



Introduction to Traditional Chinese Medicine and its Applications in Family Medicine



Presented by Aina Zhang and James Wang

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St Mary's Hospital - Family Medicine Centre

Clinique SinoCare Inc.

4177 Decarie Blvd. Montreal 483 6669 www.sinocare.ca



Presentation Outline

- ❖ Credentials of Aina Zhang
- ❖ Presentation objectives
- ❖ Definition, history and fundamental theories of TCM
- ❖ Diagnostic principles and techniques of TCM
- ❖ Therapeutic tools of TCM
 - Acupuncture, meridian and acupuncture points
- ❖ Acupuncture as a complementary and alternative medicine
- ❖ Treatable conditions by acupuncture according to WHO
- ❖ Case analysis
- ❖ Safety concerns of acupunctures and TCM herbs
- ❖ Myth and controversy about acupuncture
- ❖ TCM herbs & acupuncture in clinical studies
- ❖ Questions & answers



Credentials of Aina Zhang

- ❖ Master's degree in Gynecology
(1989, Guangzhou University of Traditional Chinese Medicine, China)
- ❖ M.D. degree in combined Chinese & Western Medicine
(1982, Guangzhou University of Traditional Chinese Medicine, China)
- ❖ 25 years of clinical experience in TCM and Western Medicine
(1st affiliated hospital of Guangzhou University of TCM, China & SinoCare)
- ❖ Licensed acupuncturist since 1995 (Quebec)
- ❖ Founder of the first TCM clinic focus on gynecology and infertility in Quebec



Guangzhou University of TCM

- ❖ Established in 1956, as one of the first four TCM national institutions
- ❖ One of the best & largest in China
- ❖ 500,000 M² of teaching facility
- ❖ Over 10, 000 of students



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Guangzhou University of TCM Affiliated Hospitals

- ❖ 11 affiliated hospitals,
- ❖ 5000 hospital beds,
- ❖ 6 national, 8 provincial centers of research.



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Definition of TCM

- ❖ An independent and comprehensive medicinal system, enriched by thousands of years of clinical observations, practice and documentation.
- ❖ The concept of unity within the human body and unity between the human body and nature.
- ❖ Diagnosis & treatment based on a comprehensive analysis of signs & symptoms (Bian Zheng Shi Zhi).
- ❖ Five fundamental theories and eight diagnostic principles
- ❖ Its therapeutic tools include acupuncture, Chinese herbal medicine, massotherapy (Tuina), therapeutic exercise and dietary regulation.
- ❖ Excellent potential for treating functional & chronic disorders

History of TCM

500 B.C



扁鵲
秦越人

- ❖ The Yellow Emperor's Classic of Internal Medicine, 230 B. C.

- ❖ Inventor of herbal anesthesia →

- ❖ The Divine Husbandman's Classic of the Materia Medica, 500 AD.

- ❖ Canon on the Origin of Acupuncture and Moxibustion, 907-1368 A.D.

- ❖ Ben Cao Gong Mu, consisting of 52 volumes at the time of its printing, 1518-1593.

- ❖ Over 20, 000 books existed by the beginnings of 20th century .

110-207 A.D



華佗

1583-1640 A.D



張景岳

1518-1593 A.D

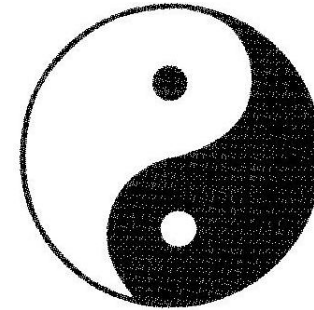


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The Five Fundamental Theories

- ❖ The theory of Yin and Yang
- ❖ The theory of Five Elements
- ❖ The theory of Viscera and Bowels
- ❖ The theory of the Meridians (Channels and Collaterals)
- ❖ The theory of Jing (essence), Qi (vital energy), Blood and Body Fluid.

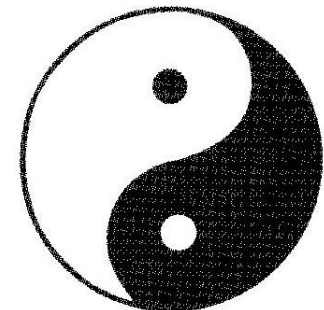


These theories are often used together to guide the diagnosis and treatment of diseases by TCM practitioners and they are the cornerstones of TCM !



The First Fundamental Theory

- ❖ The theory of Yin and Yang – originated in ancient Chinese philosophy, it proclaims that the universal existence of the two ever opposing, yet supplementing aspects in each and everything.
- ❖ The theory of Yin and Yang states:
 - The opposition and interdependence of Yin and Yang
 - The Waxing & Waning, and the transformation between Yin & Yang
- ❖ The theory of Yin and Yang embodied in every aspect of TCM's theoretical system. it could be used to explains:
 - The tissues and structures of the human body
 - The physiological function of the human body
 - The pathological changes of the human body
 - The diagnose and treatment of diseases
 - The property, flavor and function of TCM herbs





The Second Fundamental Theory

- ❖ The theory of Five Elements proclaims that Wood, Fire, Earth, Metal and Water are five basic substance that constitute the material world.
- ❖ Attribution of thing in light of the theory of Five Element, TCM made a comprehensive comparison and study of all kinds of thing and phenomena in nature and in human body. Examples:

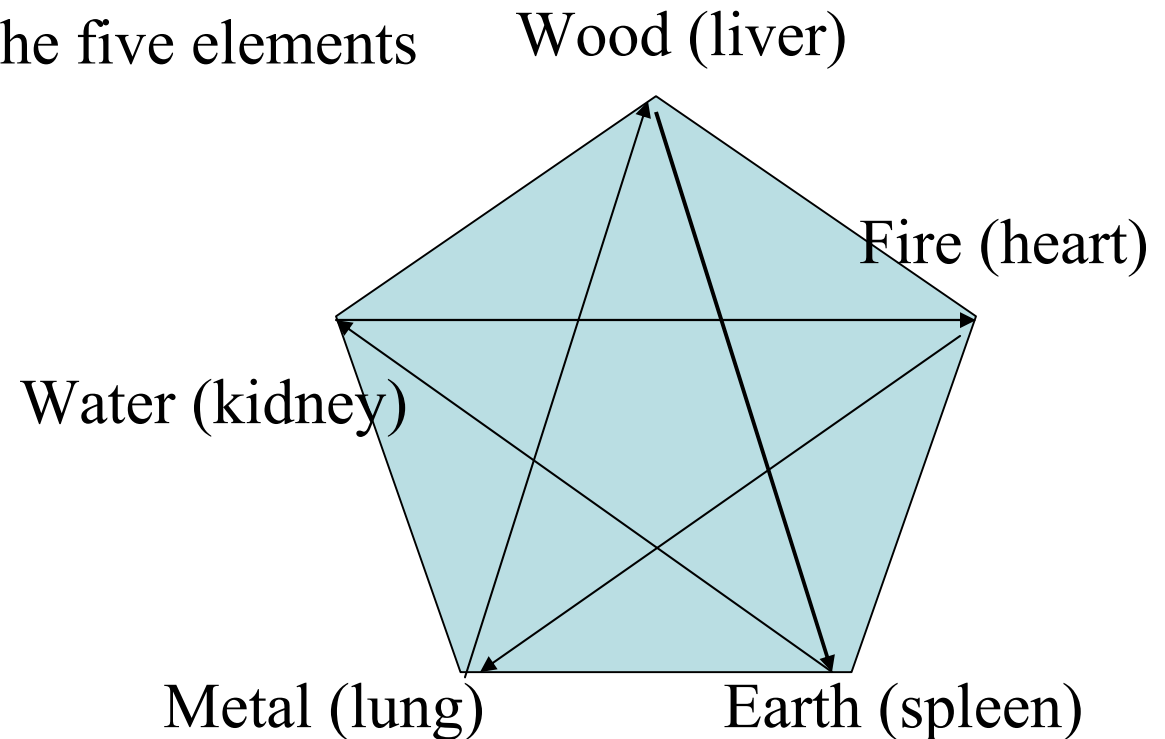
Five Elements	Viscera	Bowels	Sense Organs	Emotional Activities	Color
Wood	Liver	Gall Bladder	Eye	Anger	Green
Fire	Heart	Small Intestine	Tongue	Joy	Red
Earth	Spleen	Stomach	Mouth	Over-thinking	Yellow
Metal	Lung	Large Intestine	Nose	Grief	White
Water	Kidney	Urinary Bladder	Ear	Fear	Black



The Second Fundamental Theory

❖ Relationship between the five elements

- Generation
- Restriction
- Subjugation
- Reverse restriction



❖ The Five Elements theory explains

- Physiological relations among Five Viscera
- Pathological influences among the Five Viscera

❖ The Five Elements theory guides the diagnose and treat diseases



The Third Fundamental Theory

❖ The theory of Viscera and Bowels

- **Five Viscera** (Heart, Lung, Spleen, Liver and Kidney)
- **Six Bowels** (Gallbladder, Stomach, Small Intestine, large Intestine, Bladder & Triple Burners)
- The connotations differ from those of western anatomy concepts
 - In TCM, they are not only anatomic units, but more importantly as concepts of physiology and pathology.

Western Anatomy	Chinese Medicine
Heart	Heart and part of the nervous system
Lung	Respiratory system, water metabolism, blood circulation and the functions of the vegetative nervous and immune system
Spleen	Digestive system, blood coagulation and body fluid metabolism
Liver	Liver, part of the central nervous and vegetative nervous systems, blood and visual organ.
Kidney	Kidney, urinary, reproductive, and part of endocrine and nervous system.



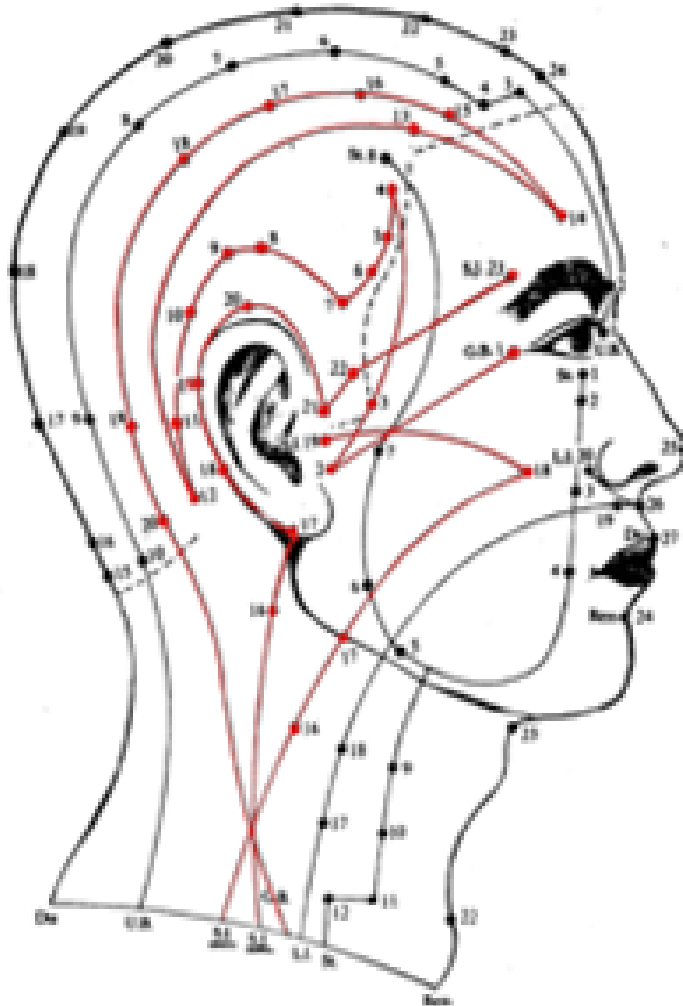
The Fourth Fundamental Theory

- ❖ The theory of meridian (also known as channels & collaterals)
 - The meridians make the human body an organic whole. They
 - Link with each other and connect the superficial (sense organs & five tissues) to interior (viscera & bowels), and upper body to lower body
 - Transport Qi and Blood to nourish the whole body
 - Transmit feedback, induce stimulation, and regulate physiological functions
 - This theory is absolutely essential for Acupuncture, but also important in Moxibustion, Tuina, herbology, and therapeutic exercises.



Meridians

- ❖ Meridians - 20 Channels & many collaterals



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The Fifth Fundamental Theory

- ❖ The Jing, Qi, Blood and Body Fluid theory
 - TCM believes that the Jing, Qi, Blood and Body Fluid are the basic components of the body and maintain the life activities of the human body
 - The Jing, Qi, Blood and Body Fluid supply the energy needed by viscera & bowels, channels & collaterals, tissues and other organs for performing their physiological functions.
 - The formation and metabolism of the Jing, Qi, Blood and Body Fluid also depend on the normal physiological functions of viscera & bowels, channels & collaterals, tissues and other organs



Eight Diagnostic Principles

❖ Differentiation of:

- Yin and Yang syndrome
- Exterior and interior syndromes
- Cold and heat syndromes
- Fullness and deficiency syndromes

Complex as they are, all TCM syndromes (the nature of illness) can be categorized and described according to these eight principles.



Diagnostic Techniques

- ❖ **Interrogation** (detailed questions about stool, urine, menstruation, sleeping pattern, eating habits, past medical history, etc)
- ❖ **Inspection** (looking at facial complexion; tongue's shape, color and coating; eye' color, body shape, posture, expression, etc)
- ❖ **Auscultation** (hearing) and **Olfaction** (Smelling)
- ❖ **Pulse taking and palpation**

Today, a well-trained acupuncturist can also use the results of modern diagnostic technology to improve his diagnosis.



TCM Treatment Characteristics

- ❖ Diagnose the syndromes (nature of the illness), according to eight diagnostic principles, to determine:
 - Pathogenic factors
 - Pathogenesis
 - Location
 - Prognosis
- ❖ Diagnosis and treatment based on an overall analysis of signs and symptoms (Bian Zheng Shi Zhi)
 - The same disease can have different syndromes and therefore to be treated differently. (example: Headache could be caused by Qi deficiency and Liver Fire flare up)
 - Different diseases can have similar syndromes therefore would to be treated similarly. (example: three patients, one with infertility, another one with menopausal syndrome and third one with debilitating PMS, they all could be caused by Kidney deficiency)



Bian Zheng (Identify Syndromes)

Illnesses in Western Medicine	TCM syndromes
Hot flash, sore lower back & knees, insomnia, night sweat forgetful, irritability, amenorrhea, scanty menses and infertility.	Kidney Yin deficient
Sore lower back and knees, cold limbs and extremities, frequent urination, chronic fatigue, frequent loose stool, infertility, water retention and obesity.	Kidney Yang deficient
Retarded child growth, scanty menses, amenorrhea, infertility, low libido, tinnitus and poor memory.	Kidney Jing deficient
Fatigue, tinnitus, frequent and clear urination, dripping urination, enuresis, thin and profuse menses, metrostaxis (never clear) and threatened abortion.	Kidney Qi deficient
Distending breast pain, depression or anger, dysmenorrhea and irregular menstruation.	Liver Qi Stagnation
Dizziness, distending headache, irritability, burning chest pain, insomnia, sudden tinnitus.	Flaming-up of Liver fire
Virginal infection, yellowish and stinky leukorrhea, bitter taste in mouth, headache, red face and eyes.	Dampness heat in Liver and gallbladder meridian

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Shi Zhi (Treatment)

Menopausal symptoms	Possible TCM syndrome	Treatment orientation
Irritability, depression.	Liver Qi Stagnation	Move Liver Qi
Palpitation, bloating, anxiety, nervousness, insomnia (unsound sleep).	Heart & Spleen Qi Deficient	Nourish Heart and Spleen Qi
Sore lower back & knee, loose stool, cold extremities, water retention, frequent urination.	Kidney and Spleen Yang deficient	Tonify Kidney and Spleen Yang
Hot flashes, night sweat, insomnia (wake up at 3~5 am).	Kidney and Liver Yin deficient	Nourish Kidney and Liver Yin
Nausea, Diarrhea, constipation indigestion.	Disharmony between the liver and spleen/stomach	Harmonize liver with spleen/stomach



Therapeutic Tools

- ❖ Acupuncture
- ❖ TCM herbs
- ❖ TCM massotherapy (Tuina),
- ❖ Therapeutic exercise (Tai Ji & Qi Gong)
- ❖ Dietary regulation (food therapy).

In China, TCM consists of about 80% herbs and 20 % acupuncture.

In Canada, however, TCM is about 80% acupuncture and 20% herbs.



TCM Treatments Process

- ❖ Diagnosis according to Five Fundamental theories and Eight Diagnostic Principles to determine the underlying syndromes, including:
 - Pathogenic factors
 - Pathogenesis
 - Location
 - Prognosis
- ❖ Establish treatment orientation
- ❖ Select one or more appropriate therapies
 - **Acupuncture**
 - **Chinese herbal medicine**
 - Tuina (Chinese Massotherapy)
 - Therapeutically exercise – Tai Chi & Qi Gong
 - Dietary regulation



Meridians, Acupuncture and Acupoints

- ❖ Acupuncture: manipulation of thin needles inserted into acupoints to affect the flow of Qi, to influence the human's physiological functions
- ❖ The meridian system consists of 20 channels & over 15 collaterals
- ❖ Most acupoints (over 400) are located on the meridians
- ❖ The meridians make the human body an organic whole. They:
 - are linked to each other
 - connect the superficial to the interior, the upper to the lower body, the viscera to the bowels, and the four limbs to all bones
 - transport Qi & Blood to nourish the body
 - conduct stimulation, transmit feedback and regulate physiological functions
 - are invisible to modern technology



Acupuncture as a CAM (Complementary and alternative medicine)

- ❖ Sick or healthy, young or old, almost everyone, at any time can benefit from acupuncture.
- ❖ Currently, acupuncture is mainly accepted in Canada for treating:
 - Infertility
 - Chronic pain
 - Adverse reactions to chemotherapy and radiation therapy
 - Addiction
 - Depression
 - Gynecological disorders
 - Abnormal menstruation (amenorrhoea, dysmenorrhoea, scanty or irregular menstruation, metrostaxis.)
 - Menopausal symptoms (Fatigue, hot flash, insomnia, irritability, depression, constipation, diarrhea..)
 - Reproductive system Infections (herpes, cystitis, vaginal and urinary infections)
 - Abnormal growth in reproductive system (breast cyst and lesion, endometriosis, ovarian Cysts, Uterine Fibroids ..)
- ❖ Many patients come with discomfort and symptoms, but without diagnosis or treatment
- ❖ Others come to look for a more body-friendly alternative

Treatable Conditions by Acupuncture per WHO



Diseases, symptoms or conditions for which acupuncture has been proved, through controlled trials, to be an effective treatment:

- ❖ Adverse reactions to radiotherapy and/or chemotherapy
- ❖ Allergic rhinitis (including hay fever)
- ❖ Biliary colic
- ❖ Depression (including depressive neurosis and depression following stroke)
- ❖ Dysentery, acute bacillary
- ❖ Dysmenorrhoea, primary
- ❖ Epigastralgia, acute (in peptic ulcer, acute and chronic gastritis, and gastrospasm)
- ❖ Facial pain (including craniomandibular disorders) and Headache
- ❖ Hypertension, essential and Hypotension, primary
- ❖ Induction of labour
- ❖ Knee pain, Low back pain and Sciatica
- ❖ Leukopenia
- ❖ Malposition of fetus, correction of
- ❖ Morning sickness, Nausea and vomiting
- ❖ Neck pain
- ❖ Pain in dentistry (including dental pain and temporomandibular dysfunction)
- ❖ Periarthritis of shoulder
- ❖ Postoperative pain
- ❖ Renal colic
- ❖ Rheumatoid arthritis
- ❖ Sprain and Tennis elbow
- ❖ Stroke

Treatable Conditions by Acupuncture per WHO



Diseases, symptoms or conditions for which the therapeutic effect of acupuncture has been shown, but for which further proof is needed:

- ❖ Hyperlipaemia
- ❖ Hypo-ovarianism
- ❖ Insomnia
- ❖ Labour pain
- ❖ Lactation, deficiency
- ❖ Male sexual dysfunction, non-organic
- ❖ Ménière disease
- ❖ Neuralgia, post-herpetic
- ❖ Neurodermatitis
- ❖ Obesity
- ❖ Opium, cocaine and heroin dependence
- ❖ Osteoarthritis
- ❖ Pain due to endoscopic examination
- ❖ Pain in thromboangiitis obliterans
- ❖ Polycystic ovary syndrome (Stein–Leventhal syndrome)
- ❖ Postextubation in children
- ❖ Postoperative convalescence
- ❖ Premenstrual syndrome
- ❖ Prostatitis, chronic
- ❖ Pruritus
- ❖ Radicular and pseudoradicular pain syndrome
- ❖ Raynaud syndrome, primary
- ❖ Recurrent lower urinary-tract infection
- ❖ Reflex sympathetic dystrophy
- ❖ Retention of urine, traumatic
- ❖ Schizophrenia
- ❖ Sialism, drug-induced
- ❖ Sjögren syndrome
- ❖ Sore throat (including tonsillitis)
- ❖ Spine pain, acute
- ❖ Stiff neck
- ❖ Temporomandibular joint dysfunction
- ❖ Tietze syndrome
- ❖ Tobacco dependence
- ❖ Ulcerative colitis, chronic
- ❖ Urolithiasis
- ❖ Vascular dementia
- ❖ Whooping cough (pertussis)



Case Study 1

- ❖ Patient history: 33 years old, Female.
- ❖ Western medicine diagnosis and treatment: frequent and severe migraine and tension headache since childhood, treated with migraine medication with some success; symptoms significantly increased during pregnancy, and she didn't want to take any medications during her pregnancy.
- ❖ TCM diagnosis and treatment:
Spleen and Kidney deficiency; 15 weekly treatment of acupuncture

Outcome:

1. no more migraine and occasional mild headache through her pregnancy and beyond.



Case Study 2

- ❖ **Patient history:** 32 years old female, primary infertility 7 years.
- ❖ **Western medicine diagnosis and treatment:** amenorrhea 7 years, 4 years severe anxiety, anovulation; no treatment.
- ❖ **TCM diagnosis and treatment:**
Kidney & Spleen deficiency, and Liver Qi stagnation;
Weekly acupuncture + daily herbs for 1 year and five months.
- ❖ **Outcome:**
 - Successful natural pregnancy and live birth
 - second natural pregnancy with only a few weeks of treatment, live birth.



Safety Concerns of Acupunctures & TCM Herbs

- ❖ The safe practice of acupuncture and herbal medicine has been continually documented over many centuries
- ❖ Reports of adverse reactions to acupuncture & herbal medicine are extremely rare in clinical practice
- ❖ Most of the reported cases are caused by:
 - Poor quality control of herbs – reports of heavy metals, pesticide residues...
 - Misuse of herbal medicine – **Ephedra - ma huang**, safely used for thousands of years to treat asthma and hay fever and cold in TCM, but misused in dietary supplement industry. Banned by USA FDA and Health Canada.
 - Malpractice – improper sterilization of needles and skins causing infections.



Myth and Controversy about Acupuncture

- ❖ A completely unfamiliar paradigm & philosophy
- ❖ Currently unexplainable by modern science
- ❖ The meridians, the most important cornerstone of acupuncture, don't actually correspond to any recognized body system
- ❖ Incomprehensible for thin needles placed on the skin to produce significant physiological changes
- ❖ A few decades-old practice in North America, although it has been continually practicing over thousands of years in China
- ❖ There is an insufficient number of double blind and placebo controlled studies available, possibly due to lack of interest and funding
- ❖ Current clinical study protocols undervalue the efficacy of acupuncture

TCM Herbs & Acupuncture in Clinical Studies



- ❖ Clinical trials are increasing at an accelerated rate in the West
 - Results are mixed, but encouraging
 - Some landmark studies are changing westerners perceptions
- ❖ Most clinical studies undervalued the acupuncture due to inappropriate design that does not reflect the manner in which acupuncture is traditionally practiced. For example:
 - Selection of test subjects only according to diseases, not syndromes
 - Standard acupoints on every participant, rather than specific treatment unique to each individual
 - Selected acupoints are not allowed to change when the symptoms start to change
- ❖ Many clinical studies on herbs focus on active ingredients of certain herbs, not the efficacy of herbal formulas as TCM uses.
 - Some herbs are toxic when used alone, but not toxic and very effective when used in a formula (Ephedra etc).



Samples of Recent Clinical Studies

- ❖ Influence of Acupuncture on the Pregnancy Rate in Patients Who Undergo Assisted Reproduction Therapy; W. Paulus et al; *Fertility & Sterility*, 04/2002.
- ❖ Effects of acupuncture on rates of pregnancy and live birth among women undergoing in vitro fertilisation: systematic review and meta-analysis; Eric Manheimer, Grant Zhang et al; *British Medical Journal*, 02/2008.
- ❖ German Acupuncture Trials (GERAC) for Chronic Low Back Pain; Michael Haake et al; *Archives of Internal Medicine*, 09/2007.
- ❖ Acupuncture in Treating Mucositis-Related Pain Caused by Chemotherapy in Patients Undergoing Stem Cell Transplantation; Claude Sportes et al; *National Cancer Institute*; 05/2003.



Thanks for listening!

❖ Questions



❖ For further information regarding to:

- this presentation and future engagements
- acupuncture and Chinese herbal medicine

Contact us at: 514 483 6669 or ainazhang@sinocare.ca

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