



HOLISTIC CARE AND HEALTH PROMOTION: IMPLICATIONS FOR OLD AGE

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A new way to think about aging, productivity and the potential for life-extension

For the first time, science can realistically envision *productive quality life spans exceeding 100 years*. Now we find ourselves in a position to exercise significant control over the quality and span of our lives by controlling our diet, attitude and lifestyle, and by properly using certain biochemical supplements based on modern nutritional science.

Recent advances in medical research have created a growing belief that the 'natural' mental and physical decline associated with human aging can be significantly delayed and in some cases, actually reversed. This has tremendous implications for our aging population as well as for those in middle age who can benefit through early interventions which can effectively slow the aging process and reduce the risk of serious degenerative disease.

The first issue we need to clarify concerns the nature of aging itself and its relationship to the chronic diseases that often affect our aging populations. In our

current medical paradigm, the human being is regarded as a highly complex biological machine which breaks down into specific disease categories definable through modern diagnostic technology. The emphasis in conventional medicine is on medical treatment once the illness has manifested, often requiring the use of powerful therapeutic interventions including pharmaceuticals and surgery. There usually is not much priority given to reducing the risk of serious disease through early and consistent lifestyle modification, though in principle clinicians understand its theoretical importance.

With regard to aging, since it is a normal part of the life process but *isn't* a discrete disease entity, conventional medicine has not generally sought to intervene to slow the aging process itself. For example, Deprenyl is a recognized medicine indicated in the treatment of Parkinson's Disease. But in the United States, there is little research on the potential benefit of low dose administration of Deprenyl early on, long before Parkinson's is diagnosed, which might reduce the risk of people developing this condition with advancing age.

Even in cases where there *is* a specific condition such as atherosclerotic cardiovascular disease, research projects are often influenced by economic realities. *The New York Times* reported recently that the theory, supported by recent laboratory and epidemiological studies, that high levels of the amino acid homocystine are as risky as those of cholesterol and can be reduced by adequate amounts of folic acid is not likely to receive adequate research documentation because folic acid is inexpensive and there is therefore little incentive for drug companies to conduct a study.¹

¹ *The New York Times*, "Too Cheap to Sell?", Section 4, pp.2, July 9, 1995.

The consequence is a situation whereby the disease-oriented paradigm is perpetuated and a truly preventive approach to health care delivery remains a theoretical ideal.

We are therefore faced with *two* aspects of the issue of holistic care and health promotion, and their implication for old age:

1. Offering natural and holistic treatments to our aging population to improve the quality of life and manage or reduce the risk of degenerative disease.
2. Provide such interventions *much earlier on*, beginning in youth and middle age in order to prevent as much morbidity as possible.

Our options in health care are *either*:

1. Disease management which is merely reacting to the result of the problem.
2. Disease prevention which is trying to protect against the manifestation of the problem by modifying its cause.
3. Health promotion which is proactively preventing the problem by not allowing the formation of its cause.

What then is health?

Health can be defined as the interplay between hereditary, biological/environmental and psychological/behavioral factors. Optimum health is a balanced or harmonious interaction between all components of the body, between the body and the mind, and between the person and their environment including their relationships.

Balance and harmony require an ordered state; order implies the necessity for laws. The restraining influence of natural law leads to freedom; lack of restraints results in limitations. Based on this definition, disease can be understood as dis-ease or disorder resulting from the violation of natural law.

What determines each individual's level of health? Level of health is based on one's hereditary, genetic background plus environmental factors of two types:

1. Those environmental factors consisting of events and circumstances *beyond our control* where choice is not an option.
2. Those factors which are directly or indirectly *within our control* and therefore amenable to influence based on our personal decisions.

Our goal therefore becomes to improve our level of health as early as possible by focusing on those environmental factors with health significant impact, where choice is involved.

Health significant environmental factors involve primarily the following lifestyle choices:

- Attitude/mental focus
- Health care orientation (proactive or reactive)
- Nutrition habits
- Rest habits
- Exercise habits
- Occupational habits
- Chemical/pollution exposure

We all make daily choices and it is our daily choices which determine our stress load:

- Smoking
- Alcohol consumption
- Drugs, including pharmaceutical medicine
- Processed & refined foods

Psychological stress

Overwork

Sedentary lifestyle, etc.

With more stress there is more toxicity of the blood and tissues: physical & emotional distress upset the biochemistry of the system, lowering our resistance to disease. We can think of disease and dysfunction as the result of our internal defenses being overwhelmed by more stressors than our systems can handle, generating the signs and symptoms of disease. From this point of view, there is a continuum between optimum health on the one hand and serious irreversible degeneration on the other.

The signs and symptoms of disease represent the best effort of our natural defense mechanisms to respond and return the system to normalcy. Disease is therefore a goal-oriented biological process whose purpose is to eliminate toxins and the repair and regeneration of damaged tissues. We should regard symptoms as nature's signals that imbalance exists; a call, as it were, for corrective action!

Health promotion is therefore managing stress (cleansing & detoxifying) and building resistance (strengthening immunity & constitution). In this way, not only is disease prevented, but productivity and the quality of life can be greatly enhanced.

In this connection, aging can be seen as a *natural, normal part of the life process, but a process that can be modified, slowed and certain aspects even reversed* by a health promotional lifestyle involving the interconnecting factors of, among others, nutrition, fitness, environmental toxicity and psychological state.

The successful strategies of high-performance, healthy individuals

A five-year study by Dr. Kenneth Pelletier of the University of California School of Medicine in San Francisco confirmed that a long, healthy and balanced life is very difficult to achieve.²

Looking at a group of “successful people” who were high achievers in terms of work and career, 93 percent were sacrificing either their health or relationships with many actually facing catastrophic, life-threatening illness. Only 7 percent were able to flourish at work while maintaining optimum health and empowering relationships. Studying the common features of this group of high-performance, healthy people provide lessons on life-extension and personal effectiveness for all of us.

Characteristics of the healthy person: master keys to a longer and healthier life

1. proper nutrition
2. regular exercise
3. sufficient sleep
4. regular medical/dental care
5. self-efficacy & believing in oneself
6. life as a challenge, obstacles as opportunity
7. commitment to fulfillment of goals
8. control with ability to exert influence
9. ability to manage stress
10. creative
11. sense of humor
12. cultivates empowering relationships
13. capacity for calculated risks

² Kenneth R. Pelletier, Ph.D., “The Neuropsychology of Executive Health,” Sybervision Systems, Inc., 1988. pp. 3.

14. enjoys leisure

15. living by higher values & making a contribution

With regard to research dealing with longevity specifically, Albert Rosenfeld, in his compelling book *Prolongevity II*, reports from interviews of 1200 people who were aged 100 years or more. They had tended as a group to live relatively quiet and independent lives, were generally happy with their families, religion and careers, and had few regrets. They expressed a strong will to live, and a high appreciation for the simple experiences and pleasures of life.³

A 1973 study conducted by Dr. Stephen P. Jewett in New York of seventy-nine healthy people who were 87 years or older revealed that they maintained a steady weight, ate very moderately, and remained active throughout their lives. It was the *psychological variables*, however, that more clearly provided the relevant distinctions: their optimism, above-average intelligence, emotional adaptability, lack of worry, capacity for enjoyment of life, and love of freedom and independence.⁴

While the cutting edge of current gerontological research often lies in biotechnology and the search for a drug or procedure that will alter our cells' tendency to age, the answer may rather lie in cooperating with the force of nature and accessing the resources within.

What the above studies demonstrate, among other things, is that psychological characteristics, which are amenable to modification, are of even greater importance than physical factors. These physical factors, however, remain particularly critical during the high-risk years between the ages of 45 and 65 when heart disease, cancer

³ Deepak Chopra, M.D. *Ageless Body, Timeless Mind*, Harmony Books, New York, 1993, pp. 196.

⁴ *Ibid*, pp. 197.

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and other serious diseases take their highest toll.

Toxicity of mind and body

While there is a general consensus regarding the concept of environmental toxicity including, among many others, dioxin, pesticides and air pollution, the concept of “emotional toxicity” and its affect on people’s health and vitality is more controversial.

The burgeoning new field of psychoneuroimmunology is scientifically verifying the relationship between psychological state and immune response.⁵ In this connection, we can recognize that certain mental/emotional states are empowering while other states weaken our defenses and add to our stress burden.

Unresourceful psychological states include among others:

fear

guilt

jealousy

resentment

despair

self-doubt

rejection

disappointment

apprehension

frustration

self-centeredness

⁵ Elliot S. Dacher, M.D., *Psychoneuroimmunology: the New Mind/Body Healing Program*, Paragon House, 1991, pp. 15.

On the other hand, we cannot ignore the growing significance of environmental toxicity on the health of our aging population and the degenerative disease we often associate with aging. An appreciation of the relationship between the growing impact of environmental toxicity and the natural tendency of the body to detoxify, primarily through the liver and lymphatic system, is critical in understanding the disease process.

“Environmental pollution is one of the most serious problems facing humanity today,” states Alan McGowan, president of the Scientists’ Institute for Public Information.⁶

After living for thousands and thousands of years in chemical balance, mankind, in the last 100 years, has literally changed the chemistry of our environment through the progressive poisoning of nature with the chemical by-products of modern agriculture, industry, power generation, and transportation. The chemical changes these poisons cause are not confined to areas of local release. Scientists have found evidence of pollution everywhere on Earth, from the largest cities to the remote and isolated South Pole.

An example of the quantity of poison we are exposed to each year, consider the following amounts released into the environment in 1989 in the United States alone:

1. Over 550,000,000 pounds of industrial chemicals were dumped into public sewage storage.
2. More than 1,000,000,000 pounds of chemicals were released into the ground, threatening our natural ground water sources.
3. Over 188,000,000 pounds of chemicals were discharged into surface waters, i.e. lakes and rivers.

⁶ McGowan, A., “Environmental Pollution,” World Book Encyclopedia, 6, pp.330-340, 1993.

4. More than 2,400,000,000 pounds of air emissions were pumped into the atmosphere.
5. The grand total of chemical pollutants released into the environment was 5,705,670,380 pounds. That is enough to fill a line of semi-trailers parked bumper to bumper, and having a cargo capacity of 45,000 pounds each, stretching from downtown Los Angeles to Des Moines, Iowa.⁷

In the United States, we allow over 10,000 food and chemical additives into the food supply. The average American eats about 14 pounds of additives a year. In addition to colorings, preservatives, flavorings, emulsifiers, humectants, and antimicrobials, we consumer on average 120 pounds of sugar and eight pounds of salt.⁸

Recent estimates suggest that each year there are 3,000,000 severe pesticide poisonings with 220,000 deaths worldwide. Pesticide-related illnesses in the United States are estimated to occur between 150,000 and 300,000 times a year. This is apart from the subclinical effects such toxicity is having on our immune systems and other vital organs and their relationship to more serious disease that can manifest years later.⁹ What can be done to protect society from the damaging effects caused by toxins in our environment, food, or water?

From this point of view, the body seeks to cleanse itself through the normal avenues of excretion, primarily the bowel movements, urine, breath and skin; only when such

⁷ U.S. Environmental Protection Agency, 1991, "Toxins in the Community: National and Local Perspectives", The 1989 Toxins Release Inventory National Report, Office of Toxic Substances, Washington, D.C.

⁸ Applied Clinical Detoxification: A Physicians Sourcebook, HealthComm, Inc., pp.1-3, 1990.

⁹ Rosenstock, L., Keifer, M., Daniell, W.E., et al, "Chronic Central Nervous System Effects of Acute Organophosphate Pesticide Intoxification", *Lancet*, 1991, Vol. 338:223-27.

avenues are overwhelmed does the system begin to utilize vicarious means involving the phases of deposition and impregnation. As a final effort at maintaining survival, the system will go through a degenerative phase, where the best that can be achieved is a forestalling of the inevitable as the system tries to cope with toxic effects within the cells and upon the nuclear DNA.

When we consider the toxic stress-load that we carry, particularly as we advance in years, we can understand that many biochemical and physiological changes we ascribe to aging are in fact the consequences of bio-toxicity and are therefore *abnormal and alterable* through clinical intervention.

Regenerating the Mind and Body

Just as any wound will heal naturally based on the innate intelligence of the body, there is a *continuous* wisdom of nature operating every moment of every day to repair injury and correct imbalance that some have referred to as “the healer within.” In order to cooperate with the vast innate intelligence *within* our own system, methods can be employed which remove psychological and physical toxins and increase our appreciation and alignment with natural law.

“It’s a professional secret, but I’ll tell you anyway: we doctors do nothing but help the doctor within; all healing is self-healing”

Albert Schweitzer

The physical body can be seen as having an innate intelligence or “mind” which operates more or less automatically in accordance with biological law. Without any conscious effort, it is through such a mind that we digest our food, beat our heart, heal our wounds and conduct virtually all of the processes of life. Such a mind obeys

natural instinct, is unconscious and is present within all living systems.

Human beings, on the other hand, have *in addition* to this physical mind, a higher nature with spiritual endowments that allow us to choose, create and otherwise seek for beauty, truth, love and goodness. This “higher mind” *freely* seeks what we can refer to as conscientious law, that human tendency which desires to live for a higher purpose and which seeks to contribute to the benefit of others. As the body is unconsciously controlled by the physical mind, the physical mind should be freely responsive to the conscientious mind. Such alignment allows for maximum regeneration of mind and body.

From this point of view, an important aspect of health care can be regarded as “state management”: the effective management of our physiological state and our state of mind or attitude. “State management” is defined as the ability to consistently produce a state in mind and body of total resourcefulness, providing a person with supreme choice in their behavior, in any situation, at any moment in time.

Empowering the Mind

On the psychological side, transforming from an unresourceful mental/emotional state to a more resourceful one *frees* the system from the burden of emotional conflict and turmoil.

The goal should be to move from an unresourceful state to a more resourceful state:

Less resourceful states:

fear

guilt

jealousy

More resourceful states:

courage

pride

happiness

resentment

despair

self-doubt

rejection

disappointment

apprehension

frustration

self-centered

love

faith

self-confidence

approval

gratitude

anticipation

fascination

principle-centered

While we can't control the events and circumstances of our life, we *can* control our responses to these events; by choosing to interpret the meaning of our experience of life in the most constructive way possible, we can exert a more proactive influence on our life and health.

In addition to developing a highly resourceful mental/emotional state, we can help regenerate ourselves psychologically by aligning our values with natural law.

Natural laws operating in the human dimension include our need to live, to learn, to love and to contribute beyond ourselves to things worthwhile. We can ask ourselves what are our values; what really matters to us? What is the most important thing to us? Is our ladder of success leaning against the right wall? Are our values aligned with enduring principles?¹⁰

Albert Einstein is universally regarded as one of the greatest intellects in human history; as an expression of his profound understanding of questions of fundamental human existence, he was quoted as saying:

¹⁰ Stephen R. Covey, *First Things First*, Simon & Schuster, New York, 1994, pp.44-74.

“Try not to be a man of success but rather try to become a man of value.”

We can develop our capacity to access the infinite intelligence within through prayer, meditation and what Dr. Herbert Benson of Harvard Medical School refers to as the relaxation response. In this approach, the mind “settles down” into more productive thought patterns which counter tension and the destructive effects of anxiety.¹¹

Detoxification and Rebuilding the Body: A Practical Program for Slowing the Aging Process and Reversing Degenerative Disease

A preventive and therapeutic protocol, whatever else it may include, should address the fundamental factors including diet, nutritional supplementation and the avoidance of additional toxicity of the body through excessive sugar, fats, salt or meat.

Periodic fresh fruit and/or vegetable juices as well as medically supervised metabolic clearing programs can help to support the liver and its detoxification mechanisms and thereby mobilize toxins that have been sequestered for decades within many of the body’s tissues. An effort to continually improve air and water quality with effective purification systems should be encouraged.

Aging, Degenerative Disease, and Enzyme Nutrition

The body depends on adequate nutrition to insure that every cell and tissue within the body functions optimally. One of the most critical nutritional factors to be recognized in any effort at health promotion and disease prevention are enzymes which are energized protein molecules or biological units of work. They have been called the “life force,” because they catalyze and regulate nearly all biochemical reactions within the

¹¹ Herbert Benson, *Beyond the Relaxation Response*, Berkley, New York, 1985.

human body, including energy production, metabolism, reproduction, the immune system, and the digestive system. Simply put, without enzymes, life would cease. Individuals who are enzyme deficient are subject to disease and degeneration.

Are all enzymes the same? No. There are thousand of different enzymes which regulate bodily functions. Enzymes have been grouped into three categories: metabolic enzymes, digestive enzymes and food enzymes. Metabolic enzymes work within the cells to regulate such activity as detoxification and energy production. Digestive enzymes break foods down and make them available for use in the body. Food enzymes are those which are naturally present in raw foods which aid in the breakdown of that food.

What is meant by an “enzyme bank account”? This term was coined by Dr. Edward Howell, pioneer in the study of enzymes, and author of *Enzyme Nutrition*.¹² He postulated that individuals have a fixed number of enzymes available for them to “spend.” When an individual’s digestive enzymes are depleted or are deficient, the process of digestion must be accomplished by “borrowing” from the metabolic enzymes, putting undue stress on the rest of the system. Whenever foods are eaten which are devoid of enzymes, withdrawals from the bank account are made. Most people make regular withdrawals and never make a deposit.

Can’t we get enzymes from the food we eat? Yes, most definitely, but *only* if that food is not cooked or processed. Modern food processing procedures destroy *nearly all* of the naturally-occurring enzymes in food. With the prevalence of cooked and processed foods, the average diet for many people is essentially devoid of food enzymes. It is certainly recommended that we take in as many raw foods as

¹² Edward Howell, *Enzyme Nutrition: the Food Enzyme Concept*, Avery Publishing Group, Wayne, New Jersey, 1985.

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possible, but even then, the raw foods contain only enough enzymes to digest that food. We know that most of our foods, particularly meat and fats, are cooked and processed. Nutritional enzyme supplements should therefore be taken to assist in the digestive process and relieve the stress placed on our bodies.

Aging, Degenerative Disease, and Free Radicals

Free radicals are extremely active molecules, such as super oxide hydroxide or peroxide, that will cause rapid oxidation of tissues and especially fats. This results in excess rancidity, tissue damage and premature aging if not controlled. Free radicals are known to contribute to more than 60 major diseases because they damage the cell lining, making it easier for degeneration to occur. While free radicals are necessary in the body, especially to the immune system, it is extremely important that they be controlled by antioxidants.¹³

Antioxidants are specific vitamin enzymes or accessory food factors that have the ability to scavenge free radicals and render them harmless. The body has the ability to synthesize antioxidants if given the correct nutritional precursors, especially antioxidant enzymes which are sometimes very hard to get from food.

What is meant by a *holistic* antioxidant approach? Many of the available antioxidant supplements do not take a holistic approach. They may supply the body with antioxidant nutrients, but don't take into account the resulting by-products and don't address making the body a better free radical fighter. It is very important that antioxidants be complete so that when they do their job opposing free radicals, the process does not result in the creation of additional free radicals.

¹³ Richard Passwater, Ph.D., *The New Super-Nutrition*, Pocket Books, New York, 1991.

What are the benefits of proanthocyanidins? Proanthocyanidins are a class of antioxidant nutrients to which also bioflavonoids, rutin, and tannins belong. All of those nutrients are powerful antioxidants, but the research of Dr. Jacques Moscalier shows that the most active members of this class are the ones which he referred to as pycnogenol.

Pycnogenol, now a registered trademark in America, was used by Moscalier as a generic term, referring to the proanthocyanidins from any source, including those originating in grape seed and maritime pine bark. Most of his studies were actually done with the grape seed extract, and have shown that grape seed has a greater antioxidant effect than pine bark and are thought to be many times more effective than vitamin C and E in protecting against free-radical damage.

What is needed beyond enzymes and anti-oxidants?

In the United States, studies show that over 90 percent of the population are deficient in some vitamin or mineral. Even if one eats a balanced diet, because of the way foods are grown and processed today, we have no guarantee that we are getting the nutrients we need. Soil depletion, pesticides, smog, and the depletion of the ozone layer, along with food-processing methods, all rob our foods of vital nutrients. Supplementation is essential to *replenish* the life-giving nutrients which are missing in our foods.

Many clinicians believe that there is a significant difference between synthetic and whole food vitamins. Whole food vitamin concentrates affect the body and are absorbed and used just as the natural foods would be. Whole foods and whole food complexes are entire composites, *not* fractions of vitamins. Pulling apart the constituents that make up a food, fractionating the source, changes that food into a

non-food. These non-food fractions are now foreign and unrecognizable to the body, and can actually create drug-like reactions.

What is the role of chelation in mineral supplementation? Trace minerals are essential to the functioning of the body's systems, particularly the hormone system and the immune system; they also play a vital role in the workings of enzyme reactions, and in the overall metabolism of the body. Bioavailability refers to how available a mineral element is for use in the body. Here is where mineral supplements vary widely. While some supplements have a high mineral content, those minerals are often not "chelated" and so are not as absorbable or usable in the body.

Through chelation, an amino acid binds to a mineral. This enables that mineral to be better absorbed through the gastrointestinal wall and insures much greater assimilation and utilization by the cells for optimum metabolism.

Training the Metabolism

Appropriate exercise is an important component in our efforts to promote health and life extension. "Training the metabolism" helps to retard the aging process. Endurance and power should go together: building an aerobic base during which endurance is developed and maximized, followed by isotonic, muscle strengthening workouts three to four times weekly. This not only benefits athletic performance, but burns off extra fat, improves immune function and increases vitality, energy and endurance.

Human growth hormone (HGH) stimulates tissue growth, increases muscle tone and lean mass, enhances flexibility, thickens muscles, stimulates the growth of bones and

organs, and helps maintain healthy tissues. Bursts of HGH occur after heavy exercise as it does with serious injury, because HGH is a healing substance.

Many clinicians believe that we can be as strong in our 70's and 80's as we were in our 20's and 30's. Not only can we continue to build our endurance factor and cardiovascular function with aerobic exercise, but we can continue to optimize metabolism through exercises which primarily strengthen our muscles.

The Role of Natural, "Alternative" Therapies

In addition to an emphasis on proper nutrition, exercise and food supplementation, the utilization of holistic and other natural therapeutic modalities from around the world can bring significant benefit in reducing the risk of serious disease and in effectively managing many of the diseases associated with geriatric patients, alone or in conjunction with conventional treatment.

Despite the sophistication of biotechnology in the United States, most American medical schools teach pharmaceutical medicine and surgery exclusively and offer very little, if anything, of natural therapeutics or preventive medicine. Because of consumer interest in alternative health care and the growing awareness that a great portion of both acute and chronic disease can often be managed effectively with natural medicines at lower risk, there will gradually be more integration of natural therapeutics with orthodox medicine in the years ahead.

The formation of the National Institutes of Health's Office of Alternative Medicine, with the associated research projects which are being funded, will provide additional scientific validation to the clinical efficacy of such natural systems as homeopathic medicine, botanical medicine, acupuncture, clinical nutrition and mind-body medicine,

among others.

In the meantime, health professionals who are interested in applying natural therapeutic methods are building a broadly-based experiential foundation substantiating that health promotion and disease prevention strategies through “alternative means” are practical and efficacious. The shift towards a managed care system affords further opportunities for development of this area in that Health Maintenance Organizations have a vested economic interest in keeping their subscribers as healthy as possible.

Conclusion

This paper is based on the growing body of knowledge in the field of holistic, alternative medicine as well as the clinical experience of the author and many health care professionals who have been using such methods in the service of their patients.

At a time when there is much discussion regarding health care reform and the needs of our growing aging population, we need to go beyond the issue of health care *finance* reform and truly commit ourselves to a preventive and health promotional strategy which goes beyond the disease-entity paradigm to a more comprehensive view of health, disease, aging, preventive medicine and the diverse nature of clinical interventions.