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Hans Selye Award Recipient W. Ross Adey, M.D.

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HERBAL & OTHER SUPPLEMENTS BETTER SAFE THAN SORRY

Key Words: Clinical trials, placebo effects, FDA, FTC and safety concerns, German Commission E and other herbal monographs, manufacturing and labeling problems, how to find reliable resources.

As indicated in a previous Newsletter, there has been a tidal wave of growing interest in nontraditional medical practices and products in the past decade which seems far from reaching its peak. About 83 million Americans now use alternative therapies ranging from hundreds of herbal mixtures, megadoses of vitamins, and various combinations of these, to magnetotherapy, massage-bodywork therapies, and acupuncture. That's up 25 percent from a similar 1990 survey, and the figure is probably higher. Under reporting is common, and some practices are so ingrained, they are no longer thought of as alternative.

There are several reasons for this sudden rush to self-treatment with unproved remedies. A major factor is the mounting advertising blitz promising everything from increased strength, virility, and eternal youth, to conquering cancer, multiple sclerosis, Alzheimer's, Parkinson's, and other diseases that have failed to respond to conventional treatments. There is also a growing dissatisfaction with many aspects of modern mainstream medicine, such as the depersonalization and lack of choice associated with managed care, and the escalating costs of drugs, procedures, and services.

There is also more wariness about the unknown long term effects of prescription drugs. Redux was recently recalled because of deaths despite having been approved as safe after rigorous testing. So was Seldane, although it took twelve years to recognize the dangers of this very popular antihistamine. One of the most deceptive attractions of alternative medicine, and particularly herbal and other dietary supplements, is the assumption that just because something is "natural" or does not require a prescription, it is probably harmless.

ALSO INCLUDED IN THIS ISSUE

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What Protection Does The Public Have?

Regulatory agencies are between the rock and a hard place. Manufacturers of drugs and devices complain that the FDA's approval process is so lengthy, complex, and costly, that we are denied the benefits of drugs and treatments that are widely available elsewhere. On the other hand, activists as as well as concerned citizens are clamoring that vested financial interests push products through before they have been adequately tested. Both groups have considerable ammunition to support their arguments and accusations.

Although the recent FDA Modernization Act is an attempt to provide an acceptable compromise and the new commissioner has made this her top priority, it is not likely to resolve this dilemma. Few people have any concept of the convoluted complexities of the approval process and the intricate procedures currently required to insure both efficacy and safety. In the old days, things may have been a lot simpler, but it could take much longer to achieve official recognition or widespread use.

On February 13, 1600, four East India Shipping Company vessels set sail from London, but only one had lemons aboard as part of the provisions. The majority of men on the other three ships subsequently developed various degrees of scurvy, In contrast, very few of the crew on the ship containing lemons showed any symptoms of this disorder.

Scurvy was not unusual on long journeys, and was responsible for the deaths of 55 sailors on Vasco de Gama's epic 1498 voyage. Several decades later, Jacques Cartier, the French navigator who discovered the St. Lawrence River, reported that local Indians could cure this mysterious illness by feeding juices obtained from plants and trees. East India Shipping Company officials subsequently found that supplying sailors with lemon juice seemed to prevent scurvy. Their competitors quickly got wind of this, and even sailors learned the value of bringing lemons and limes on their own.

It was not until James Lind's 1753 *Treatise on the Scurvy* that it became apparent that this was a deficiency disease that could be prevented and cured by citrus fruits and juices. But the British Navy, which ruled the seas and had the most to gain by keeping sailors healthy, did not adopt an official policy of supplying citrus juice aboard its ships until 1800, two centuries after their benefits became obvious. We still refer to Englishmen as "limeys".

"Clinical trials" are used today to test whether something is safe and effective, but such studies can be quite complicated. Evaluation of a new drug or device requires that closely matched groups of people receive different types of treatment, or a treatment versus a placebo, so that results can be compared. There are crucial financial considerations, since it is necessary to decide whether the disorder being treated justifies the tremendous costs in time and money, as well as possible risks. If the funding comes from a pharmaceutical company, the final determination may depend largely upon potential financial rewards. This hinges not only on the likelihood of success based on preliminary observations, but also the assurance that developing a new product for a specific disorder will attract a profitable market.

Drug manufacturers are responsible to their shareholders, and even when they are confident of having a winner, if it only helps a small number of patients with a rare disease, there is little incentive to invest several hundred million dollars and three to five years to gain approval. Funding would have to come from government grants or private sector sources with purely humanitarian concerns, or a particular interest in the disorder. That is why these are often referred to as "orphan drugs".

Clinical Trials - Costly And Complicated

Once a decision has been made to proceed, it is essential to carefully establish the criteria that will define the population to be tested. How many subjects in what age, sex, or other categories should be included? How long must the trial last in order to obtain meaningful results? Such questions can be difficult to answer if there is no clear indication of how successful the outcome is likely to be. The larger the sample the greater the statistical significance of the results, but this number could vary from 50 to 500 depending on unknown factors. It is necessary to recruit a similar amount of matched controls to receive a placebo preparation that is indistinguishable from the drug or device being tested. Physicians and other personnel with the expertise, willingness, and ability to round up suitable candidates and conduct the study must be identified and reimbursed for their services. It is often necessary to hire others to monitor the trial in order to insure that it is being conducted correctly.

One important aspect is obtaining "informed consent". All participants must be fully informed of any potential dangers and the availability of other treatment options. They must be reassured that there will be no penalties should they decide not to participate or to withdraw at any time. The two patient groups must also be as identical as possible with respect to age, gender, past medical history, educational level, socioeconomic status, ethnic background, and any other characteristic that could conceivably influence results. The assignment to a treatment or control group must be done on a random basis to minimize bias, and all participants must be "blinded", or ignorant about whether they are receiving the treatment or an inactive placebo. In "double blind" studies the physician is also unaware of what is being administered, and this is now the preferred or gold standard for such studies.

Clinical trials can pose ethical problems. Who would want to participate if there was a 50 percent chance of being forced to receive something worthless for months, during which time no other treatment would be allowed? For serious disorders like meningitis or malignancy, if some patients remarkably improve and prematurely breaking the code reveals that these are all in the active treatment group, is it justifiable to continue the study and deny the benefits to the control group?

A clinical trial must also painstakingly adhere to a specific protocol, so that the study can be replicated by any other investigator to verify the validity of the results. It is also desirable to conduct clinical trials simultaneously at several research centers in different geographical areas. This has the advantage not only of studying a larger population but also a greater variety of ethnic backgrounds, which makes the results much more meaningful. The method of measuring outcomes must be identical, and trained statisticians must use the same mathematical analysis to determine whether any difference in treatment results is statistically significant, and to what degree. Federal and most other funding agencies require safety and monitoring boards to oversee clinical trials. Approval by the Institutional Review Board of any medical school, hospital, nursing home, or other facility involved must also be obtained prior to proceeding, and variation in these requirements can pose problems.

After a clinical trial is finally completed, the methodology and results should be presented at an appropriate conference or submitted for publication in an accredited journal, so that they can be evaluated by scientists not involved with the study before any findings are released to the public. Researchers thus open themselves up to critical scrutiny by their peers, since there is often a suspicion that the results may be skewed in favor of the intervention for financial reasons, or to increase the stature and reputation of the investigators.

In some instances, the likelihood that a new drug will replace others that are currently very profitable may lead to intense efforts by competitors to discredit the study. Patient compliance is never perfect, and some forget to take medications and report for tests as directed or are not reliable in reporting their symptoms. These and any other possible departures from the protocol or inconsistencies in analytic methods are meticulously searched for in an effort to dispute the results.

Clinical trials are difficult, imperfect, expensive, and time consuming. Nevertheless, they are essential, and often the only way to prove that the efficacy of an intervention outweighs any possible undesirable consequences. Dietary supplements don't have to undergo clinical trials, nor are they even required to show any evidence of safety or efficacy to be sold. Many feel that this must change.

What About Safety?

The common belief that herbal and other nutritional supplements are harmless is erroneous. When significant side effects result from prescription medications, physicians are obligated to report them to local or state health authorities, who then notify the FDA. The manufacturer is contacted, and the drug is carefully monitored to see whether this is an isolated or sporadic event, or something that is potentially serious. Nutritional products are usually self-prescribed without consulting or even informing a physician, and toxic side effects are not required or likely to be reported to anyone. In addition, health enthusiasts often take so many different supplements simultaneously, it is difficult to determine which one might be responsible. FDA regulations that assure the safety of prescription and over-the-counter drugs don't apply to botanicals because Congress decreed that these are simply dietary supplements. There is no control over their manufacture, and no guarantee that they are harmless, effective, or even contain what is stated on the label. Some can be dangerous, and those that should be avoided or taken with caution include:

Ephedra, also marketed as **ma huang** and **epitonin,** which contains ephedrine-like compounds used for thousands of years in China for colds and sinus complaints. Ephedrine is a common components of decongestant and asthma drugs but these supplements are promoted to lose weight and increase energy. Because it was viewed as a legal alternative to amphetamine, ephedra was the best selling herbal for years, until reports of its dangerous stimulant effects on the heart and nervous system surfaced. The FDA has received well over 800 reports of adverse reactions ranging from nerve and muscle damage, headaches, and psychosis, to palpitations, hypertension, strokes, heart attacks, and 20-30 possible fatalities. These numbers are probably higher, since problems may not be recognized as being due to ephedra or are rarely reported. Some preparations contain chemicals like caffeine which boost dangerous stimulant effects.

Ohio banned ma huang and all nonprescription ephedrine products following the death of a high school student and Texas took similar steps when a woman died due to an ephedra—caffeine supplement. Several states have petitioned the FDA to require a prescription for ephedra supplements.

Herbal Ecstasy and **Ultimate Xphoria** are touted as safe alternatives to Ecstasy, an illegal drug known to cause memory loss and neurologic deficits. They were banned in Florida following the death of a 20-year-old New York student on spring break. These also contain ephedra, as do "**Herbal fen-phen**" concoctions, which sprouted up following the recall of fenfluramine and dexfenfluramine, two of the most popular weight loss drugs. At least seven states have filed suits to stop sales of Herbal Ecstacy based on deceptive advertising and false claims . The FDA also took action against herbal fen-phens because they have the same name as banned weight loss drugs and are not safe . Some also contain 5-hydroxytryptophan, a close relative of L-tryptophan. This popular sleeping supplement was pulled from public sale several years ago after it was found that manufacturing impurities caused 1500 people to develop a serious and rare blood disorder, and was responsible for over 40 deaths.

Comfrey comes as capsules, pills, tinctures or teas to treat stomach ulcers or certain cancers, and as an external salve for reducing swelling around broken bones, and soft tissue injuries. Some species of the plant contain high levels of toxic alkaloids that can cause severe liver damage. Comfrey has been linked to at least one death and seven cases of severe cirrhosis, and several countries currently restrict its use internally.

Chapparal is a desert shrub found in Mexico and southwest states, and was brewed as a tea by Native Americans for various complaints. Now sold as an antioxidant, cancer, and acne cure, it has caused over a dozen cases of severe liver disease, and liver transplants were required in two patients.

Lobelia, an "Indian tobacco", dilates the bronchi and improves breathing in low doses, but larger amounts can cause palpitations, low blood pressure, coma, and death.

Pennyroyal is a common garden herb often used to treat skin problems in children and to control fleas on pets. However, in ancient times, it was popular as an abortifacient, and severe reactions have recently been reported in young women trying to terminate pregnancies.

Yohimbe comes from the bark of an African tree, and is sold as a male aphrodisiac. It can cause stomach distress, fatigue, paralysis, and death, and a physician's prescription is needed in Georgia.

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Other dangerous herbal products and the potential problems they can cause include:

- pheasant's eye - sudden heart paralysis
- pasque flower and lily of the valley - heart and nervous system damage
- arnica - stomach and muscle complaints
- deadly nightshade - respiratory and nervous system depression
- bryony - lung and stomach disorders
- ipecac - violent vomiting
- thorn apple - liver and nervous system damage
- fox glove - heart and nervous system damage
- male fern - heart and eye injuries
- yellow jasmine - impaired pulmonary and cardiac function, coma
- henbane - respiratory and central nervous system depression
- American mandrake or may apple- stomach and immune system damage, birth defects
- Indian snakeroot or rauwolfia - depression, sedation, nervous system damage
- squill - stomach and kidney and nervous system damage
- false hellebore - impaired heart and lung function, nervous system damage
- European mistletoe - gastrointestinal bleeding, heart and nervous system damage

In some instances, damage depends on whether the whole plant, root, leaves or flowers are ingested, but most are safe for external application. Another potential hazard is interaction with other drugs. Herbal laxatives containing cascara and senna can increase the potency of digoxin, as can foxglove, from which it is derived. Juniper, dandelion, and other herbs with diuretic properties can elevate blood levels of lithium. Bronchospasm, hives, or other severe allergic reactions can occur in persons who are hypersensitive to ragweed and daisy plants.

Contamination during the manufacturing process can cause serious problems, even in products considered to be quite safe. As noted previously, L-tryptophan, a popular sleeping aid, was recalled because of numerous cases and deaths due to eosinophilic myalgia. The problem was subsequently traced to impurities introduced during the manufacture of certain batches. Stevens-Johnson syndrome, another rare but serious disorder has been reported after taking ginseng, probably because of similar problems over which there is no control.

In addition to herbals, DHEA, melatonin, and various steroids are extremely popular nutritional supplements because of alleged anti-aging, muscle building, and increased strength and energy effects. However, these have significant endocrine and other physiologic activities, and there are few if any scientific studies to determine if long term use poses potential hazards for some individuals. DHEA was sold over the counter for decades until 15 years ago, when the FDA declared it to be a drug. DHEA, a hormone made in the adrenals, is a building block for testosterone and estrogen, and has mild male hormone-like effects.

DHEA supplements made from extracts taken from the root of the wild Mexican yam returned to store shelves in 1994, when a change in the law allowed them to be sold as a nutritional supplement exempt from any FDA regulation. However, these plant extracts must be chemically altered before they can be converted into DHEA in the body, and there is no control over this adulteration process. Canada, the United Kingdom and other countries have banned sales to the public, and in some instances, have removed it from the market completely pending further safety studies.

Mark McGwire became a walking ad for muscle-building supplements following the revelation that he took androstenedione. Although it is also a natural precursor of testosterone, oral preparations would probably be degraded in the liver to prevent this conversion. Some advertisers claim it can boost testosterone levels by as much as 400 percent. If true, the side effects would equal those of anabolic steroids which are illegal, including extreme aggression, high cholesterol, and liver damage. Harmful effects would be even greater for teenage enthusiasts, since testosterone surges could stunt their growth. Androstenedione is banned in the National Football League and the Olympics.

The anticancer, anti-aging claims that led to the melatonin craze several years ago have not been proven, and some countries ban it because of safety concerns. Oral human growth hormone precursors touted to improve strength and prevent aging do not likely reduplicate any of the reputed benefits of injections of this controversial hormone. All of these are considered "natural" dietary supplements because of loopholes in the present legislation. How did this happen and what can be done about it?

Is There Any Solution In Sight?

The Dietary Supplement Health and Education Act of 1994 was rammed through Congress by Senator Orrin Hatch and political pressures from a powerful supplement industry. Many of these companies are based in his home state of Utah, where the dry desert air helps keeps raw materials, capsules and tablets fresh, and land and labor are relatively inexpensive. Members of the Utah Natural Products Alliance rake in over $4 billion annually.

This new law reclassified herbal remedies as "dietary supplements," a category separate from either food or drugs, with incredible protection and exemption from regulation. Such supplements:

- Are not required to undergo any testing for safety and efficacy.
- Do not have to be manufactured in any standardized fashion.
- Can still list suggested dosages despite the lack of any FDA approval.
- Can make advertising or label health claims as long as these avoid stating that they cure or prevent specific symptoms or diseases. Flagrant violations of this are often overlooked or not corrected.
- Are legally allowed to make claims such as "improves the immune system" or "slows the aging process", even though there is absolutely no research in humans to support them.
- Can not have their sales restricted by the FDA unless it can be proven that they pose a significant safety concern when taken "as directed" on the label. People often exceed the recommended dose and also take different supplements simultaneously. Since passage of this legislation, although many deaths and numerous serious illnesses have been associated with certain dietary supplements, the FDA hasn't been able to "prove" harm in a single case because of this legal loophole.
- Are amazingly allowed to be promoted with unproven claims such as "cures" cancer, as long as marketing representatives do not simultaneously sell the supplement.

Advertising and labeling claims can be false and confusing., Consumers can't be sure of purity or the amount of active ingredient in any dietary supplement — even from one package to the next of the same product! The A.M.A. just asked Congress to mandate FDA regulation of all dietary supplements and to investigation all adverse effects reported.

There is already an 800 number for this, and the FDA Special Nutritionals Adverse Event Monitoring System posts reports on the Web. Last month, the NIH Office of Dietary Supplements and Department of Agriculture launched a site containing 250,000 citations from 3000 journals that provides reliable information on herbals as well as vitamins and minerals (http://dietary-supplements.info.nih.gov)

The FDA is responsible for guaranteeing the safety and efficacy of $1 trillion in products — from drugs, medical devices and donated blood, to foods and cosmetics used daily. Every year, the number of new products that must be evaluated increases 12 percent, and it has been under intense congressional pressure to approve new drugs and devices faster, despite the fact that its budget for insuring the safety of new products has been slashed. Last year they approved ninety new drugs out of 200 that were submitted. At the same time, consumer advocates are charging that controversial drugs like Viagra are being marketed with insufficient warning of deadly side effects. It is estimated that only 10 percent of injuries caused by the improper use or unexpected side effects of drugs are actually detected.

There are also threats from new viruses and food poisonings that must be investigated, but they are short 500 employees, and inspectors currently can check the safety of only a fraction of medical and food factories annually. As an FDA spokesperson recently stated, "We cannot do everything that is expected of us." Congress is providing $30 million to hire 60 more inspectors and is improving the monitoring mechanism for imported foods, a major safety concern that must be immediately addressed. However, that will do little to offset the current $165 million shortfall, which is expected to increase. Regulating dietary supplements is thus not likely be a top priority because there are no funds available to implement such a program. The FDA is allowed to charge pharmaceutical manufacturers for hiring reviewers to evaluate prescription drugs, but dietary supplement interests are not likely to supply such funding as long as they have a free ride.

Support could come from other surprising sources. In 1962, the World Health Organization and the United Nations jointly established the Codex Alimentarius (nutrition code) Commission to promulgate worldwide standards for the distribution and trade of foods, drugs, preservatives, pesticides, etc. CODEX, as it is commonly called, has now produced 28 volumes of various standards and guidelines to evaluate the safety of over 700 food additives and preservatives.

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At its last meeting, a "Proposed Draft Guidelines for Dietary Supplements" bill was voted on that would give The Codex Commission complete control over these products as follows:

- No vitamin, mineral, herb, etc. could be sold for preventive or therapeutic use without prior approval from the commission.
- None of these could exceed potency or dosage levels that were set by the commission.
- All new dietary supplements would automatically be banned unless they went through the CODEX approval process.
- All of these regulations for dietary supplements would become binding under the current General Agreement on Tariffs and Trade (GATT) and would not be subject to any escape clause that might allow a member nation to set its own standards.
- Failure to comply with these new rulings could result in huge fines from the World Trade Organization (WTO) with the potential for crippling large sectors of the U.S. economy.

This bill was passed with a 16-2 majority, the U.S. being one of the dissenters. It was sponsored by Germany, whose Commission E was established in 1978 to determine efficacy and safety of herbals. This expert panel of medical, pharmaceutical, and botanical researchers must approve applications for sale of herbal products, which are referred to as phytomedicines. While the FDA only reviews studies from manufacturers, Commission E maintains an active research team that examines all the information available. Quality, efficacy, and safety must be demonstrated before any herbal product can be registered and prescribed, just as is required for pharmaceutical drugs. Commission E has reviewed 360 herbs and published 462 detailed monographs on these and various combinations, classifying them as either positive (probably useful and safe) or negative (expected to pose safety problems or to have no therapeutic effects).

It is estimated that almost 10 percent of prescription drugs covered by German health insurance plans are for herbal preparations, although most are over the counter. Many are manufactured by Hoechst, Bayer, and BASDF, three companies formed when IG Farben Industries was disbanded by the Nuremberg War Trials for producing the poison gas used in concentration camps. They are pushing the CODEX proposal because they have the most to gain. U.S. drug companies would also likely welcome it, particularly pharmaceutical giants Warner-Lambert, Whitehall-Robins, SmithKline Beecham and trusted brands like Bayer's One-A-Day. They have huge ad budgets and distribution networks, and two companies have already spent $75 million to test market herbals in major cities. Well known manufacturers are more likely to be trusted by consumers, and should strict quality control measures be mandated, they already have such mechanisms in place. As emphasized at the recent 10th Nutraceutical Conference, there is increased interest in nutraceutical-pharmaceutical combinations, which also gives them an enormous advantage in these and allied products.

McNeil acquired global rights to Benecol, a cholesterol lowering dietary supplement popular in Finland, where it has been used as a spread instead of butter or margarine for several years. Studies there and elsewhere have confirmed its efficacy and safety, and its introduction here in January would have been no problem if it had been packaged as a pill. However, since it is being sold as a substitute for margarine, the FDA views it as a food additive, and federal law prohibits the sale of foods containing additives that the agency has not approved as safe. These standards are much higher than those for supplements, and the company would have to go through the same lengthy and expensive process as the fat substitute olestra. McNeil states that consumers are not going to shell out $16 a pound for Benecol just to flavor their bread, and that for this reason, it should be viewed not as a food substitute, but a dietary supplement delivered in a different way, and therefore exempt from the FDA.

Cholestin has also been challenged. It is composed of rice capsules fermented with a red yeast that are sold as an all natural cholesterol-lowering dietary supplement. Although there is no doubt that it works, the active ingredient is the analog of the prescription drug Mevacor, and the FDA therefore feels it should have to undergo the same tests for safety and efficacy. So far, they have lost both court battles, but more are sure to surface as pharmaceutical companies try to stem inroads into their very profitable prescription drugs.

Things will also heat up as those experiencing harmful side effects sue not only herbal manufacturers, but also state and federal regulatory agencies for not providing adequate protection. On the other hand, the dietary supplement industry has a lot of congressional clout, and most consumers resent further controls, so any reforms may take a long while. Until then, here are some useful tips to guide you through this maze of confusing claims.

What To Watch Out For And Where To Get Help

It is essential to remember that current regulations provide no reassurance that any herbal product is either safe or effective. There is no guarantee that it contains any of the ingredients listed on the label, or even that two identical bottles from the same manufacturer are duplicates. In most instances, once you have found that a particular herbal does seem to help your problem, it is likely you will need to take it for the rest of your life to obtain sustained benefits. Therefore, it is important to select a product whose contents are accurately described on the label and is consistent from batch to batch. Here are some tips that may be helpful in making that choice.

• Examine the label carefully. Responsible products list concentrations of all active and inactive ingredients, suggested dosages, restrictions, possible food and drug interactions, and how to contact the manufacturer.

• Be suspicious of "scientific proof" claims, since such articles may refer to a product derived from a different part of the plant having none of the active compounds. The active principle in ginseng that allegedly increases resistance to stress and disease is derived from its root. But plants harvested in different parts of the world vary significantly in their chemical composition. There are 400 different ginseng products available, some of which are from the leaves or whole plant, and many have none of the active ingredient. Four compounds thought to be responsible for echincacea's ability to bolster the immune system have been isolated. Manufacturers don't know which to include in their preparations, and consumers don't know if they are getting the real thing.

• Don't mix herbals and drugs without consulting your physician. Patients who take St. John's wort along with prescription antidepressants can become delirious and have other problems due to serotonin overload. *Ginkgo biloba* and vitamin E can increase bleeding tendencies, especially in patients taking anticoagulants.

• Look for the words "standardized" or "German standards" on the label. These products have been formulated to provide active ingredients at specific concentrations to insure effectiveness and safety.

• Get reliable information. The average doctor and pharmacist know little about herbals. The best resource is The German Commission E monographs translated by the American Botanical Council (512-926 4900), who can also refer you to knowledgeable practitioners in your area. The European Scientific Cooperative of Phytotherapy (ESCOP) and the British Herbal Compendium have also published monographs on botanical products. The American Herbal Products Association (APHA) will shortly be publishing the Botanical Safety Handbook rating 600 herbal products, which will be joined the American Pharmaceutical Association Practical Guide to Natural Medicines, a PDR for Herbal Medicines, and Herbal Remedies for Dummies. The University of Texas, Columbia, and the FDA have very informative web sites, and others are devoted to exposing quackery.

There are numerous conferences, such as the International Conference on Integrative Medicine starting April 30 in Seattle (www.integrativemed.com), and 3 weeks later, the 4 day 22nd annual meeting of the American Holistic Medical Association in Washington (www.holisticmed.org). There are at least a half dozen journals for health care professionals, and *HealthInform* and *The Integrative Medicine Consult* are excellent monthly Newsletters that abstract and comment on recent articles dealing with alternative approaches. Proven herbals, as well as others promoted for their stress reduction effects will be discussed in a future Newsletter - so stay tuned.

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