And, as we get well, we need to spread the word and help others. If you test positive for the organism, please send the enclosed form to the Mycoplasma Registry (see Resource List). The Mycoplasma Registry is a non-profit organization set up to track those who test positive. They have over 800 in the registry thus far, and have compiled some excellent statistics. Approximately 85% of those in the registry listing come from the CFS, FMS and MCS community! Of course, all listings are confidential. Also, feel free to copy and share any of the papers in this Mycoplasma Packet with others.

We are all-different, and will undoubtedly respond differently to the treatment. As with any treatment suggestions given, the information in this packet is intended to help you make informed decisions about your care. It is not intended to take the place of medical advice. Please work closely with your physician to tailor any treatment to your individual needs and differences.

Enclosed in this packet are the following:

1. Mycoplasma: A Simple Overview, written by Sharon Briggs
2. Antibiotics Recommended When Indicated for Treatment of Gulf War Illness/CFIDS, written by Garth Nicolson, Ph.D.
3. Additional Considerations When Undergoing Treatment For GWI/CFS/FMS, written by Garth Nicholson, Ph. D.
4. Mycoplasma Treatment Suggestions, written by Sharon Briggs
5. An Overview of My Symptoms and Recovery from CFIDS With Antibiotics, written by Sharon Briggs
6. Mycoplasma Resource List
7. Mycoplasma Registry Form
8. Institute for Molecular Medicine, Blood Test Order and Information Form

Any donations to offset the cost and postage of this packet would be greatly appreciated.

Sharon Briggs

Support Group Leader

MYCOPLASMA: A SIMPLE OVERVIEW

For years we in the CFS/FMS/MCS community have been watching the reports of Gulf War Illness (GWI) knowing, instinctively, that we all had something in common. Not only do we all have common symptoms, but we may also be infected with common pathogenic organisms. That pathogen is a Mycoplasma. Various pathogenic strains have been identified including the fermentans (incognitus), penetrans, genitalium, hominis, and pneumoniae. And, we may be

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infected with several of these strains at one time. Following is a simple overview of the information I have gathered about this Mycoplasma pathogen and how it affects us.

How Was Mycoplasma Infection Identified In GWS and CFIDS Patients?

The information trail started with Garth and Nancy Nicolson. Their daughter returned from the Gulf War with an unexplained illness. She was unable to continue her studies at college, and moved back home. Soon after, her parents both became ill with the same symptoms. Medical tests revealed nothing abnormal, but they all continued to worsen. Fortunately for them, however, the Nicolson's were molecular pathologists with an entire research laboratory at their disposal. The Nicolson's drew blood and tissue samples from themselves and their daughter, and set the research team, to work.

Garth Nicolson Ph.D. is a professor and former chairman of the Department of Tumor Biology at the University of Texas, M.D. Anderson Cancer Center, Houston, TX. He is also a professor of Internal Medicine, Pathology and Laboratory Medicine at the University of Texas Medical School. He has published over 500 scientific and medical papers, has edited 13 books, he is the current editor of two scientific and medical journals. Dr. Nicolson has been nominated for the Nobel Prize in cell microbiology, is among the 100 most cited researchers in the world, and sits on the board of the American Association of Cancer Research. Nancy Nicolson, Ph.D. was president of the Rhodon Foundation for Biomedical Research. She, also, has published numerous scientific papers and was a professor in the Department of Immunology and Microbiology at Baylor College of Medicine.

What they found was a living Mycoplasma pathogen. In order to find this organism, they had to break open the leukocytes (white blood cells), and perform a specific test called a Polymerase Chain Reaction (PCR) of the DNA of the organism. Nancy also perfected another test, called Gene Tracking, which confirms the PCR results. To gather more information, they then started testing other GWI patients. What they found was that approximately 50% were positive for the live organism. The Nicolson's then researched treatment options and found a number of antibiotics that were effective against the organism. (2) After a lengthy course of antibiotics, they recovered. But, the word was out, and requests for testing of GWI patients kept coming in to the lab. They were inundated! As their evidence mounted, they published their data (3) (4) (5) and testified before the President's Panel on Gulf War Illnesses. (6) Then the connection was made by the government of the similarities between GWI and CFIDS. (7) By this time, the Nicolson's lab was already running tests of those with CFIDS--with the same results-- approximately 50% positive! Garth and Nancy Nicolson even wrote an article for the CFIDS Chronicle outlining the diagnosis and treatment of GWI/CFIDS. (8)

But, the politics of medicine and research have slowed the gears of progress! Garth and Nancy had to relocate their non-profit lab (The Institute for Molecular Medicine), first to Irvine, CA, then to Huntington Beach, CA. They have had difficulty finding funding for the Mycoplasma research. For their research to continue with CFIDS testing, they need a new grant. In the meantime, they have formed a non-profit organization and take tax deductible donations, and they are making plans to take third-party billing in order to bill insurance for part of the cost of the tests. Presently, one can become a "Friend of the Institute" and have the various tests done

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at The Institute for Molecular Biology lab, as well as, participate in the research (see Resource List for full instructions).

Those of us who have tested positive and have begun treatment with the antibiotics recommended by the Nicolson's have had tremendous success. Some of these people have been ill with CFS/FMS/MCS for 15-20 years. But, they are feeling better for the first time since becoming ill! Some have even returned to work. Many have completed several months of antibiotics, and several have been taking them continuously for 1- to 2 years. Since most of us in the CFS/FMS/MCS community have been ill with this organism for a lot longer than the GWI patients do, it may take longer to successfully treat the infection.

What Is Mycoplasma?

Mycoplasmas are the smallest and simplest organism known. They are not new. They were discovered over 100 years ago and evolved from bacteria. The "garden variety" mycoplasma is not usually associated with severe diseases. (13) However, sometime over the past 30 years, the organism has been altered to become more lethal. The Mycoplasmas found by the Nicolson's, in their lab, contain unusual gene sequences that were probably inserted into the Mycoplasma by a specific laboratory procedure. This discovery has led them to conclude that the new forms of mycoplasma were specifically engineered for germ warfare. (9) In its laboratory evolution, the Mycoplasmas have become more invasive, more difficult to find, and capable of causing severe diseases in humans. Diseases, like Gulf War Illness, CFS, FMS, MCS, Rheumatoid Arthritis, and AIDS, for instance.

The earlier form of Mycoplasma was studied by Dr. Shyh Lo, formerly of Tanox Biosystems, a spin-off biotechnology company from the Baylor College of Medicine, but now affiliated with the Armed Forces Institute of Pathology in Washington D.C. Dr. Lo has been credited with discovering the new pathogenic form of Mycoplasmas, and he currently holds several patents on methods for special handling of the organisms for study and development. (10) In one of his patents (in 1991), Dr. Lo lists the following diseases that are caused by Mycoplasma: HIV infection, AIDS, Aids Related Complex (ARC), Chronic Fatigue Syndrome, Wegener's Disease, Sarcoidosis, Respiratory Distress Syndrome, Kibuchi's Disease, Alzheimer's Disease, and Lupus. (10) In addition, Baseman and Tully have reviewed the literature on the role of Mycoplasmal infections in human disease and have concluded that they are important factors or co-factors in a variety of chronic illnesses. (11)

Unlike bacteria, the Mycoplasma has no cell wall. This enables it to invade tissue cells, incorporating the cell's nutrients, and using the cell to replicate itself (much like a retrovirus). (13) When the Mycoplasma breaks out of the cell, it takes a piece of the host cell membrane with it. When the immune system attacks the Mycoplasma, it also gets "turned on" to attacking the host cell. In this way, an autoimmune condition can begin. Autoimmune conditions associated with Mycoplasmas include arthritis, fibromyalgia, myositis, thyroid dysfunction (Hashimoto's or Grave's Diseases), and adrenal dysfunction, signs and symptoms of Lupus, Multiple Sclerosis, Lou Gehrig's Disease. (12)

The Mycoplasma organism has the capacity to invade cells, tissues and blood, producing systemic infections in numerous organ systems. According to Dr. Nicholson, it can penetrate the

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central and peripheral nervous system. Because it has the ability to damage the immune system by invading the natural killer cells (NK cells) of the lymphocytes, it weakens them, reduces their numbers, and renders them susceptible to viral infections, such as Human Herpes Virus 6 (HHV6). (14) (15) (16) It may also explain some of the environmentally sensitive responses that are seen with CFIDS and MCS.

Mycoplasma infection can trigger inflammatory cytokine over-production that is commonly seen in CFS/FMS. With the induction of CD-4+ helper cells of the immune system, an over production of cytokines such as Interleukin-1, Interleukin-6 and Tumor Necrosis Factor-alpha occurs. (15)(16)(17) These elevated cytokines have been implicated in the development of many of the CFS/FMS symptoms, including neurological involvement. (19)(20) They can have specific or nonspecific stimulatory or suppressive effects on lymphocytes, as measured by B and T cell activation. (18) In addition, the Mycoplasma infection has immunomodulating effects, activating the hypothalamic-pituitary-adrenal axis. This can cause a cascade of limbic system symptoms characteristic of CFS/FMS. (19)

The Mycoplasma is a slow-growing, stealth-type organism that can cause the patient to be very ill. It activates the immune system, then can successfully hide from it within the host immune cells. It can then circulate throughout the body and go wherever a white blood cell can go. It can cause infection deep within any or all organs. It can even cross the blood/brain barrier and cause brain and spinal infection. It has also been known to cross the placental barrier to an unborn fetus. Unless the white blood cell is split open and examined for the evidence of the live organism, it can go undetected for years. Because the organism resides deep within the cells, conventional antibody tests may be relatively useless. (21) The splitting open (fraction) of leukocytes (white blood cells) from a fresh blood sample, with a forensic PCR test is the most accurate way to detect the presence of active infection with a live pathogen. Further gene-tracking techniques perfected by the Nicolson's are even more accurate. (22)

Contagion

Although the researchers have not clearly established how contagious the Mycoplasmas are, they have made some inferences from the data they have collected. The Mycoplasma organism has been found in the blood and body fluids, spinal fluid, bone marrow, urine, and in the lungs, nose and mouth. The Mycoplasma is reported to be able to survive for two hours outside the body. Of those with Gulf War Illness, 50% of their spouses have contracted the disease and 100% of their children. Several babies have also been known to be born with the disease. Some sort of chemical exposure or immune distress (i.e., auto accident, surgery, cancer) appears to pre-date the onset of illness. Of those with CFS, FMS, and MCS, numerous friends and spouses have the illness, as well as close relatives. So, from the anecdotal reports, it would appear that Mycoplasma is contagious after both casual and intimate contact. This means that the organism may possibly be passed to another through sputum (coughing droplets that contain the organism), saliva, sexual secretions, blood, and urine. The disease is also developing in family pets.

If one test positive for any of the Mycoplasmas, in order to safeguard those with whom you have close contact, it would be prudent to do the following: Wash your hands a lot, never share

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your food or drink with another, wash eating utensils with extremely hot water, keep your hands away from your face, avoid closed-air spaces where air is re-circulated (i.e., offices, airplanes), and use protective sexual practices.

Treatment

If detected early, the diseases associated with invasive mycoplasmal infections are treatable with long cycles of high-dose antibiotics. (23)(24)(25) Since the organism is a slow-growing, intracellular type with a long life cycle, several, long term courses of antibiotics may be necessary. The infection may need to be treated for several months or years. (The disease is treated much as Lyme's Disease is treated.) If a person is taking antibiotics, the testing will not detect the presence of Mycoplasma in the blood. And, if a person has been taking antibiotics, they must wait for 2-3 months after stopping the antibiotics for the test to be accurate.

As yet, we do not know if antibiotics are a cure for Mycoplasma infections. Mycoplasma fermentans (incognitus) has the ability to enter any cell and alter itself, changing its cellular makeup with every cell division. This may make it impossible for readily available antibiotics to clear the body of this organism. (14)

What we are hoping for is to cause the organism to be diminished or go dormant until a cure is discovered. To do that, we need to kill as much of the live organisms from our bodies as possible with the antibiotics. Once our white blood cells are free of the infection, then they can become healthier and can, hopefully, do a better job to keep the Mycoplasma under control. This may take several months/years of antibiotic treatment to accomplish. During this time, it is important to not lower the dose or stop taking the antibiotic too early, for a relapse is certain.

Is Treating Mycoplasma Infection The Answer To Curing CFIDS?

The precise nature and cause of CFS/FMS/MCS is not clear at this time. However, recent studies have shown that several microorganisms may be a factor in CFIDS. Clinical PCR testing has been positive for all of the human herpes viruses, particularly Epstein-Barr Virus (EBV) and Human Herpes Virus-6, Types A and B (HHV-6). Most recently, organisms like Human T-lymphotropic virus (HTLV) types I and II, the foamy or Spuma virus, and the Chlamydia pneumoniae bacteria have also been demonstrated. (26)

Perhaps with this evidence, it would appear that CFIDS has many causative organisms? That is a possibility. Researchers studying AIDS have found that Mycoplasma and HHV-6a may be co-factors for causing AIDS. (14) And, it is further speculated that this same HHV-6 virus may be a co-factor in CFIDS and Multiple Sclerosis. Dr.'s Konnie Knox and Donald Carrigan from the Greenfield, Wisconsin Laboratory (see Resource List), offer some of the most sophisticated human herpes assays in the world. They have been doing extensive research into the various forms of human herpes and their effects on the body. Present in about 98% of the population, HHV-6 remains dormant and harmless in healthy people. But, when activated (possibly by the Mycoplasma infection), it can cause a highly dysregulated immune system often resulting in severe immune suppression which increases an individual's vulnerability to control severe infections (such as Mycoplasma). Perhaps, if HHV-6 were a co-factor of our disease (along with

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Mycoplasma), it would appear to be best to be tested and treated for both concurrently, if one is found to be positive.

While the researchers sort out the chicken-or-the-egg, one-organism-one disease, multi-factor theories, it seems prudent for us to test for and consider treating the organisms that we can. Especially when, in the case of Mycoplasma, a few simple antibiotics can bring us so much relief! In the case of a positive test for HHV-6, the antiviral Zovirax may be helpful, and the FDA will soon release a new drug, called Labucavir that may be effective against the Human Herpes Virus family, specifically. However, it is still in the testing phase and is not yet available.

Conclusion

Infection with a Mycoplasma organism appears to cause most of the signs and symptoms of CFS/FMS/MCS. It can also account for most of the dysregulation of the immune system and the abnormal immune tests. It seems prudent to be tested for this organism, and if positive, to be treated with the recommended antibiotics. Many of us have been ill for 10-20 years and have spent thousands of dollars on treatments that did nothing. Wouldn't it be a Godsend to have a treatment that worked?

The treatment course is long term and often difficult for many. And, while we may not become completely well, there is preliminary evidence that many of us who are taking the antibiotics are improving! It has certainly been a horrible disease for the Gulf War Vets to contract, but for us, the fact that they did has saved many lives in the CFS/FMS/MCS community!

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Courtesy of Sharon Briggs SHASTA CFIDS

Antibiotics Recommended When Indicated for Treatment of Gulf War Illness/CFIDS/FMS

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Doxycycline (AKA Vibramycin, Monodox, Doxychel, Doxy-D, Doryx)

Doxycycline is a broad spectrum tetracycline with good lipid solubility and ability to penetrate the blood-brain-barrier. This antibiotic acts by inhibiting microorganism protein synthesis, it is readily absorbed by the (normal) gut, and peak blood concentrations are maintained between 2-18 hours (half-life 18-22 hours) after an oral dose of drug. Food, calcium, magnesium and antacids reduce absorption, and alcohol, phenytoin [Dilantin] or barbiturates reduce blood half-life.

For Gulf War Illness/Chronic Fatigue Syndrome/Fibromyalgia Syndrome (GWI/CFIDS/FMS) use, the recommended dose is 200-300 mg/day (oral, 2-3x100 mg capsules) for each 6 week cycle of therapy. Initially, doxycycline initially exacerbates symptoms (Herxheimer reactions or adverse antibiotic responses, such as transient fever, skin, gut discomfort, etc.) but these are usually gone within 2 weeks or so. Patients usually start feeling better with alleviation of most major signs and symptoms within 2-6 weeks, but in some patients major symptoms are not alleviated until the second 6-week course. Severe reactions or prior damage to the gastrointestinal system may require I.V. administration of 100-150 mg/day (rapid I.V. administration is to be avoided) for 2-3 weeks, then the remainder of the 6 week course should be on oral antibiotic (to avoid thrombophlebitis complications which can occur with prolonged I.V. therapy). Some react to the starch filler in the capsules and must use Doryx, a granular form of doxycycline.

Virtually all patients relapse (show the same major signs and symptoms) after the end of the first and second 6-week course of therapy, and these can be run together without a pause. In a pilot study, 85% relapsed after 2 cycles, and after 5 and 6 cycles, 27% and 11%, respectively, still relapsed after discontinuing antibiotic therapy.

In some cases doxycycline has been used successfully with other antibiotics in situations where either antibiotic alone appeared to have minimal effect (for example, doxycycline in combination with Ciprofloxacin). Doxycycline is primarily bacteriostatic and effective against the following organisms: gram-negative bacteria (*N. gonorrhoeae*, *Haemophilus influenzae*, *Shigella* species, *Yersinia pestis*, *Brucella* species, *Vibrio cholera*); gram-positive bacteria (*Streptococcus pneumoniae*, *Streptococcus pyogenes*); mycoplasmas (*Mycoplasma pneumoniae*, *Mycoplasma fermentans* [incognitis], *Mycoplasma penetrans*); others (*Bacillus anthracis* [anthrax], *Clostridium* species, *Chlamydia* species, *Actinomyces* species, *Entamoeba* species, *Treponema pallidum* [syphilis], *Plasmodium falciparum* [malaria] and *Borelia* species).

Precautions: Avoid direct sunlight and drink fluids liberally. Doxycycline therapy may result in overgrowth of fungi or yeast and nonsensitive microorganisms (see Other Considerations). Patients on anticoagulants may require lower anticoagulant doses. Last half of pregnancy, infancy and children under 8 years are not recommended, in the latter case due to tooth discoloration, but lower doses of doxycycline have proven to be very effective in children under

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8 with GWI/CFIDS (if weight 100 lbs. or less, 1-2 mg/lb. divided into two doses; if is weight over 100 lbs. use adult doses). Patients with impaired kidney function should not take doxycycline, and the following drugs should not be taken with doxycycline: methoxyflurane [Penthrane], carbamazepine [Tegretol], digoxin or diuretics.

In case of complicating bacterial infections, a 2 week course of Augmentin (3 X 500 mg/day) should be taken between courses of doxycycline or other antibiotics. For fungal and yeast complications, please see the instructions under. Other Considerations at the end of this handout.

Adverse Reactions: In a few patients doxycycline causes gastrointestinal irritation, anorexia, vomiting, nausea, diarrhea, rashes, mouth dryness, hoarseness and in rare cases hypersensitivity reactions, hemolytic anemia, skin hypersensitivity and reduced white blood cell counts. In general, doxycycline is considered a safe drug, in that there are few adverse reactions reported in the literature.

Ciprofloxacin (AKA Cipro, Cifox, Cifran, Ciloxan, Ciplox)

Ciprofloxacin is a broad spectrum synthetic fluoroquinolone antibiotic with good absorption characteristics. This drug acts on bacterial DNA gyrase to inhibit bacterial DNA synthesis. Ciprofloxacin is secreted rapidly in the urine and has a half-life in the blood of about 4 hours. Food delays the absorption of antibiotic (by ~2 hours) but not the total absorption; antacids containing magnesium, aluminum or other salts reduce absorption and should not be taken at the same time of day.

For GWI/CFIDS/FMS use, the recommended dose is 1500 mg/day (for oral use, 3x500 mg capsules) for each 6 week cycle of therapy. Ciprofloxacin may or may not be taken with meals. Initially, Ciprofloxacin may exacerbate some symptoms (Herxheimer reactions or adverse antibiotic responses) but these are usually gone within a week or so, and some patients report that doses of 1000 mg/day or lower are not effective in alleviating GWI/CFIDS/FMS symptoms. Patients usually start feeling better with alleviation of most major signs and symptoms within 1-4 weeks, but in some patients major symptoms are not alleviated until the second 6-week course. Ciprofloxacin has been used in patients in which doxycycline cannot be tolerated or in some patients that no longer respond to doxycycline. In a few cases Ciprofloxacin has been used simultaneously with doxycycline, but the usual course is one type of antibiotic alone.

Herxheimer reaction, if present, usually passes within a few days to 2 weeks or so; prior damage to the gastrointestinal system may require I.V. administration of 400 mg/day (over one hour per each infusion, rapid I.V. administration is to be avoided) for 2-4 weeks, then the remainder of the 6-week course should be on oral antibiotic (oral doses). Virtually all patients relapse (show the same major signs and symptoms) after the end of the first or second 6-week course of therapy. Additional cycles of antibiotic result in milder relapses after drug is discontinued. Subsequent cycles of antibiotics may require the use of doxycycline or other antibiotics instead of Ciprofloxacin.

Ciprofloxacin is effective against the following organisms: gram-negative bacteria (Shigella species, Citrobacter diversus, Citrobacter freundii, Escherichia coli, Klebsiella pneumoniae,

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Haemophilus influenzae, Enterobacter species, Proteus vulgaris, Psuedomonas aeruginosa, Yersinia pestis, Vibrio cholera); gram-positive bacteria (Streptococcus pneumoniae, Streptococcus pyogenes, Staphylococcus hominis, Staphylococcus saprophyticus); mycoplasmas, moderately active (Mycoplasma species); others (Clostridium species, Chlamydia species, Mycobacterium tuberculosis).

Precautions: Direct sunlight is to be avoided, and patients should not take Ciprofloxacin and theophylline concurrently. Ciprofloxacin therapy may result in drug crystals in the urine in rare cases, and patients should be well hydrated to prevent concentration of urine. Pregnant women and children should not use this drug due to reduction in bone and cartilage development.

Adverse Reactions: Adverse antibiotic responses resulted in discontinuing drug in ~3.5% of patients, and such reactions included nausea (5%), diarrhea (2%), vomiting (2%) abdominal pain (1.7%), headache (1.2%) and rash (1.1%). In rare cases Ciprofloxacin may cause cardiovascular problems (<1%) and central nervous system (dizziness, insomnia, tremor, confusion, convulsions and other reactions (<1%). Small numbers of patients have experienced hypersensitivity (anaphylactic) reactions which have required immediate emergency treatment.

Azithromycin (AKA Zithromax)

Azithromycin is an azalide (macrolide) antibiotic with good absorption and a serum half-life of 68 hours. This class of drug acts by binding to the 50S ribosomal subunit of susceptible organisms where it interferes with protein synthesis. Food decreases absorption rate, but absorption is unaffected by antacids containing magnesium, aluminum or other salts. For GWI/CFIDS/FMS use, the recommended dose is 500 mg/day (for oral use, 2x250 mg capsules) for each 6-week cycle of therapy. Azithromycin should not be taken with meals (1 hour before or 1 hour after). Initially, azithromycin may exacerbate some symptoms but these are usually gone within a week or so. Patients usually start feeling better with alleviation of most major signs and symptoms within 1-2 weeks, but in some patients major symptoms are not alleviated until the second 6 week course. Azithromycin has been used in patients in which doxycycline cannot be tolerated or in some patients that no longer respond to doxycycline. Herxheimer reactions are rare and usually pass within a few days to a week or so. Virtually all patients relapse (show the same major signs and symptoms) after the end of the first or second 6-week course of therapy. Additional cycles of antibiotic result in milder relapses after drug is discontinued. Azithromycin has been shown to be safe for pediatric use (10 mg/kg/day is recommended for children under 14).

Azithromycin is effective against the following organisms: gram-negative bacteria (Bordetella pertussis, Shigella species, Haemophilus influenzae, Chlamydia species, Yersinia pestis, Brucella species, Vibrio cholera); gram-positive bacteria (Streptococci group C, F, G); mycoplasmas (Mycoplasma species); others (Clostridium species, Treponema pallidum [syphilis], and Borelia sp.).

Precautions: Azithromycin is principally absorbed by the liver, and caution should be exercised with patients with impaired liver function. Antacids containing magnesium, aluminum or other salts should not be taken at the same time of day with azithromycin. Macrolides and

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terfenadine (Seldane) or astemizole (Hismaral) may dangerously elevate plasma antihistamine and cause arrhythmias and increase serum theophylline levels in some patients, particularly those receiving methylated xanthine causing nausea, vomiting, seizures. Plasma levels of carbamazepine (Tegretol) can also be elevated, leading to carbamazepine toxicity and nausea, vomiting, drowsiness and ataxia.

Adverse Reactions: Adverse antibiotic responses were mild to moderate in clinical trials and included diarrhea (5%), nausea (3%), abdominal pain (3%). In rare cases (<1%) azithromycin may cause cardiovascular problems (palpitations, tachycardia, chest pain) and central nervous system (dizziness, headache, vertigo), allergic (rash, photosensitivity, angioderma), fatigue and other reactions (<1%). In pediatric patients 80% of the adverse responses were gastrointestinal.

Clarithromycin (AKA Biaxin)

Clarithromycin is a broad spectrum macrolide antibiotic with good absorption and serum half-life. This class of drug acts by binding to the 50S ribosomal subunit of susceptible organisms and interfering with protein synthesis. The drug is mostly bacteriostatic but high concentrations can be bactericidal. Food decreases absorption rate, but absorption is unaffected by antacids containing magnesium, aluminum or other salts.

The recommended dose is 500-750 mg/day (for oral use, 2-3x250 mg capsules) for each 6-week cycle of therapy. Clarithromycin should not be taken with meals (1 hour before or 1 hour after). Initially, Clarithromycin may exacerbate some symptoms due to Herxheimer reaction and bacterial death but these are usually gone within a week or so.

Patients usually start feeling better with alleviation of most major signs and symptoms within 1-2 weeks, but in some patients major symptoms are not alleviated until the second 6-week course. Clarithromycin has been used in patients that do not respond to doxycycline or in patients that cannot tolerate doxycycline. Herxheimer reactions usually pass within a few days to over a week or so. Virtually all patients relapse (show the same major signs and symptoms) after the end of the first or second 6-week course of therapy. Additional cycles of antibiotic result in milder relapses after drug is discontinued.

Clarithromycin is effective against the following organisms: gram-negative bacteria (*Neisseria gonorrhoeae*, *N. meningitidis*, *Moraxella catarrhalis*, *Campylobacter jejuni*, *Eikenella corrodens*, *Haemophilus ducreyi*, *Bordetella pertussis*, *Shigella* species, *Salmonella* species, *Haemophilus influenzae*, *Chlamydia* species, *Yersinia pestis*, *Brucella* species, *Vibrio cholera*, *Aeromonas* species, *E. coli*, gram-positive bacteria (*Streptococcus pyogenes*, *S. pneumoniae*, anaerobic *Streptococci*, *Enterococcus faecalis*, *Staphylococcus aureus*, *S. epidermidis*, *Bacillus anthracis*, *Corynebacterium diphtheriae*, *C. minutissimum*, *Listeria monocytogenes*, *Actinomyces israelii*); mycoplasmas (*Mycoplasma* species, *M. pneumoniae*, *Ureaplasma urealyticum*); others (*Clostridium* species, *Treponema pallidum* [syphilis], *Legionella pneumophila*, *L. micdadei*, *Mycobacterium avium*, *M. chelonae*, *M. chelonae abscessus*, *M. fortuitum*, *Rickettsia* species and *Borrelia* species). Yeast's, fungi and viruses are resistant.

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Precautions: Clarithromycin is principally absorbed by the liver, and caution should be exercised with patients with impaired liver function. Antacids containing magnesium, aluminum or other salts should not be taken at the same of day as azithromycin. Macrolides and terfenadine (Seldane) or astemizole (Hismaral) may dangerously elevate plasma antihistamine and cause arrhythmia's and increase serum theophylline levels in some patients, particularly those receiving methylated xanthine causing nausea, vomiting, seizures. Plasma levels of carbamazepine (Tegretol) can also be elevated, leading to carbamazepine toxicity and nausea, vomiting, drowsiness and ataxia. Macrolides should not be used with cyclosporin (Sandimmune).

Adverse Reactions: Adverse antibiotic responses were mild to moderate in clinical trials and included diarrhea, nausea, and abdominal pain. In rare cases (<1%) azithromycin may cause cardiovascular problems (palpitations, tachycardia, chest pain) and central nervous system (dizziness, headache, vertigo), allergic (rash, photosensitivity, angioderma) and fatigue.

Other [Important] Information (see Additional Considerations...)

GW/CFIDS/FMS patients are often low in vitamins (B, C and E) and minerals. Sublingual (under the tongue) natural B-complex vitamins (Total B, Real Life Research, Norwalk, CA) can be ordered from Vitamin Park (Irvine, CA). General vitamins plus extra C and E and general mineral supplements are also useful, but not at the same time of day that antibiotics are taken because minerals can affect the absorption of the antibiotics. Selenium and magnesium are two of the minerals that are low in GW/CFIDS/FMS patients. Some have recommend 300-500 mg/day sodium selenite for a few days, followed by lower maintenance doses. Some zinc supplementation is recommended. L- cysteine supplementation has been proposed but should not be taken at the same time as minerals.

Antibiotics can result in yeast overgrowth, especially in female patients. Gynecologists recommend Nizoral, Diflucan, Mycelex, or anti-yeast creams for women on antibiotics. In some cases, simultaneous use of metronidazole (Flagyl, Prostat) have been used to prevent fungal and parasite overgrowth or antifungals (Nystatin, Amphotericin B, Fluconazole) have been administered for fungal infections that can occur while on antibiotics. To replace bacteria in the gastrointestinal system yogurt, Lactobacillus acidophilus tablets are recommended. In some patients 'organic' food has been beneficial. Caffeine should be avoided. On page 1 are instructions for suppressing bacterial overgrowth (if necessary) in between cycles of antibiotics with a 2 week course of Augmentin (3 X 500 mg/day). Augmentin can be taken concurrently with the other antibiotics, if necessary.

A number of natural remedies, such as ginseng root, whole lemon/olive oil drink or an extract of olive leaves with antioxidants (Eden or Immunoscreen of Covina, CA), and a mixture of herbals and vitamins (Nu-Life Formula, Sophista-Care of Indian Wells, CA) have been used to boost immune systems. Although these products appear to help CFIDS/FM patients, their effectiveness in GW/CFIDS/FM patients has not been examined. They appear to be useful after antibiotic therapy.

Finally, GW/CFIDS/FMS patients should not smoke and not drink alcohol, caffeinated products or eat refined sugar, and they should avoid pollutant exposure, especially those who are

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chemically sensitive. Flying, excessive exercise and lack of sleep can make signs/symptoms worse; some exercise (don't overdo it!) and dry saunas help rid the system of contaminating chemicals.

Additional Considerations when Undergoing Treatment for Gulf War Illness/CFS/FMS

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There are a number of considerations that should be taken into account when undergoing therapy for Gulf War Illness/Chronic Fatigue Syndrome/Fibromyalgia [GWI/CFS/FMS]. A few are mentioned below, and some product examples are given. The Institute for Molecular Medicine is a nonprofit institution and does not endorse commercial products. The products mentioned below are only examples of the types of substances that could be beneficial to patients. Consult with your physician.

Antibiotic Therapy for Associated Chronic Infections

Please consult Antibiotics Recommended When Indicated for Treatment of Gulf War Illness/CFS/ FMS for general information. We are finding that subsets of GWI (~45%) and FMS/CFS (~60%) patients have chronic mycoplasmal infections, and probably other chronic infections as well. We usually recommend to physicians that antibiotics (doxycycline, ciprofloxacin, Biaxin, minocycline, azithromycin) be given for several 6 week cycles with 2 week cycles of Augmentin in between or concurrently, if needed. To overcome Herxheimer reactions or die-off that cause chills, low grade fever, night sweats, muscle aches, joint pain, short term memory loss and fatigue) or adverse responses, IV antibiotics have been used, and a whole lemon/olive drink is useful (1 blended whole lemon, 1 cup fruit juice, 1 TBS olive oil--strain and drink liquid). This period usually passes within 1-2 weeks. During recovery, which is often slow and can take over a year with ups and downs in your condition, a number of additional nutritional and immune problems must be considered.

General Nutritional Considerations

GW/CFS [or CFIDS]/FMS patients are often immunosuppressed and could be susceptible to a variety of opportunistic infections, so proper nutrition and exercise are important. GWI/CFS/FMS patients should not smoke or drink alcohol or caffeinated products. Drink as much fresh fluids as you can, lots of fruit juices or pure water are best. Try to avoid high sugar and fat foods, such as military (MRE) or other fast foods and acid-forming, allergen-prone and stressing foods or junk foods. Increase your intake of fresh vegetables, fruits and grains, and decrease your intake of fats and eliminate simple or refined sugars that can suppress your immune system. To build up your immune system cruciferous vegetables, soluble fiber foods, such as prunes and bran, wheat germ, yogurt, fish and whole grains are useful. In some patient's exclusive use of 'organic' foods have been beneficial.

Vitamins and Minerals

GW/CFS/FM patients are often depleted in vitamins (especially B, C and E) and certain minerals. Unfortunately, illnesses like GWI result in poor absorption. Therefore, high doses of some vitamins must be used, and the gut (oral capsules) cannot easily absorb others, such as vitamin B complex. Sublingual (under the tongue) natural B-complex vitamins in small capsules or liquids (such as Total B, Real Life Research, Norwalk, CA, 310-926-5522) should be used instead of oral capsules that are swallowed. General vitamins plus extra C, E, CoQ-10, beta-carotene, folic acid, bioflavoids and biotin are best. L-cysteine, L-tyrosine, L-carnitine and malic acid are reported by some to be useful. Certain minerals are also often depleted in GWI/CFS/FMS patients, such as zinc, magnesium, chromium and selenium. Some recommend doses as high as 300-mg/day-sodium selenite for a few days, followed by lower maintenance doses. Minerals should not be taken at the same time of day that antibiotics are taken because the minerals can affect the absorption of certain antibiotics.

Replacement of Natural Gut Flora

GW/CFS/FMS patients are often undergoing treatment with antibiotics and other substances that can destroy the normal gut flora. Antibiotic use that depletes normal gut bacteria and can result in over-growth of less desirable bacteria. To supplement bacteria in the gastrointestinal system yogurt and especially Lactobacillus acidophilus tablets are recommended. One product is a mixture of Lactobacillus acidophilus, Lactobacillus bifidus and FOS (fructooligosaccharides) to promote growth of these "friendly" bacteria in the gut (example, DDS-Plusor Multi-Flora ABF, UAS Labs of Minnetonka, MN, 800-422-3371). L. acidophilus should be taken daily to restore gut flora. A human bowel culture, Replete (Interplex) has proven useful to restore natural gut flora.

Natural Immunoenhancers or Immunomodulators

A number of natural remedies, such as ginseng root, herbal teas, whole lemon/olive extract drink or an extract of olive leaves with antioxidants are available and are potentially useful, especially during or after antibiotic therapy has been completed. Some examples are botanical mixtures, such as Eden, Echinacea-C (NF Formulas, 800-547-4891), Super-Immunotone (Phyto Pharmica, 800-553-2370), olive leaf extract (Immunoscreen of Covina, CA, 818-966-1610), NSC-100 (Nutritional Supply, Carson City, NV, 888-246-7224), a mixture of herbals and vitamins (Nu-Life Formula, Sophista-Care, Indian Wells, CA, 760-837-1908) or Super Defense Plus (BioDefense Nutritionals, Grand Terrace, CA, 800-669-9205). These have been used to boost immune systems. Although these products appear to help some CFS/FMS patients, their clinical effectiveness in GWI/CFS/FMS patients has not been evaluated. They appear to be useful during therapy to boost the immune system or after antibiotic therapy in a maintenance program to prevent relapse of illness.

Yeast/Fungal or Bacterial Overgrowth

Yeast overgrowth can occur, especially in female patients (vaginal infections). Gynecologists recommend Nizoral, Diflucan, Mycelex, or anti-yeast creams for women on antibiotics. In some

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cases, use of metronidazole (Flagyl, Prostat) have been used to prevent fungal or parasite overgrowth or other antifungals (Nystatin, Amphotericin B, Fluconazole, Diflucan) have been administered for fungal infections that can occur while on antibiotics. As described above, L. acidophilus should be taken daily to restore gut flora. Bacterial overgrowth can also occur, for example, in between cycles of antibiotics or after antibiotics have been stopped. This can be controlled with 2-week courses of Augmentin (3 X 500 mg/day) in between cycles or concurrent with other antibiotics.

Flying and Exercise

Flying, especially in unpressurized aircraft, excessive exercise and lack of sleep can make GWI/CFS/FMS signs/symptoms worse. Some exercise (Please don't overdo it! A common problem when recovering from this illness is over-exertion followed by relapse!) is useful and even necessary for recovery. The main problem here is to adjust your exercise level to help the recovery process without causing a relapse. Dry saunas help rid the system of contaminating chemicals, and saunas should be taken at least 3-5X per week--moderate exercise, followed by 15-20 min of dry sauna and tepid shower. The sauna can be repeated, by not more than two per day. The idea is to raise body temperature enough to work up a good sweat, eliminating chemicals without placing too much stress on your system. During exercise GWI/CFS/FMS patients should always try to avoid pollutant and allergen exposures. For recovery after exercise and to decrease muscle soreness, some use a Jacuzzi or hot tub, but only after a sufficient cool-down period. Don't get overheated in the process.

MYCOPLASMA TREATMENT SUGGESTIONS

As with any treatment suggestions given by Shasta CFIDS Support group or Sharon Briggs, the information is intended to help you make informed decisions about your health. It is not intended to take the place of medical advice. These suggestions for treatment should be shared with your physician to help with your plan of care.

Antibiotics

The antibiotics recommended by researchers and specialists to treat Mycoplasma are the following: Doxycycline, Ciprofloxacin, Azithromycin, Minocycline, Clarithromycin, and Levaquin.

Antibiotics recommended by Dr. Garth Nicolson are all at a very high dosage. He recommends starting with Doxycycline. But, if you are chemically sensitive, Ciprofloxacin may be the first antibiotic of choice. Oral administration works well for most patients, but a few highly sensitive individuals may need to have an initial two week course of antibiotics given intravenously. Minocycline is what most people have used for an I.V. antibiotic. If you start with I.V. administration, you may want to have a heparin loc. catheter placed into a vein for ease of administration. You will need the usual dose twice a day for at least the first two weeks. Also, there are home I.V. services that will administer the antibiotic if you are not able to do it yourself.

Garth Nicolson's first study group took the antibiotic in 6-week cycles. They then stopped for a while to determine if the antibiotic was a cure. But, results of that first study demonstrated that

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100% relapsed after the first cycle, 88% after the second cycle, 64% after the third cycle, 47% after the fourth cycle, and 25% after the fifth cycle, and 11% after the sixth cycle. All in all, that is six cycles of 6 weeks each for a total of 36 weeks or nine months treatment. Therefore, based on the decreasing percentages of relapses in this first study, many of us have decided that a cycle should be longer than 6 weeks. Many have even taken the antibiotic continuously for a year or more, with excellent results.

Doxycycline seems to cross the blood-brain barrier better than other antibiotics on the list, so if your predominate symptoms are neurological, you may want to start with this one. It is also the Nicolson's first drug of choice. The enteric-coated tablet seems to be less troublesome than the capsules. Less gastro-intestinal (as well as, Herxheimer) symptoms are reported with the enteric-coated tablets. But, a dry cracker taken before taking the Doxycycline can also be helpful for the slight nausea experienced. (Shades of morning sickness revisited!)

The first two or three weeks of the treatment will be the most difficult in terms of symptoms. You will definitely feel worse before you feel better! Although you may want to stop the treatment, try to hang in there. If you feel worse at first, it is really a good sign!! It means that the organisms are dying. As the antibiotic kills the organisms, they produce a toxin, which stimulates our (already over-active) immune system. This reaction is called Herxheimer, and is discussed below.

Do not take antibiotics at the same time as minerals (such as those found in vitamins and antacids). Also, do not drink alcohol at any time while taking antibiotics. It has been found that minerals and alcohol may decrease the absorption and effectiveness of the antibiotic.

Because of the recent data concerning combination therapy, the following medications/supplements may be helpful in augmenting the antibiotic therapy.

1. Colloidal Silver taken orally (a natural antibiotic, antifungal, antiviral)
2. Monolaurin, or Lauricidin (a natural antibiotic, antifungal, antiviral).
3. An antiviral (Zovirax, acyclovir, &/or Labucavir (when available).

While we are blazing new trails with this treatment, we need to do whatever works for each of us, individually, because there is no set course or "tried and true" recommendations for treatment, yet. When most of your symptoms are gone, we are not certain if one is "cured" or the organism is reduced in enough numbers for the immune system to keep it under control. Therefore, a periodic cycle or a maintenance low dose of antibiotics may be necessary for months or years. Try to avoid those things that can cause a relapse. The most common things are: strenuous exercise, chemical exposure, extreme stress, etc. Otherwise, those things that weaken the immune system and consequently allow the Mycoplasma to reactivate. During this time, it is important to support your immune system. A healthy immune system may be all that is needed to get and/or keep the organisms dormant.

Herxheimer Reaction

A Herxheimer reaction occurs from the organism die-off. The dead organism triggers the immune system to respond to toxins given off in the dying process. Since our immune system is already overactive, the cytokine production will be stimulated. The already elevated cytokines

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(such as interferon, interleukin, tumor necrosis factor, etc.), are the cause of most of our symptoms, anyway. So, when they are stimulated even higher by the die-off, all of our usual symptoms will worsen.

Symptoms that are associated with a Herxheimer are the following: chills, fever, night sweats, muscle aches, joint pains, mental fog, and extreme fatigue. (Sound familiar?)

You may want to plan on doing nothing for the first week or two of treatment. Also, keep plenty of pain medications on hand, arrange for a massage therapist, have a Jacuzzi handy, and alert the family that you will need plenty of rest, space, and tender loving care during this time.

If the Herxheimer is too severe, many people have eased the symptoms with Whole Lemon-Olive Oil Drink (see recipe below.) Taken every day, this drink helps the lymph glands to filter and move the dying organisms.

Drink at least two quarts of fresh, filtered water every day to flush the organisms from the body.

Whole Lemon-Olive Oil Drink

1 whole lemon---washed and blended until smooth

1 cup of juice or water added to the blended lemon

1 tablespoon of extra virgin olive oil---blended with the lemon (Montolivo is the best brand)

Pour through a wire strainer

Discard pulp and drink liquid

Resident Bacteria Loss

Because the recommended antibiotics are very powerful, and broad spectrum, they tend to kill the good resident bacteria in our bowel and elsewhere, as well as the harmful organisms. When the "good" bacteria is wiped out, then another form of organism can flourish. The most common organism to flourish when we are treated with long-term antibiotics is yeast (with Candida being the most frequent). Yeast's normally reside in the gastro-intestinal system, from the mouth to the anus, and in the vagina. But, its overgrowth is kept under control by the resident "good" bacteria that also reside with it. Nearly everyone on long-term antibiotic therapy will have a yeast infection at some point in time! In addition, those with CFIDS seem to have an immune dysregulation that hampers control of the growth of yeasts. There are two forms of yeast, the spore-form and the mycelial-form. The spore-form only infects the lining of the mucous membranes, but the mycelial-form will go deeper into the tissues, and become systemic. If one only limits simple sugars and starches in the diet in an attempt to control the spore-form of Candida, it will become a protein-loving organism, and change into the mycelial-form, going deeper into the tissues in search of protein. Therefore, one should treat yeasts with medications and diet (limit simple sugars and starches).

An overgrowth of yeast in the mouth and throat will often cause the tongue to become coated with a white or yellowish growth and the throat may become sore. An overgrowth of yeast in the intestinal tract will ferment the sugars and starches in our food, forming acids, gas, and

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alcohol. Symptoms include gas, heartburn and/or pain in the stomach area, and because of the alcohol formation, there can be headaches, dizziness, lightheadedness, and wooziness. Yeasts also produce enzymes that digest proteins and fats in order to attach themselves to the gut mucosa lining. This may cause "leaky gut syndrome". The "leaky gut" allows a larger molecule of food to pass through the gut membrane. Food sensitivities and allergies can form when the immune system recognizes these larger molecules of food as foreign and sets up a defense against them. A vaginal yeast overgrowth may manifest itself in a white or yellowish, itchy discharge and/or symptoms of a bladder infection (urinary frequency, urgency and burning upon urination). If you think you suffer from a yeast infection, a serum antibody test for yeast or a serum arabitol test can be done. (Aribitol is found to be elevated in those with proven invasive Cadidiasis.)

Various medications for yeast infection of the mucous membrane can be helpful, such as Nystatin, Mycelex, and Mycostatin as well as various herbal preparations. These medications may come in the form of tablets, lozenges, liquids (swish and swallow) and/or vaginal preparations. Flagyl, Diflucan, and Amphotericin are reserved for the mycelial-form and circulate throughout the body. In addition to the above medications, Natamycin and Miconazole are now available in the United States, but only from a pharmacist who can "compound" the medication (and, of course, upon a physician's prescription). In addition, a supplement called Micropreyll (a combination of garlic, magnesium, calcium and caprylic acid) may also be helpful. You may find that a continuous dose of an antifungal is necessary while you are taking antibiotics. As with antibiotic therapy, expect a Herxheimer "die-off" reaction to occur following the beginning of any antifungal therapy.

The "good" bacteria are necessary in the bowel to help with absorption of nutrients from our food. Symptoms of lack of good bacteria in the bowel include constipation and easy bruising. Every day, while on antibiotics, replenish the bowel with a product that contains "good" bacteria. Do not take it at the same time as you take your antibiotic, however. Many good products can be found at the health food store. These contain transient bacteria; i.e., Lactobacillus acidophilus, Bifidobacterium, etc. and/or human strains of acidophilus such as Kyodophilus by Kyolic and Maxidophilus by Ethical Nutrients.

Long-term use of antibiotics can permit the overgrowth of another, resistant bacteria called Clostridium difficile (an anaerobic spore-forming bacteria). The main symptom of this unwanted bacterial overgrowth is diarrhea (often watery and explosive). Treatment with another antibacterial agent that is clinically effective against this organism may be necessary before one can resume the antibiotics for Mycoplasma. However, regular use of the lactobacillus/acidophilus preparations seems to be helpful in controlling this antibiotic related colitis.

Immune System Support

When the body has had a long-term infection with an organism like Mycoplasma, it takes a tremendous toll on the immune system. The immune system is weakened by this organism because it infects the very cell that should kill it-- the leukocytes (or white blood cells)! Cell destruction and oxidization occurs. Once the immune system is rid of the organism, it can

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become healthy and fight the Mycoplasma more effectively. Once the immune system starts working in a more healthy manner, the Mycoplasma may be killed completely or go dormant. It has been suggested by a number of specialists treating Mycoplasma, that the following nutrients may be helpful:

1. B complex vitamins (the sublingual form is best because it crosses the blood-brain barrier and goes to the affected nerves.)
2. Magnesium
3. Selenium: Interferes with the replication of Mycoplasma when taken at 300-500 mg/day
4. Noni: A Polynesian fruit drink that aids in digestion and calms the T cell activity of the immune system.
5. Ambrotose: A Manatec product that helps cell-to-cell communication, and strengthens the cell membrane. Dosage recommended By Dr. See, immunologist & Infectious disease specialist from the University of Irvine, treating CFS/FMS/GWI and AIDS patients is: 3 teaspoons/day.
6. Phyt-Aloe: A Manetec product that calms the T-cell activity. Dosage recommended by Dr. See is 3-6 capsules/day. (Photosensitivity can occur at high doses.)
7. Salmon Oil (May prevent Mycoplasma from attaching to cell wall)
8. Antioxidant supplements
 - a. CO-Q 10
 - b. Vitamin C
 - c. Sillymarin
 - d. NADH
 - e. Lipoic Acid
 - f. Pycnogenol
 - g. Beta Carotene
 - h. Vitamin E
 - i. Glutathione
 - j. Super Oxide Dismutase
 - k. Bioflaonoids

AN OVERVIEW OF MY SYMPTOMS AND RECOVERY FROM CFIDS WITH ANTIBIOTICS

The only reason I tell my story is so you can see what a typical FS/FMS/MCS person who has had the disease, fairly severely, has had to go through with the treatment. I hope it helps you to

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hang in there to recovery, also. I have had contact with over 100 people, thus far, who share my symptoms and have also been helped with the antibiotic therapy.

I have been ill with CFIDS since spring, 1981. I was placed on low-dose Erythromycin for 2 years and fully recovered and was symptom free for five years. I relapsed in 1989. I started taking antibiotics, following Dr. Nicolson's protocol, in January 1996. Following is a summary of my CFIDS symptoms and a chronicle of the treatment with antibiotics and how those symptoms were affected.

The most significant CFIDS symptoms I have had were muscle aches and joint pains, headaches, severe cognitive changes, fatigue, and neuritis (described as a low hum throughout the body---much like lying on the floor next to a refrigerator, later captured as seizure activity). But, I also had most of the other symptoms from the CFIDS list, but not all the time. When I kept a diary of my symptoms, a pattern emerged that was very unique. Here is an overview of the symptoms: They always started with the head and worked down the body to the feet. When the symptoms finally reached the feet, they would disappear, and a period of remission would occur. At first this pattern took months to cycle through all the symptoms, then as I got well, weeks and then days would be devoted to the symptoms which were later acknowledged to be directly associated with mycoplasma induced meningitis/neuritis. Now, I only have one or two symptoms left, and the complete cycle from head to toe no longer occurs. Others, who are positive with the mycoplasma, have described a similar pattern.

The cycle always starts with severe itching of the scalp. Headaches and severe cognitive problems are next. Soon after, the cranial nerves are affected causing blurred vision, ringing in the ears, TMJ, balance problems, etc. When these problems disappear, then the stiff neck, enlarged neck glands and shoulder and back pains (classic Fibromyalgia trigger points) abound. Next, the lungs and heart are targeted with skipped heart beats and shortness of breath, asthma, etc. When these symptoms fade, it then is manifest in the stomach, liver and spleen, causing pain, indigestion, belching and bloating. Next, the intestines and bladder are targeted, with alternating diarrhea and constipation, frequency and burning on urination. The last symptoms have to do with the low back, legs and feet. The low back is painful, as if I strained it, I get severe leg cramps with even mild exertion, and the soles of the feet hurt when I barely step down. When the feet are no longer painful, there is a period of respite from all symptoms. Then the head to toe cycle starts again.

Since starting treatment with the antibiotic regime recommended by Dr. Garth Nicolson, I have had a curious, but positive response. The first antibiotic that was prescribed by my physician was Cipro. Because I had tremendous chemical sensitivities, it was recommended as a first drug. Apparently the Herxheimer reaction is not as severe, and the tolerance of the drug, from a chemical standpoint, is better. Anyway, within a few days, I did have a Herxheimer---with chills, night sweats, total body aches, and a feeling of being poisoned. After 4 days, the severe headaches began.

The Herxheimer gradually subsided, but the severe headaches continued. When I talked to Dr. Nicolson, he explained that the antibiotic was causing an inflammation to occur in the brain with local swelling. He also said that Cipro does not cross the blood/brain barrier unless it is in very high doses, and encouraged me to increase the dose from three a day to four a day. When

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this dose did not help, he then encouraged me to switch to Doxycycline. I started to take the Doxy at 100 mg twice a day. The Herxheimer worsened (as it has every time I start a new course of antibiotic). But, this is when I noticed a most curious thing. Within a half-hour of taking the Doxy, my headache would go away! In fact, this was the first drug (including very strong opioid analgesics) that relieved my headache! Dr. Nicolson said I was very lucky to have a symptom that could be directly connected to the Doxy response, and encouraged me to raise the dosage until the headaches went away completely. He said that would be my thresh-hold dose. It took three Doxy a day for three months to completely get rid of the headaches.

During this first course of Doxy, I also had some other curious things happen. All the joints that had been involved since I first became ill in 1981 became swollen and painful at once. Then the skin looked as if it had been sun burned or scalded over the joints, and within a week, most of the skin had peeled. One of the other significant events during the first three-month course was a definite decrease in my chemical sensitivities. I had previously been housebound because of asthma/headaches/cognitive problems to a variety of chemicals.

The time period off the Doxy and on to another antibiotic was short lived two weeks. When symptoms returned, I started taking Cipro again, but, this time the dosage of three a day seemed to be enough. During this second 2-month course, more CFIDS symptoms disappeared. But in each case of beginning a new course of antibiotic, the head to toe pattern of symptoms occurred.

The fourth course was Doxy again for six weeks. More symptoms disappeared during this course mainly the seizures, most cognitive problems, fatigue and painful Fibromyalgia. The fifth course of antibiotic occurred after a four-week rest. This time Zithromax was the drug. It caused another severe Herxheimer reaction, so I assumed it must be very powerful against the Mycoplasma. But, after six weeks, it had completely wiped out the flora in the bowel and I began to have some serious problems. I decided to discontinue the antibiotics and start a more intensive bowel regime.

By now, the Candida had gone to the mycelial form and had to be treated with Diflucan 200 mg twice a day. Previously, I had been taking nystatin, various forms of lactobacillus/acidophilus, etc. on a daily basis, as well as doing a thorough bowel replacement program between courses. But, the Zithromax had sent my bowel over the edge. The rest period after Zithromax lasted one month. I am now back on Doxy now. It seems to be the drug of choice for me, and I will probably continue with it indefinitely. The only symptoms I had return since the Zithromax are cramps in the calves and pain in the soles of my feet. My headaches, fatigue, Fibromyalgia pain, chemical sensitivities, and joint pains are nearly gone! The last symptoms to deal with are sleep disturbance (insomnia) and hormonal imbalances. With the head to toe pattern, with each time period on antibiotics, the pattern became shorter and the severity less, until this last course of Doxy, I experienced only a slight itchy scalp and low back ache within eight hours of each other. Not much considering before antibiotic treatment the length of time from head to toe would take several agonizing months to occur.

The Herxheimer reaction that occurs at the beginning of an antibiotic course also became shorter and less severe with each successive course. I have yet to have my cytokine, NK cells, Helper/suppressor ratio, etc. done. But, plan to have those done soon to document the state of

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my immune system. I suspect it will be much improved. I am now exercising daily, have my previous brain (memory, reasoning, concentration, etc.) and no longer have those emotional roller coaster rides. I would say, as long as I am taking an antibiotic, I am 95% well!! My goal is to be 100% well without antibiotics.

Starting 19 months into the antibiotic therapy, I have begun a course of combination therapies. In addition to the Doxy, I have taken Monolaurin, BHT, Colloidal Silver, PhyteAloe, Noni, Ambrotose, antioxidants, and the antiviral Zovirax. My physician encouraged me to add these other supplements to either intensify the antibiotic, correct and enhance the immune system, and treat for a symbiotic Human Herpes Virus-6 (HHV-6) chronic infection. Since adding the combined therapies, I have experienced a longer time period between antibiotics (3-4 months) and a shorter course of antibiotics (3 weeks at a time), This is progress!

I have begun to work part time again in my home. I have been able to resume my previous level of physical activity and my chemical sensitivities and allergies are nearly gone. I am still battling with hormonal problems, weight gain and sleep problems, but have added L-Carnitine to my regime with much success.

Well, that pretty much describes my last 2 years of intensive treatment. I hope this helps you to understand my problems and successes with the antibiotic treatment. If you have any questions, let me know. If I had it to do over again, I would not hesitate a minute. I just wish I would have know about this before it took seven more years of my vibrant, young life!

Sincerely, Sharon Briggs Support Group Leader

MYCOPLASMA RESOURCES

1. Garth Nicolson, Ph.D. and Nancy Nicolson, Ph.D. Institute of Molecular Medicine 15162 Triton Lane Huntington Beach, CA 92649-1041 Tel: (714) 903-2900 E-mail: gnicimm@ix.netcom.com Visit their Web site for free research documents - <http://www.immed.org>

2. American Veteran's Justice Foundation Dannie Wolf, President 3908 NW Sante Fe Ave. Lawton, OK 73505-3720 (405) 355-2752 Visit their Web site for free information www.sirinet.net

3. Mycoplasma testing by PCR a. The Institute for Molecular Medicine Huntington Beach, CA General Mycoplasma Screen Test \$150.00 donation to "The Friends of the Institute" Individual Species Test \$150.00 each (The General Screen Test must be ordered, as well) (See attached order form)

b. Immunosciences Labs, Inc.

8730 Wilshire Blvd. STE 305

Beverly Hills, Ca 90211

Dr. Vojdani

(800) 950-4686

Only does PCR Test for Mycoplasma fermentans (incognitus)

Mycoplasma

Price \$150.00 Accepts insurance and MediCare

4. Antiviral Testing

Herpesvirus Diagnostics, Inc. (Dr.'s Knox and Carrigan)

12346 West Layton

Greenfield, Wisconsin 53228

5. Cpt. Joyce Riley

3506 HWY 6th South, Number 117,

Sugarland, TX 77478-4401,

Voice Mail (281) 587-5437, FAX (713) 438-4581.

6. MCS Exchange

Allison Johnson

2 Oakland Street

Brunswick, Maine 04011

(207) 725-8570

(Has done an in-depth study of Mycoplasma treatment and treatment with Neurontin.)

7. Mycoplasma Registry

Sean and Leslie Dudley

303 47th Street J-10

San Diego, CA 92102-4801

(619) 266-1116

8. Bill Rea, MD

Environmental Health Center

Dallas, TX

(214) 368-4132

(Desert Storm Vaccine- Made with autologous transfer factor)

9. Department of Defense

Persian Gulf Incident Reporting Line

(800) 472-6719

10. Department of Defense

Medical Registry

(800) 796-9699