

Formulas are Herbs in Harmony

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"It has become vital to educate the medical and scientific establishment and show that there are some features which are unique to phytotherapy and which contribute both to efficacy and safety. One of these is the concept of synergy, in that a plant extract is more than the sum of its parts, ... This is already accepted by patients and practitioners, but we now have an opportunity through further testing to prove that it is a true phenomenon which should be appreciated and utilized for therapeutic benefits".

--Dr Elizabeth M Williamson, 'Synergy: Interactions within Herbal Medicines'

European, Traditional Chinese Medicine (TCM) and Ayurveda generally believe through practice and experience that synergy between herbs is happening and is a central part of their philosophy. This synergy is the harmony created by the individual as part of an orchestra or a team. Formulations of herbs are normal and may be either historical formulations, which have been developed by empirical observation or are custom-designed for an individual patient. Science may not have the tools yet to confirm the super-subtle synergistic interactions and increased efficacy of ancient formulation practices. A recent case in point occurred at the London Royal Free Hospital England in the early 1990's. During trials to study a Chinese herbal formula for eczema, researchers were astonished when the addition of 'one extra herb' was added to a formula containing 10 herbs. It resulted in a dramatic improvement in previously unresponsive patients.

According to Dr. Williamson of the School of Pharmacy University of London, England "The approach taken by herbalists to skin disorders such as eczema differs radically from conventional treatment, which usually involves topical application of corticosteroids with their inherent disadvantages, and may lead eventually to the use of cytotoxics in refractory cases. In contrast, the multi-targeted approach of the herbalist must surely be preferable, and the Chinese herbal remedy containing multiple ingredients used to treat eczema is a good example of this." She also goes on to say there are several reasons holding science back from the study of formulation synergy, "the main one being the difficulty of proving such effects, since to do so would necessitate the testing of each individual constituent and comparing the activity with an equivalent dose in the mixture. This is an immense undertaking and prohibitively expensive in terms of time and money." Also, the present methodology for investigating botanicals is flawed: "If a combination of

substances is needed for the effect, then the bioassay-led method of investigation, narrowing activity down firstly to a fraction and eventually a compound, is doomed to failure, and this has led to the suggestion that the plants are in fact devoid of activity.”

The mechanism of action of most herbs is still unknown as yet to science due to expense, and present methodologies yet there are ‘proven’ instances where a total herb formulas work better than an equivalent dose of an isolated compound, for which we have no real rationale.

In a study published in the *International Journal of Oncology*, PC-SPES, an herbal mixture used by prostate cancer patients as an alternative form of treatment, was investigated; previous published studies have shown this formula to be effective for prostate cancer. Since PC-SPES is derived from eight individual herbs, each with distinct as well as overlapping properties, this study investigated whether a particular herb in the formulation principally accounts for the biological properties of PC-SPES. They concluded: “Lack of concordance between changes in prostate cell growth and prostate specific gene expression makes it unlikely that the activity of a single herb can account for the overall effects of PC-SPES.”

In other words the team (formula) was greater than its individual parts. In one final example a double-blind, crossover trial using 20 young, healthy volunteers, taking a formula containing ginseng, *Panax ginseng*, and ginkgo *ginkgo biloba* was recently demonstrated to be more effective in improving cognitive function than either alone, (Scholey and Kennedy 2001).

The Wisdom of TCM Organizing Principles for Herbal Formulas

When did Chinese Medicine start to develop and record these synergistic effects of herbal formulas? Around two thousand years ago, one of the early Chinese Emperors was entombed along with many artifacts, giving us a snapshot picture of the society and medicine of that time. When the tomb was opened, many scrolls were found. One of the best-preserved manuscripts, called *Wushier Bing Fang*, written on silk, described prescriptions for treating 52 illnesses. It is believed it was compiled around 900 BC, nearly three thousand years ago! It showed that a sophisticated system of formulation of herbs to increase their efficacy was already beginning. This 3,000 year old document contained 170 formulas, made of two or more ingredients. It shows us just how long ago herbal formulation was beginning its development, and how the experience of treating all that suffering was beginning to be refined and recorded. Half of those formulas were for inflammatory conditions such as urinary tract infections and skin diseases; the other half were for traumas, injury, hernias, and animal bites, not the usual shamanic or magical conditions one would expect for that era. Over sixty percent of the 250 ingredients were plant medicines; the rest were of animal origin.

Every herb has a down side; good formulas knock the hard edges off the “star player”, with the philosophy that “the team is greater than its star player.” The whole is greater than the sum of its parts. The combination of individual components in a formula produces a new therapeutic agent that treats more effectively and completely the cause, as well as the symptoms, of a health problem. These principles have been proven and refined over thousands of years of written clinical experience and refinement. There are organizing principles that govern the combining of thousands of active ingredients in plants to create a harmonized, effective team.

The foundations for the organizing principles, which I use in my practice today, were laid down in the first or second century in the Chinese medical text, *the Yellow Emperor’s Inner Classic*. In the seventy-fourth chapter of the basic questions, (*Su Wen*), it is stated, “That [ingredient] which primarily treats the disease is the Chief, that which aids the Chief is the Deputy, that which is bound to the Deputy is the Envoy/Messenger.” Through centuries of practice, these Confucian-like roles are expressed in an ancient political organization of the State, and have come to be defined as follows:

Chief /King/ Emperor herb: Produces the main effects, in treating the cause or the main symptoms of a disease. It dominates the whole formula with greatest dosaging, and is the chief ingredient, the primary therapeutic agent. One or two herbs will focus the purpose of the formula. For instance, Chinese Rhubarb, *Da Huang*, used in large dosage as a ‘Chief’ will exert a laxative effect through the predominance of anthraquinones, purgative compounds, yet when relegated to a lesser role or dosage, its tannins predominate and contributes, overall, a stool-solidifying effect.

Deputy /Minster herb: A “deputy” or “minister” has the primary function of helping to strengthen the effect of the “chief” or “king” herb, and secondarily it treats symptoms that accompany the disease that the king herb is treating. Added to assist the primary effect of the chief or king. Usually one to five herbs are added to work with the leaders to emphasis magnify or broaden their effects.

Assistant herb: The idea of an “assistant” has, since the *Su Wen* was written, been incorporated into standard TCM practice. It is added to treat symptoms, or to lessen the hard edges of the chief. For example, it may cool the overheating effect of the chief. The assistant herb performs this function by opposing the irritating property of the king herb without lowering its therapeutic effects. They may counteract side effects or modify the overall energy of the formula from warm to cool or visa versa.

Envoy/Messenger/Servant herb: This herb directs and guides the chief or smoothes the way for its use. It may help transport active constituents into the body for the best possible absorption and circulation throughout the

body. This functions also traditionally included binders for pills. The "messenger" may also lead the other herbs in the prescription to the affected site in the body.

Chinese Medicine and Ayurvedic medicine have the oldest continuous written traditions of herbal medicine on the planet. Both traditions place great emphasis upon using combinations of herbs, formulas. Gaia herself places great value in her eco-systems design upon diversity and production of complex combinations of her chemistries to fight bacterial overgrowth without them developing resistances to the plant antimicrobials. I believe that the hundreds of compounds in any one plant, when formulated with nine others should produce one thousand compounds ($10 \times 100 = 1,000$), yet in actual fact, one hundred new compounds are produced from interactions of compounds upon each other, therefore 1,100 total, may be produced by a formula giving each formula a totally unique 'signature' that is not possible just from the sum of its parts, the Whole is greater. The Chinese have believed for thousands of years that these combinations, were more effective than any single herb by itself and they developed guidelines for the formulation assigned roles to the herbs. The energetics of the plants were assessed to consider their therapeutic action and help in their assignments into formulas.

A Holistic, Energetic approach versus a symptomatic approach

A difference between Western and Eastern herbal traditions is the 'symptomatic' versus the 'holistic approach'. For example, let's look at both approaches to a herbal treatment of an inner ear infection. While in the West, just taking *Echinacea* may be recommended. While echinacea does boost up the immune system and aid it in fighting off the bacteria or yeast infection of the inner ear, it does not address the more holistic perspective of shifting the environment of the "host" that supported the thriving of the 'guest' bacteria or yeast. Many underlying conditions such as food allergies, seasonal allergies or trapped water after swimming create a hot bed for infection and should be addressed.

One of the main differences in the holistic TCM approach to a health problems is that TCM energetics would employ a "Herbal Shotgun" approach to boost the immune system while also working on ridding the body of the underlying cause of the illness. For example, from the TCM perspective a damp, "swampy" environment in the ear can become a hot bed for bacterial growth. Wax produced from an imbalanced constitution or from cleansing toxins increases the swamp-like condition and may allow recurrent infection. To break this chronic cycle, a TCM practitioner seeks to change the damp environment. The Formula, *Long Tan Xie Gan Tang*, "Gentiana Combination Formula" accomplishes this by using drying and cooling herbs such as gardenia, gentiana and scutellaria that target damp heat in the upper torso. Yet, given our contemporary knowledge of other herbal traditions as well as biomedicine, we can also add echinacea and fo-ti help to fight infection and

support the immune system. The Eastern approach is to shift the “damp heat” swamp-like environment of a waxy, watery-exudate ear, that allows the “guest” to thrive while combating infection. A “drying-cooling” herbal formula, directed to the ear, can actually include echinacea and contain berberine ingredients to go after a staphylococcus, or staph, infection, yet it also works to shift the environment that supports it. This is the holistic wisdom I bear in mind with every formulation.

Traditional Chinese Medicines Energetics of Herbs

According to Chinese legend, Shen Nung, the Chinese father of agriculture and leader of an ancient clan, took it upon himself to test, one by one, hundreds of different plants to discover their nutritional and medicinal properties. Many of these turned out to be poisonous to humans. Over the millennia, Chinese have used themselves as guinea pigs in this same way to continue testing plants for their properties of inducing cold, heat, warmth, and coolness. Given that the Buddhists monasteries were involved in the use of herbs for the poor and needy and the Taoist obsession with longevity herbs, it has been said that a lot of these guinea pigs, were monks and priests. Both spiritual paths placed great emphasis upon rigorous meditation and mind-body awareness techniques such as ‘Qi Gung’ and ‘Tai Chi Chan’. Many of these Priests and Monks were finely tuned human beings, who had access to altered states through their strenuous perusal of meditation and mind-body enhancement techniques. Both the Buddhists and Doaists were extremely involved with medicinal plants and examining upon their own bodies and minds the effects and properties of these herbs. Imagine if you would over the course of thousands of years the lifestyles of these amazingly committed Priests and Monks, supported by their communities fasting, meditating many for weeks on end, purifying their bodies and minds, focused upon just one goal at the end of their religious activities, to observe the action of a particular herb or a particular combinations, upon their own body. They would have had detailed knowledge of the meridian systems and organ fields with in their body and direct experience through their practices, with the laser like focus of an altered state these amazing guinea pigs, through there own direct experience of their subtle energy flows They helped classified the medicinal effects of the plants on the various parts of the body, and determine their toxicity, what dosages would be beneficial and what would cause side effects, etc..

TCM herbal medicine and other mature systems throughout the world apply herbal ‘energetic’ effects on the body and mind. Within TCM, the energy of the plant has several aspects that give it its unique personality. In order to organize a good herbal formula, a Chinese herbalist has to know which characteristic elements and which organs are the beneficiary of which herbs. Each according to their herb should be classified on the basis of a number of classifications, e.g. Yin-Yang and Five Elements, so the sum of all herbs in a

formula will be the total harmonious effect of the formula. The "Four Energies" are classified as Hot, Warm, Cool, Cold or Neutral. The "Five Tastes" are pungent, sour, sweet, salty, bitter. These tastes help to classify herbs further, including their effect on certain meridian/organ systems throughout the body. The "Four Directions" help to classify the tendency of the herb with respect to area of effect in the body. This helps select herbs to target certain parts of the body, or to facilitate the movement of other active compounds in the formula such as the Envoy/Messenger/Servant herbs, e.g. sinking, or floating outward to the surface or downward, or rising upward.

A Classic Traditional Chinese Formula Example:

- **Chief /King/ Emperor herb:** For example, ginseng has been known to energize the body. It also causes strong side effects when used alone. Ginsenosides in ginseng make the arteries become constricted.
- **Deputy /Minster herb:** Astragalus serves to broaden and tonify energy.
- **Assistant herb:** Combining ginseng with other herbs, such as kudzu, balances the side-effects of arteries becoming constricted. The proper combination of herbs increases the potency in the desired direction while balancing the undesired effects allowing ginseng to energize the body.
- **Envoy/Messenger/Servant herb** The combination of bitter orange and ginseng with other herbs relaxes muscles for the delivery of energy. It also helps with muscle aches and an abnormal digestive tract caused by poor Qi circulation. Bitter orange also has the effect of stimulating Qi (vital energy) circulation.

One of the uses for this formula is to increase vital energy. The energy level is for individuals who need to strengthen the body's Qi.

The Wisdom of TCM Formula Organizing Principles and Energetic assessment of herbs, a foundation for 'World Herb' Formulas

Using the wisdom of T.C.M. as a base, I build the formula using the best herbs from many continents and cultures. Blending these 'World Herbs' into formulas using the sophistication and wisdom of TCM formula organizing principles and the TCM energetic classification herbs I believe makes for more effective use of herbs. The effectiveness and wisdom of Chinese herbal medicine is not in the herbs themselves, but the gem is in their principles and energetics. Once understood, I believe we can employ any of the healing herbs on our planet according to these principles. Important herbs from all over the world and from many healing systems can be utilized and guided by the formulation principles of the classical Chinese medicine to bring a new perspective to herbal medicine. This perspective, developing consciously or unconsciously among modern herbalists, I call the 'World Herbs' school. I believe in bringing the best most effective herbs from around the world using

the principles of Traditional Chinese Medicine and scientific verification. It's time to share and combine the treasures from all cultures. What ancient Chinese herbal master wouldn't have been ecstatic to use the North American herb *Echinacea* or the Polynesian herb *kava kava* in their formulas if they had known of its existence? What would Europeans have done with *ginseng*? By trying to understand the herbal traditions from different parts of the world, we can gain a broader perspective from which to employ a more targeted use of plants for healing.

For example, Traditional Chinese Medicine (TCM) gives us an "energetic" picture of the herb, while the resurgence of Western scientific interest gives us a deeper understanding of its biochemistry. I believe in uniting these various dimensions of understanding plants to better use them as healing agents. TCM has the longest recorded written history of any herbal medicine, over twenty-five hundred years of tradition. Chinese herbs are no more potent than the ones growing in your backyard; however, they have been better observed, both energetically and biochemically, and used in every formula configuration possible. The World Herbs perspective that I formulate and use in my practice is developed by using superior herbs from all the traditions guided into formulas using the wisdom of TCM. Using Traditional Chinese Medicine's botanical wisdom as a foundation, and adding to that the wisdom of modern scientific research, Ayurvedic, European, North American, and South American herbal traditions, we come to a very powerful perspective and the basis for World Herb formulas.

A Modern Example of a 'World Herb' Formula, for P.M.S.

This is a modern formula for the treatment of PMS, combining Chinese herbal guidelines and herb energetics with some scientific information. For the treatment of PMS, or premenstrual syndrome, is also often referred to as premenstrual tension (PMT). It is a recurrent disorder that disrupts the emotional and physical aspects of many women's lives for up to 2 weeks out of every month. Symptoms can range in intensity from mild to incapacitating. The most common symptoms are sudden mood swings, weight gain, breast pain, irritability, anxiety, and, frequently, a sense of feeling out of control. An estimated 30 to 40% of women between the ages of 25 and 50 experience mild to moderate symptoms of premenstrual syndrome. *Ladies' Support* is an example of using herbs from all over the world combined using the wisdom of TCM for Ladies' Support.

Vitex , (Agnus-Castus) Chief /King/ Emperor herb

Energetics: Bitter and Pungent taste, a bit astringent, neutral with both cooling and warming potentials, dry, relaxing and stimulating, harmonizes menstruation, relieves pain, promotes menstruation, and relieves amenorrhea, tonifies menstruation, fertility and sexuality. Used for centuries in Europe, this herb is now understood to exert a balancing action on the hormones to gently regulate menstruation. The greatest use of vitex lies in

normalizing the activity of female sex hormones, and it is thus indicated for dysmenorrhoea, premenstrual stress and other disorders related to hormone function. It is especially beneficial during menopausal changes. And in a similar way, it may be used to aid the body to regain a natural balance after the use of the birth control pill. It is found to have a strong effect on the corpus luteum, which increases progesterone.

Scientists think that it regulates the pituitary gland, which detects increased estrogen levels and tells the ovaries to make less. Recent findings confirm that Vitex helps restore a normal estrogen-to-progesterone balance. It can not only ease, but with time, actually cure premenstrual syndrome, which has been linked to abnormally high levels of estrogen, especially if symptoms tend to disappear when menstruation begins. European herbalists also use it today to treat fibroid tumors and other female complaints. Vitex is commonly known as the Chaste Tree Berry, has been used for centuries to help women with menstrual problems. It has now been documented by medical science through clinical study that vitex is a safe and effective treatment for PMS (premenstrual Syndrome).

170 women (average age 36) diagnosed with PMS participated in this randomized, double-blind placebo-controlled study. The women received either one 20 milligram tablet of Vitex extract or a placebo pill each day, at the start of their menstrual cycle.

After 3 months of treatment, the women's symptoms were assessed both by the participants themselves and by their physicians with an assessment called clinical global impression. The results showed that 52% of the women taking Vitex had significant improvement, compare to 24% in the placebo group. The greatest benefit was seen in reductions of irritability, mood changes, anger, headache, and breast fullness. (Reported in the British Medical Journal 2001)

Black Cohosh (*Cimicifuga Racemosa*), Deputy /Minster herb:

Energetics: Pungent, bitter, sweet; cool dry, relaxing, calming, anti-inflammatory, stimulating and restoring, it circulates uterine energy, promotes menstruation and estrogen, stops discharge and bleeding. Used by Native Americans and American colonists to treat gynecological and menopausal complaints. Black Cohosh Root also relieves headaches and muscle pain and stops irregular bleeding. Clinical studies from Germany demonstrate that black cohosh decreases Luteinizing Hormone (LH), which can be responsible for hot flashes and other problems. widely used in Europe and the US to relieve the symptoms of PMS. Black Cohosh is commonly used for PMS and menopause (particularly hot flashes, menstrual cramps, changes to the vaginal lining and even depression). Assists in minimizing cramps from PMS. Ease menstrual cramps. Black cohosh has antispasmodic properties that may lessen menstrual discomforts. In addition, by possibly increasing blood flow to the uterus, it may reduce the intensity of particularly painful cramps. By stabilizing hormone levels, the herb's phytoestrogens may even benefit women with premenstrual syndrome (PMS)

Licorice, (*Glycyrrhiza glabra*) Envoy/Messenger/Servant herb

Energetics: Very sweet, neutral, moist, restoring, relaxing, softening; increases digestion and absorption of the formula, restores endocrine function. Licorice is the most frequently used herb in Traditional Chinese Medicine (TCM) and has been extensively studied. TCM classifies licorice as a sweet, mild herb and uses it to supplement the body, clear "latent heat," regulate stomach functions, expectorate the lungs, and invigorate the spleen. It has been used as an antipyretic, detoxicant, and anti-inflammatory. Many TCM formulas use licorice as a corrective adjunct and harmonizing ingredient.

Vervain, (*Verbena officinalis*) Assistant herb:

Energetics: Bitter, slightly pungent, cool, neutral, stimulating, dispersing, relaxing and restoring, circulates and promotes energy flow, loosens constrained energy, and relieves pain. Vervain is a herb that will strengthen the nervous system whilst relaxing any tension and stress. It can be used to ease depression and melancholia that can accompany PMS.

Ginger, (*Zingiber officinale*) Assistant herb:

Energetics: Very pungent, slightly sweet, hot, dry, stimulating and relaxing.

Helps warm the formula, which would otherwise be overcool, and promotes digestion of herbs that might be difficult to digest when too cold energetically. As the Assistant, it is added to treat symptoms or to lessen the hard edges of the chief. For example, it may warm the overcooling effects of the chief and the deputy and others.

TCM Today

"In China today there is a clear effort to realize and create a medical infrastructure going beyond a simple reliance upon two divided systems TCM and Western medicine. There exists in fact a three-tiered medical system comprising traditional medicine, biomedicine, and integrative medicine"

--Cai Jing –Feng ` Oriental Medicine'

After a stormy beginning to the twentieth century where TCM was banned by the Government in favor of conventional Medicine, it was nourished back to thriving health by a Communist government desperate for affordable healthcare. Currently, TCM still predominates in rural areas where it is responsible for up to 60 percent of healthcare. In the cities, however, conventional care is mainly predominant. Healthcare is based upon the patient's choice of which system to use. Chronic conditions are referred towards TCM and acute care towards Western Medicine. However, there

seems to be a place where they meet and work together and that is developing into "integrated" care, using one to support the other. For instance, with some cancer, life expectancy increases when both systems are utilized. This kind of integration is the fertile field of a new medicine for industrialized nations that are being crippled with pharmaceutical costs for elderly and chronic care. This in my opinion is where the next breakthrough will happen in the healthcare of the Industrialized Nations of the West and Japan.