

Dietary Considerations for Patients with Chronic Illnesses and Multiple Chronic Infections

A Brief Outline of Eighteen Dietary Steps to Better Health

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There are a number of considerations when undergoing therapy for chronic illnesses, including whether to use allopathic or traditional Western medical approaches as well as integrative nutraceutical supplements and an appropriate diet. Paramount in these considerations is a patient's diet, irrespective of the type of therapy that is being used to control chronic illness. We have found that most chronic illness patients, including those with Chronic Fatigue Syndrome, Fibromyalgia Syndrome, Gulf War Illness, Rheumatoid Arthritis, Hepatitis, Diabetes, Coronary Diseases, Inflammatory Bowel Diseases, Autoimmune Diseases, HIV/AIDS, among other chronic illnesses, usually have poor diets that contribute significantly to their illnesses. Furthermore, we have found that patients that refuse to change their dietary habits usually do not recover from their illnesses. Thus diet is extremely important, and chronic illness patients must follow some simple procedures to correct their dysfunctional gastrointestinal tracts and restore proper nutrition to their bodies.

General Nutritional Considerations for Chronic Illness Patients

Chronic illness patients are often immunosuppressed or have dysfunctional immune systems and are susceptible to opportunistic infections, so proper nutrition is extremely important. Patients should not smoke or drink alcohol or caffeinated products, and should drink as much fresh fluids as possible, such as vegetable juices and pure water. High sugar and high fat foods, such as military (MRE) or other fast foods and acid forming, allergen-prone and system-stressing foods and especially high sugar/fat junk foods should be avoided. Increased intake of fresh vegetables, some low-sugar fruits and grains, and decrease intake of saturated fats are useful. Note that *simple or refined sugars can suppress the immune system*. To build the immune system cruciferous vegetables, soluble fiber foods, such as prunes and bran, wheat germ, fish and whole grains are useful. Meat and fish can be consumed for protein, but it should be lean and well-cooked. In some patients exclusive use of 'organic' foods has been beneficial, as these do not contain the levels of pesticides and chemicals as the usual commercial sources of foods.

The important points for chronic illness patients to remember are:

1. Do not eat sugar or high-sugar-containing foods. This is the number one problem in the diets of most chronic illness patients. Simple processed sugars can stimulate disease-causing microorganisms

that require sugars for their growth. Pathogenic or disease-causing microorganisms usually require simple sugars for their growth and are found in the overwhelming majority of chronic illness patients, so high sugar diets can actually stimulate their proliferation. For example, high sugar diets stimulate bacteria, yeast and fungal forms and even parasites, and patients eating processed sugars often show signs of thrush or yeast and bacteria on their tongue and at other places in and on their bodies, in their blood and in body secretions. Since most untreated chronic illness patients have excessive levels of yeasts and other fungi, these can overwhelm the immune system and produce fatigue and other signs and symptoms. In addition to stimulating the over-growth of yeasts and other fungi, simple sugars can also directly suppress the immune system. Examples foods that are particularly stressing to chronic illness patients are carbonated drinks, cookies, biscuits, dried fruits, and any food that contains added sugar. Certain sugar substitutes can be used, but we recommend natural sugar substitutes, such as Stevia made from *Stevia rebaudiana* (for information call: 1-800-4STEVIA).

2. Do not consume caffeine. Caffeine can stimulate the growth of certain microorganisms and can change blood properties and stimulate certain biochemical pathways that are not helpful for chronic illness patients. In addition, excess caffeine can modify a patient's immune system and its ability to fight disease.

3. Reduce or eliminate milk products. Milk and milk products stimulate the growth of yeast and fungi. Milk also contains high amounts of sugar and fat, two dietary components that should be reduced in the diet of chronic illness patients. Sour milk or its products, such as yogurt, can be troublesome for some patients. We usually suggest that patients use supplementation with *Lactobacillus acidophillus* and other friendly bacteria (from 3-6 billion live organisms twice per day) to restore gastrointestinal balance. The gut contains approximately 2 kilograms of bacteria, and these bacteria are important in digestion and maintenance of a healthy gastrointestinal system. The use of friendly bacteria supplements is discussed in more detail below.

4. Reduce starch intake. Starches are broken down to simple sugars, and simple sugars as discussed above are not useful for chronic illness patients. Since starches are complex carbohydrates, they are broken down gradually to simple sugars, so some starch is not bad for chronic illness patients, but an attempt should be made to limit the amount of starches in any diet. Diets rich in pastas and breads should be avoided.

5. Increase intake of vegetables. Vegetables, especially green vegetables, are especially useful in helping to restore the food balance in chronic illness patients, because they contain important vitamins, minerals and fiber. They also tend to decrease the amounts of pathogenic bacteria and fungi in the gut because these mainly use simple sugars and lipids to grow. Vegetables also help clean the bowel by moving pathogenic bacteria and fungi through the gut. Eating lots of vegetables also increases bowel movements, and this can be beneficial to restoring the gut and removing toxins from the body.

6. Reduce intake of yeast-containing foods. High yeast breads, cheeses, and other milk products that contain yeast are not particularly useful for chronic illness patients because they add to the overall burden of yeast and fungi in the gut. Although the types of yeast in such food products are not pathogenic or disease causing, they can under certain circumstances overburden a fully taxed immune system and must be limited in any diet for chronic illness patients.

7. Increase intake of dietary fiber. Dietary fiber increases bowel movements and helps to remove harmful bacteria from the gastrointestinal system. Increasing the number of bowel movements per day is important in helping to remove partially digested food and bacteria from the gut. Most chronic illness patients have problems with constipation (producing small, hard stools), and increasing the number of bowel movements and their volumes are important. To help remove pathogenic bacteria from the bowel and bladder some recommend a non-dietary sugar, D-mannose (Biotech Co., 800-345-1199). This natural sugar inhibits binding of bacteria to biological membranes and does not contribute to bacterial sugar fermentation in the gut.

8. Eat small amounts every one and one-half to two-hours. Eating small amounts of food often, as much as every 1-1/2 hours is necessary to keep the stomach partially full so that stomach acid and bile will not be overproduced and irritate the gastrointestinal system. Eating small amounts of natural foods also aids in digestion and movement of digested food. The strategy is to never be hungry and have lots of fresh vegetables and other foods available all of the time.

9. Reduce the intake of cured or over-refined canned foods. These foods contain preservatives, nitrites and high levels of salt and curing substances. These can cause problems by irritating the gastrointestinal lining, and nitrites can contribute to carcinogenesis. High salt levels are detrimental to maintaining normal blood pressure and homeostasis.

10. Eliminate alcohol and tobacco. Alcohol is converted to sugars and most alcoholic beverages contain high levels of sugar, such as beer, wine and other spirits. In addition to the problems with sugar discussed above, alcohol damages the nervous tissue (brain and peripheral nerves) and irritates the gastrointestinal lining. Some have recommended small amounts of alcohol, but we are against the use of alcohol in any form by chronic illness patients. Overuse of tobacco use can result in emphysema, lung and thoracic cancers, high blood pressure, heart disease and other problems, so chronic illness patients should not use tobacco products in any form.

11. Increase water and juice intake. Purified water is a natural cleanser, and chronic illness patients usually do not drink enough water. They should be drinking the equivalent of 8 full glasses of water each day. Juices, especially vegetable juices are especially good sources of vitamins and minerals and other phytonutrients. Increased water intake is also good for bladder and urinary tract infections. Some have used dried cranberry (without the usual high levels of sugars) powder dissolved in water with natural sweeteners to cleans the urinary tract of pathogenic bacteria.

We suggest the following approximate ratios of basic foods for chronic illness patients:

2/3 vegetables, such as fresh uncooked (in moderation) or cooked (mostly) in-season green, orange and yellow vegetables, such as salads, squash, beans, etc. in vegetable oils (olive or sunflower are best), and juices made from vegetables. A wide variety of juices can be made with mixtures of various vegetables, and we recommend that these be taken as often as possible. Some fruit can be added, but most fruit contains sugars and acids, and so they must be used in moderation.

1/6 starch, such as whole grains, rice, non-yeast or low-yeast breads, oats, and other natural sources. Some intake of complex carbohydrates is not bad, because these will be broken down slowly to sugars in your body but they should not be a large part of any diet for chronic illness patients.

1/6 protein, such as chicken, fish and well-cooked lean meat. Beans are also a good source of protein. High protein foods are good, but they must be balanced with vegetables so that they do not remain for excessive times in the gut and cause constipation.

Of course, it is not always possible to follow completely the above suggestions, so moderation should be the rule. Since vegetables do not contain the calories that are present in most diets, most patients will gradually lose weight unless the quantities eaten are increased. This is why we recommend eating every 1-1/2 or 2 hours per day. Many have recommend fruit juices for chronic illness patients, but these are often high in simple sugars so they must be used in moderation. For patients who are underweight, we recommend that they eat substantial meals as often as possible and increase the amounts of protein. Teas (especially herbal), vegetable juices, water and soups should not be counted as substantial sources of any of the foods listed above and can be eaten at any time.

Vitamins and Minerals for Chronic Illness Patients

Chronic illness patients are often depleted in vitamins (*especially* B complex, C, E, CoQ-10) and certain minerals. The reason for this is that chronic illnesses often result in poor absorption. Therefore, high oral doses of some vitamins are useful; others, such as vitamin B complex, cannot be easily absorbed by the gut (oral dose). Sublingual (under the tongue) *natural* B-complex vitamins in capsules or liquids (also injectable) should be used instead of swallowed capsules. B complex vitamins are especially important in *Chlamydia* and *Mycoplasma* infected patients. Patients should take a daily General Vitamin capsule, but they may have to supplement with extra vitamin B complex and vitamins C and E, CoQ-10, beta-carotene, folic acid and bioflavoids. Some amino acids, such as L-cysteine, L-tyrosine and L-glutamine have been recommended for chronic illness patients, and L-carnitine and malic acid are reported to be useful. Also, it is useful to supplement with oils that contain high amounts of 'omega' fatty acids, such as fish oils and flaxseed oils. Certain minerals are depleted in chronic illness patients, such as zinc, magnesium, chromium and selenium. Some recommend up to 200 mcg/day sodium selenite, followed by lower doses. The best multivitamins come with extra antioxidants. If patients are on antibiotics for treatment of chronic infections, vitamins and minerals should not be taken at the same time of day as antibiotics. Vitamins and minerals should be taken 3 hours after antibiotics, because they can affect antibiotic absorption. Some recommend that antioxidant vitamins be taken at least 4 hours before or after oxygen therapy. The suggested doses of vitamins can vary dramatically among patients; consult with your physician or nutritionist for appropriate dosage. Many chronic illness patients have excess heavy metals in their system, such as mercury, lead, cadmium and other heavy metals. For heavy metal removal, chelation therapy or certain oral products, such garlic supplements and oral chelation products have been shown to useful in many patients.

12. Add at least a multi-vitamin, sublingual vitamin B complex and CoQ-10 to the diet. As described above, most chronic illness patients are depleted in certain vitamins, and a multi-vitamin and B complex vitamins and CoQ-10 will help restore this imbalance. Other supplements should be considered as well, such as certain amino acids, fish oils, etc. These are often low in chronic illness patients and must be increased by supplementation.

13. Add a mineral supplement if certain minerals are not present in a multi-vitamin. Zinc, magnesium, calcium and especially selenium are often present in multivitamins, but the amounts may be too low for chronic illness patients. Some patients live in areas with especially low mineral content in the drinking water and soil, such as selenium, and they should always supplement these depleted minerals in the diet. Physicians or nutritionists need to make sure that patients are receiving the most optimal amounts of minerals.

14. Make sure that enough helpful lipids are being eaten, such as the lipids in fish or fish oils. Fish contain useful oils, such as omega-3 and omega-6 fatty acids, among others, and these have been shown to be beneficial for the heart and other organs. Flaxseed oils and some other oils can substitute for fish oils. These oils are healthy and should not be considered harmful or useless fats.

Replacement of Gut Flora and Digestive Enzymes

Patients undergoing treatment with antibiotics and other substances risk destruction of normal gut flora or friendly bacteria that provide important digestive enzymes for processing food in the gut. 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 live cultures of *Lactobacillus acidophilus* in capsules or powder are strongly recommended (at least 3-6 billion live organisms at least two or three times per day). Mixtures of *Lactobacillus acidophilus*, *L. bifidus*, *B. bifidum*, *L. bulgaricus* and FOS (fructooligosaccharides) to promote growth of these probiotics in the gut are important. *L. acidophilus* mixtures (above 3 billion live organisms) should be taken three times per day. For irritable bowel, certain mixtures of Chinese herbs have proven to be very effective in clinical trials. Another problem in chronic illness patients is the lack of digestive enzymes that can process foods to useful metabolites in the gut. We recommend a combination of natural digestive enzymes (usually from plant sources) plus antioxidants.

15. Take a probiotic supplement containing at least 3 billion live *Lactobacillus acidophilus* plus other ‘friendly’ bacteria at least twice per day. These supplements are available at most drug and food stores, but the best products are available in health food stores. Most recommend the mixtures of at least three different types of friendly bacteria, and these products are especially good for the gut.

16. Take a supplement of natural digestive enzymes that aid in digestion. These natural sources of digestive enzymes help digest food and make it available in a form that can be readily absorbed. These should be taken at least twice per day with meals to aid digestion, food uptake and help to minimize leaky gut problems that can introduce pathogenic bacteria into the blood.

Natural Immune Modulators and Natural Remedies

A number of natural remedies, such as ginseng root, herbal teas, lemon/olive drink, olive leaf extract with antioxidants are sometimes useful, especially during or after antibiotic therapy. More important examples are immune modulators, such as bioactive whey protein, oral transfer factors and plant glycans. Some additional remedies are: olive leaf extract, lactoferrin and some natural plant products or herbal mixtures. Good immune boosters have been isolated from certain mushroom extracts. These products have been used to boost immune systems. Although they appear to help many patients, their clinical effectiveness in chronic illness patients has not been carefully evaluated, and in our experience patients show individual differences in responses to these nutraceutical supplements. They appear to be useful during therapy to boost the immune system or after antibiotic/antiviral therapy in a maintenance program to prevent relapse and opportunistic secondary infections.

17. Add an immune modulator and a natural remedy. Several types of immune modulators are listed above. Unfortunately, each patient is different and may respond differently to the many products that are on the market, so patients will have to decide with the advice of care provider what is best.

Similarly, there are many natural remedies on the market, and although these are generally good for chronic illness patients, each patient is different and may respond disparately to different products. In some cases, foods can substitute for a portion of the natural remedies. For example, fresh garlic, olive leaf extract, oregano oil (in enteric coated capsules), among others have been shown to be useful. Purified milk products, such as bioactive whey and transfer factors made from colostrums or mother's milk, are also useful for many patients and contain natural substances that suppress pathogenic organisms and stimulate the immune system. Mixtures of herbal formulations are especially useful and very popular as a method to boost immune responses.

Yeast/Fungal Overgrowth while on Antibiotics

Yeast overgrowth occurs often in chronic illness patients, especially in females (usually first seen as vaginal infections or thrush [white coating] on the tongue). Gynecologists recommend Nizoral, Diflucan, Sporanox, Mycelex, or anti-yeast creams. Metronidazole [Flagyl, Prostat] has been used to prevent fungal or parasite overgrowth or other antifungals [Nystatin, Amphotericin B, Fluconazole, Diflucan, Sporanox or Pau d' arco] have been administered for fungal infections that can occur while on antibiotics. Some patients have as their principal problem systemic fungal infections that can be seen using dark field microscopy of blood smears. For superficial fungal infections, such as fungal nail, topical antifungals are effective. As mentioned above, *L. acidophilus* mixtures are used to restore gut flora. Bacterial overgrowth can also occur, for example, in between cycles of antibiotics or after antibiotics/antivirals have been stopped. Natural or nutraceutical approaches to controlling yeast infections include supplementation with the following formulations: Pau d' arco, grapefruit extract, olive leaf extract (most of these require at least 2 capsules 3X per day), caprylic acid, garlic extract and enteric-coated oregano oil. These can be found in health food stores, along with instructions on how they are used to control yeast and fungal infections. Diet is especially important in controlling yeast overgrowth, and the dietary instructions above should be followed, such as the elimination of most simple or refined sugars from the diet and other instructions listed above.

18. When necessary, take a anti-fungal medication or a natural yeast and fungal controlling remedy. Most chronic illness patients have trouble with yeast/fungal infections, and these must be controlled to permit recovery of the immune system. If the yeast or fungi are not excessive, the natural anti-fungal food supplements (Pau d' arco, grapefruit extract, olive leaf extract, caprylic acid, garlic extract or enteric-coated oregano oil) should be used first because they may be less stressing on the body, and they are certainly less expensive.

If the instructions above are followed, patients will start to notice a change in health within a short period of time. However, recovery from chronic illnesses is long, slow process, and patients should not be discouraged if cyclic periods of more and less severity of illness (morbidity) persist. Patients must decide to make diet an important part of their recovery, and the recommendations above are only a part of the program of recovery. We consider it unlikely that patients will recover from their chronic illnesses unless they change their diet and eating habits, so diet is as important as other factors in recovery.

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