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08/4

BIOLOGICAL MEDICINE AS A MATRIX: STRATEGIES FOR ACHIEVING HEALTH

It is rare that a single problem/single remedy approach will solve complex medical problems. Almost always there are many different contributing factors, all of which interact and affect each other, in a 'web'-like manner. And so it usually happens that in order to see improvement, many or all of these different factors have to be considered at some time in the healing process. At the same time, people can only make so many changes at one time, and so the process of biological healing is usually slow and gradual, but progressive, taking a period of weeks to years. The rate of healing depends on the nature and severity of the illness, and a person's ability to make positive changes in their life circumstances and routines. Following is an outline of some of the factors that can be addressed in a biological approach to complex medical problems. Bear in mind that this is not a complete list, nor does it include the more common conventional medical diagnostic categories, to which this list is complementary. Bear in mind that this list is really a matrix or a 'web', in that any one category will affect and be affected by all the others. Therefore these categories should be considered both as parts and as a unified whole. Almost always many of these various factors have to be addressed simultaneously to reverse complex chronic medical problems.[One of my analogies for chronic illness is that of driving off the road in a snowstorm. You need a whole gang of men, pushing all at once, to get your car out of the ditch. If they took turns pushing on your car one at a time, your car wouldn't budge.]

This can also be called a 'systems engineering' approach to complex medical problems, and it often brings success when more conventional approaches have failed.

1. GOOD NUTRITION

Most people do best with a diet that is high complex-carbohydrate, high fibre, lowish (20%) fat, adequate protein (50-65 gm./day), and junk-free. The Mediterranean diet decreases risk of all-cause annual mortality by a factor of 50%! No pill can do that. Here are a few basic rules [See my sheet, *The Basics of Good Nutrition*, for details]:

- Think about how the food was produced (**quality 'farm' food** vs. 'industrial grade' pseudo-food). If it was made in a factory, don't eat it! Shop around the edges of the supermarket; don't go up & down the aisles.
- **Adequate protein** intake is essential to good health (especially brain & muscle), but excess protein has its own concerns. Most people do best with 50-65 gm. per day of protein.
- Brown is beautiful (i.e., 100% whole grain breads & brown rice). Puffy white bread makes puffy pale people.
- Eat like a cow or bunny rabbit. (i.e., eats lots & lots & lots of veggies!)
- Lose the sweet tooth; **sugar kills**. (160 yrs. ago, Canadians used 5 lb. sugar/person / year, now it is 135 lb./yr!)
- Good fats are essential to health. But **some fats heal** (e.g.-top quality vegetable oils) and **some fats kill** (processed, rancid, or heated oils; animal fats from animals raised industrially). Learn the difference!
- Food additives, such as MSG, hydrolyzed vegetable protein, and aspartame are neurotoxic, and should be avoided. Other food components that may cause reactions in susceptible people are: salicylates, solanines (nightshade family), phenols. In some people with severe disturbances of their intestinal flora, carbohydrates have to be limited.

2. A BASIC LEVEL OF NUTRITIONAL SUPPLEMENTATION

- As long as we are being fed from impoverished soil, live in a polluted environment, and contend with stress, we all need supplemental vitamins, minerals, essential fatty acids, and antioxidants. A few suggestions:
 - **A good quality vitamin/mineral.** Some suggested brands: for high dose adult supplementation- *Thorne MultiEncap* 3 caps 2x daily, or *AOR Orthocore* -9 caps daily; For intermediate adult dosing: *Natural Factors Super Multi* -1 daily, For kids-a quality children's chewable vitamin/mineral or better, *Selekta Multi's* (comes in small capsules), 1-3/day.
 - **Vitamin C:** Minimal maintenance does: 500- 1000 mg./ day, for children, 2000 to 4000 mg /day for adults. High doses of Vitamin C are needed when sick, following Dr. Robert Cathcart's principle of bowel tolerance (<http://www.orthomed.com/titrate.htm>).
 - **Vitamin D:** Most Canadians are deficient in Vitamin D during the winter, and require doses higher than have been recommended in the past (more like 2000 to 3000 I.U. daily for adults) to prevent winter blues, winter fatigue, and in some people, more serious immune disorders.
 - **Vitamin E:** 400 units daily for adults, and natural source with mixed tocopherols is preferable to pure alpha tocopherol.
 - **A mixed, natural beta-carotene** for adults (the semi-synthetic version is not as good as that derived from marine algae)
 - **Essential fatty acids (EFA's):** Omega 3 and omega 6 EFA's should be in balance, but most people are more deficient in Omega 3's. The DHA & EPA Omega 3's are found in fish oil or krill oil, not flax oil. (Typical adult doses: evening primrose 1000 mg. /fish oil 2000 mg. daily. Avoid low-quality fish oil (rancid &/or not molecularly distilled.)
 - **Calcium/magnesium supplements**, especially for those avoiding milk, or older women concerned about osteoporosis. (300 mg./day of each for children, double this for adults. Cal/Mag citrate is a well absorbed form, though there are others which are even better. Calcium is better given in combination with magnesium.
 - **Proanthocyanidins** (from various sources: grape seed, bilberry, or pine bark extract) are powerful antioxidants, and also very useful in conjunction with Vitamin C for fighting colds & allergy.

3. PHARMACOLOGICAL DOSES OF BIOLOGICAL COMPOUNDS

- **Higher doses of vitamin/minerals:**
 - i) to compensate for poor absorption (you are not what you eat; you are what you absorb.)
 - ii) inefficient cellular enzyme activity ('cofactor loading')
 - iii) for pharmacological activity. E.g.: IV Vitamin C or magnesium, Vitamin B12 by injection.
- **Specific amino acid supplementation**, especially to balance neurotransmitter levels (serotonin, dopamine, noradrenaline) (Treatment is determined by symptomatology or amino acid analysis.)
- **High-level, broad-spectrum antioxidant supplementation** to compensate for abnormally high levels of oxidative stress.
- **Use of specific glyconutritionals** to enhance biochemical function (glucosamine, n-acetyl glucosamine, ribose, Ambrotose™)

4. REDUCE ALLERGIC & TOXIC LOAD

- **Rational use of drug medication** -Keep drug use to a minimum- ‘Drugs are all poisons with some desirable side effects.’ Drugs suppress symptoms; they do not cure the underlying cause of disease, and are best reserved for conditions too acute or too severe to respond to biological methods.
- **Avoid foods to which one is sensitive** (dairy and yeast are the most common hidden food allergens. Wheat, gluten, corn, egg, , citrus, chocolate are also common.) Hidden food sensitivity is common in children with recurrent infections, ADD, and often a contributor to eczema, asthma, migraines, and autoimmune disease.
- **Avoid environmental toxins** (especially mould, tobacco, chemicals, heavy metals). Environmental mould, smoking, ongoing exposure to food additives, low level pollutants, and heavy metals (lead & mercury being the most common) all have a progressively accumulative effect on immune function and health. Large amounts of dental amalgam are a contributor to mercury overburden, but removal should be done with great care.
- **Reduce overall exposure to mycotoxins (fungal toxins)**: both from within the body (intestinal yeasts) and from outside the body (from yeast & mould in the diet and moulds in the air). Fungal toxin is a major factor in almost all chronic diseases, according to Dr. A.V. Costantini’s WHO research team.

5. RESTORATION OF NORMAL BOWEL ECOLOGY

The bowel is the source of the greatest toxic burden that our bodies have to deal with. Toxic chemicals (produced by abnormal germs in our gut and the rotting of undigested food) are absorbed through the bowel wall and slowly cause widespread damaging effects throughout the body. Active measures need to be taken to normalize an imbalanced bowel flora. If abnormal bowel flora persists in spite of treatment, there is likely some other factor that has not been adequately addressed: diet, toxic overburden, immune deficiency, high stress, chronic ‘stealth’ infection, etc.

- **Normalise digestive activity** (chew well; digestive enzymes &/or acid supplements may be needed)
- **Add adequate fibre** (psyllium husk powder 1-3 tsp. daily or flax seed powder, 1 -6 tsp. daily)
- **Re-implant normal bowel flora** using probiotic (acidophilus) preparations, especially after any antibiotic use.
- **Eliminate pathogens (bad bugs)**: Candida (yeast), parasites (worms & amoebae), and abnormal bacteria (e.g.- various Clostridia species) commonly contribute to imbalanced bowel flora. Antifungal drugs (nystatin, fluconazole), and/or antimicrobial biological compounds, and/or probiotics are often needed in treatment.

6. IMPROVE DETOXIFICATION PATHWAYS

We are living in an increasingly toxic world, and enhancing the body's ability to remove foreign chemicals stored in body tissues is important for curing and preventing chronic illness. A few examples are listed below. **N.B.-Though all of these methods can be of use in the proper clinical setting, they can be harmful if misused.**

- **Fasting, or metabolic detoxification diets** (The latter are actually more efficient for detoxification.)
- **Detoxify colon & intestines**: increase in dietary fibre, botanical ‘bowel cleansing’ programs; enemas or colonic irrigation when needed.
- **Enhance liver detoxification**: through targeted nutritional and herbal supplements
- **Enhance detoxification through the skin** (skin brushing, sweat-inducing exercise, sauna therapy - especially far-infrared sauna, bentonite clay baths.
- **Improve lymphatic flow**: exercise, lymphatic massage, use of mini-trampolines to enhance lymphatic flow
- **Reduce excess acidity** in the body tissues (normalise acid/base balance through an alkaline diet.
- **Removal of accumulated heavy metals**. Hidden heavy metal overburden is a common contributing factor in illnesses that are difficult to resolve. Chelation therapy involves use of biological compounds (such as chlorella) or drugs (such as EDTA, DMPS, or DMSA) to lower the body’s total burden of heavy metals.

7. ELIMINATE HIDDEN SOURCES OF CHRONIC INFECTION

- **Hidden, focal (localized) chronic infections** can silently drag people down: especially in the mouth (dental roots and gums), the intestinal tract, and sinuses. Examples: Meticulous eradication of chronic, hidden dental infections (cavitations, poor root canals) is especially important for the sick and elderly. MAP infection appears to be a factor in some cases of Crohn's disease. Chronic sinus infection can contribute to chronic fatigue.

- **Low-grade systemic infection with 'stealth microbes'** (chronic opportunistic infective agents) is often a factor in chronic disease, and yet usually goes undiagnosed by those who look only for obvious forms of infection. Such infections can lower immunity without causing acute symptoms. They typically involve multiple chronic opportunistic infective agents: viral (herpes virus, Parvovirus, CMV, etc.), bacterial (Spirochetes, including Lyme disease, streptococcus, Chlamydia, atypical Mycobacteria), Mycoplasma, and fungal (especially Candida). This chronic infective load on the body is termed 'total pathogenic burden', and this burden impairs immune function and the body's ability to detoxify heavy metals and foreign chemicals. Sophisticated diagnostic testing or clinical trials of treatment with antimicrobials may be needed to give clues as to the presence of such infections.

8. IMMUNOTHERAPY

- Various therapies can be used to help normalize an imbalanced immune system. This includes various biological compounds known to improve immune function, desensitization treatments for environmental sensitivities (best done by a clinical ecologist), as well as more aggressive therapies such as intravenous gamma globulin.

- Immunization has had a significant role in reducing the incidence of infectious diseases. However, in the immunologically susceptible, over-immunization can lead to chronic immune activation and hypersensitivity/allergy. (This is a topic just beginning to receive attention in the medical literature.)

9. CORRECT SUBTLE HORMONAL IMBALANCES

- Borderline ('subclinical') low thyroid, mild adrenal fatigue, and subtle imbalances in sex hormones are common factors in chronic unwellness. Hormonal replacement therapy is best done with bio-identical ('natural') hormones wherever possible.

- Hyperinsulinism (also called metabolic syndrome, low blood sugar, and hypoglycemia) is now epidemic. It can progress to diabetes & heart disease, and should be corrected early, preferably with diet & lifestyle changes.

10. RECOGNITION AND TREATMENT OF ADDICTIONS

Addiction is the number one health problem in North America, and the most common reason for sabotaging attempts at improving health. Most addicts are functioning in society, and do not consider their addiction a problem. Some of the most destructive addicting substances are in our food supply and not considered drugs: sugar and sweets, addictive junk carbohydrates, and aspartame. Nicotine is the most addicting and most damaging of the substances that are recognised as drugs. A combination of targeted amino acid therapy, acupuncture, and counselling is the most effective way to break addictions.

11. REGULAR PHYSICAL EXERCISE

- **Aerobic exercise** is important for all ages

- **Weight training & flexibility** exercise is important from middle age on. ('Keep fit or fossilize!')

When a person is too ill to exercise, massage can help retain health and muscle tone.

12. CORRECTION OF STRUCTURAL IMBALANCES

• Poor posture, chronic muscle tension, pelvic and spinal imbalances can lead to areas with impaired blood flow, low oxygenation, and subsequent accumulation of metabolic toxic residues. Various forms of postural, structural, massage, and physiotherapy can help reverse these conditions. [Craniosacral therapy, spinal manipulation, orthotics, TMJ appliances, massage therapy, relaxation therapy]

13. BALANCING THE AUTONOMIC (INVOLUNTARY) NERVOUS SYSTEM

Physical and emotional stress can lead to imbalances in the autonomic nervous system, which can further lead to dysfunction in blood flow and organ function. Acupuncture, neural therapy, biofeedback, and relaxation training all help restore normal autonomic balance.

14. RESTORATION OF NORMAL SLEEP PATTERNS

Prolonged sleep deprivation can have an increasing debilitating effect upon physical and emotional health. Good sleep hygiene, addressing underlying emotional stresses, and biological sleep aids usually help. If not, it may be necessary to look for underlying causes of neurotoxicity. Use of drug medication to improve sleep patterns should only be a temporary measure. When insomnia is severe, a sleep study should be done to exclude sleep apnoea, restless leg syndrome, extreme snoring.

15. USE OF ELECTRICAL AND MAGNETIC FIELD THERAPY TO HELP NORMALIZE CIRCULATION AND CELLULAR FUNCTION, AND REDUCE THE ADVERSE EFFECTS OF ONGOING EXPOSURE TO EMF POLLUTION

• Though this form of therapy is still in its infancy, in certain applications the use of magnetic and electrical fields is proving very useful. It can help reduce pain and inflammation, promote healing, help restore compromised circulation, and help with detoxification of heavy metals.

16. ADEQUATE ULTRAVIOLET LIGHT

Because of our climate and northern latitude, most Canadians are low in Vitamin D, especially in winter, and adequate exposure to the sun is virtually impossible in winter. Seasonal affective disorder, with fatigue &/or depression (as well as depressed immunity in winter) can be treated with therapeutic high intensity &/or full spectrum lighting, but supplementation with relatively high doses of Vitamin D is easier and often more effective.

17. EMOTIONS AND HEALTH

• Thoughts & emotions are very powerful influences on overall health. (Adrenaline, for example, is one of the most toxic substances formed in our bodies.) Stress & fear can paralyse the immune system. *'More people die of fear of smallpox than smallpox'* (Gandhi's physician). Changing the way we perceive and react to the world around us can be a very powerful factor in healing, because of its profound effect upon the nervous and immune systems.

• Unresolved past emotional traumas can be a very powerful inhibitor of autonomic & immune function, and significant improvement in health and wellbeing can be obtained from addressing these issues.

18. CARE FOR THE SOUL

• Care for one's physical health is good, but not to the exclusion of care for the soul. Transcendent values can sustain us even when our health fails. We are all mortal.

• A soul at rest is a healthy soul. ('Our souls find no rest, O Lord, until they find their rest in Thee.' - St. Augustine.)