### **Full-Spectrum Light**

## **Energy and Health Builder**

## And a Breakthrough in Prevention of AIDS

by Joseph G. Hattersley

February, 2000

www.angelfire.com/wa/jhattersley/content.html

This paper enlarges and updates my article on full-spectrum light in Price-Pottenger Health Journal, Winter 1995. Recent research, not yet incorporated into this paper, fully supports the statements made here and conclusions reached.

America has a phobia -- an irrational fear -- about ultraviolet (UV) light. In a new science fad, unwise practices are being urged on us. The resulting sickness and misbehavior will mystify yet enrich physicians, psychiatrists, dentists and criminal specialists, as well as pharmaceutical drug companies.

In too many scientific and medical fields, for a lot of researchers the truth is defined only in relationship to the next grant, peer pressure and the fight to further an entrenched view. This essentially political process goes on despite any -- in this case very strong -- evidence to the contrary. Much "science" research is known to be fraudulent. Such a flow of funded research almost exclusively in one direction is characteristic of potentially dangerous science fads. Almost all "scientists" are out to prove something so as to continue their careers; to them, finding the truth is only secondary.

UV (ultraviolet) intensity is now forecast in population centers daily. The US Environmental Protection Agency (EPA) suggests when outdoors we "protect ourselves against ultraviolet light whenever we can see our shadow." And many physicians give their patients the same warning.

This is terrible advice. If man were a machine, doctor could repair or replace one part without worrying about the rest of the contraption. Man is no machine, but more like a web or hologram. Every organ and every part affects, and in fact cells in every part communicate with, all the other parts.

As a result of the EPA's kind of advice, which is based on junk science, use of sunglasses is epidemic; we hide behind stylish darkened car windows, we slather our skin with sunscreen for even brief sun exposure. People who engage in

these practices are ruining their disposition and health. Disposition: see footnote. Health: read on.

The phobia arose after investigators anesthetized animals, propped their eyes open and shined intense UV light into them. Their retinas were damaged. And excessive exposure to one kind of ultraviolet (shorter-wave, germicidal UV-C) can damage tissue. UV-C may (but it may not) be present increasingly in sunlight with the purported thinning of the protective ozone layer. (It is also found in tanning salons and halogen lamps.) But EPA makes the ridiculous leap from that truth to the conclusion that we should avoid all UV.

In fact, the trace amounts of UV radiation in natural daylight are required for physical and mental health, civilized behavior, muscle strength, energy and learning. Sunlight, in moderation, improves immunity and stimulates our metabolism while decreasing food craving, and increases our intelligence.

**SIDEBAR:** Even low exposure to UVB significantly increases risk of cataracts. But that happens only while consuming a Western junk food diet rich in unsaturated fats and their oxidized products. But those who consume a more sensible diet and supplement vitamins C and E do not get cataracts even from lengthy sun exposure.

Starting from a high school hobby of time-lapse photography, John N. Ott, Sc.D. Hon., founded the new science of photobiology. Now over 90, he is still active. Among many publications, Dr. Ott's latest book is Light, Radiation and You: How to Stay Healthy. Greenwich, CT: Devin-Adair Publishers, 1990.

"Mankind adapted to the full range of the solar spectrum," he wrote, "and artificial distortions of that spectrum-malillumination, a condition analogous to malnutrition -- may have biologic effects." "There are neurochemical channels from the retina to the pineal and pituitary glands, the master glands of the whole endocrine system that controls the production and release of hormones. This regulates your body chemistry and its growth, all organs of your body including your brain, and how they function."

The critical reader will justly ask, Where are the controlled, scientific tests supporting Dr. Ott's statements? The answer to that question: Who can make money promoting sunlight? Think about it.

## I. First let's consider health effects of ultraviolet (UV) deprivation.

Malignant melanoma, the dangerous kind of what is called skin cancer -- it is ultimately fatal if not corrected -- is often alarmingly but wrongly blamed on sun exposure. A study by the U.S. Navy found the most melanoma in people who work indoors all the time. Those who worked both outdoors and indoors some of the time had the lowest incidence. Also, most melanomas appear on parts of the body that are seldom exposed to sunlight. The inference is that both very high

and very low exposures to UV light can be harmful -- and moderate exposure is healthful.

Sunscreens block out only UVA and UVB, which we all need in trace amounts, but not the potentially dangerous, germicidal UVC; and no commercial sunscreen has been proved safe. Their chemicals penetrate the skin into the circulation and add to the burden of toxins to be detoxified. Commercial sunscreens increase risk of melanoma by causing mutations when the cells' chromosomes interact with the chemicals and the light. Natural sunscreens, as well as commercial ones, also curtail needed uptake of vitamin D3 from UV-B, increasing risk of the bone-thinning disease osteoporosis (see later).

What about sunscreens? From Lita Lee, PhD. "Mounting evidence indicates that many of them contain carcinogens and that the rise of skin cancers parallels the increase in sunscreen usage. The only sunscreen I recommend is coconut oil, although believe me, you cannot slather this oil on your skin and bake in the sun all day. Adding a little iodine to the coconut oil for the first week of summer gives added protection; however, do not use the iodine for more than a week as continued use will inhibit your thyroid function. In my opinion, the only other safe (non-carcinogenic) sunscreen would be one containing titanium dioxide."

A study published in the prestigious medical journal Lancet and a Russian study found fluorescent light rather than sunlight promotes melanoma, proportionately to the time of exposure. Among a sample of nearly 900 women, those who worked indoors under fluorescent lighting had 2.I times higher melanoma risk (95% confidence interval, C.I., 1.32 to 3.32) than others. Among women exposed for 20 years or more, the relative risk (RR) was 2.6 (95% C.I. was 1.2 to 5.9).

Relative risks were lower in women who had been most heavily exposed to sunlight, both playing outdoors as children and sunbathing as adults. In a smaller sample of men, the RR for fluorescent lights with 10 or more years' exposure was 4.4. And for those who had spent the least time in the sun while children, the RR was 7.3.

And so we see that lengthy exposure to full-spectrum sunlight including trace-UV partially "immunized" both men and women against later development of melanoma. These exposures had taken place in the 1960s and 1970s before the protective ozone layer far above us was thought to have thinned. But that might not matter: UV penetration of the atmosphere, some authorities say with considerable factual support, has not increased. All this thoroughly explodes the claim that sun exposure causes malignant melanoma.

In the years since publication of Science's carefully researched article, no one has refuted the finding. But many ignore it and could make more money if the article and its information would simply go away.

Why do fluorescent lights cause melanoma? "Emissions from such light extend into the potentially carcinogenic range." Dr. Ott found that, specifically, the cathodes located at the ends of the light tubes emit X-rays and other electromagnetic pollution.

Plants living under the central portion of long fluorescent light tubes grow normally; but when placed close to the ends of the tubes, their growth is abnormal and stunted. Laboratory animals placed in a cage close to the ends of these light tubes become aggressive and cannibalistic. Also, he found that the light from fluorescent tubes, as well as TV sets and computer terminals, causes red blood cells to clump together after exposure to these sources for prolonged periods. This promotes reduced alertness and a tired feeling.

But when the ends of the light tubes are shielded with lead and traces of UV are added to the light, plants and animals under them grow and function normally. And so wrapping the ends of fluorescent light tubes with lead tape, says Dr. Ott, is fully as important as full-spectrum light itself (See II.)

Melanoma can also result from excessive exposure to sunlamps: their rays and those from bright halogen lights include some of the dangerous UVC. (Halogen lamps are also a serious fire hazard if they fall over or inflammable material touches the extremely hot bulb.

Drinking and swimming in chlorinated water can also cause malignant melanoma . Sodium hypochlorite, used in chlorination of water for swimming pools, is mutagenic in the Ames test and other mutagenicity tests. Redheads and blonds are disproportionately melanomaprone; their skin contains a relative excess of pheomelanins compared to darker people.

Franz H. Rampen and his associates in the Netherlands state that the worldwide pollution of rivers and oceans and the chlorination of swimming pool water have promoted an increase in melanoma. Another major factor in the increase in reported incidence of melanoma has been physicians' continually relaxing their standards for what constitutes melanoma.

# What about oral contraceptives and hormone replacement therapy (HRT)?

Melanomas have increased sharply among women in the principal Pill-taking countries Australia, America and in Europe. In the Walnut Creek (California) study, all the women who developed melanomas under the age of 40 had used the Pill. By 1981, the overall increased melanoma risk for Pill-users was statistically significant at three times. The Pill also promotes development of heart attacks, in part by depleting body stores of vitamin B6.

Further, like breast cancer cells those tumors have estrogen receptors. And so women on HRT are more likely to develop melanomas than non-users. A recent study of 52,705 women on HRT found that the risk of breast cancer increases by 2.3 percent for each of the 11 years the average woman takes HRT. The good news is that the effect diminishes on stopping it and disappears after about five years. The authors comment, "These findings should be considered in the context of the benefits and other risks associated with the use of HRT." Others challenge the assumption that HRT provides benefits.

# II. Certain effects of ultraviolet deprivation are equally remarkable and tie together with health benefits.

In 1973, radiation-shielded full spectrum lights were installed in five classrooms in Sarasota, Florida. And what happened? Several extremely hyperactive, learning-disabled children calmed down completely and learned to read. Absenteeism dropped. The children in four standard-lighted rooms continued to misbehave, as tracked by concealed motion-detecting cameras; their learning disabilities and absenteeism were unabated. And after a year students in the full-spectrum classrooms had one-third less tooth decay than those taught under standard lighting. Laboratory mice, which had been exposed all their waking hours to FS light, had zero tooth decay.

Similar findings were reported from California, Washington State, and Alberta, Canada. A classroom comparison in Vermont found full spectrum lighting strengthened immunity.

Why was there so much less tooth decay after exposure to full-spectrum light including trace UV? And why did immunity improve under FS lights? "Every nutritional substance and medicine," says Dr. Ott, "has a specific wavelength absorption. If those wavelengths are missing in the artificial light source a person is exposed to, then the nutritional or other hoped-for benefits of the substance will not be utilized." UV functions as a nutrient and as a cofactor (substance required for a bodily process to occur) in utilization of other nutrients.

So the full spectrum lights corrected the children's deficiency of vitamin D3 (which is not the same as the toxic form of vitamin D that is added to milk), now considered a pro-hormone. This enabled more complete calcium absorption -- and lowered risk of osteoporosis and hip fractures in later life. Recent research has found that nearly half of people of all age groups, taking RDA-strength supplements, have too little vitamin D. When the body doesn't have enough of it to absorb adequate calcium from food, it extracts calcium from bone.

FS light also strengthens immunity in other ways. It helps protect against multiple sclerosis, heart attacks and conversion of HIV to AIDS, among others. These are elaborated and fully referenced in the remainder of the paper. "Protect ourselves from ultraviolet whenever we can see our shadow," as the EPA frighteningly

warns? Won't doing that then constitute a full-employment plan for dentists, orthopedic surgeons and oncologists -- as well as pharmaceutical drug companies?

Cancers hate full-spectrum light. A tumor-susceptible strain of mice lived more than twice as long under full-spectrum as under standard lighting, and rats exposed to full-spectrum light had significantly lessened tumor development. The tunnel-visioned National Cancer Institute and American Cancer Society ignore these findings, which six major medical centers have confirmed.7

Terminal cancer patients that Dr. Ott knew of personally got well in a rocking chair in the sunshine. Dr. Jane Wright, directing cancer research at Bellevue Memorial Medical Center in New York City in 1959, was fascinated by Ott's ideas. So she instructed progressive-tumor patients to avoid artificial lights and stay outdoors as much as possible that summer. They were not to wear sunglasses or prescription lenses, which block UV light.

By that fall, the tumors in 14 of 15 had not grown, and some patients got better; the one whose condition deteriorated sat outdoors but wore prescription lenses. Ott has been criticized for making no scientifically controlled human studies. Well, funding for continuing that study was withdrawn -- and that has been his experience over and over.7

One lady with cancer ventured out with Norwegian fishermen, ate a lot of their catch, and recovered; friends ate fish but stayed inside -- and their cancers killed them. Had she "protected" herself from UV when she could see her shadow as EPA advises, would her cancer have ended? And if sunloving Arizonans threw away their sunscreens and sunglasses and limited their sun exposure to about 30 minutes a day -- wouldn't their cancers largely disappear?

A Chicago-area elementary school suddenly reported five times the national average incidence of leukemia, a kind of cancer of the blood. All of the afflicted children but one were being taught in rooms where teachers kept the blinds drawn and the children were exposed all day only to melanoma-promoting fluorescent light. When even the amount of UV that can get through window glass was let in, the leukemia cluster disappeared.

Early in his research career Dr. Ott fell and broke his glasses; soon, his arthritis disappeared. And in 1996 Marion Patricia Connolly, executive director of Price Pottenger Nutrition Foundation had much the same experience. Full-spectrum eyeglasses, i.e. lenses that transmit all ultraviolet light, are difficult to find.

Exposed to full-spectrum light, a father rat is docile and even helpful after his babies are born. But when the same rat pair are moved under standard light, before birth of the next litter the male must be removed to prevent

aggressiveness and cannibalism. Moved back to natural light for still another litter, he is gentle again. Although human fathers aren't likely to eat their babies, do we really want more domestic aggressiveness?

Alternating full-spectrum light and dark cured children born blind as a result of brain injury. The technique was advocated by W.H. Bates about 1904 and endorsed by Aldous Huxley in 1930. Efficacy was confirmed in the recent Annual Report from the British Institute for Brain Injured Children.

How can all this be explained? Full-spectrum light, entering the eyes during waking hours, promotes night-time pineal gland secretion of melatonin. This sleep-promoting antioxidant destroys carcinogenic hydroxyl radicals -- and also slows aging. Melatonin can suppress growth of human breast cancer cells in vitro (in a test tube), and can cross all barriers to enter every cell. So enough sleep becomes anti-aging, antioxidant, anti-cancer, anti-heart attack therapy!

Except in short-term emergencies, people younger than about 50 should use supplements of melatonin cautiously, if at all. For people over 40 to 45, in addition to its other benefits one to three milligrams before bedtime safely promotes both prompt falling asleep and a good night's rest.

In a laboratory, viruses are weakened by exposure to full spectrum light including traces of UV. Infectious organisms such as E. coli K12 AB2480, which can cause food poisoning, dislike ultraviolet too. The Morris Center in Winnipeg, Canada, promotes "amazing" healing by shining full-spectrum light onto wounds.

The power of full-spectrum light against SAD (seasonal depression) -- again by entering the eyes -- has been amply demonstrated. Nonseasonal depression benefits too, but not as much. Such light energizes and regulates the body's entire chemistry. Won't "protecting" millions of people from UV, as the EPA advocates, then worsen the growing epidemic of depression? (Suicide attempts have remained constant, and so the increase in American suicides appears to relate to increased ownership of guns.)

# The cells in the retinas of your eyes will not divide and regenerate without a small amount of ultraviolet light.

And so full-spectrum lights reduce risk of retinal degeneration, the leading cause of blindness among the elderly. Retinal hemorrhage, the most severe phase of the condition, can also result from long-term use of aspirin. White willow bark provides the same benefits without stomach irritation or blindness, as does three glasses daily of purple grape juice. And unlike aspirin, the flavonoids in purple grape juice remain effective when adrenaline levels rise. Two 400-milligram capsules of white willow bark equal one baby aspirin. Eating a lot of dark-green leafy vegetables such as kale and Brussels sprouts also helps avoid this

condition.

Many dermatologists advise older patients to stay out of the sun to avoid skin cancer (see Addendum). The thousands of elderly patients rotting in nursing homes come to mind. That advice may unintentionally help to make patients sicker and older beyond their years. Staying indoors will cause problems a lot worse than skin cancer. Older people's bones will crumble and break (osteoporosis), they will hate living (depression); articles in the journals Cancer, Cancer Research and Preventive Medicine suggest avoiding sunlight could promote development of cancers other than that of the skin.

In addition to retinal degeneration, recent research by Reuven Sandyk, MD, practicing medicine in Connecticut, shows long-term deprivation from sunlight exposure increases risk of multiple sclero-sis and Parkinson's disease through depressed secretion of the hormone melatonin by the brain's pineal gland. All the MS patients he tested had extremely low melatonin, and their pineal glands were calcified, i.e. hardened.

Reduction in melatonin secretion, he found, may be associated with zinc deficiency in ADHD (attention deficit hyperactivity disorder. "Since melatonin stimulates serotonin synthesis, and serotonin deficiency has been linked to aggressive behavior, it is possible that a high prevalence of conduct disorder and aggressive behavior in ADHD patients could be related to reduced melatonin and serotonin associated with [but not caused by] zinc deficiency.")

He applies extremely weak alternating-current fields to the brain; this stimulates melatonin secretion, bringing about remarkable subjective and objective improvement of MS and Parkinson's patients within one to two minutes. The magnetic field he uses is at 2 to 7 Hertz (vibrations per second), a physiological frequency -- i.e., near the rate used by brain neurotransmitters.

Melatonin destroys carcinogenic (cancer-initiating) hydroxyl radicals by neutralizing their precursor molecules, and so it should help against Parkinson's and Alzheimer's diseases. Melatonin interferes with estrogen receptor sites on cells; excessive estrogen from the Pill and from HRT causes breast cells to hyperproliferate (become cancerous), and melatonin blocks this action. It also slows aging.

The decline in its levels in everyone's bodies owing to longer daily exposure to light has been pointed at as one possible factor explaining the continual spread of cancer in the 20th century.

Some of Dr. Sandyk's patients with Alzheimer's disease, migraine and pain syndromes also benefit from exposure to such magnetic fields -- suggesting that sunlight deprivation may contribute to etiology of those distressing illnesses.

Staying completely out of the sun may also increase risk of heart attacks and much more. David Grimes, MD, at Blackburn Royal Infirmary in Blackburn, UK, notes that heart attacks are commonest in the parts of the world -- such as northwest United Kingdom -- that have the least sunshine. And Asian populations in the British Isles have a particularly high risk of death from heart attack that cannot be explained on dietary grounds. Having come from countries in which the sun is so strong that exposure must be minimized, they have a cultural tendency to avoid the sun.

He traces causation of many cases of CHD (coronary heart disease) to the microbe Chlamydia pneumoniae and low immunocompetence from too-low vitamin D among those avoiding sunshine. Sunlight could determine whether squalene, the precursor to both vitamin D and cholesterol, converts into vitamin D (in the presence of enough sunshine) or into excessive cholesterol (if sunlight is deficient.)

Dr. Grimes links respiratory infections and chronic bronchitis, called "The English Disease," to poor immunocompetence due to sunlight deficiency, worsened by cigarette smoking. (In Southern Europe, smoking rates are much higher, but recurrent respiratory tract infections are scarce.) Glasgow, Scotland has high rates of osteomalacia and rickets, which he says are definitely the result of sunlight deficiency. Dr. F.A. Spencer has noted higher incidence of heart attacks in winter; he has related that to low levels of vitamin D and to depression from winter months.

Also, Crohn's disease (regional enteritis: intestinal irritation) is much more common in cloudy northwest England than in sunny southern Europe. That is, if we accept that Crohn's is a microbial disease, as current research confirms -- probably due to Mycobacterium paratuberculosis. Once again, sunlight in the Mediterranean area could be protective through immuno-enhancement.

### Other risks of insufficient sunshine.

An Alabama researcher found that lack of enough sunshine exposure may increase risk of hypertension in blacks and other dark-skinned people. Those with greater amounts of pigment in the skin require six times the amount of ultraviolet B (UVB) light to produce the same amount of vitamin D3 found in lighter-skinned people. And Dr. Esther John of Northern California Cancer Center reported that daily exposure to sunshine without sunscreen appears to lessen risk of breast cancer.

#### Addendum I.

(1) What about skin cancers? One was taken off my nose in 1989, and another in 1997; such skin cancers are totally harmless if removed promptly. Recent research has found at least two ways to minimize even that occasional

inconvenience, and these offer other major benefits.

The bioflavonoids -- flavone compounds that accompany vitamin C in plant structures -- in green tea help prevent cancers, cardiovascular and liver diseases as well as keratoses. And they explain why green tea is nearly 20 times stronger an antioxidant than vitamin E in the usual alpha-tocopherol form.

Eat a diet low in saturated and trans fats, supplemented by fresh, organic, refrigerated flaxseed and cod liver oils for omega-3 essential fatty acids (EFAs). One hears warnings of glaucoma (excessive pressure in and hardening of eyeballs) from sun exposure. That is a risk when eating a processed-food diet. The EFAs are largely lacking in low-fat Western diets, including the U.S. Department of Agriculture's Food Pyramid. Among many other health benefits, omega-3 EFAs regulate eye pressure.

Glaucoma can also result from use of inhaled steroids for asthma. The risk appeared to be elevated by 44 percent compared to matched patients not using inhaled steroids. Lea Davies of Georgetown University Medical Center in Washington, DC, adds that inhaled steroids may cause about one-third of the 3,000 glaucoma cases developing each year among Americans over 65.

Also, a published clinical test showed melatonin offers still another benefit: it lowers eyeball pressure in glaucoma patients, and the insomnia age group -- for whom its use is safe and appropriate -- is the same as the glaucoma age group.

Flaxseed oil is taken with 400 international units of antioxidant vitamin E, which should include the other members of the tocopherol complex as well as the usual natural dalpha part. Germany's late Johanna Budwig, PhD, developer of this therapy, continued activity into her tenth decade of life, and was nominated seven times for a Nobel Prize.

### Addendum II.

Supplemented selenium at 50 to 250 micrograms (millionths of a gram) daily protects the skin against damage from excess sun exposure. (Intakes above 250 mcg, which could be toxic, should be used only for short periods under the guidance of a knowledgeable practitioner.) Two grams a day of vitamin C together with 1,000 IU of vitamin E also protects against sunburn.

Hardly anyone will experience skin damage from our suggested 20 to 30 minutes' daily sun exposure. But the selenium supplement is worth taking, on its other merits, which are extremely important.

(a) A massive scientific/medical literature supports selenium's efficacy against cancer and cardiovascular disease. A map of the United States showing areas of low soil selenium almost perfectly matches maps showing the areas of highest

incidence of both cancer and CVD. The same is true in New Zealand and Australia. Crib death (SIDS) is also more common in areas of low soil selenium -- such as America's Pacific Northwest and parts of New Zealand -- and so its risk could be lowered by selenium supplements.

(b) More than 10 papers published in the past two years relate declining selenium levels to the progression of HIV ("human immunodeficiency virus") disease. An article in Journal of AIDS September 30, 1997, found that patients deficient in Se are almost 20 times more likely to die of causes related to HIV, than people with enough Se.

Recent research has discovered that selenium at 200-250 mcg a day can likely prevent mutation of latent, dormant retroviruses, including HIV, into virulent forms. This should lower and very likely eliminate risk of AIDS (acquired immune deficiency syndrome) among HIV-positive persons. Intramuscular injections of vitamin B12, supplements of vitamin E complex and N-acetyl-cysteine (NAC) also strengthen this AIDS defense.

NAC seems to help replenish stores of reduced glutathione, lower inflammatory oxidative stress reactions, and help protect against mitochondrial DNA damage, in turn decreasing replication of the virus. Glutathione is humans' chief internally generated antioxidant. The DNA in the mitochondria, the "power houses" of all our cells, has been described as 2,000 times more susceptible to oxidative damage than nuclear DNA. Adequate NAC serves further to facilitate detoxification in persons who have poor phase II glucuronidation.

Will Taylor, PhD, proposed a mechanism. He is at the Computational Center for Molecular Structure and Design, Department of Medicinal Chemistry, University of Georgia. Dr. Taylor sequenced the genetics of innocent, harmless retroviruses that normally lie dormant and cause no symptoms -- such as herpesvirus Simplex A, Coxsackievirus and HIV.

(The usually benign character of HIV has been massively documented by Peter Duesberg, PhD, a leading retrovirologist at University of California/Berkeley. To label HIV "the AIDS virus" or say that it "[always] causes AIDS" is wrong. Half of American AIDS patients are HIV-negative; and of the about 21 million HIV-positive people worldwide, probably 90 percent are healthy.)

Dr. Taylor concluded that Coxsackievirus, HIV and certain other retroviruses are coded for the production of a selenoprotein; and he predicted that the selenoproteins produced by those viruses act as brakes on the viruses' reproduction. In effect, with enough Se present, the HIV retrovirus makes its own "birth-control pill." And so selenium has suddenly become very popular in HIV-virus clubs.

When there isn't enough Se -- the low level may not reflect inadequate dietary Se

intake, Dr. Taylor said -- the virus goes wild. Supplemented selenium, even if the HIV can't be eradicated, can effectively put it to sleep, preventing its conversion into AIDS.

And coconut oil, like mother's milk, is rich in lauric acid, which the body converts to the antiviral fatty acid monolaurin. Dr. Robert Atkins writes, "This may help in disarming a number of infectious viruses, including those that cause measles, herpes, Cytomegalovirus, vesicular stomatitis, and possibly AIDS." Dr. Atkins' endorsement, however, doesn't extend to coconut milk, which contains too much sugar.

(Excessive sugar is now recognized as the number one risk factor for heart attacks in women, #2 for men; excessive animal fat is #2 for women and #1 for men.)

#### Coconuts Saved an AIDS Sufferer's Life

From Mark Konlee in his newsletter Positive Health News: Chris, an AIDS sufferer, found his viral load had reached almost 700,000. He went for a relaxing vacation, packing all the drugs he was using and headed for an Indian village in Surinam; there he dined on fresh coconut meat every day. Within two days his peripheral neuropathy was gone, and within two weeks he was "running through the jungle."

Back home, continuing to consume at least half of a coconut per day, his lab tests showed the viral load had dropped to just over 300,000. Within another month the viral load had dropped to non-detectable. "My doctor is completely baffled," said Chris. PPNF members may not be so puzzled. They read about the amazing health benefits of coconut, especially its antiviral characteristics, in Dr. Mary Enig's article in vol 20 #1 of PPNF Health Journal, two years ago." From Health Vectors, PPNF Health Journal 1997;21;2:6-7.

### Addendum III. Related matters.

- (1) Two hours of bright light in the evening can cure symptoms such as weight gain, depression, carbohydrate craving, social withdrawal, fatigue and irritability.
- (2) For many older patients, inhaled steroids intended to block or reduce inflammation -- formerly claimed not to circulate throughout the system -- promote glaucoma, the leading cause of blindness, and cataracts. In a comparison the glaucoma risk appeared to be elevated by 44 percent, compared to matched patients not using inhaled steroids. Lea Davies of Georgetown University Medical Center in Washington, DC, adds that inhaled steroids may cause about one-third of the 3,000 glaucoma cases developing each year among

#### Americans over 65.

Valdemar Valerian, PhD's Leading Edge research group "noticed that DNA molecules undergo erratic vibrational patterns in the vicinity of cathode ray tubes (television or computer monitors), and that a certain subsonic signal emanating from computer monitors connected to the Internet make the DNA molecules vibrate in unison, in a form of entrained pattern.

"We consulted the eminent Russian researcher Professor D.S. Goldstein. He said, 'I know that. It is a phenomenon known as electronically induced sonochemistry. That is how mutations occur, and that is why I stay away from the Internet."

Joseph G. Hattersley
7031 Glen Terra Court SE
Olympia, WA 98503-7119
(360) 491-1164
<a href="mailto:hattersleyjoseph@hotmail.com">hattersleyjoseph@hotmail.com</a>
www.angelfire.com/wa/jhattersley/content.html

#### References:

- 1. Klapper JS. Documented health benefits of light. Townsend Ltr for Doctors 1993; Apr: 321-322.
- 2. Broad W, Wade N. Betrayers of the Truth: Fraud and Deceit in the Halls of Science. NY: Touchstone Books, 1982.
- 3. Ray DL, Guzzo L. Trashing the Planet. Wash., DC: Regnery Gateway, 1990.
- 4. Bland JS. Functional Med Update. 1997; Sept.
- 5. Ceder, K. Healthy office lighting: A bright idea. Healthy Office Rep 1992; 2:3-4.
- 6. Kime Z. Sunlight. Penryn, CA: World Health Publ., 1980.Downing D. Daylight Robbers. London: Arrow Books, 1988.
- 7. JAMA 1998; 280: 714-718.
- 8. Black HS et al. Relation of antioxidants and level of dietary lipids to epidermal lipid peroxidation and ultraviolet carcinogenesis. Cancer Research 1985; 45: 6254-6259.
- 9. Leske MC, Chylack LT Jr., He Q et al. Antioxidant vitamins and nuclear opacities. Ophthalmology 1998; 105: 1-836.
- 10. Jacques PF et al. Long-term vitamin C supplement use and prevalence of early age-related lens opacities. Amer Jour Clin Nutr 1997;66:911-916.
- 11. Ott, JN. Light, Radiation and You: How to Stay Healthy. Greenwich, CT: Devin-Adair Publishers, 1990.
- 12. Ott JN. Interview on Bland JS. Prev Med Update 1991; Jan.
- 13. Garland FC et al. Occupational sunlight exposure and melanoma in the U.S. Navy. Arch Environmental Health 1990; 45: 261-267.
- 14. The politics of sunlight. What Doctors Don't Tell You 1995; 5; 12:12.
- 15. Peat R. Sunlight; Using it to sustain life. From Female Hormones (preprint), 1995. PO Box 5764 Eugene, OR 97405.
- 16. Rogers SA. Total Health in Today's World. 1997; 2:4.

- 17. Peat R. Op. cit.
- 18. Lee L. Your Health 1999; 4; 3 (July): 3.
- 19. Beral V et al. Malignant melanoma and exposure to fluorescent lighting at work. Lancet 1982; Aug 7: 290-293.
- 20. Kustov VI et al. Epidemiology of malignant melanoma. Vopr Onkol 1987; 33:35-39 [Engl abstract).
- 21. Lieberman B. (Competitive Enterprise Institute, Washington, DC.) Letter to Wall St Jour 1995; July 6.
- 22. Robinson B. Access to Energy, 1997.
- 23. Kennedy AR et al. Fluorescent light causes malignant transformation in mouse embryo cell. Science 1980; 207: 1209-1211.
- 24. SAD no more-Sunlight simulators lighten winter blues. Alternative Med 1998; #26:14-16.
- 25. Ott JN. Interview on Bland JS, Prev Med Update 1991; Jan.
- 26. Ott JN. Light, Radiation and You: How to Stay Healthy.
- 27. Sunlamp use linked to melanoma. Sci News 1994;146:296.
- 28. Westerdahl J, Olsson H, Masback A et al. Use of sun lamps and malignant melanoma in Southern Sweden. Am J Epidemiology 1994;140:691-699.
- 29. "20-20" TV show, 1996.
- 30. Prota G. Recent advances in the chemistry of melanogenesis in mammals. J Invest Dermatol 1980;75:122-127.
- 31. Rampen FH, Nelewans RT, Kerbeek ALM. Is water pollution a cause of cutaneous melanoma? Epidemiology 1992; 3; 3: 263-265.
- 32. Douglass WC. Second Opinion 1994; Feb.
- 33. Murray F. The Murray report. Let's Live 1997; Oct: 16.
- 34. Kurakawa Y, Takayama S et al. Long-term in vivo carcinogenicity tests of potassium bromate, sodium hypo-chlorite, and sodium chlorite conducted in Japan. Environ Cellular Perspectives 1996; 69: 221-25.
- 35. Meier JR. Genotoxic activity of organic chemicals in drinking water. Mutat Res 1988; 196;211-245.
- 36. Cesarini J-R. Photo-induced events in the human melanocytic system: Photoagression and photoprotection. Pigment Cell Res 1988; 1:223-233.
- 37. Rampen FH et al. Epidemiology 1992; 3; 3: 263-265.
- 38. Murray F. The Murray report. Let's Live 1997; Oct: 16.
- 39. Beral V, Ramchara S, Faris R. Malignant melanoma and oral contraceptive use among women in California. The Walnut Creek Contraceptive Drug Study. U.S. National Institutes of Health, vol. III, 1986, pp. 247-252.
- 40. McCully KS. The Homocysteine Revolution: Medicine in the New Millenium. New Canaan, CT: Keats Publ, 1997.
- 41. Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and hormone replacement therapy: Collaborative reanalysis of data from 51 epidemiological studies of 52,705 women with breast cancer and 108,411 women without breast cancer. Lancet 1997; 350:1047-1059.
- 42. Lee JR. Natural Progesterone: The Multiple Roles of a Remarkable Hormone. BLL Publ., California, 1993.
- 43. Sellman S. Hormone Heresy. What Women MUST Know About Their Hormones. Honolulu, HI: GetWell Inter-national, 1998.
- 44. Ott JN. Lecture to Society for Clinical Ecology, 1974.
- 45. Light, Radiation and You.
- 46. Light, Radiation and You.
- 47. London, WP. Full-spectrum classroom light and sickness in pupils. Lancet 1987; Nov. 21:1205-1206.

- 48. Calabrese, JR et al. Alternations in immunocompetence during stress, bereavement and depression; focus on neuroendocrine regulation. Am J Psychiatry 1987; 14:1123-1134.
- 49. Finkel JS. New Eng J Med 1998; March 19.
- 50. Ott JN. Lecture to Society for Clinical Ecology, 1974.
- 51. Light, Radiation and You.
- 52. Rogers SA. Total Health in Today's World. 1997;1;2:2.
- 53. Lecture to Society for Clinical Ecology, 1974.
- 54. Peat R. Ray Peat's Newsletter 1995; #120:3.
- 55. Lecture to Society for Clinical Ecology, 1974.
- 56. BIBIC Annual Report. British Institute for Brain Injured Children, Bridgewater, Somerset, England. 1997.
- 57. Dilman V, Dean W. The Neuroendocrine Theory of Aging and Degenerative Disease. Pensacola: Center for Bio-Gerontology, 1992:49,93-96.
- 58. Oxidation strongly linked to aging. Sci News Aug 14, 1993:109.
- 59. Oxidation strongly linked to aging. Sci News 1993; Aug. 14:109.
- 60. Short RV. Melatonin: Hormone of darkness, Brit Med J 1993;307:966-971.
- 61. Peat R. Ray Peat's Newsletter 1995; #120:3.
- 62. Wright JV, Gaby AM. Interview on Bland JS. Functional Med Update 1997: Apr.
- 63. Webb RB. Genetic damage in Escherichia coli K12 AB2480 by broad-spectrum near-ultraviolet radiation. Sci-ence 1982;215:991-993.
- 64. Polz A. Personal communication, 1994.
- 65. Kripke DF. Light treatment for nonseasonal depression: Speed, efficacy, and combined treatment. J Affective Disorders 1998; 49: 109-117.
- 66. Thalen B-E et al. Light treatment in seasonal and nonseasonal depression. Acta Psychiatr Scand 1995; 91: 352-360.
- 67. The American way of death. Economist 1996; July 27:24.
- 68. Ott JN. Interview on Bland JS. Prev Med Update, 1991: Jan.
- 69. Kingham JD et al. Macular hemorrhage in the aging eye: The effects of anticoagulants. New Eng J Med 1988; 3187: 1126-1127 (ltr).
- 70. Hattersley JG. Gain the benefits of aspirin without going blind. Health Freedom News 1998; Spring: 34.
- 71. Mann D. Purple grape juice, wine and beer all cardioprotective. Med Tribune 1997; May 1:26.
- 72. Wright JV. Personal communication, 1995.
- 73. Hattersley JG. A sad note about ophthalmologists. Peer reviewed and submitted for publication, 1998.
- 74. Hattersley JG. Suggestions for avoiding macular degeneration. Townsend Ltr Doc/Patients 1999; Feb/Mar: 122-123 (ltr).
- 75. Douglass WC. Second Opinion. 1996; June.
- 76. Cancer Research 1996; 4108-4110.
- 77. Ainsleigh HG. Beneficial effects of sun exposure on cancer mortality. Prev Med 1993; 12:132-140.
- 78. Sandyk R. Chronic relapsing multiple sclerosis. A case of rapid recovery by application of weak electromag-netic fields. Int J Neurosciences 1995;82. Sandyk R. Reversal of alexia in multiple sclerosis by application of weak electromagnetic fields. Int J Neurosciences 1995;82.
- 79. Sandyk R. Zinc deficiency in attention-deficit hyperactivity disorder. Int J Neurosci 1990; 52: 239-241 (Itr).
- 80. Aldegunde M, Miquez I, Veira J. Effects of pinealectomy on regional brain serotonin metabolism. Int J Neurosci 1985; 26: 9-13.
- 81. Kruesi MJ, Rapaport JL, Hamburger S et al. Cerebrospinal fluid monoamine

- metabolites, aggression, and im-pulsivity in disruptive behavior disorders of children and adolescents. Arch Gen Psychiatr1990; 47: 419-426.
- 82. Toren P, Eldar S, Sela B-A, Wolmer L et al. Zinc deficiency in attention-deficit hyperactivity disorder. Biol Psy-chiatry 1007; 40: 1308-1310.
- 83. Science News 1992(Aug 8); 144: 109.
- 84. Life Extension Foundation. Life Extension Update 1993; June.
- 85. Oxidation strongly linked to aging. Sci News 1993; Aug 14:109.
- 86. 73 Kerenyi NA, Pandula E, Feuer G. Why the incidence of cancer is increasing: The role of light pollution. Med Hypotheses 1990; 33:75-78.
- 87. Dilman V, Dean W. The Neuroendocrine Theory of Aging and Degenerative Disease. Pensacola, FL: Center for Bio-Gerontology, 1992;49;93-96.
- 88. Sandyk Reuven. Interview on Bland JS, Prev Med Update 1996; Dec.
- 89. Grimes DS. Sunlight, cholesterol and coronary heart disease. Quarterly J Medicine 1996; 89: 579-589l
- 90. Spencer FA et al. Seasonal distribution of acute myocardial infarction in the Second National Registry of Myo-cardial Infarction. Jour Amer Coll of Cardiology 1998; May; 31; 6: 1226-1233.
- 91. Grimes D. Interview by Kirk Hamilton, PA-C, "The Experts Speak," Clinical Pearls News 1997(Sept.); 7; 9: 99,109-111.
- 92. Hypertension 1997; 30: 150-156.
- 93. Recer P. Sun may prevent breast cancer. Seattle Post-Intelligencer 1997; Nov4: A1, A4.
- 94. Wang ZY, Huang MT, Lou YR, et al. Inhibitory effects of black tea, green tea, decaffeinated black tea, and de-caffeinated green tea on ultraviolet B light-induced skin carcinogenesis in 7,12-dimethylbenz[a]anthracene-initiated SKH mice. Cancer Res 1994; 54:3428-3435.
- 95. Conney AH, Wang Z-Y, Huang M-T et al. Inhibitory effect of green tea on tumorigenesis by chemicals and ultra violet light. Prev Med 1992;21:361-369.
- 96. Ahmad N, Feyes DK, Nieminen A-L, Agarwal R, Mukhtar H. Green tea constituent epigallocatechin-3-dallate and induction of apoptosis and cell cycle arrest in human carcinoma cells. J Natl Cancer Inst 1997;89:1881-1886.
- 97. Imai K, Nakachi K. Cross sectional study of effects of drinking green tea on cardiovascular and liver diseases. Brit Med J 1995; 310:693-696.
- 98. Opara EC. Antioxidants -- The latest weapon in the war on smoking, Part 2. VRP Nutritional news 1997;11;8:4,10.
- 99. Sternberg S. Breathing freely threatens seeing clearly. Sci News 1997 (Mar 8);151:143; see also JAMA March 5, 1997.
- 100. Wright JV. Interview on Bland JS. Funct Med Update 1997; Apr.
- 101. Cunnane SC et al. Nutritional attributes of traditional flax-seed in healthy young adults. Am J Clin Nutr 1995;61:62-68.
- 102. Bland JS. Prev Med Update 1995; Apr.
- 103. Journal of Nutrition 1997; 127; 3: 544-548.
- 104. Budwig J. Flax oil as a true aid (lecture, 1959). In Budwig J. Flax Oil as a True Aid Against Arthritis, Heart Infarction, Cancer and Other Diseases. Vancouver, BC: Apple Publ, 1992.
- 105. Jang M et al. Cancer chemopreventive activity of resveratrol, a natural product derived from grapes. Sci-ence 1997; 275: 218-220.
- 106. HealthNotes. 1997; Sept.
- 107. J Amer Acad Dermatology 1998; 38: 45-48.
- 108. Bland JS. Funct Med Update 1997; Apr.
- 109. Foster H. Sudden infant death syndrome: The Bradford Hill criteria and the evaluation of the thyroxine de-ficiency hypothesis. J Orthomolecular Med

- 1993; 8; 4: 201-227.
- 110. Dworkin BM. Selenium deficiency in HIV infection and the acquired immunodeficiency syndrome (AIDS). Chem-Biol Interactions. 1994;91:181-186.
- 111. Gaby AM, Wright JM. Interview on Bland JS, Funct Med Update 1997; Apr.
- 112. Altavena C, Dousset B et al. Relationship of trace element, immunological markers, and HIV-1 infection progression. Biol Trace Elem Res 1995; 47:133-138.
- 113. Passwater RA. Vitamin connection. More exciting research from Dr. Will Taylor. Selenium against viruses. Whole Foods 1996;19;11:133-138.
- 114. Taylor EW, Bhat A, et al. HIV-1 encodes a sequence overlapping env gp41 with highly significant similarity to selenium-dependent glutathione peroxidases. J AIDS Hum Retrovirol. In press.
- 115. First International Symposium on Human Viral Diseases: Selenium, Antioxidants and Other Emerging Strategies of Therapy and Prevention. April 19-21, 1996. Nonnweiler, Germany. Int Antiviral News 1996;4;5:84-86
- 116. Taylor W. Selenium and viral diseases: Facts and hypotheses. Computational Center for Molecular Struc-ture and Design. Dept. of Medicinal Chemistry, Univ. of Georgia.
- 117. Look MP, Rockstroh JK et al. Serum selenium and erythrocyte glutathione peroxidase in human immuno-deficiency virus-1 infection. Biol Trace Elem Res 1996, in press.
- 118. Taylor EW, Nadimpalli RG, Ramanathan CS. Genomic structures of viral agents in relation to the biosyn-thesis of selenoproteins. Biol Trace Elem Res. Symposium Volume. Schrauzer G, Montagnier L, eds. In press.
- 119. Levander OA, Ager AL, Beck MA. Vitamin E and selenium: Contrasting and interacting nutritional determinants of host resistance to parasitic and viral infections. Proc Nutr Soc 1995;54;2:475-487.
- 120. Notter HS, Moelans II, de-Vos NM, de Graaf L, Visser MR, Verhoef J. N-acetyl-cysteine-induced upregula-tion of HIV-1 gene expression in monocyte-derived macrophages correlates with increased NF-KB DNA binding activity. J Leukocyte Biol 1997;61;1:33-39.
- 121. Bland JS. Funct Med Update 1997; Dec.
- 122. Rivabene R, Straface E, Giammarioli AM, Rainaldi G, Malorni W. Combined effect of 3-aminobenzamide and N-acetylcysteine on HIV replication in chronically infected U937 cells. Redox Rep 1997; 3; 3:145-151.
- 123. Ames B. Cited on Bland JS. Funct Med Update 1997; Dec.
- 124. O'Grady JG. Paracetamol hepatotoxicity: How to prevent it. J Royal Soc Med 1997; 90; 1:368-370.
- 125. Duesberg D. Inventing the AIDS Virus. NY: Regnery, 1996.
- 126. Hattersley JG. The AIDS scam. Unpublished document approved by Dr. Duesberg.
- 127. Wright JV, Gaby AM. Interview on Bland JS, Funct Med Update 1997; Apr.
- 128. Taylor EW. Interview on Bland JS, Funct Med Update 1997; May.
- 129. Atkins R. A nutritional paradise in 'forbidden oils.' Dr. Robert Atkins' Health Revelations 1997; 5; 12:6-7.
- 130. Grant WB. Reassessing the role of sugar in the etiology of heart disease. J Orthomolecular Med 1998; 13; 2:95-104.
- 131. Health Vectors, PPNF Health Journal 1997;21;2:6-7.
- 132. Am J Psychiatry 1991; 146:9.
- 133. Sternberg S. Breathing freely threatens seeing clearly. Sci News 1997 (Mar 8);151: 143; see also JAMA March 5, 1997.
- 134. Valerian V. Leading Edge International

Postscript

### **SAD** and Vitamin D

Dietary sufficiency of vitamin D also needs consideration here. "Seasonal affective disorder" (SAD) has been treated successfully with vitamin D. In a recent study covering 30 days of treatment comparing vitamin D supplementation with two-hour daily use of light boxes, depression completely resolved in the D group but not in the light box group."[i] Most Americans' diets are very low in vitamin D; one good supplementary source is cod liver oil in moderation, either out of a spoon or as Carlson's cod liver oil capsules.

#### Reference

[i] Gloth FM III, Alam W, Hollis B. Vitamin D vs. broad spectrum phototherapy in the treatment of seasonal affective disorder. J Nutr Health Aging 1999; 3:5-7. In Sullivan K. The miracle of vitamin D. Price Pottenger Nutrition Foundation. Wide Traditions 2000; Fall: 11-20.