A major part of TheETG mission is to expand the area of what is possible in competent self-care in medicine and psychology. TheETG’s primary method of achieving that is to proliferate applied science based information by way of free packets containing plain language info for anyone seeking to move themselves or others forward in these areas.

As you continue to acquire and apply more information you continue to expand the area of what is possible. Data-less conclusions founded upon faulty assumptions are the mother of all screw-ups. They lead to human belief systems that quickly get set in stone. Put data ahead of dogma. Follow the data -not- the crowd.

TheETG packets attempt to address the following:

- "......the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts." [Journal Of The American Medical Association...Volume 302 #1...July 1, 2009...page 89 - 91]
- "Not enough doctors adapt appropriately to new scientific findings.....An insufficient number of medical faculty members are well prepared, effective educators, and too few medical schools prepare their students for a lifetime of learning and change." [J.Hilliard, et al. -- The Lancet -- Volume 385 #9969 -- February 21, 2015 -- page 672]
- ".....takes an average of 17 years to translate 14% of original research into benefit.....average of 9 years for interventions recommended as evidence-based practices to be fully adopted." [M.Tinkle, et al -- Dissemination and Implementation -- Nursing Research and Practice -- Volume 2013]
- "......1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report." [Nature Medicine -- Volume 12 #9 -- September 2006 -- page 984 - 985...News In Brief]
- "It is estimated that more than 700,000 individuals are seen in hospital emergency departments for adverse drug events each year in the United States." [Centers For Disease Control -- 2015]
- "Most drugs are only effective for a small percentage of people who take them." [Michael Leavitt -- U.S. Secretary of Health & Human Services 2005 - 2009]
- ".....A recent study for example, found that only half of all cardiac guidelines are based on scientific evidence." [President Barack Obama -- Speech to the American Medical Association -- June 15, 2009]
- "All the good things.....they don't teach us in medical school, because the drug companies pay for our education." [Dr. John Sessions M.D.]

You may copy any and all contents of this packet, with exception and exclusion of using such copies for purposes of producing revenue, profit, or any direct or indirect compensation.
Order of Presentation.....

--- Just Say No To Traditional Medicine
--- Back Pain
--- Chronic Long Term Acne
--- Sleep
--- Common Cold
--- [PMS] Pre-menstrual Syndrome
--- Osteoporosis
--- Magnets & Human Healing
--- Acupuncture
--- Killer Bees
--- Bed Bugs
Our changing health care system

Here are --your-- new doctors.
There are many.

Several are specialists.
Meet with them regularly.

They will help you add decades of youthful living to your life.
Here are their names.....
Dr. Walking
Dr. Sleep
Dr. Sunset-watching
Dr. Down-Time
Dr. Nutrition
Dr. Laughter-StandupComedy
Dr. Strength training
Dr. Relaxation
Dr. Sunlight-Exposure
Dr. Yoga
Dr. Meditation
Dr. Jogging
Dr. Nutrient-Based-Medicine
Dr. Mind-Body Medicine

"Better health care will depend, not on some new therapeutic standard, but on the level of willingness and competence to engage in self care."
[Dr. I. Illich....1978]
"As long as people will accept crap, it will be financially profitable to dispense it."

[Dick Cavett]

"......the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts."

Journal Of The American Medical Association...Volume 302 #1...July 1, 2009...page 89 - 91

"How many established standards of medical care are wrong"
"If almost half of these practices are wrong, as empirical studies suggest....."


"The US health care culture still does not support the questioning of physician behavior."

[Journal Of The American Medical Association...Volume 304 #2...July 14, 2010...page 204-205]

"......most doctors don't read or understand medical research...."

Richard Smith [editor, British Medical Journal]...........Volume 326 #14......June 2003

"The doctors do not always know best and often fail to provide the appropriate care."

[Consumer Reports On Health...April 2002 -- When Doctors Don't Know Best]

"All the good things....they don't teach us in medical school, because the drug companies pay for our education."

Dr. John Sessions M.D.

"For every dollar we spend on prescription drugs, we spend a dollar to fix the complication."

Dr. Mehmet Oz [Professor of Surgery, Columbia University]

"Most drugs are only effective for a small percentage of people who take them."

Michael Leavitt [U.S. Secretary of Health & Human Services 2005 - 2009]

"In September 2011...a National Prescription Drug Take-Back Day...in Orange County, Florida alone....more than 1.5 tons of prescription medications were returned."

WH Shrank....Our bulging medicine cabinets.....New England Journal of Medicine.....Volume 364 #17.....April 28, 2011......page 1591

"......1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report."

Nature Medicine.....Volume 12 #9.....September 2006.....pg 984 - 985.....News In Brief

"Hospital Acquired Infections are a significant cause of morbidity and mortality......about 1 in every 20 inpatients has an infection related to hospital care."

[United States Department Of Health & Human Services]
"As long as people will accept crap, it will be financially profitable to dispense it."
[Dick Cavett]

"The U.S. mental health system is in crisis....according to a federal report."
"The fundamental problem: emphasizing medicating people over fostering ways to help them lead productive lives."
Associated Press, The Daily Texan [September 17, 2002]

"The difference between the effect of a placebo and the effect of an anti-depressant is minimal for most people......People get better when they take the drug, but its not the chemical ingredients in the drug that are making them better, its largely the placebo effect."
Irving Kirsch [Associate Director Placebo Studies, Harvard Medical School]

"Practice is not reflecting the research. Ninety to 95% of programs have no research base. The gap between what is known and what is being provided in routine care is huge."

Heart disease........."We're never going to end the epidemic because the stents, bypasses, and drugs, none of it is addressing the cause of the illness."
[Caldwell Esselstyn M.D.]

"50 high risk men, for 5 years taking a statin, and 1 heart attack that will be prevented.-----The reason why doctors are using all these statins is because they're told that's the right way to practice medicine.-----Out of 7000 cardiology recommendation guidelines, 11% are substantiated by clinical trials that you and I trust.----- This is made public but its not getting through to the doctors that their information is coming from the drug companies. The doctors have got to get with it...."
[Dr. John Abramson , Lecturer, Harvard University, Consultant U.S. Dept. Of Justice & FBI.....stated on the Dr. Oz Show May 13, 2011]

"Less than 1 percent of our health care spending goes to examining what treatments are most effective. Less than 1 percent.......As a result too many doctors and patients are making decisions without the benefit of latest research.......A recent study for example, found that only half of all cardiac guidelines are based on scientific evidence."
President Barack Obama...Speech to the American Medical Association [June 15, 2009]
Just Say No.....To Traditional Medicine

Practicing medicine --with-- a license, has become the most dangerous form of medicine in the United States. **Our medical schools** have been, and continue to be **in as bad a shape as some of our K-12 public schools**. Traditional medicine today.....is pharmacy and pharmacology, little more and nothing less.

In traditional medicine, identifying and aggressively addressing the mechanisms of disease is --not-- considered to be an objective of medical “treatment”. The definition of the term...“treatment”...is now the diagnosis of a disease followed by the masking of its symptoms by a prescription drug.

At some point in the next few years, all Americans will have to choose between ------
**health care.....or.....health insurance**

Our country cannot afford both.

| Competent “self-care” is...... |
| --- the way out |
| --- the way forward |
| --- and the only way our country will avoid bankruptcy |
The **drug culture that traditional medicine** has now become.....

--- Around 45% of Americans have at least 1 prescription drug.

--- 1 in 6 of Americans have at least 3 prescription drugs.

--- The average American over the age of 65 has 3 - 6 prescription drugs.

--- Each year about --98,000-- Americans die from taking the recommended dosage of their prescribed medication.

---------------

"This building is on very shaky ground. Would I condemn it? No, but I would tell people, 'You go in at your own risk'"
[Dr. Catherine DeAngelis, editor.....Journal Of The American Medical Association]

"Dr. Jerry Avorn, a Harvard Medical School expert who wrote a book on the drug industry, says recent revelations about the FDA suggest "a culture of denial" about dangerous side effects, especially once a drug is on the market."
[U.S. Drug Safety System Shaky, Some Experts Say....by Jeff Donn...The Associated Press]
80,000 dead Americans each year

"Hospital Acquired Infections are a significant cause of morbidity and mortality. At any given time, about 1 in every 20 inpatients has an infection related to hospital care."
[United States Department Of Health & Human Services]

About 80,000 Americans die each year from infections acquired at hospital or post-surgery outpatient setting. Don't become a statistic.

Help friends and relatives avoid becoming a statistic........

--- Pre-surgery objective = elevate immune system function, your life may depend on it [especially in the elderly]

--- Pre-surgery objective = supply large array of nutrients to reverse hidden deficiencies that may endanger your life

--- Post surgery objective = let -no- one touch you without having seen them wash their hands or wipe them on something first. Your life may depend on taking that seriously.

--- Post-surgery objective = supply large array of nutrients to feed surgical wound healing and immune system function
Back Pain: The Treatment Program

As many as 80% of the U.S. population will have back pain at some point during a given year. Many people continue to suffer after seeing doctor after doctor, "specialist" after "specialist", in an attempt to deal productively with chronic and/or re-occurring back pain. Many people across many career areas leave their jobs, and many athletes across many major sports end up leaving their sport.

Common Problems ------

Often, doctors are unaware that MRI's on people who have no back pain can look similar to the MRI's of people who do... the point being that a lot of people have damaged looking disks (intervertebral disks) but have no pain. Thus, certain tissues in the back, often get pointed out as the cause of pain, though such may not be the case. About 70% of people with back pain have no identifiable cause.

"...treatment selection is often determined by unsubstantiated theories of pain production and the educational dogma of the treating physician."

"...patients are routinely labled as suffering from such problems as muscle strain...sacroiliac disorders...justified by negative or nonspecific findings on imaging studies (ie. X-ray or MRI). Few if any of these alternative diagnoses are based on validated clinical testing, yet they are widely used and accepted clinically."

Dr. Don Nelson...1998........Journal Of Musculoskeletal Medicine...Volume 15 #5...1998...pages 29 - 39

Common Situations ------

On average, a person may go into flexion [bend-over] as many as 5000 times per day. People who have desk jobs may spend several hours each day in a flexed position. The tissues of the lower back adapt to these positions and motions over time. In the absence of putting oneself in the opposite position/motion [back extension], problems can result that produce chronic and/or re-occurring back pain.

Common Treatment Problems ------

The standard focus of traditional medicine is to do something "to" the runner with back pain. Either give a pill, cut something, remove something, or adjust something, apply heat, ice, and/or electrical stimulation, in an effort to relieve the pain symptoms. Generally, of the people who do absolutely nothing, about 40 - 45% get better in one week. About 80 - 85% get better in one month whether they seek treatment or not. And about 90% get better in 2 months regardless of whether they seek treatment or not. So these time frames provide a standard by which to measure the results of various treatment protocols provided by doctors, chiropractors, or physical therapists. Obviously, if the person is receiving treatment, but isn't getting better by 8 weeks [2 months], the treatment is perhaps no better than the effects of nature...though patients often assume that "the treatment worked" when their pain resolved after 3 months of therapy.

"I was convinced that many of my patients were getting better in spite of me rather than because of me."

"...Sooner or later, therapists will have to stop treating patients based on the blackboard or the X-ray and start seeing the validity of treatment based on proper mechanical evaluation."


Patient Empowerment ------

Perhaps the most important problem to deal with in people with back pain, is the fact that it is highly likely that once resolved, the pain will return at some point in the future. Generally, back pain will re-occur in about 90% of people who get better. Thus, the focus on a short term solution, as is currently common in standard health care practice, is not the most effective solution. From a psychology standpoint, it is not the initial experience with back pain that leads people to depression. It is the re-occurring experiences, placed together with repeated experiences of ineffective treatments, that gradually leads to frustration, feelings of helplessness, burnout from pursuing treatments, and then to depression.

MDT = Mechanical Diagnosis & Therapy ------

Mechanical Diagnosis & Therapy (MDT), also known as McKenzie Method, developed many years ago by a physical therapist in New Zealand, Robin McKenzie, is the--most effective evaluation and treatment program available. McKenzie methods focus on teaching the patient self-treatment through repeated end-range movements performed at a high frequency. MDT empowers the patient with the knowledge and tools necessary to play the primary role of healer of their own pain, rather than being dependent
upon the medical practitioner or frequent and chronic doses of pain medications. MDT is also a manner by which a physical therapist, doctor, or chiropractor can use the patient’s movements and pain perceptions to evaluate and develop the treatment plan for back pain. MDT effectively identifies people who need more extensive diagnostic exams (ie. MRI, etc) due to the nature of their problem. Rather than having to spend months going to physical therapy, and doctor after doctor, MDT is able to separate within a only a few visits, the people who will respond to treatment from those who will not. The program is taught by the McKenzie Institute which has a branch in the United States. The Institute offers courses available to physical therapists, doctors, chiropractors, etc, through a series of four parts (Part A,B,C, and D). Practitioners who have completed all four parts are certified (cer.MDT), and certified practitioners can move on to an intensive three month diploma program (Dip.MDT). McKenzie certified clinics can now be found in the U.S., that focus their entire patient treatments on McKenzie methods. A registry is maintained in the United States of both cer.MDT and Dip.MDT. To find a practitioner in your area call (800) 635-8380.

".....as many of us initially believe, "I learned McKenzie in PT school!". Day one of Part A is forever echoed in my mind as a ground-breaking moment in my clinical practice and thought process."

Allan Besselink P.T, Dip.MDT....1998.................Editor Of McKenzie Institute USA Journal

"From 1996 to 1999, back pain and radiological changes in the thoraco-lumbar spine were investigated in 134 former top athletes....."

"This is a long-term follow-up investigation of a previous radiological study of the spine with clinical correlation. Despite significantly more radiological abnormalities among the athletes, they did not report higher frequency of back pain than the non-athletes. "

O. Lundin, M. Hellstrom, I. Nilsson, L. Sward
Back Pain And Radiological Changes In The Thoraco-Lumbar Spine Of Athletes: A Long-Term Follow-up

"Lumbar spine pain accounts for 5 to 8% of athletic injuries. Although back pain is not the most common injury, it is one of the most challenging for the sports physician to diagnose and treat."

"Often....a specific diagnosis cannot be made......due to the lack of pain localization and the anatomic complexity of the lumbar spine. A thorough history and physical examination are usually more productive in determining a diagnosis and guiding treatment than imaging techniques."

"Strong analgesics are also usually contraindicated, except for sleep, since they mask pain and may allow over-vigorous activity." 

"....exercises include the Williams flexion exercises and/or McKenzie extension exercises. Both exercise motions may often be prescribed. Athletes with an acute disc herniation, however, should only perform extension exercises initially. Athletes with spondylolysis, spondylolisthesis and facet joint irritation should initially be limited to flexion exercises."

J.Harvey, S. Tanner.....1991
Low Back Pain In Young Athletes: A Practical Approach.
Sports Medicine.....Volume 12 #6.....December 1991.....page 394-406

"Back pain was estimated to account for 45% of patient visits. The McKenzie method was deemed the most useful approach for managing patients with back pain."

M.C. Battie, et.al.
Managing Low Back Pain: Attitudes And Treatment Preferences Of Physical Therapists
Physical Therapy.....Volume 74 #3.....March 1994.....page 219-226
"The McKenzie approach to evaluating and treating low back and neck pain is an exciting development in clinical medicine."

"Despite its world-wide use, this comprehensive discipline of evaluation and treatment is misunderstood or unappreciated by most medical practitioners."


"Patients were assessed simultaneously by 2 physical therapists trained in the McKenzie evaluation system."

"A form of low back evaluation, using patterns of pain response to repeated end range spinal test movements, was highly reliable when performed by 2 properly trained physical therapists."


"In patients with low-back and radiating leg pain, a clinical phenomenon has been described known as "centralization," which occurs during a mechanical evaluation protocol described by McKenzie."

Relocation of the most distal pain……in a….. central direction characterizes the pain behavior when patients are assessed in this fashion."

"Its occurrence during initial mechanical evaluation is a very accurate predictor of successful treatment outcome and reliably determines the appropriate direction of treatment exercise. Nonoccurrence of centralization accurately predicts poor treatment outcome and was a helpful early predictor of the need for surgical treatment."

Donelson, Silva, Murphy Centralization Phenomenon: Its Usefulness In Evaluating And Treating Referred Pain Spine……Volume 5 #3……March 1990……page 211-213

"When using the McKenzie system, it is important to observe signs of symptom movement to a central location (centralization). This study investigated the relationships between centralization of low back pain and/or radiculopathy and the subjects' rating of functional outcome."

"The results supported the hypothesis that subjects who centralize will have improved functional outcome and, thus, quality of life."


"The presence or absence of rapidly centralizing, peripheralizing, or abolishing low back and radiating pain, as identified during a McKenzie mechanical lumbar assessment of patients with chronic lumbar pain, was compared prospectively with discographic pain provocation……"

"Patients whose pain centralizes have been shown to achieve superior treatment outcomes."

"The McKenzie assessment process reliably differentiated discogenic from nondiscogenic pain……was superior to magnetic resonance imaging in distinguishing painful from nonpainful discs."

Donelson, April, Medcalf, Grant A Prospective Study Of Centralization Of Lumbar And Referred Pain: A Predictor Of Symptomatic Discs And Anular Competence Spine……Volume 22 #10……May 1997……page1115-1122
Chronic [Long Term]

Acne

In general, acne is in part, caused by bacteria [proioni-bacterium acnes, P. acnes....or staphylococcus] that gets into what we call "pores", which are skin oil [sebum] ducts. The ducts are located where skin hair sticks out of the skin, and are also called hair follicles. These ducts can get clogged by sebum, and the acne bacteria can cause an immune system response resulting in inflammation of the area, the combination of which get referred to as a pimple, or acne. Washing the face removes sebum, and various acne creams kill the bacteria. For many teenagers and adults this prevents or resolves the problem. However, for others with Chronic Acne, all the face washing and anti-bacteria creams and medications have little effect.

Mechanism Of Chronic Acne

The common aspects of chronic acne appear to have something to do with the major effects of chronic stress, and the effects that has on the nervous system, and the immune system. The nervous system is "hooked-up" to the skin. In some people, the major effects of chronic stress, shows up on the surface of their skin, either in the form of acne, psoriasis, or some other form of long term skin problem [dermatitis].

The Nervous System & Chronic Acne

The nervous system can directly impact facial skin appearance through its control of the immune system and the local production of various substances [neuro-peptides...such as Substance P., or Alpha Melanocyte Stimulating Hormone (alpha-MSH)...] and the stress hormone [cortisol] that impact local skin cell function.

"The interaction between components of the nervous system and multiple target cells in the cutaneous [skin] immune system has been receiving increasing attention. It has been observed that certain skin diseases such as psoriasis and atopic dermatitis have a neurogenic component. Neuropeptides released by sensory nerves that innervate the skin and often contact epidermal and dermal cells can directly modulate functions of keratinocytes, Langerhans cells (LC), mast cells, dermal microvascular endothelial cells and infiltrating immune cells. Among these neuropeptides the tachykinins substance P (SP) ..."

"Likewise, skin cells like keratinocytes or fibroblasts are a source for neurotrophins such as nerve growth factor that are required not only for survival and regeneration of sensory neurons but also to control responsiveness of these neurons to external stimuli. Therefore, neuropeptides, neuropeptide receptors, neuropeptide-degrading enzymes and neurotrophins participate in a complex, interdependent network of mediators that modulate skin inflammation, wound healing and the skin immune system."

T. Scholzen, et al.
Neuropeptides In The Skin: Interactions Between The Neuroendocrine And The Skin Immune Systems.
Experimental Dermatology.....Volume 7 #2-3......April-June 1998......page 81-96
The Immune System & Chronic Acne
A number of immune system cells function in the skin [such as...neutrophils, CD4 T-cells, CD8 cells, Langerhan cells, Killer T cells, and macrophages]. Suppression and/or impaired regulation of immune function may lead to decreased ability to kill P. acnes, allowing their proliferation in the sebum within the follicle/pore. People with Chronic Acne can't wash their face often enough to keep p. acnes at bay. On top of the effects of chronic stress, are the exacerbating effects of short term [acute] stress. In people with Chronic Acne, Acne gets worse during times of acute stress, because immune function gets much worse during those times.

"Patients with acne had slightly higher concentrations of basal cortisol,"
L.Lane, et al.

"To our knowledge, this is the first report in the English language literature of skin changes due to endogenous hypercortisolaemia caused by intense physical and emotional stress."
N. Goggin et al.
Striae And Acne Following Cardiac Surgery In A Child British Journal of Dermatology volume 40 #4.....April 1999.....page 734-736

"...those with psoriasis were more likely to report that the experience of stress pre-dated the onset and exacerbations of their condition than patients with other skin diseases. For the psoriasis patients the most common types of life events were family upsets (such as bereavements), and work or school demands, but chronic difficulties were also common. There was no relationship between the severity of stress and time to onset or exacerbations."
M.S.Al'Abadie, G.G. Kent, D.J. Gawroksger
The Relationship Between Stress And The Onset And Exacerbation Of Psoriasis And Other Skin Conditions. British Journal of Dermatology.....Volume 130 #2.....February 1994.....page 199-203

"...stress...down-regulated the number of intraepithelial T lymphocytes."

"These stress-induced immune changes could be mimicked by injection of the neuropeptide substance P..."

P.C.Arck, et al.
Indications For A Brain-Hair Follicle Axis (BHA): Inhibition Of Keratinocyte Proliferation And Up-Regulation Of Keratinocyte Apoptosis In Telogen Hair Follicles By Stress And Substance P. FASEB Journal.....Volume 15 #13.....November 2001.....page 2536-2538

"The present study was undertaken to characterize further the structure and function of cutaneous nerves which we have previously shown to associate with skin immune cells..."

"These results provide additional support to the concept that an elaborate network of cutaneous axons may play a functional role in regulation of skin inflammation and immunity."

C.L.Egan et al.
Reverse The Causes
High stress = impaired immune function and poor nervous system regulation of skin problems. Do things that improve/maintain high level nerve/immune function. Establish down time during the day for engaging in autogenic relaxation, meditation, napping, massage, prayer, or hot bath/jaccuzzi.

Develop the major life skills of being solution, logic, and mastery oriented. Establish rational thought and pro-activity as major values in life. These skills remove and prevent destructive aspects of stress rather than simply managing it. They produce high levels of self-competence and self-efficacy, which lead to self-mastery. Deal with all major "inner-child" wounds (see John Bradshaw's book "Homecoming") and issues thus creating changes in brain cell function and basal stress levels which directly affect immune cell function.

Watch standup comedy live or on TV, often. — "Enriched" physical and social environments improve immune function. Colorful furniture - mobiles - plants - walls - posters, as well as music, lamps w/dimmer switches, extracts from aroma therapy shops, post affirmations/goals on a wall. -- Establish a strong support group of "functional" friends to spend time with in all major areas of your life. Get a well mannered, lovable, huggable pet [get dog training video made by the best dog trainer.....see store section of www.unclematty.com]. Engage in high intensity, low volume, aerobic exercise to raise. Add supplement intake of vitamin C, E, selenium, and beta carotene.

One must get the nerve and immune system functioning at a productive level. In other words, one will need to stop behaving in ways that contribute to Chronic Acne. One will need to start behaving in ways and consuming things that increase nerve/immune system function. There is a minimum threshold of these activities necessary to reach prior to seeing results.

"Better health care will depend, not on some new therapeutic standard, but on the level of willingness and competence to engage in self care." [Dr. I. Illich....1978]

-----------------------------------------------------------------------------------

"......Substance P......induced significant increases in the area of sebaceous glands. It also increased the size of individual sebaceous cells and the number of sebum vacules for each differentiated sebaceous cell, all of which suggests that substance P promotes both the proliferation and the differentiation of sebaceous glands. In this review, we introduce the general concept of pathogenic factors involved in acne."

"......we introduce........recent evidence of stress-induced exacerbation of acne from a neurological point of view."

M.Toyoda, M.Morohashi
Pathogenesis Of Acne
Medical Electron Microscopy,...Volume 34 #1.....March 2001.....page 29-40

-----------------------------------------------------------------------------------

"......recent results that support the redefinition of the central role of substance P."
"Evidence suggests that this neuropeptide is an integral part of central nervous system pathways involved in psychologic stress."

C.L. DeVane
Substance P: A New Era, A New Role
Pharmacotherapy.....Volume 21#9.....September 2001.....page 1061-1069

-----------------------------------------------------------------------------------

"Substance P (SP)......has various effects on......such as macrophages and lymphocytes."
"The addition of SP ......was able to inhibit the allogeneic T-cell response......without modifying the cell viability. This inhibition was through an effect of SP on both T-cell and Langerhans cell function."

V. Staniek, et al.
Binding And In Vitro Modulation Of Human Epidermal Langerhans Cell Functions By Substance P.
Archives of Dermatological Research.....Volume 289 #5.....April 1997.....page 285-291
"The infants were products of a pregnancy complicated by Accutane ingestion during the first trimester."

"With the increasing use of Accutane for the treatment of cystic acne in young women of child-bearing age, the dangers of teratogenesis in the head and neck area are greatly increased."

A.F.Jahn, K.Ganti
Major Auricular Malformations Due To Accutane (Isotretinoin).
Laryngoscope.....Volume 97 #7 Part 1.....July 1987.....page 832-835

"..... we investigated 154 human pregnancies with fetal exposure to isotretinoin, a retinoid prescribed for severe recalcitrant cystic acne."

"The outcomes were 95 elective abortions, 26 infants without major malformations, 12 spontaneous abortions, and 21 malformed infants."

"Exposure to isotretinoin was associated with an unusually high relative risk for a group of selected major malformations...."

"Among the 21 malformed infants we found a characteristic pattern of malformation involving craniofacial, cardiac, thymic, and central nervous system structures."

E.J. Lammer, et.al.
Retinoic Acid Embryopathy.

"We report the unusual case of a 29-year-old female who developed black discoloration of breast milk 3 weeks after commencing oral minocycline therapy for acne vulgaris."

M.J.Hunt et al.
Black Breast Milk Due To Minocycline Therapy
British Journal of Dermatology.....Volume 134 #5.....May 1996.....page 943-944

"To report a case of inflammatory bowel disease (IBD) associated with use of isotretinoin."
"17-year-old boy presented with new-onset rectal bleeding after completion of a five-month course of isotretinoin. A diagnosis of ulcerative colitis was made."

"The mechanism by which isotretinoin may induce IBD is unknown. Proposed mechanisms include inhibition of epithelial cell growth resulting in ulceration and inflammation of the gut mucosa, inhibition of glycoprotein synthesis affecting the integrity of the mucosal wall, and stimulation of killer T cells, leading to epithelial cell injury and a resultant inflammatory response."

D.E. Reniers, J.M. Howard
Isotretinoin-Induced Inflammatory Bowel Disease In An Adolescent.
Annals of Pharmacotherapy.....Volume 35 #10.....October 2001.....page 1214-1216
Sleep is a period for brain and nerve cell detoxification and immune system stimulation. Melatonin is the hormone in the brain that initiates sleep when it is released by the pineal gland located underneath the brain. It also stimulates immune system cells called T-Lymphocytes, and increases their function in all areas of the body.

The Sleep Control Center In The Brain
Sleep is controlled by an area of the brain called the hypothalamus. The specific brain cells in the hypothalamus responsible for control of sleep are located in an area called the Suprachiasmatic Nucleus, or SCN for short. The cells in the SCN regulate production of melatonin by the pineal gland. The SCN is the “pacemaker” of the circadian rhythm (the rise and fall of melatonin release over a 23 to 24 hour period) that governs melatonin release.

Bright Light Exposure & Melatonin Release
Melatonin levels increase at night and are gradually reduced toward the morning daylight hours. The SCN is “hooked up” to the eyes, such that sun intensity light is the stimulus which has the greatest effects on setting the daily timing (circadian rhythm) of melatonin release. The duration of melatonin release at night depends on the duration of darkness. Suppression of melatonin release is caused by exposure to bright light. The extent of suppression is proportional to the intensity light exposure, but independent of the duration of exposure to bright light. Exposure to bright light at night inhibits melatonin release in a dose dependent manner, in that the brighter the light, the greater the decrease in melatonin release. During exposure to bright light, taking melatonin fails to counteract the light induced decrease in melatonin release. Bright light exposure in the early morning results in advances of sleep/wake cycles, meaning that if you want to wake up earlier, expose yourself to bright light earlier.

Sleep/Melatonin & The Immune System
T-Lymphocytes are among the most important cells of the immune system. Melatonin functions outside the brain as a hormone that stimulates T-cell function at night. Thus suppression of melatonin release can have consequences beyond that of simply affecting a “good night’s sleep.” These immune system cells have receptors for melatonin which allow the hormone to productively stimulate their activity.

Sleep/Melatonin & Oxidants
Oxidant damage to cells is one of the major mechanisms of the aging process in skin, brain, and immune system cells. Oxidants are a form of oxygen particles. Oxidants can damage cell membranes and cause cell death, as well as damage DNA (genes) in such a manner as to cause cancer. Melatonin functions as an anti-oxidant in the membranes of cells by stimulating production of the anti-oxidant called Glutathione. When Glutathione takes up oxidants, it becomes “oxidized glutathione” (GSSG), a substance which further promotes sleep. The GSSG also shut down the production of substances that have excitatory effects on brain cells (excitatory amino acids), thus allowing brain cells to engage in repair processes. Melatonin also penetrates the nucleus of cells to where it can protect cell DNA from oxidants. Melatonin is capable of reducing production of oxidants, and neutralizing ones already produced.

Effects On Brain Cell Aging & Destruction
Brain degenerative diseases such as Alzheimer’s and Parkinson’s involve the destruction of brain cells that use dopamine as the substance (neurotransmitter) the cells use to communicate. The brain cells responsible for cognition (thought) and movement control are located in the forebrain area, and the cells for memory are located in a structure called the hippocampus. Oxidant induced destruction of the cells in these areas is what leads to the loss of cognitive abilities, movement control, and memory. Melatonin can protect and salvage these cells from oxidant induced damage.

Optimizing Melatonin Release
Melatonin is a powerful hormone. It is sold in pill form in grocery stores. Never ingest a hormone!!! There always exists, better, more effective ways of enhancing hormone levels in a manner that won’t result in your premature death. Keep in mind that we live in an electrical age. Our exposure to bright light at night was not as common a few hundred years ago as it is now. It is best to reduce bright light exposure at least 2 hours before bedtime. Use of lamps with dimmer switches facilitates this gradual reduction of light intensity as the evening progresses. Avoid turning on bright lights when waking up late at night to go to the bathroom, etc, since it is the intensity of light, not the duration of exposure, that has the suppressive effects on melatonin release. Meditation and Autogenic Relaxation reduce the negative effects that stress can have on sleep, thus improving sleep quality and can serve as temporary replacements for sleep.

Melatonin is sold in grocery stores.

Melatonin is a powerful hormone.

Never ingest a hormone!!!
The Common Cold And The Immune System

Generally, running has the effect of being an immune system booster. However, overtraining can cause immune system suppression. It is possible to "catch a cold" even if the immune system is functioning well, but the immune system suppression that comes with overtraining, makes one susceptible to "catching a cold" more frequently.

In order to "catch a cold", a virus must enter the body, usually through the eyes, nose, or mouth. This occurs most often when someone who has a cold, sneezes or wipes/blows their nose. The cold virus gets out of their body in this way, often onto their hands. Assuming they don’t wash their hands or wipe them off onto their clothing, towel, etc., they then touch door knobs, hand rails on stairs, and other objects that may be common for other people to touch within a few minutes to a few hours later. If you then come along and touch one of those objects, the cold virus then gets onto you, often onto your hands. All that is necessary at this point is for you to use your hands to rub your nose—nose—mouth without first… having wiped them off on your clothes, towel, etc, and/or without having washed your hands.

Once the virus makes its way into your body, it often finds its way into the mucus area of your nose, and/or upper portion of your throat. In these places, though it will come under attack by your immune system, it will make a major effort to replicate and proliferate. If it does so successfully, you will...."catch a cold".

There are some things you can do to assist your immune system during the early stages, at the point in time that you "feel a cold coming on".

One thing to do is to make an effort to kill the cold virus in your nose and/or upper portion of your throat, as to reduce the "viral load" that your immune system will have to combat. You can accomplish this task simply by exposing the virus to the deadly combination of.....baking soda—salt—and water. This can be done by placing a teaspoon of baking soda and a pinch of salt into a small Dixie cup or small glass of water. You then pour the mixture into your nose either strait out the cup, or use an eye dropper or other device, allowing the mixture to go through your nose, down into your throat. You should repeat with another cup, this time pouring the mixture in your mouth, and gargle for a few seconds.

Grocery stores now sell [probably on the cold remedy shelves] a ready-made product of fluid, baking soda, etc, that may facilitate all this if you’re not into the do-it-yourself method.

At the onset of a cold, your immune system will go through a large amount of vitamin C, other anti-oxidants, and minerals that assist immune cell production. You can support you immune system in its functioning, by supplying it with Vitamin C, other anti-oxidants, and minerals that assist immune cell production.

During the early stages, at the point in time that you “feel a cold coming on”, you can begin consumption of Vitamin C and other anti-oxidants;

--- Vitamin C [in 500mg tablets, one every few hours —throughout— the day]
--- Vitamin E [in 400IU softgel tablets, once or twice during the day]
--- Beta Carotene [in 25,000 IU softgel tablets, once or twice during the day]
--- Selenium [200IU tablets, once during the day]

During the early stages, at the point in time that you “feel a cold coming on”, you can begin consumption of minerals that assist immune cell production;

--- Zinc [50mg once or twice during the day],
--- Magnesium [250mg tablets once or twice during the day]
--- Calcium [500mg once or twice during the day]

It may be beneficial to use gravity to assist in the drainage of mucus when you go to bed by using pillows, etc, to elevate your torso above the rest of the body.
Human Healing: Major Mechanism Of....
Pre-Menstrual Syndrome (PMS)

Pre-menstrual Syndrome consists of varying symptoms from one person to the next, but there may be a single underlying cause of the symptoms. There are two hormones primarily involved, called progesterone and cortisol. Progesterone is a steroid hormone made from it’s precursor (pregnenolone), which is synthesized from cholesterol. It is produced in several places in the body: brain, ovaries, and adrenal glands. Progesterone has several functions in the body. In the brain it functions as a neuro-modulator, meaning it can affect the function of neurons (brain cells). Neurons use chemicals called neurotransmitters, to communicate with one another. When a neurotransmitter is released from a neuron, it will bind to receptors on other brain cells. Progesterone affects the function of neurons by increasing the number of receptors neurons have for these neurotransmitters.

Progesterone & GABA Receptors
There are many different types of receptors in the brain for many different types of neurotransmitters. The receptor of interest in Pre-menstrual Syndrome may be the one called GABA-beta (gamma amino-butyric acid). The general effect that progesterone has is to increase the number of the GABA-beta receptors. These receptors bind inhibitory neurotransmitters, thus they lead to a decrease in the activity of neurons that have these receptors. In this way, progesterone tends to have psychological arousal reducing, anesthetizing, anti-anxiety, and anti-depressant kinds of effects. Progesterone levels rise during that later portions of the menstrual cycle, and obviously, all of these effects of progesterone that have just been stated, are contrary to the symptoms of Pre-menstrual Syndrome.

“...elevation of serum cortisol in the range typically found in women under stress... results in a decrease in serum progesterone...”
Journal Of Endocrinology And Metabolism
Vol. 77 #6 1993  pg. 1597

It is known that a decrease in GABA-beta receptors leads to a decrease in neurotransmitter binding to GABA-beta receptors, which is correlated with depression, increased psychological arousal/sensitivity, and negative mood states. The mood and behavioral symptoms of pre-menstrual syndrome may be greatly affected by the number of GABA-beta receptors, and progesterone increases the number of GABA-beta receptors. Thus it would seem that in order to experience the symptoms of pre-menstrual syndrome, one must have a decrease in GABA-beta receptors, brought on by a decrease in progesterone and/or progesterone effects.

Stress & Cortisol
Psychological stress generally results in elevated production of the “stress hormone”, called Cortisol. Practically all cells in the body have receptors along their membranes for cortisol. Cortisol is famous for it’s ability to cause decreased production and increased destruction of many cells and substances in the body. It also has the ability to compete with other hormones for binding spots on cells, thus reducing the effects that those hormones would have otherwise. It turns out that the decrease in GABA-beta receptors is caused by a decrease in progesterone production and a decrease in progesterone effects. Cortisol decreases the production of progesterone, and competes with progesterone, thus reducing progesterone’s effects. So in short, stress causes an increase in cortisol production, cortisol decreases progesterone production and competes with progesterone, thus leading to decrease in GABA-beta receptors, which results in the symptoms of Pre-menstrual Syndrome. Cortisol also causes a decrease of receptors in the brain for the neurotransmitter called Serotonin, which results in significant effects on mood and behavior (ie. depression, irritability). Cortisol competes with Opioids for receptors on neurons. Opioids are substances that reduce pain perception, and have positive effects on mood and generalized feelings of well being. Cortisol competition with these substances can result in symptoms similar to “steroid rage”, since the mechanism is the same -- steroids compete with Opioids as well.

“Cortisol is able to compete with the action of progesterone...”
Cortisol Blockade: A Possible Molecular Mechanism Involved In The Initiation Of Human Labor Nature Medicine May 1996. Vol 2 #5

Effective Treatment Of Pre-menstrual Syndrome
The most effective way to treat Pre-menstrual syndrome in the long term is to reduce cortisol levels by decreasing chronic stress levels. Autogenic relaxation and meditation have positive, short term cortisol reducing effects. Create a long term increase in the nutrient density of your diet. This increases the availability of nutrients used in creating normal cell function (ie, progesterone production, GABA-beta receptor production, etc). Engage in a long term, effective exercise program. This will ensure normal cell function, and has positive, proven effects on mood/behavior, and other symptoms of Pre-menstrual Syndrome. The greater your symptoms, the more sure you can be that you are over stressed, under nourished, and under-trained. Traditional medicine has a quick fix that can be helpful in the extreme short term severe case of PMS, but is quite dangerous to long term health and survival. This consists of administration of anti-depressants. One of the most popular is Prozac. This drug is a serotonin re-uptake inhibitor. Meaning, it inhibits the re-uptake of serotonin after a neuron has released it. This allows more of the serotonin to go to the intended cell and bind to the receptors for it. This is a danger because it could result having too much serotonin stimulating the cell, resulting major psychological problems for the patient.

Your true wealth is the good you do in the world. We must be the change we wish to see in the world.
Reversing Osteoporosis

Looking like osteoporosis has less to do with hormone issues, more to do with other stuff, collagen production [lack thereof], and chronically elevated acidity in the environment around bone similar to the de-mineralization of teeth. Like most degenerative issues in humans, a correctable, reversible problem.

Reversing or preventing osteoporosis.....
--- Lift weights throughout your life, especially partial-squats, calf raises, jumping exercises, in other words stuff that's fully weight bearing and preferably done with weights at home or at a gym
--- supplements 3 to 4 days a week....
  vitamin K2 -- to aid calcium going to bone instead of to calcifying the walls of your blood vessels
  vitamin D3 -- for normal functioning of all cells including those related to bone
  magnesium -- to aid in bone building and rebuilding
  vitamin C -- to aid in collagen formation in bone
--- eat raw mixed vegetables, preferably the combo of cucumber, carrot, broccoli, and Romano tomato to alkalize the diet reduce bone loss via acid environment.
--- eat mixed berries such as strawberry, raspberry, blue berry, black berry for minerals and anti-oxidants.
--- Perhaps say no to calcium supplements if you're not a kid or pregnant woman.
--- absorbable hydrolyzed collagen supplement, the form used in bone
--- reduce soda consumption to limit potential bone de-mineralization via acidity or thyroid malfunction issues.

Osteoporosis, a unitary hypothesis of collagen loss in skin and bone
S.Shuster
Medical Hypotheses....Volume 65 #3.....2005.....page 426 - 432

"Progress in osteoporosis has been stultified by repetitive, statistic-driven studies and catechistic reviews; in the absence of concept and hypothesis research is aimless, and the trivial associations it continually reveals, has led to the cul-de-sac of multifactorialism."

"A return to hypothesis-led research which seeks major causal defects and the conclusive therapies that arise from them is essential."

"The hypothesis proposed evolved from research into the mechanism of senile purpura. This predicted a causal loss of skin collagen that was contrary to contemporary opinion, but was confirmed when collagen was expressed absolutely, instead as a percentage or ratio: women have less collagen than men and it decreases by 1% a year in exposed and unexposed skin. Corticosteroids (which also produce shear purpura) reduce skin collagen and androgen and virilism increase it; growth hormone produces the greatest increase, and to a decrease in hypopituitarism."

"All these changes in skin collagen correspond to changes in bone density, and the circumstances are too various for coincidence."

"This led to the hypothesis that the changes found in skin collagen also occur in bone collagen, leading to the associated changes in bone density; thus a loss of collagen in skin and bones with aging is the causal counterpart to loss of bone density in senile osteoporosis. If this is correct then, as with aging, androgen and virilisation, corticosteroids, growth hormone and hypopituitarism, changes in bone density should correspond to systemic changes in skin collagen."

"This correspondence is found to occur in osteogenesis imperfecta and Ehlers-Danlos syndrome, two genetically discrete families of disordered collagen production, and other situations, e.g., scurvy and homocystinuria."

"A primary loss of collagen in osteoporotic bones is an essential prediction of the hypothesis; in fact this loss is well established but, inexplicably, it has been assumed to be secondary to the bone loss. Because of the comparable changes in skin and bones, the hypothesis implies that skin collagen could be used to predict the state of the bones and their response to treatment."

book.....Death By Calcium
Amazon....."In his newest book, Death by Calcium, board-certified cardiologist, Thomas E. Levy, offers scientific proof that the regular intake of dairy and calcium supplementation promotes all known chronic degenerative diseases and significantly shortens life. Written for both the layperson and scientist, Dr. Levy explains the dangers inherent in supplementing with calcium. "It is now clear that excess dietary calcium, as is realized with the routine ingestion of milk and other calcium-laden dairy foods, is also a toxic and potentially life-shortening practice."

Clinical Trials....U.S. National Institutes of Health
Biological Bone Markers and Hydrolyzed Collagen Supplement in Menopausal Healthy Women......."Preliminary scientific studies, in both animals and humans suggest that oral consumption of hydrolyzed collagen acts on the bone remodeling process by stimulating the activity of osteoblasts responsible for bone formation while improving the bone mineral density and biomechanical resistance of long bones."

"The objective of this clinical research is to measure changes in biomarkers of bone turnover in postmenopausal healthy women, not osteoporotic, in response to consumption of hydrolyzed collagen for three months."

"For this, we propose to measure blood and urinary markers of formation and bone resorption before consumption, then 45 and 90 days after daily consumption of 10g of hydrolyzed collagen."
Human Physiology: Mechanisms of Osteoporosis

"Bone Remodeling" is the general term used to describe the process of structural changes that take place in bone. There are two main cells, osteoclast cells and osteoblast cells. Bone is comprised of calcium phosphate, which these cells will either breakdown or build. Following exercise, there is debris from the matrix structure of bone that must be removed. Osteoclast cells are responsible for resorbing this debris and releasing the calcium into the blood stream. Osteoblast cells are like engineers that take up calcium from the blood stream and use it to lay down a new and stronger bone matrix to withstand greater loads. This process is the "stress reaction" aspect of bone remodeling. It is a normal adaptive function within bone.

Bone Loss
As people become more sedentary in their life style, a situation exists where the rate of osteoclastic activity exceeds the rate of osteoblastic activity. Bone resorption exceeds bone deposition, thus there is a net loss of bone. This net degeneration of bone weakens the overall integrity of the bone. Menopause, lack of exercise, and/or psychological stress, cause a decrease in production of estrogen and testosterone, which further facilitates osteoclastic activity and decreases osteoblastic activity. Estrogen promotes apoptosis (cell destruction) of osteoclasts. Thus reduced estrogen causes reduced regulation of osteoclastic activity. Low calcium availability due to low calcium intake, intake of caffeine, or decreased estrogen (estrogen aids absorption of calcium in the diet), further complicate the situation since calcium is needed to in order to build bone.

Falling Down
When the overall strength of the bone is lost due to osteoclastic activity, the bone may break. In elderly people who have osteoporosis, the order of events is not as it seems. They do not fall and break their hip. Their hip breaks, and then they fall.

Building Bone: Exercise
Weight bearing exercise is the most potent stimulator of osteoblastic activity. "Weight bearing", means that one's feet are on the ground, supporting your body weight, such as in walking or running, or in lifting weights. For example, bicycling is not a weight bearing exercise since most of your weight is supported by the seat. Fluid comprises a substantial part of bone (~20%). Compressive forces on bone during weight bearing exercise causes fluid movement within the bone. The force of the movement of fluid through the bone creates a force on osteoblast cells, which is the mechanism by which these cells are stimulated to build more bone. The velocity of fluid movement through bone is similar to the rate that weight is applied to the bone, thus the greater the weight, the greater the fluid movement. Therefore, greater weight, can result in greater stimulus for osteoblast cells to build more bone. This is why lifting weights is such a potent stimulus for bone strength increases. Lift weights throughout life!!

Characteristics Of Aging Humans
Two of the major characteristics of aging humans as they age is that they tend to decrease their weight bearing exercise levels and their intake of foods high in calcium. Thus, as they age, they effectively decrease the stimulus for osteoblastic activity, and decrease their intake of the main nutrient needed for bone building. Bone loss through the life span is normal. However, in these people, one will see an accelerated rate of bone loss. Bone is much like muscle. When it goes unused, it will atrophy, weaken, and have a decrease in the forces that it can deal with. Strength training studies on elderly populations show that this accelerated bone loss can be reversed, and/or slowed substantially.

Exercise & Aging
Perhaps the most functional way to view exercise in the context of aging, is the ability of exercise to keep the body functioning in the manner that allows one to continue living one's desired life style well into "old age". If your objective is to be mobile, strong, and independent late in life, then you must train to do so. Hence the concept, "training to live, training for life". Our bodies will adapt to the training that we do. They will gain and maintain the aerobic capacity that we train them to have. Our muscles and bones will gain and maintain the strength that our training creates in them......regardless of age. Atrophy and degeneration of the body is more a symptom of cessation of the exercise process rather than a result of the aging process. The fact is that 80 year old marathoners have a far higher aerobic capacity than 20 year sedentary people.

Estrogen Replacement Therapy
At menopause, estrogen production in women decreases significantly. Reduced estrogen levels contributes to bone loss and osteoporosis as mentioned earlier. Doctors attempt to prevent this by recommending estrogen replacement, by pill or skin patch. Providing the body with more estrogen increases the chance that some significant amount of it will bind to estrogen receptors on tumor cells in the breast and/or ovaries, and act as a growth factor. Thus estrogen replacement therapy to prevent osteoporosis, has been shown to contribute to cancer growth in the breast and ovaries. Fortunately, exercise contributes to short term estrogen production which will bind to receptors mainly in bone and muscle, rather than tumor cells. One can also increase intake of soy products which contain substances referred to as "plant estrogens" (isoflavonoids). They function like estrogen produced in the body to some degree, however they also compete with estrogen for binding sites on receptors located on tumor cells. These plant estrogens fail to have the same level of growth promoting effects in tumor cells. Thus you can get the estrogen without using costly pills and patches that are highly likely to promote breast cancer and/or ovarian cancer.
Human Healing: Mechanism Of.... The Effects Of Magnets

Electric and Magnetic energy are capable of exerting forces on the cells of our bodies. It has long been known that forces from the pull of earth's gravity, electrical stimulation machines used in physical therapy clinics, electric power lines, etc., have effects on human cellular function. The forces generated by magnets can impact cell function as well. The type of effect and the degree of the effect on cell function is directly dependent upon the length of exposure to the magnet and the strength of the magnetic force emitted by the magnet.

“Evidence suggests that cell processes can be influenced by weak electromagnetic fields (EMF’s). EMF’s appear to represent a global interference or stress to which a cell can adapt without catastrophic consequences. There may be exceptions to this observation, however, such as the role of EMF’s as promoters in the presence of a primary tumor initiator.”

EM Goodman, B.Greenebaum, MT Marron
International Review Of Cytology
Vol. 158 pg. 279-338, 1995

Cell Growth Inhibition
Excessive exposure to electro-magnetic forces can inhibit cell growth in various tissues such as skin and bone. Gene transcription processes can be inhibited and cell production halted completely. This would be a major problem in the average person, and quite problematic to a fetus in a pregnant woman.

DNA Strand Breaks
Excessive exposure to electro-magnetic forces can cause damage to DNA. The forces can contribute to “free radical” induced breaks in DNA strands, potentially leading to formation of cancer cells. Anti-oxidants take up free radicals to prevent them from causing such damage. In people with low exercise levels and low intake of anti-oxidants, this type of DNA damage can be a potential danger. On the positive side however, DNA damage to leukemia cells can be induced by exposure to electro-magnetic fields, causing apoptosis (cell suicide), making this a potential treatment for this form of cancer in the future.

“...the reason for inconsistent results published in the literature may be caused by the variability of exposure systems, the exposure conditions and cell types used.”

M.Simko, R.Kriehuber, S.Lange
Mutation Research

Immune Cell Suppression
Excessive exposure to electro-magnetic forces can induce apoptosis (cell suicide) in immune system cells. This is perhaps one of the most likely ways in which long term exposure to electro-magnetic fields results in cancer. Immune suppression results in unchecked tumor growth.
"...the distribution of nerve endings/receptive fields was closely associated with the sites of Acupuncture Points."

"Results from our studies strongly suggest that Acupuncture Points in humans may be excitable muscle/skin nerve complexes with high density of nerve endings."

Ai-Hui Lia, Jun-Ming Zhangb, Yi-Kuan Xie
Human Acupuncture Points Mapped In Rats Are Associated With Excitable Muscle/Skin Nerve Complexes With Enriched Nerve Endings

Brain Research.....Volume 1012, Issue 1-2......June 25, 2004.....page 154 - 159
What you should know about "Killer" Bees:

Stimulus for attack is mainly smell/odor, rather than loud noise or vibrations, such as from lawn mowers, etc. Just as some animals attack when they smell food, or deer run when they smell a predator, killer bees attack when they smell a potential enemy to the hive. You can stand next to a bee hive [down-wind], make loud noise, and nothing will happen. But move up-wind to allow the your smell to hit the hive, and the bees will attack.

Killer bees attack in waves. A few hundred will attack first. If you take too much time to move a substantial distance from the hive...very quickly, the call will go out...via an odor the bees give off....to the remaining warrior bees in the hive, which will attack you by the thousands.

Killer bees intend to kill. Thus they generally do not waste their time attacking the hands, legs, or torso of animals or humans, they go for the face. Specifically, they try to cut off your ability to breath by stinging the nose and mouth areas.

Many animals and humans can survive an attack that results in 6 stings or less......per square inch of body area.......No animal or human has ever survived 10 or more stings.......per square inch of body area.......The advice that you should walk slowly during an attack to avoid "angering" the bees, will likely get you killed.

You should run as fast as you can. The killer bees fly faster than ordinary bees, so you will be stung many, many times no matter what you do. Your primary objective should be to survive the attack. Accept the fact that you...will....get stung. Quickly get to a place where you can close a door to prevent more bees from getting to you, eventhough you will have "many" on you at the time.

Killer bees attempt to shut off oxygen flow to the victim. You should cover your nose and mouth during an attack.

Ironically, shutting off oxygen is the easiest way to kill the bees. Spraying them with soappy water kills the bees almost instantly, by suffocation. They cannot survive for more than a few seconds without oxygen since their metabolism is so high from their wing activity. This method takes less time to work than the strongest insecticides.

Aggressive "Africanized" bees have been able to migrate up from South America because they feed on tropical plants....and these plants have been imported by Americans to this country. The bees survive because their food is here in abundance, in every state that has these plants and a relatively tropical environment.

The bees are able to take over a hive because of the way queen bees are hatched. The queen will lay eggs in comb structures inside the hive. Normally, when a queen bee hatches, even normal bees, its first order of business is to find and kill any other queens...before they hatch. This favors the africanized bees, because they tend to hatch first.
People going to extremes, throwing out beds, furniture. Please stop buying sprays or hiring exterminators to poison the bugs, yourselves, your kids and your pets. Like humans and roaches, Bed Bugs are comprised of cells. Cells can be screwed with. If you're willing to abandon the objective of killing them, you can rid your house/apartment of them quite easily.

How have humans inadvertently killed off hundreds of species of birds, insects, fish, and other animals over the past few decades. We made their habitat unlivable.

The same can be done to roaches, and bed bugs. You don't have to kill bed bugs or roaches. You just have to make their living and eating space unlivable.

--- If I come by your living room or family room while you're watching your favorite show on TV and spray some skunk odor or tear gas, you'll leave, no matter how badly you want to watch that show.

--- If I come by your bedroom and spray some skunk odor or tear gas, you'll leave, no matter how tired you are and how badly you want to sleep.

--- If I come by your kitchen or dining room and spray some skunk odor or tear gas while you're trying to eat dinner, you'll leave, no matter how hungry you are.

--- If all of this is becomes the norm, you'll find a new place to live.

For roaches, keep your money. Leave the "Raid" on the shelf at the store. Leave the exterminator for somebody else. All you'll need to screw with their cells.....
--- spray bottle
--- baking soda
--- table salt

Pour baking soda and salt [2 to 1 ratio] into a dixie cup, Pour that into a spray bottle that has warm water in it, and shake.
-- Spray all baseboards around the kitchen and other rooms.
-- Spray all kitchen cabinets, drawers, counter tops, behind/under refrigerator.

It will dry into a "roach be gone" dust/film/residue, and the roaches will be gone. If the first spraying doesn't finish the job, just repeat it until it does. You don't have to kill them. You just have to make them leave by making their habitat unlivable, same as wild animals.

For Bed Bugs, keep your money. Leave the sprays on the shelf at the store. Leave the exterminator for somebody else. All you'll need to screw with their cells.....
--- spray bottle
--- baking soda
--- rubbing alcohol [90% or above alcohol]
--- vacuum cleaner

Pour rubbing alcohol into a spray bottle. Pour 3 or 4 teaspoons of baking soda in it and shake.
-- There may be things other than Bed Bugs biting you at night. Destroy their habitat by vacuuming around, under, behind the bed and other furniture that remains stationary allowing dust to accumulate.
Open the windows or spray only when you don't need the room......
-- Spray all baseboards around the bedroom and other rooms.
-- Spray under and behind all furniture including your bed and headboard.
-- Spray any portion of the bed and/or bed frame that touches the floor.
-- Spray the sides of -any and all- sheets that hang over -any- side of the bed.

Some portion of the spray will dry into a "Bed Bug be gone" dust/film/residue, and the Bed Bugs will be gone. The first spraying is --unlikely-- to finish the job. Just keep repeating it until it does. You don't have to kill them. You just have to make them leave by making their habitat unlivable, same as wild animals.
Concussions in football, soccer, sport in general..

One of the major mechanisms of long term damage to brain caused by repeated concussions is the production of things called oxidants that cause something called oxidative damage. Thus, avoidance of long term damage to brain from repeated concussions is a matter of anti-oxidant supply. As tends to be the norm in our popular culture in areas of cancer and heart disease, etc...on the subject of concussions, brain research and brain researchers specializing in nutrition medicine are being ignored. Logical, science based approaches to resolving such issues fail to attract the attention of the popular media, and people suffer as a result. Hence a commonly used slogan.."my people perish from a lack of knowledge.

Long term oxidant induced damage to brain cells is one of the major mechanisms of aging. Dramatically accelerated oxidant induced damage to brain cells caused by -very- high levels of stress, repeated concussions, or traumatic brain injury causes dramatically accelerated aging in brain cells. This kills them off by the million, a rate exceeds the rate of regeneration.

Thus obviously the fix is to reduce the level of oxidants by supplying anti-oxidants. And at the same time, engage in activities and consume foods to elevate brain cell regeneration levels. Engaging in these for one or 2 months post-concussion will likely prove sufficient to resolve concerns of long term brain injury.

-----

Consume foods and supplements to reduce oxidants

Consume at one time, the combination of these mixed berries...
-- strawberries
-- black berries
-- blue berries
-- raspberries

Consuming at one time, the combination of these 4 vegetables.
-- broccoli florets
-- chopped carrot
-- chopped romano tomato
-- chopped cucumber

The combination of these 4 supplements
-- selenium [200mg]
-- beta carotene [25,000 IU]
-- vitamin E [400 IU]
-- vitamin C [500mg]

-----

Consume supplements and engage in activities to elevate brain cell regeneration levels..
-- resveratrol [100mg]
-- n-acetyl-Cysteine [500 - 600mg]
-- Autogenic relaxation
-- meditation
-- math problems [do in your head, addition, subtraction, multiplication, division]
essential fatty acids for concussion & brain injury......

"Traumatic brain injury.....remains a clinical challenge. Clinical studies thus far have failed to identify an effective treatment strategy."

"......controlling aspects of neuroprotection, neuroinflammation, and neuroregeneration is needed."  
"Omega-3 fatty acids offer the advantage of this approach."

".....there is a growing body of strong preclinical evidence and clinical experience that suggests that benefits may be possible from aggressively adding substantial amounts of Omega-3 fatty acids to optimize the nutritional foundation of traumatic brain injury, concussion, and postconcussion syndrome patients."

"Early and optimal doses of Omega-3 fatty acids, even in a prophylactic setting, have the potential to improve outcomes from this potentially devastating problem."

"....Omega-3 fatty acids should be considered mainstream, conventional medicine, if conventional medicine can overcome its inherent bias against nutritional, nonpharmacologic therapies."

M.D. Lewis, et al  
Concussions, Traumatic Brain Injury, and the Innovative Use of Omega-3s  
Journal Of The American College Of Nutrition -- Volume 35 #7 -- July 2016 -- page 469
Toddlers, Infants & Plane travel.....

Don't torture your kid [and your fellow passengers that may be sensitive to loud crying and/or screaming].

Unfortunately, ear pain is especially common in children since the eustachian tubes that help our ears adjust to changing air pressure are smaller in children. Don't wait until you board the plane to prepare for the possibility of very painful problems.

Get your kid chewing and swallowing something and drinking fluids prior to boarding the plane, continuing to eat and chew after taking a seat on the plane. Gummy bears and other chewy things that can be swallowed [no chewing gum].

Repeat several minutes prior to the plane descending for landing.

For smaller toddlers or infants have a bottle or pacifier ready.

If you have difficulty finding something that works, don't torture your kid [and your fellow passengers that may be sensitive to loud crying and/or screaming]. The train, car, or bus will have to do, otherwise stay home.

Consider leaving your kid with a friend, or telling grandma and grandpa they'll need to travel to your house until your kid gets older.
"With the rapid increase in the number of mobile phone users, the potential adverse effects of the electromagnetic field radiation emitted by a mobile phone has become a serious concern."

"This study demonstrated, for the first time, the blood-brain barrier and cognitive changes in rats exposed to 900 MHz electromagnetic field (EMF) and aims to elucidate the potential molecular pathway underlying these changes."

"A total of 108 male Sprague-Dawley rats were exposed to a 900 MHz, 1 mW/cm² EMF or sham (unexposed) for 14 or 28 days (3 h per day)."

"The specific energy absorption rate (SAR) varied between 0.016 (whole body) and 2 W/kg (locally in the head). In addition, the Morris water maze test was used to examine spatial memory performance determination. Morphological changes were investigated by examining ultrastructural changes in the hippocampus and cortex, and the Evans Blue assay was used to assess blood brain barrier (BBB) damage."

"We found that the frequency of crossing platforms and the percentage of time spent in the target quadrant were lower in rats exposed to EMF for 28 days than in rats exposed to EMF for 14 days and unexposed rats. Moreover, 28 days of EMF exposure induced cellular edema and neuronal cell organelle degeneration in the rat."

"In addition, damaged BBB permeability, which resulted in albumin and HO-1 extravasation were observed in the hippocampus and cortex."

"Thus, for the first time, we found that EMF exposure for 28 days induced the expression of mkp-1, resulting in ERK dephosphorylation."

"Taken together, these results demonstrated that exposure to 900 MHz EMF radiation for 28 days can significantly impair spatial memory and damage BBB permeability in rat by activating the mkp-1/ERK pathway."
Athlete’s Foot repair

-- wash feet….particularly heels, individual toenails, and between toes

-- serval days each week for several weeks.....10 minute foot bath in very warm/hot water with…
   ----- epsom salt
   ----- baking soda
   ----- several drops lemon essential oil

-- serval days each week for several weeks....lemon essential oil, apply to feet, particularly heels, individual toenails, and between toes, bottom of feet

-- cover feet when walking in a locker room setting
-- cover with socks when walking around at home
As we continue to acquire and apply more information, we continue to expand the area of what is possible for us to achieve.

Hopes and dreams are just hopes and dreams until you learn how to achieve them and grant yourself permission to aggressively implement what you’ve learned.

Marshall Burt
So called "performance enhancing drugs" are prescription drugs.

Some examples of the effectiveness of prescription drugs in sport..........

"The drug erythropoietin, often called EPO......a new systemic review of existing research reveals that there is no scientific evidence that it does enhance performance, but there is evidence that using it in sport could place a user's health and life at risk."
EPO [erythropoietin] doping in elite cycling: No evidence of benefit, but risk of harm
Science Daily......December 5, 2012.

"...there is no scientific basis from which to conclude that rHuEPO has performance-enhancing properties in elite cyclists."”
The use of rHuEPO in cycling is rife but scientifically unsupported by evidence, and its use in sports is medical malpractice.
J.A.Heuberger, et al
Erythropoietin doping in cycling: lack of evidence for efficacy and a negative risk-benefit.
British Journal Of Clinical Pharmacology......Volume 75 #6....June 2013....page 1406

"The over-exaggeration of the effects of growth hormone in muscle building is effectively promoting its abuse...."
"...there is the question of disinformation on rhGH....Part of this problem may, paradoxically, derive from the anti-doping authorities themselves. By ignoring the evidence the rhGH does not work in normal healthy subjects, the athletic establishment could be accused of effectively promoting its use."
"We must tell athletes the truth: growth hormone does not 'work' or at least not as they think it does and that its is associated with all kinds of immediate and long term hazards------everything from decreased performance to cancer."
"...none of us scientists, doctors, coaches, or sports bodies should continue to suggest that this dangerous doping practice works."
M.J. Rennie
British Journal Of Sports Medicine.....Volume 37 #2....April 2003....pages 100-103

"Testosterone prohormones such as androstenedione, androstenediol, and dehydroepiandrosterone (DHEA) have been heavily marketed as testosterone-enhancing and muscle-building nutritional supplements for the past decade."
"Contrary to marketing claims, research to date indicates that the use of prohormone nutritional supplements (DHEA, androstenedione, androstenediol, and other steroid hormone supplements) does not produce either anabolic or ergogenic effects in men. Moreover, the use of prohormone nutritional supplements may raise the risk for negative health consequences."
G.A.Brown, et al
Testosterone Prohormone Supplements.
Medicine & Science in Sports & Exercise.....Volume 38 #8....August 2006.....pg 1367-1537

So called "performance enhancing drugs" are prescription drugs.

Some examples of the effectiveness of prescription drugs in American medicine & health care..........

"Most drugs are only effective for a small percentage of people who take them."
Michael Leavitt [U.S. Secretary of Health & Human Services 2005 - 2009]

".....the benefits that US health care currently deliver may not outweigh the aggregate health harm it imparts."
Journal Of The American Medical Association...Volume 302 #1....July 1, 2009...page 89 - 91

"It is estimated that more than 700,000 individuals are seen in hospital emergency departments for adverse drug events each year in the United States."
[Centers For Disease Control....2015]

"106,000 deaths/year from non-error, adverse effects of medications"
B. Starfield
Is US Health Really the Best in the World
Journal Of The American Medical Association.....Volume 284 #4....July 26, 2000.....page 483 - 485

".....1.5 million U.S. residents are harmed or killed each year because of medication errors, according to an Institute of Medicine report."
Nature Medicine.....Volume 12 #9....September 2006.....pg 984 - 985.....News In Brief
Pursue becoming a Master Of Sport