Complementary / Alternative Approaches to Cardiovascular Health: 2011 and Beyond

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CAM

“A group of diverse medical and health care systems, practices, and products that are not generally considered part of conventional medicine, as practiced by holders of M.D. or D.O. degrees and by their allied health professionals such as physical therapists, psychologists, and registered nurses.” (NCCAM, 2010)

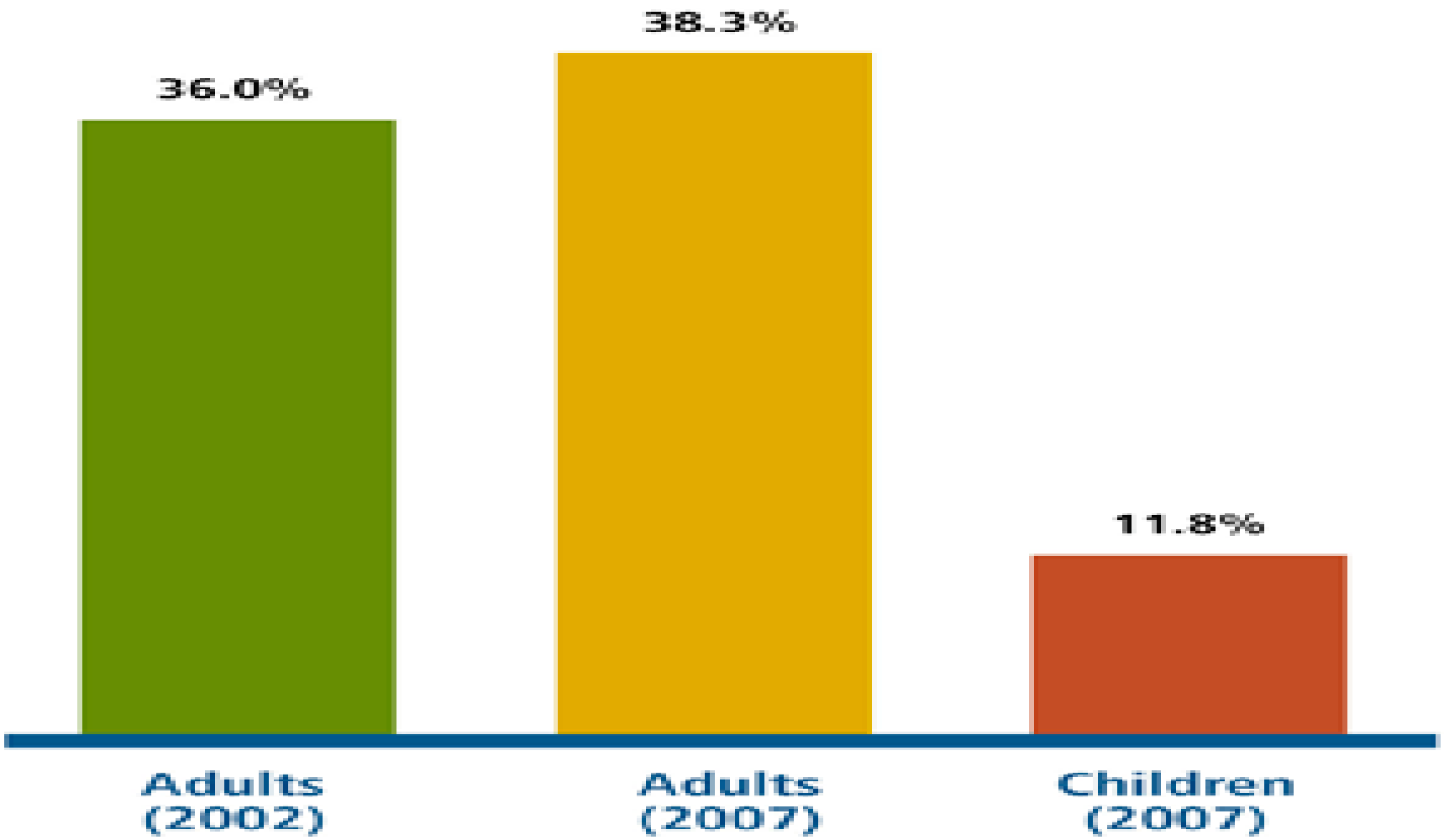
Definitions

- Complementary
- Alternative
- Complementary & alternative (CAM)
- Integrative
- Traditional Chinese Medicine (TCM)

Magnitude of CAM Use

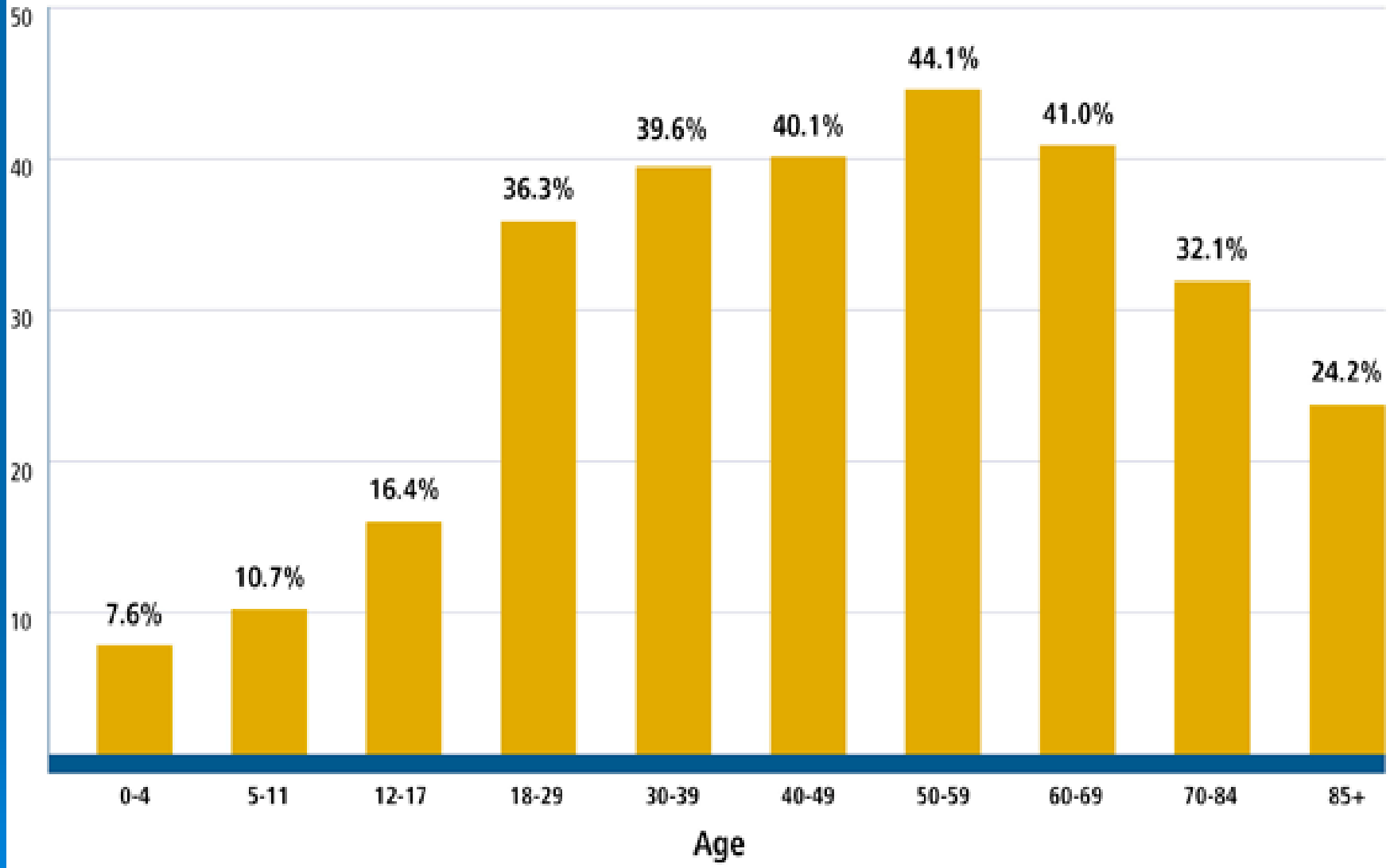
- 38.3% of adults reported using CAM for medical purposes in the previous 12 months (NHIS, 2007)
- 55% of adults believed that use of CAM would support health when used in combination with conventional medical treatment (Barnes et al, 2004)
- Out-of-pocket expenditure for CAM in the U. S.→ More than $34.4 billion (Spinks & Hollingsworth, 2009)

CAM Use by U.S. Adults and Children



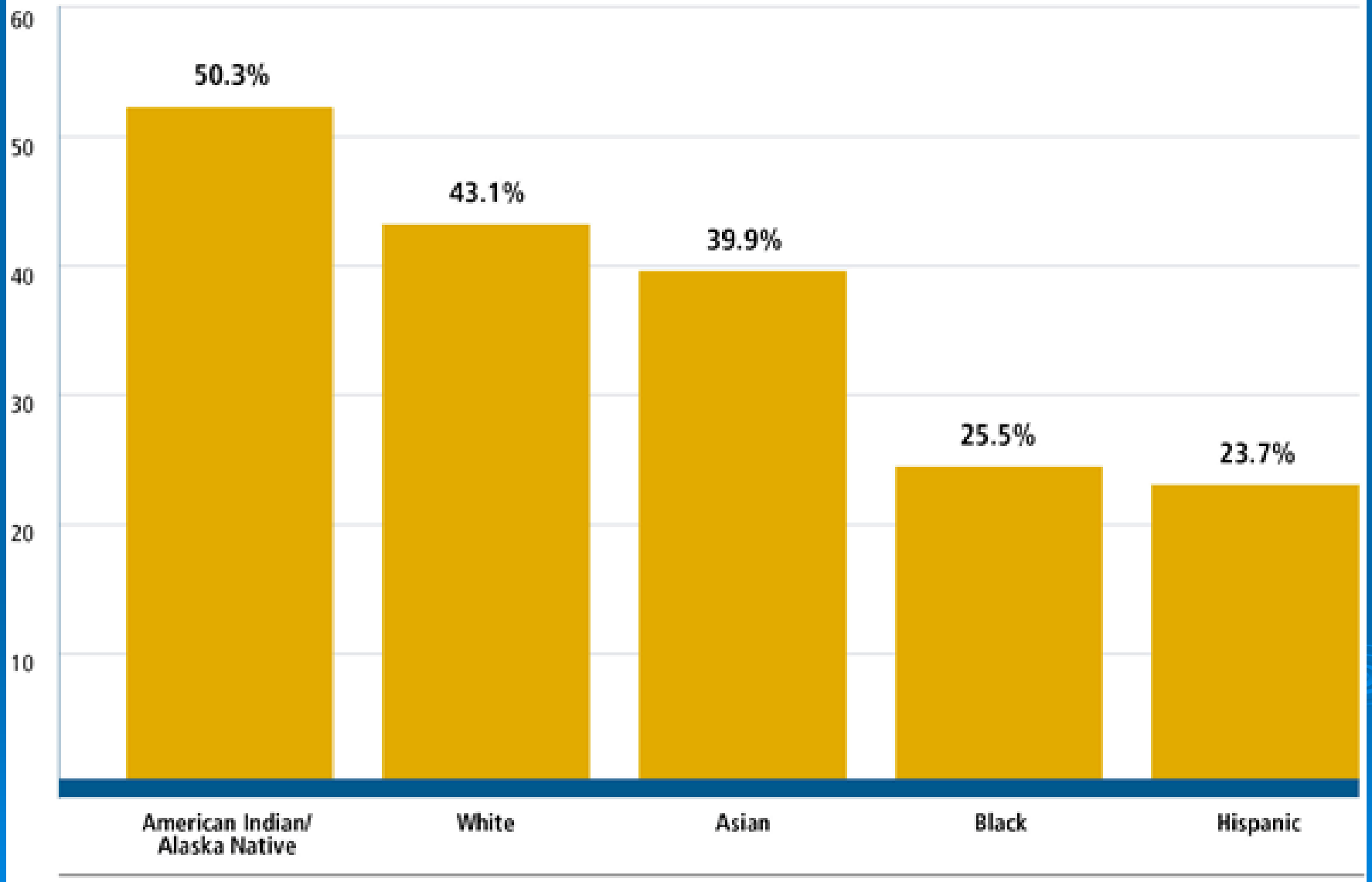
Source: Barnes PM, Bloom B, Nahin R. CDC National Health Statistics Report #12. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007. December 2008.

CAM Use by Age - 2007



Source: Barnes PM, Bloom B, Nahin R. *CDC National Health Statistics Report #12*. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007. December 2008.

CAM Use by Race/Ethnicity Among Adults - 2007

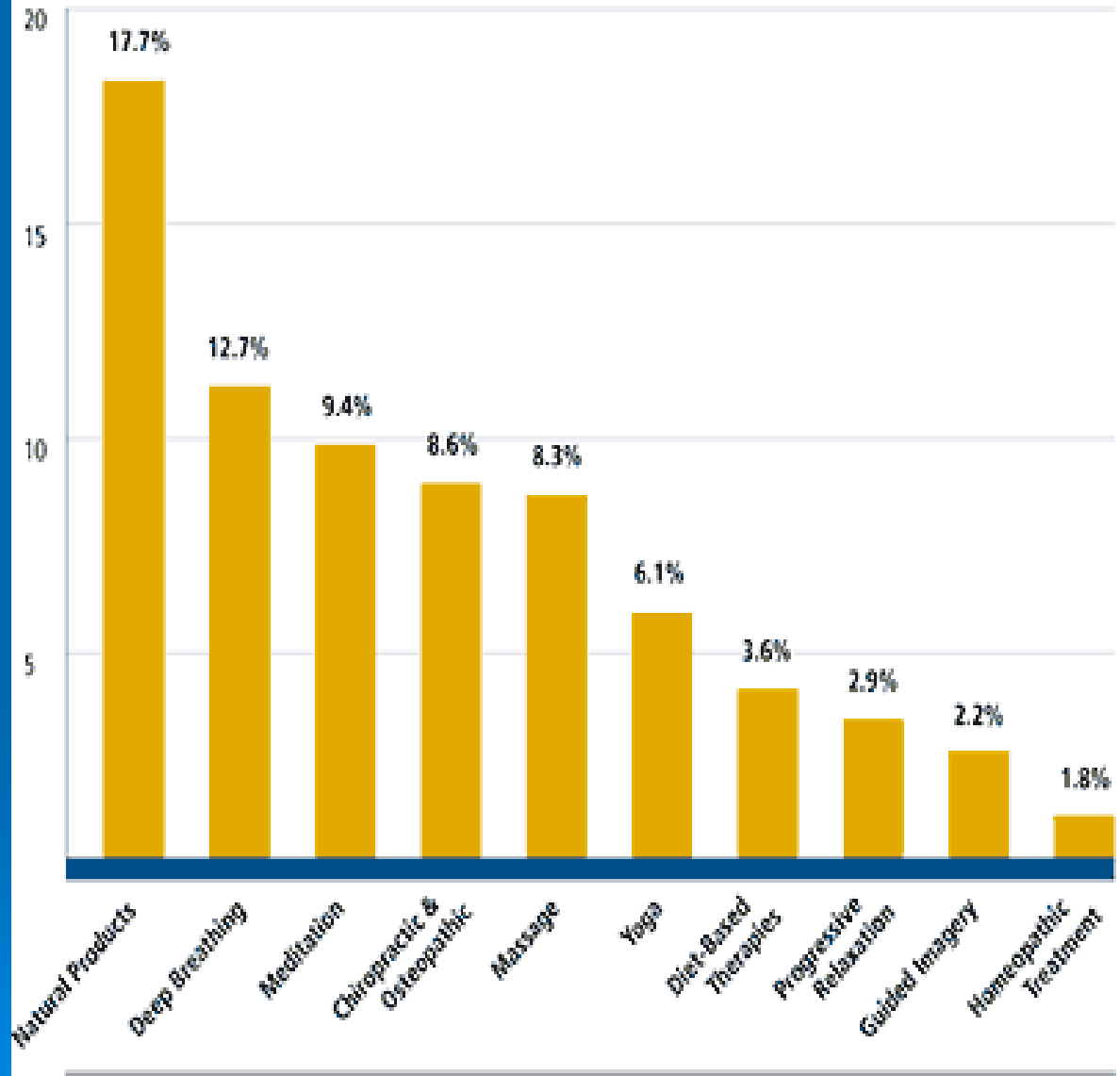


Source: Barnes PM, Bloom B, Nahin R. *CDC National Health Statistics Report #12*. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007. December 2008.

Magnitude of CAM Use

- CAM costs are 11.2% of total out-of-pocket expenditures on health care
- More than 354 million visits to CAM practitioners and approximately 835 million purchases (NCCAM, 2010).
- Natural products, including herbs, are the most commonly used CAM therapies (CDC, 2008).

10 Most Common CAM Therapies Among Adults - 2007

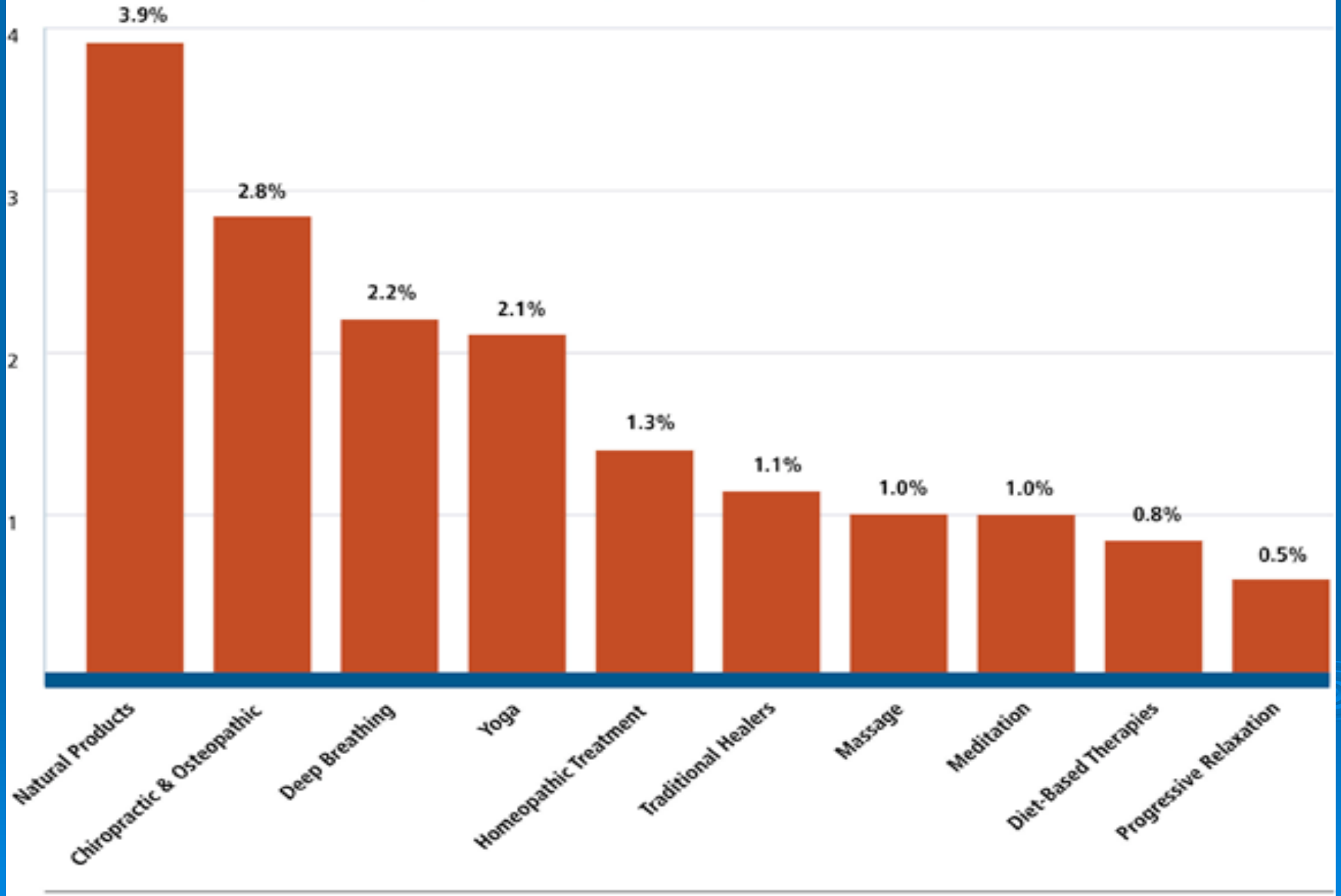


Source: Barnes PM, Bloom B, Nahin R. *CDC National Health Statistics Report #12.* Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007. December 2008.

Therapies with significant increases between 2002 and 2007 are

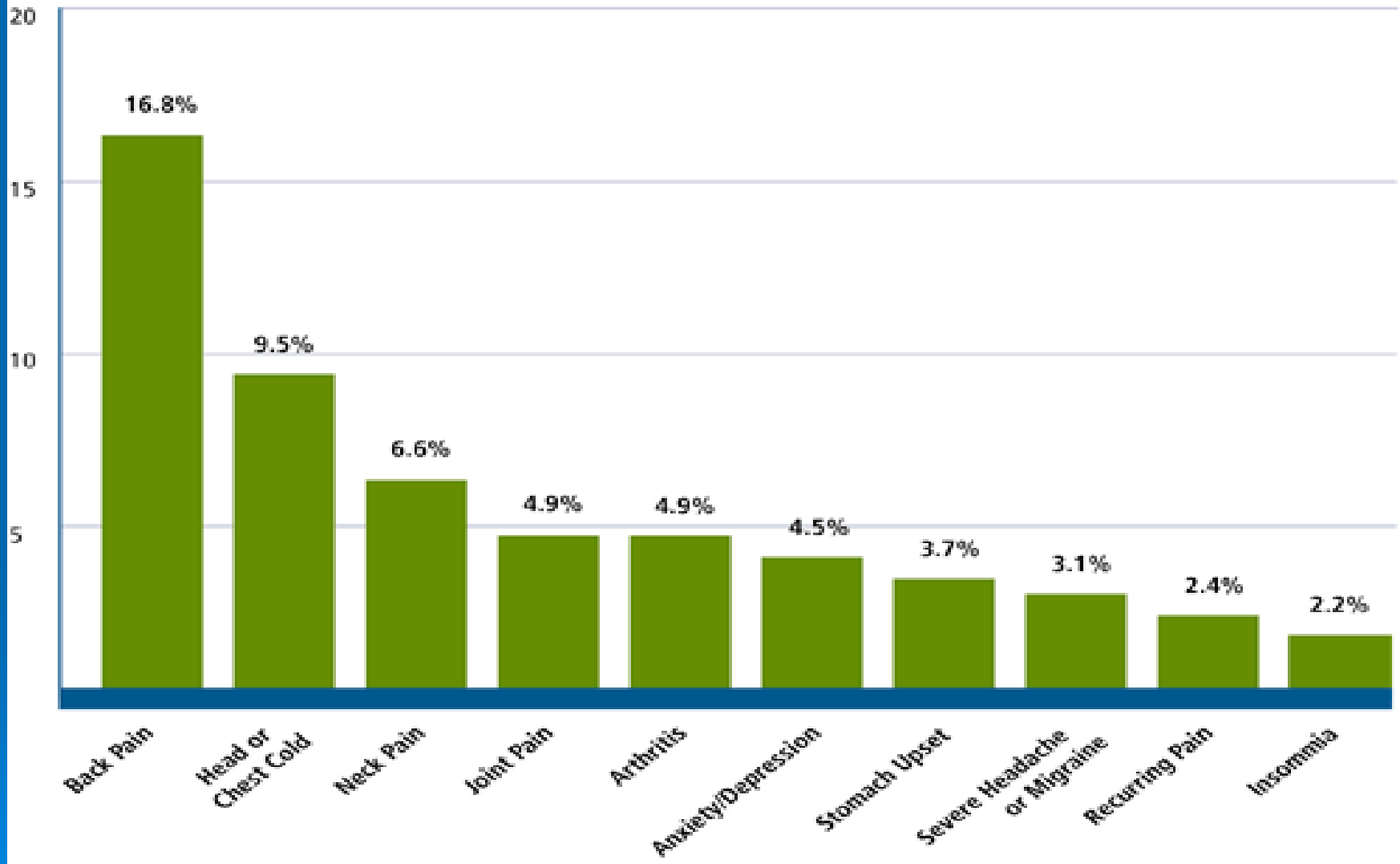
	2002	2007
Deep breathing	11.6%	12.7%
Meditation	7.6%	9.4%
Massage	5.0%	8.3%
Yoga	5.1%	6.1%

10 Most Common Therapies Among Children - 2007



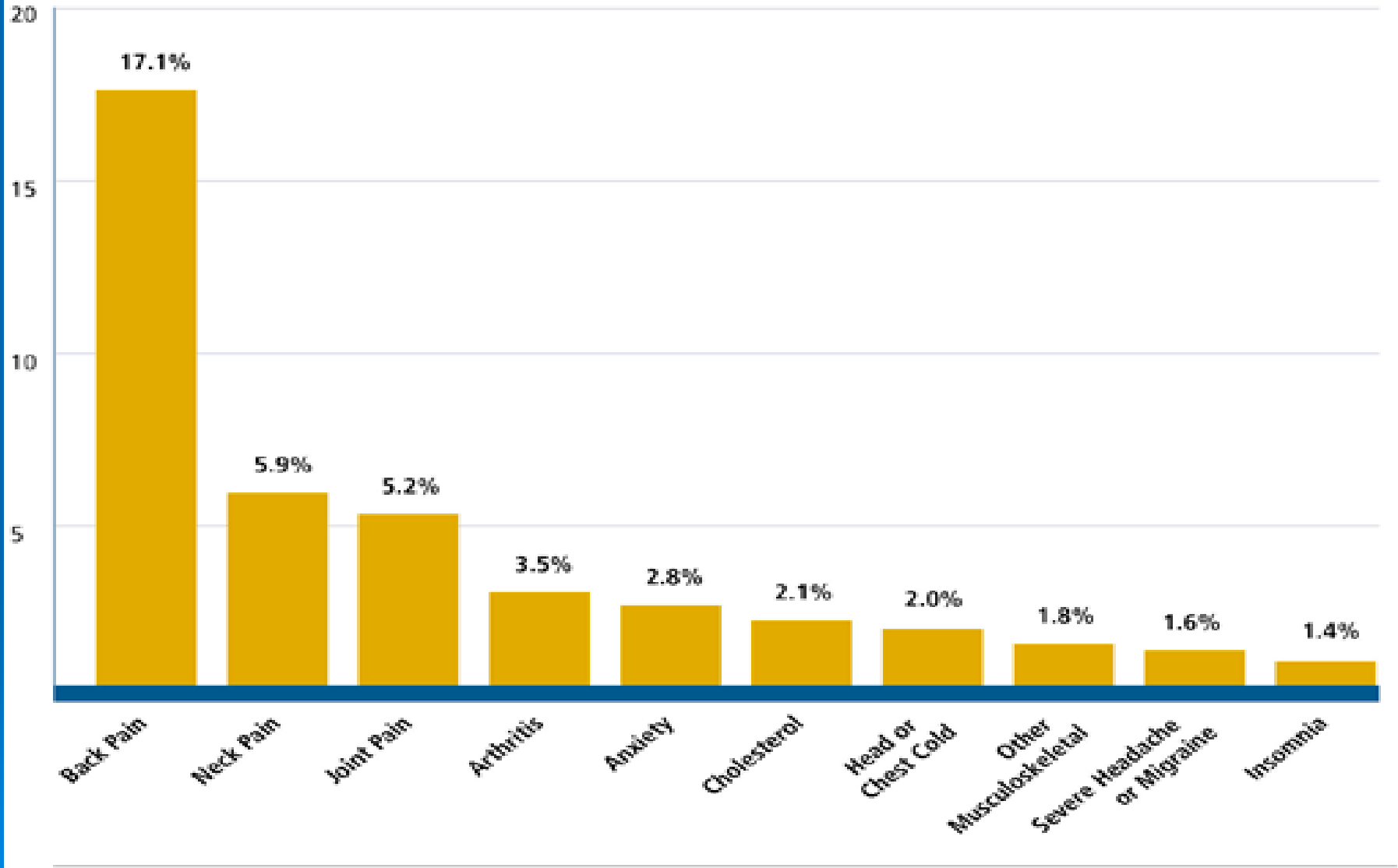
Source: Barnes PM, Bloom B, Nahin R. *CDC National Health Statistics Report #12*. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007. December 2008.

Diseases/Conditions for Which CAM Is Most Frequently Used Among Adults - 2002



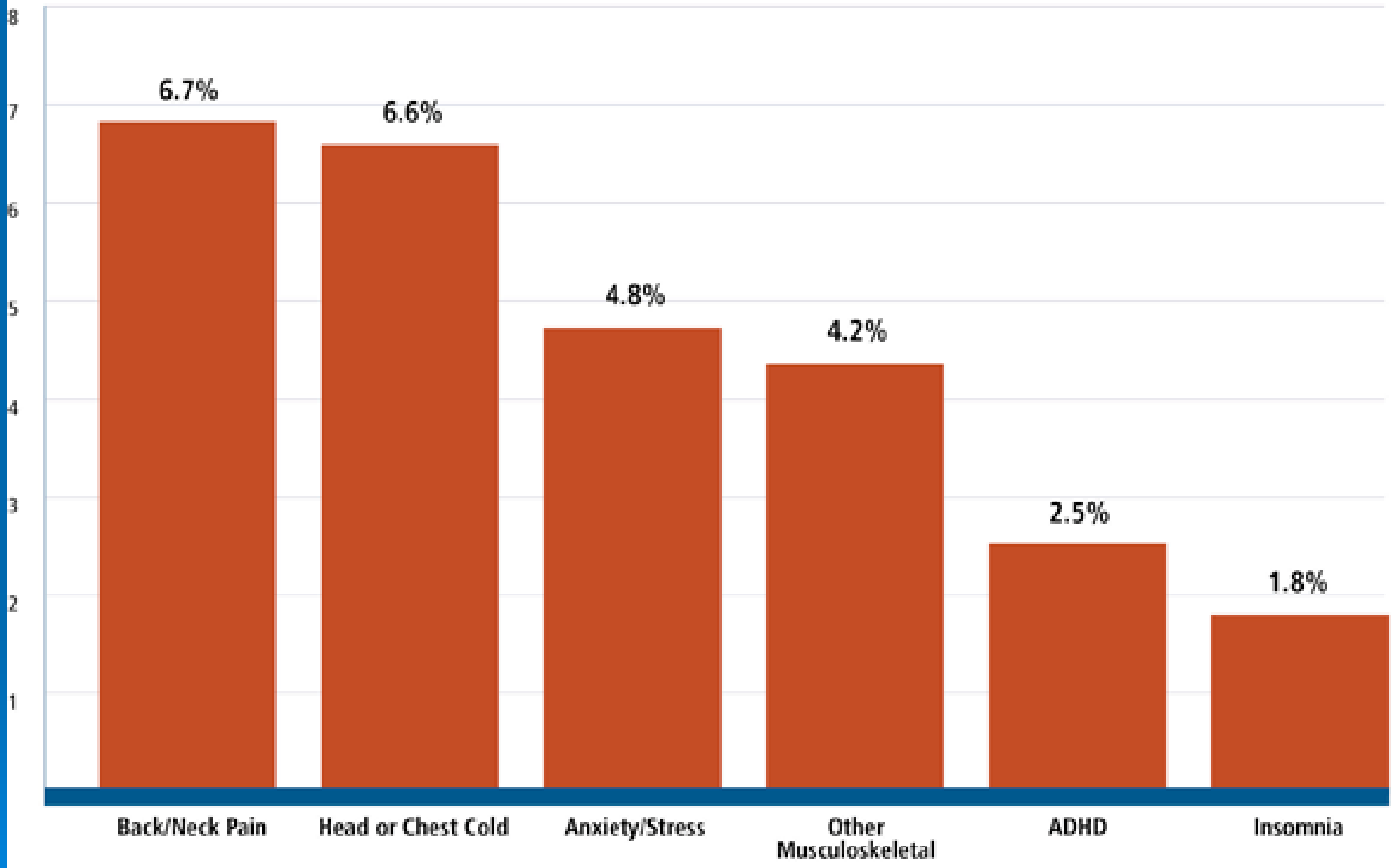
Source: Barnes P, Powell-Griner E, McFann K, Nahin R. *CDC Advance Data Report #343*. Complementary and Alternative Medicine Use Among Adults: United States, 2002. May 2004.

Diseases/Conditions for Which CAM Is Most Frequently Used Among Adults - 2007



Source: Barnes PM, Bloom B, Nahin R. *CDC National Health Statistics Report #12*. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007. December 2008.

Diseases/Conditions for Which CAM Is Most Frequently Used Among Children - 2007



Source: Barnes PM, Bloom B, Nahin R. *CDC National Health Statistics Report #12*. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007. December 2008.

Reasons for CAM Use

- Reasons for this popularity are many:
- 1). Allopathic medicine's failure to yield cures, adverse effects of orthodox regimens, dissatisfaction with technical approaches, and lack of practitioner time (**Push Factor).**
- 2). Belief that CAM treatments are natural, with dramatic results reported in the media, empowerment/ personal control, philosophical congruence of the patient, and the CAM practitioner practicing the 3 T's of touch, talk and time [**Pull Factor** (Furnham &Vincent, 2000; Straus, 2002)].

Dilemma

- Many people are dual users taking both allopathic medicine and CAM.
- 63 % of regular herbal medicine users also used prescription medicines (Archer & Boyles, 2008).
- The extent to which CAM users disclose their use of CAM to their healthcare providers (HP) remains low at 28-38.5% (Eisenberg et al., 1998).
- Only 33% routinely reported the use of CAM (Archer & Boyles, 2008).
- More than two-thirds of people using CAM do not discuss their use of CAM.

Dilemma

- Healthcare providers fail to document patient use of CAM (NCCAM, 2007; Cohen et al., 2002).
- Multiple prescription drug-drug/drug-herb/drug-supplement interactions may occur.
- HPs' lack of knowledge and insensitivity to dual users may contribute to the non-disclosure.

Dilemma

- 90% of US adults look to HCP's for guidance in herbal medicine use (Ward & Blumenthal, 2005).

Categories of CAM

Natural Products (Botanicals, Probiotics)	Herbs, Vitamins, Minerals, & Other Natural Products sold as Dietary Supplements
Mind-Body Medicine	Meditation, Acupuncture, Hypnosis, Deep-breathing exercises, Guided imagery, Progressive relaxation
Manipulative and Body-Based Practices	Spinal Manipulation, Massage
Energy Therapies	Qi Gong, Tai Chi, Reiki, Therapeutic Touch

Dilemma

- Contributions & advances of Western Medicine are undeniable, but its limitations are becoming increasingly obvious
- Inappropriate use of technology conflicts with some of the values and ethics of our society
- Emphasis on acute disease and cure rather than health prevention & promotion
- Narrow bioscience focus: School curriculum
- Increased consumer demand on CAM

Governmental Organizations

- NCCAM (http://nccam.nih.gov/)
- AHMA (www.holisticmedicine.org)
- AHNA (www.ahna.org)
- AHHA (www.ahha.org)

NCCAM

- Established in 1992
- To facilitate formal evaluation of CAM
- To support the integration of effective treatments into mainstream care
- 1996 NCCAM consensus panel
- Recommended that CAM content be integrated into the Medical & Nursing School curricular
- National centers of excellence be developed for education, research & clinical practice

Evolving Cultural Paradigm

- Human Centeredness to ecocentrism
- Time focus to timelessness
- Mechanism to integration
- Patriarchy to Balance
- Designed to Natural

Human Centeredness to Ecocentrism

- Human centeredness / Anthropocentrism: Human concerns and needs are the primary over all other species/ environment
- Ecocentrism: All of nature, the entire cosmo is sacred, equal, and intrinsic
- Humans are the part of the creation, thus greater concern for the integrity of the environment leads to health solutions

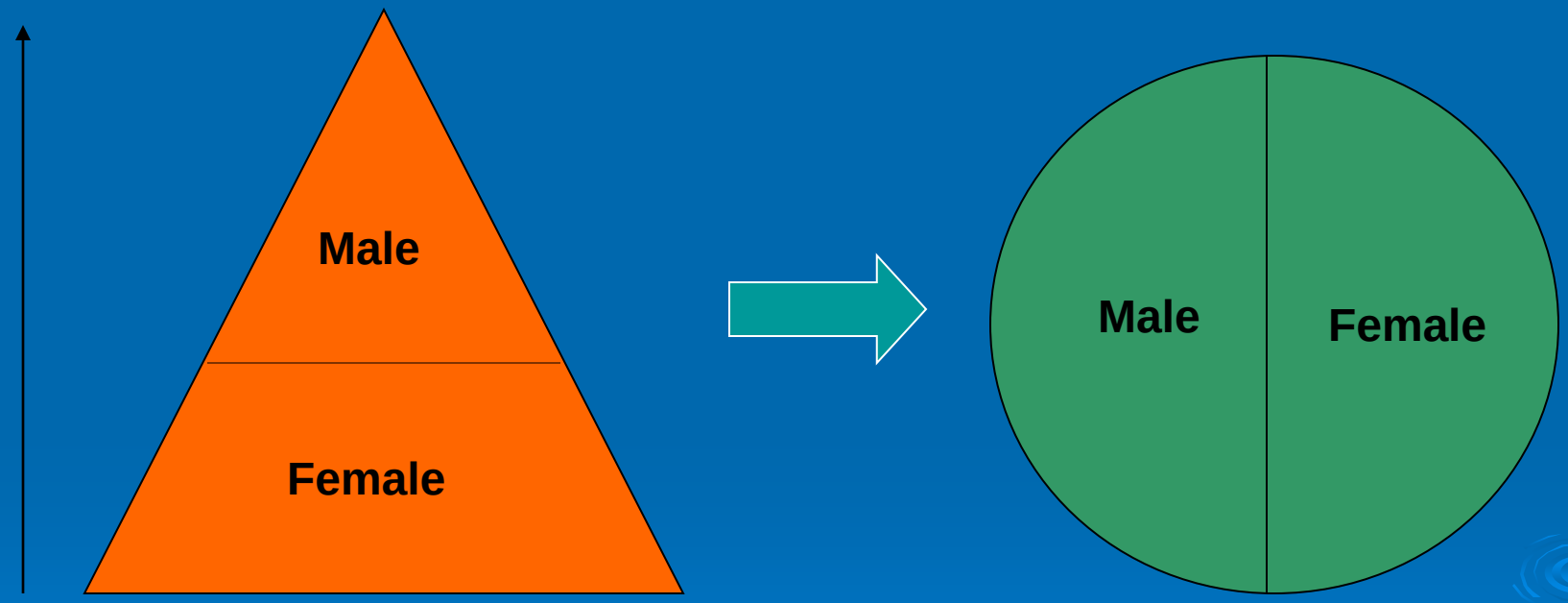
Time focus to Timelessness

- Greater social importance being placed on time:
- **Being**: a state in which one is fully in touch with one's inner experience in the present moment →one is fully aware of feelings and physical sensations
- **Doing**: focusing on a task & its future consequences→ doing takes focus away from self (distracting)

Mechanism to Integration

- **Mechanistic**: Whole is no more than the sum of its parts & that the parts operate in isolation from one another
- **Integration**:
  1. Macrosystem (environment) and microcosm influence one another
  2. Physical, mental, & spiritual domains are interrelated & inseparable

Patriarchy to Balance



Designed to Natural

- Artificial
- Processed
- Synthetic
- Machine
- Mechanic

- Natural
- Organic
- Nature
- Plants (flowers, leaves, seeds, roots)
- Other Species
- Their droppings

Foundational Concepts of Holistic Healthcare Paradigm

- Healing
- Whole person care
- Challenge & opportunity
- Reciprocity & right relationship
- Belief as a catalyst of healing
- Alignment & congruence
- Transpersonality

Foundational Concepts of Holistic Healthcare Paradigm

- Consciousness
- Energy
- Connectedness
- Coherence
- Entrainment
- Provider-Client Equality

Healing

- More than mere curing
- Reestablishment of a sense of harmony, well-being, & peace
- Healing is always possible even if curing is not
- Healing properties are inherent in the body
- Conscious access to the properties are beneficial
- Many ways to heal

Whole Person Care

- Integration of body, mind and spirit
- Inseparable
- All persons have the seeds of change and haling within them
- Each person is constantly changing, has the capacity to change
- No situation is hopeless

Challenge and Opportunity

- Illness or imbalance is viewed as opportunities for multidimensional growth (Physical, mental, spiritual, emotional, & behavioral)
- Illness with fear or shame provides an opportunity to access inner wisdom & gain insight into positive and negative aspects of lives
- Introspection & access to deep inner wisdom support growth clarity

Reciprocity & Right Relationship

- Healing is reciprocal (between that which is healed and that which heals)
- Both the provider and patient benefit from healing interaction
- Reciprocal healing depends on right relationship
- Sense of harmony and wellness regardless of one's objective physical status
- Right relationship at all levels: cellular, organ, body systems, self, others

Belief as a Catalyst of Healing

- All organisms have the ability to heal themselves
- Provider intervention simply remove obstacles to the process

  (Fx→ align the bone & immobilization→

  Nature heals)
- Belief of provider & patient affect the healing process play a role

Alignment & Congruence

- Persons are more likely to access their inner wisdom & cosmic energy source when their behavior & lifestyle choices are in alignment with their sacred purpose & meaning in life
- In healthy persons, thoughts, words, & deeds are congruent
- Integration of body, mind, & spirit is a fundamental mechanism supporting health & healing

Transpersonality

- Transpersonal transcends the limits and boundaries of the physical and allows for cosmic possibilities
- Connection with people, environment, cosmo & spirit
- Transpersonal healing cannot be coerced, controlled, or scheduled

Consciousness

- Infrastructure, or building block of energy & matter
- Exists prior to physical realm
- Basic stuff of which humans are made
- “The person does not possess consciousness, the person is consciousness

Energy

- Intrinsic matter that is connected with all life
- The force that supports transpersonal healing
- Ch’i, Qi, Ki, life force
- Not recognized by Western medicine

Connectedness

- Health depends on the degree of connectedness & belonging with other and with nature
- Soul, soil, person, planet

Coherence

- The ordered harmonious function between system
- All aspects of the body, mind, & spirit influence each other
- HRV
- Positive emotions =Cardiac coherence

Entrainment

- Tendency of organisms into alignment (synchrony) with each other
- Integration or harmonization of oscillators
- Get depressed when in company of another who is depressed
- Crowd phenomenon
- Women who work or live together tend to have their PMS, M cycle at the same time

Provider-Client Equality

- Provider values the patient's individuality & subjective experience
- Cooperation & partnership
- Personalize care
- Both thinking

Western & CAM Healing Models

- Categorizing process
- Objectification
- Either/or thinking
- Hierarchical approach
- Future–time orientation
- Seeing is believing
- War metaphor
- Treatment of parts
- Body & Mind
- Problems to be solved
- Cure
- Practitioner as authority
- Patient as recipient

- Individualizing process
- Personification
- Both/and thinking
- Cooperative approach
- Present–time orientation
- Believing is seeing
- Lesson metaphor
- Treatment of relationships
- Body, mind, & spirit
- Challenges to be met
- Heal
- Patient-practitioner partnership
- Patient as responsible

V. Lincoln, 2004?

Holistic Health

- Diet, Nutrition, Lifestyle Choices
- Ornish (1998): Low fat diet, smoking cessation, exercise, & stress management on chest pain, body weight, cholesterol &
- Ornish Diet: 10% of calories as fat, with a ratio of polyunsaturated fat to saturated fat that is greater than 1; 70-75% of calories as complex carbohydrates and 15-20% of calories as protein
- Limit cholesterol intake to less than 5 mg per day
- Eat whole grains, fruits, vegetables and legumes in unlimited quantities
- Exclude all meat and dairy products, except egg whites, nonfat milk and nonfat yogurt
- Eliminate caffeine from the diet and consume sugar, salt, and alcohol in moderation

Modalities that Promote Relaxation and Enhance Self-regulation & Insight

- Relaxation
- Breathing exercises
- Biofeedback: Electromagnetic biofeedback, thermal feedback,
- Imagery
- Meditation
- Yoga
- Hypnotherapy
- Humor therapy
- Art, dance, music & drama therapies

Transpersonal Therapies

- Intercessory prayer (remote)
- Energy-based modalities:
  Therapeutic touch

Bodyways: Body-based Therapies

- Chiropractic
- Craniosacral therapy (CST)
- Massage
- Reflexology
- Iridology

Ethnomedical Systems

- Traditional Chinese Medicine (TCM)
- Ayurveda

Other Healing Disciplines

- Naturopathy
- Homeopathy
- Aromatherapy

Naturopathy

- System of health promotion with holistic approach
- Healthy diet, exercise, stress reduction
- Find root cause

Homeopathy

- Energy therapy
- Curative essences that are not discernable by extant technology
- Homeopathic remedies stimulate vital energy of the persons who ingest them
- “Like cures like”
- Remedy for skin rash may be a substance that causes rash
- Evidence: mixed

Aromatherapy

- A derivative of herbal therapy
- Essential oils from leaves, barks, roots, seeds
- Inhale as well as put on the skin

中国

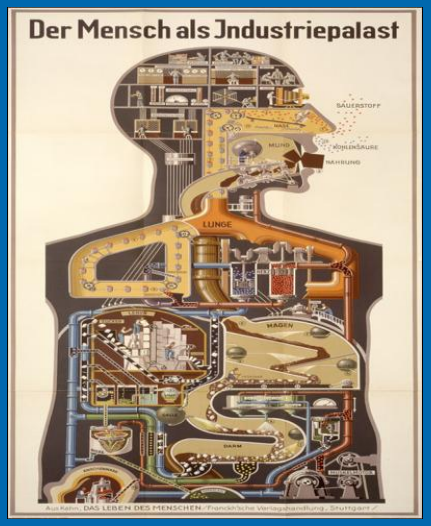
医学

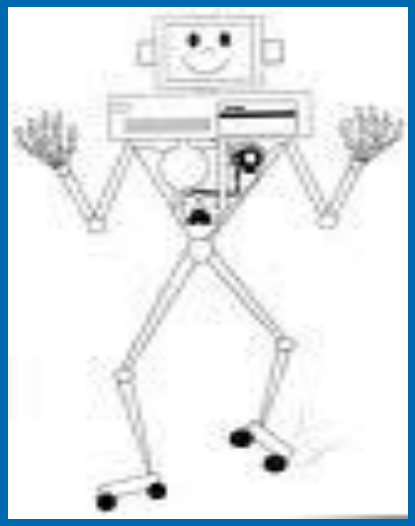
Traditional Chinese Medicine (TCM)

Intensive

Concept of Body

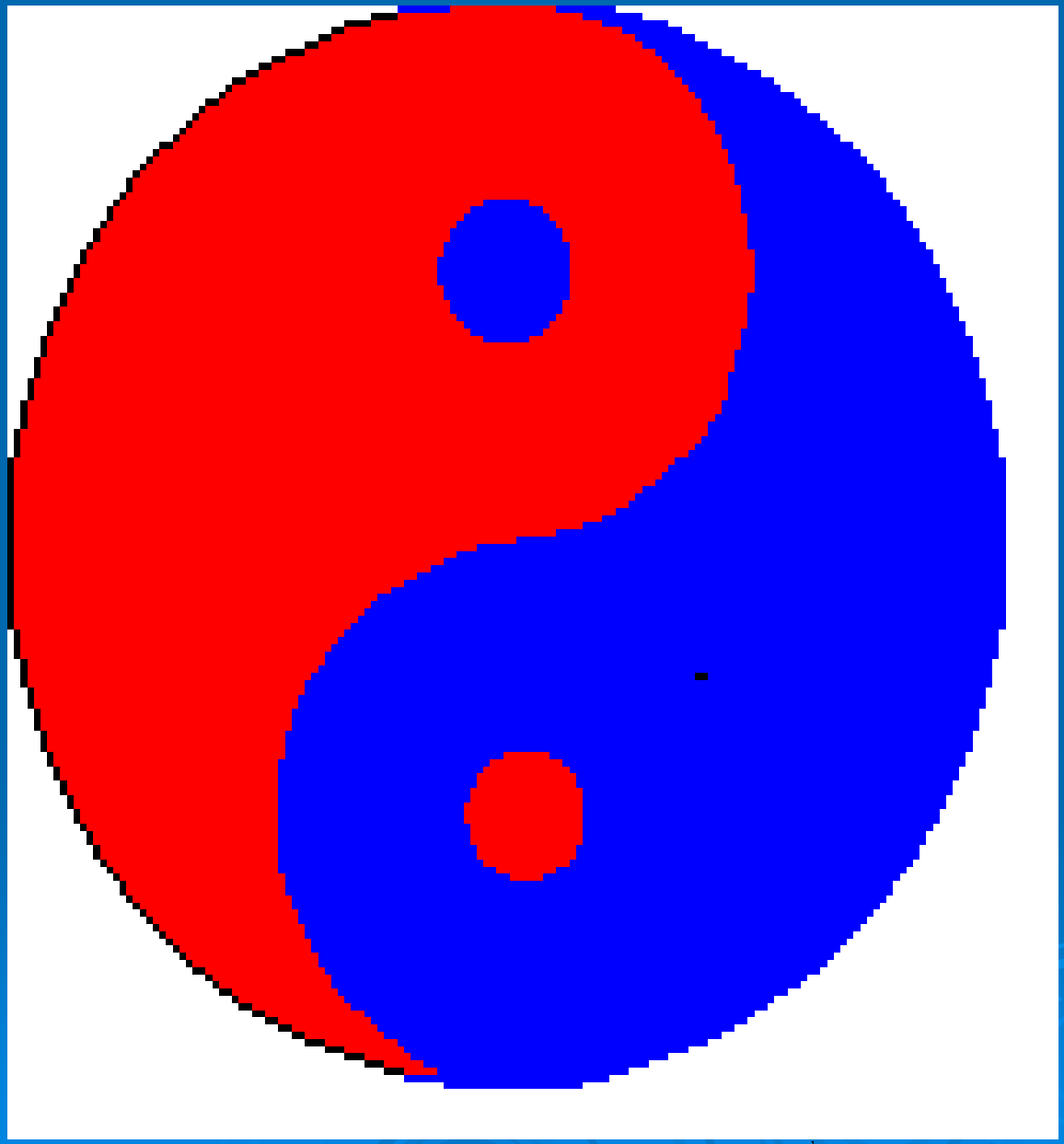
West:
Machine





East:
Garden

Yin

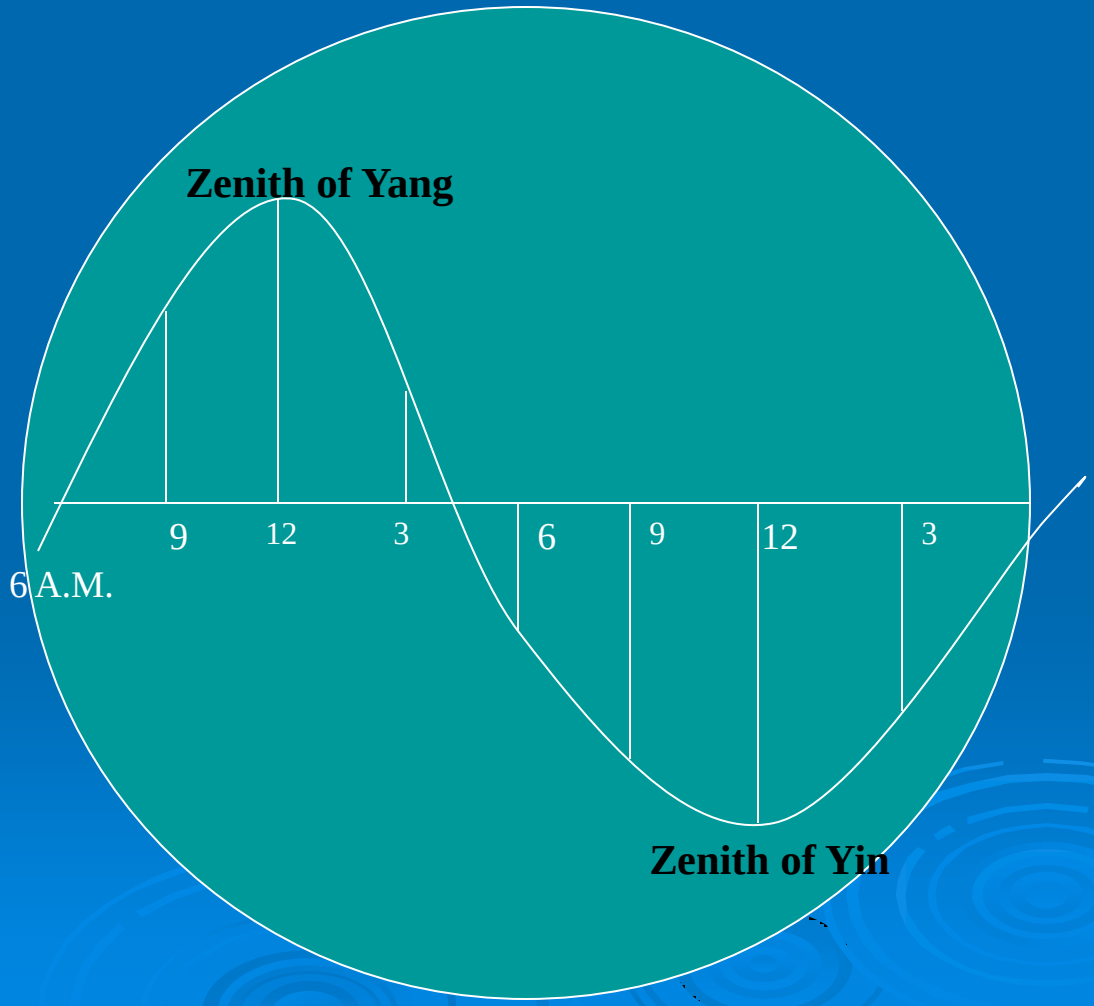


Yang

Yin & Yang

- The single most important concept in Oriental Medicine
- Concepts are derived from peasants' observation of day/night cycle
- Yin indicates the shady side of a hill
- Yang indicates the sunny side of a hill

Yin-Yang: Theory of Relativity



Two Phases of Cyclic Movement

- Day
- Light
- Activity
- Heaven
- Round
- Time
- East
- South
- Left

- Night
- Darkness
- Rest
- Earth
- Flat
- Space
- West
- North
- Right

Yin & Yang

- An expression of duality in time, as alternation of two opposite stages in time
- Every phenomenon in the universe is the result of the interplay of two opposite stages and contains within itself both aspects in different degrees

Two Stages of Transformation

- May also be understood as two stages in the process of change
- Example: water heats up during the day and transforms into vapor(yang); as air cools in evening, vapor is transformed into liquid(yin)
- The opposite states of condensation are not independent, but change into each other

Yin and Yang Correspondences

- Immaterial
- Produces energy
- Generates
- Non-substantial
- Energy
- Expansion
- Rising
- Above
- Fire

- Material
- Produces form
- Grows
- Substantial
- Matter
- Contraction
- Descending
- Below
- Water

The Opposition of Yin and Yang

- Nothing escapes this opposition
- The opposition is relative

  Ex: the chest is Yang with respect to the feet, but Yin with respect to the head
- Nothing is totally Yin or Yang
- Everything contains the seed of its opposite

Four Principles of Y/Y

- The opposition of Yin and Yang
- The interdependence of Yin and Yang
- The mutual consumption of Yin and Yang
- The inter-transformation of Yin and Yang

Yin-Yang and the Body Structure

- Superior
- Exterior
- Postero-lateral
- Back
- Function
- Inferior
- Interior
- Antero-medial
- Front
- Structure

The Opposition of Yin and Yang

- Fire
- Hot
- Restless
- Dry
- Hard
- Excitement
- Rapidity
- Transformation
- Change

- Water
- Cold
- Quiet
- Wet
- Soft
- Inhibition
- Slowness
- Conservation
- Storage

Clinical Manifestations

- Acute disease
- Rapid onset
- Rapid change
- Heat
- Restlessness
- Insomnia
- Loud voice/talkative
- Contractures
- Chronic disease
- Gradual onset
- Lingering course
- Cold
- Listlessness
- Sleepiness
- Weak voice/reticent
- Swelling

Clinical Manifestations

- Likes cold drinks
- Thirst
- Scanty-dark urine
- Constipation
- Course breathing
- Red facies
- Red tongue with yellow coating
- Full pulse

- Likes hot drinks
- No thirst
- Profuse-pale urine
- Loose stools
- Shallow breathing
- Pale facies
- Pale tongue
- Empty pulse

The Interdependence of Yin/Yang

- One cannot exist without the other

  ex: there can be no day without night, nor activity without rest
- Yin and Yang organs depend on each other for the performance of their functions
- Each organ has a structure(Yin) represented by the organ itself and blood and fluids within it, as well as a function (yang) which both affects and is affected by its structure

The Mutual Consumption of Y/Y

- Physiologically,

  e.g.,in summer time, weather is hot (Yang) and we sweat(Yin); in the cold (Yin), the body trembles(Yang) to produce heat

- Pathologically,

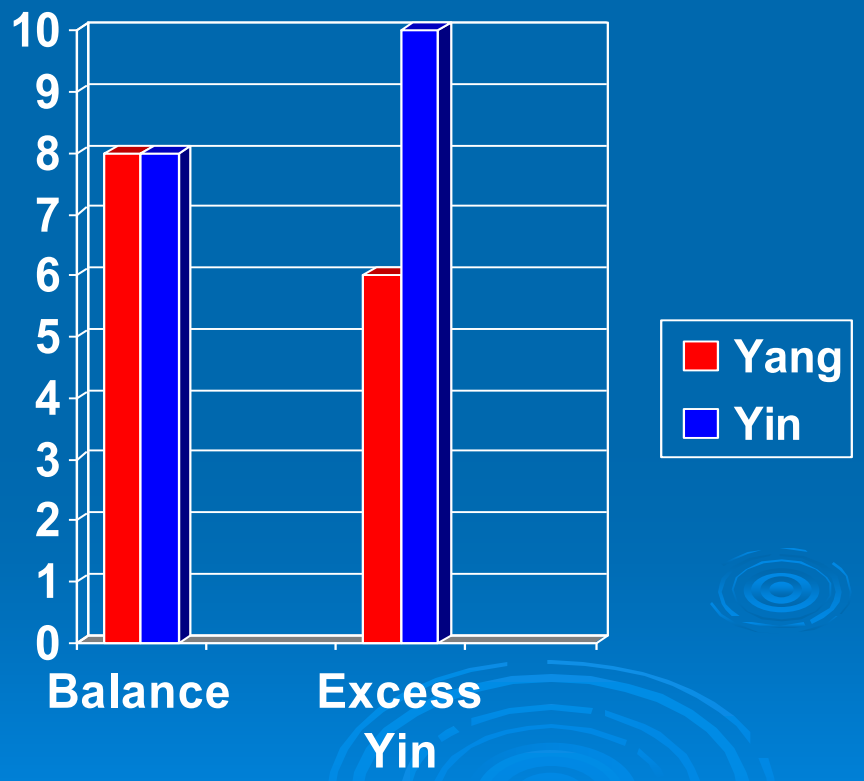
  e.g., fever(Yang) in infection can lead to exhaustion of body fluids(consumption of Yin)

The Mutual Consumption of Y/Y

- Four pathologic states:
  - A. Preponderance of Yin
    - 1. Excess of Yin
    - 2. Deficiency of Yang
  - B. Preponderance of Yang
    - 1. Excess of Yang
    - 2. Deficiency of Yin

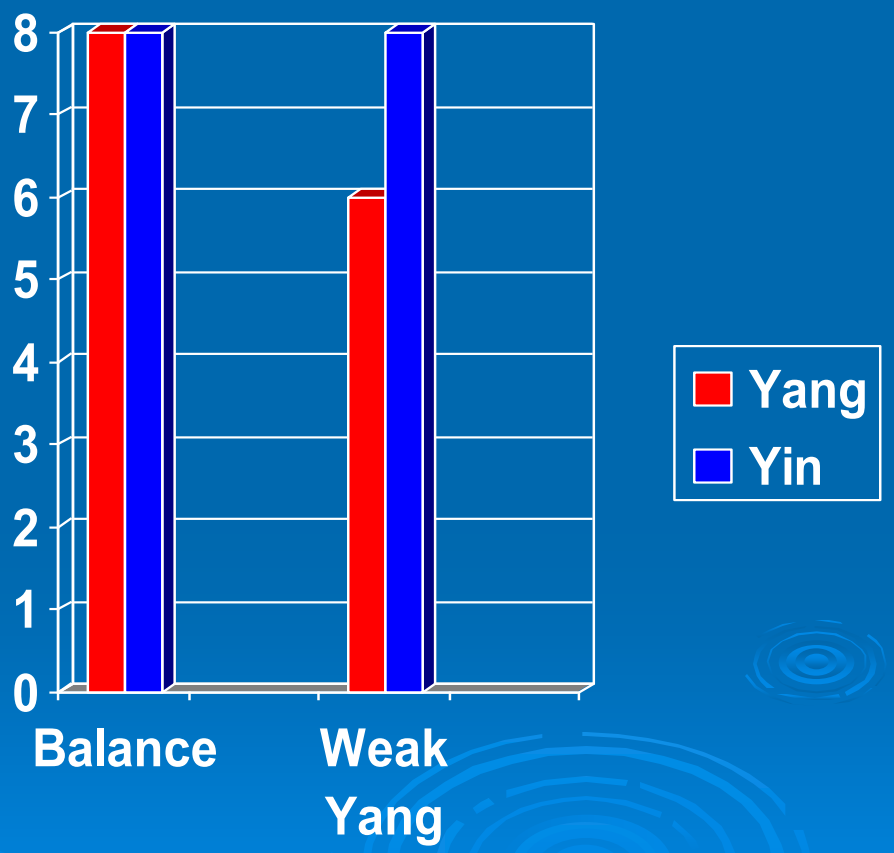
Excess of Yin

- Excess of Yin induces a decrease of Yang (consumes Yang)
- Example is when excess cold consumes yang (full cold)
- Treat by dispersing excess



Weakness of Yang

- When Yang is weak, Yin is in relative excess
- Empty cold
- Treat by tonifying deficiency



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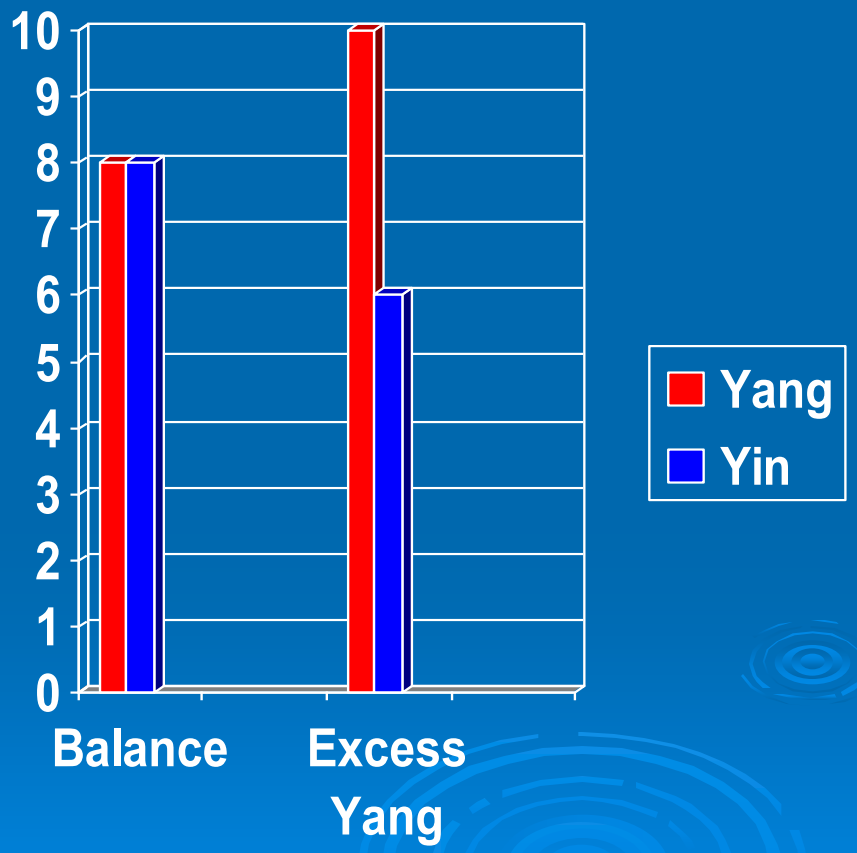
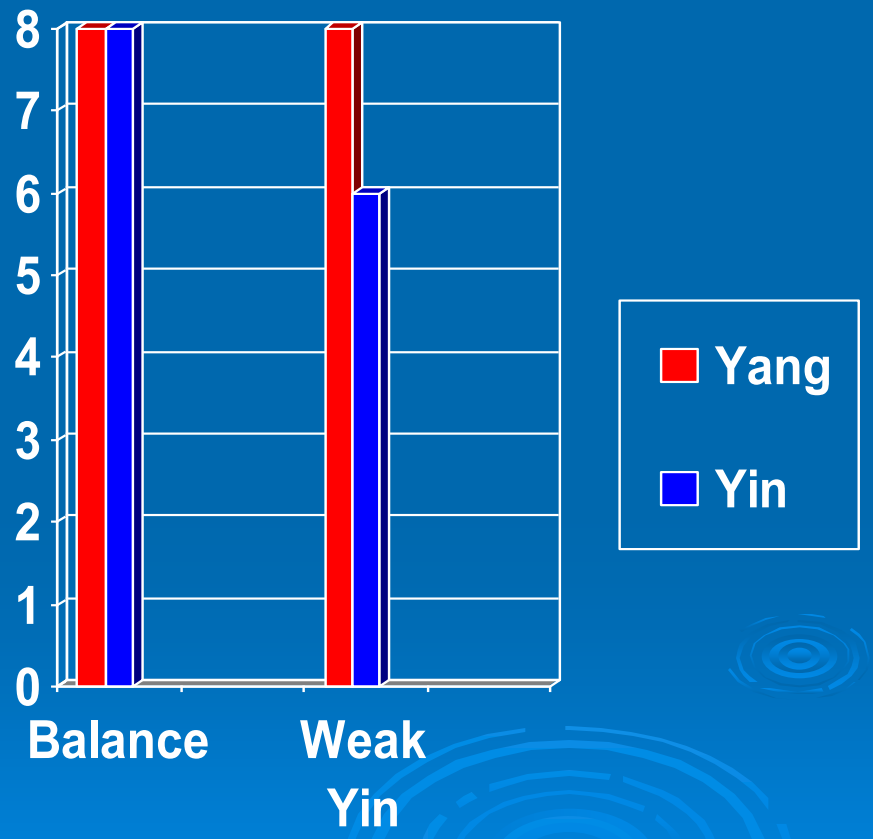


Weakness of Yin

- When Yin is weak, Yang is in relative excess
- This is called empty heat
- Treat by tonifying deficiency



Yin-Yang: Application to Medicine

Ultimately, every treatment is aimed at one of these 4 goals

- To tonify Yang
- To tonify Yin
- To eliminate excess Yang
- To eliminate excess Yin

The Inter-transformation of Y/Y

- Yin can change into yang and vise versa

  Ex: day into night; summer into winter
- Two conditions must be met:
  1. Internal conditions must be right (an egg may change into a chick with the application of heat, but a stone will not
  2. Time must be right (the chick will only hatch when the time is right)

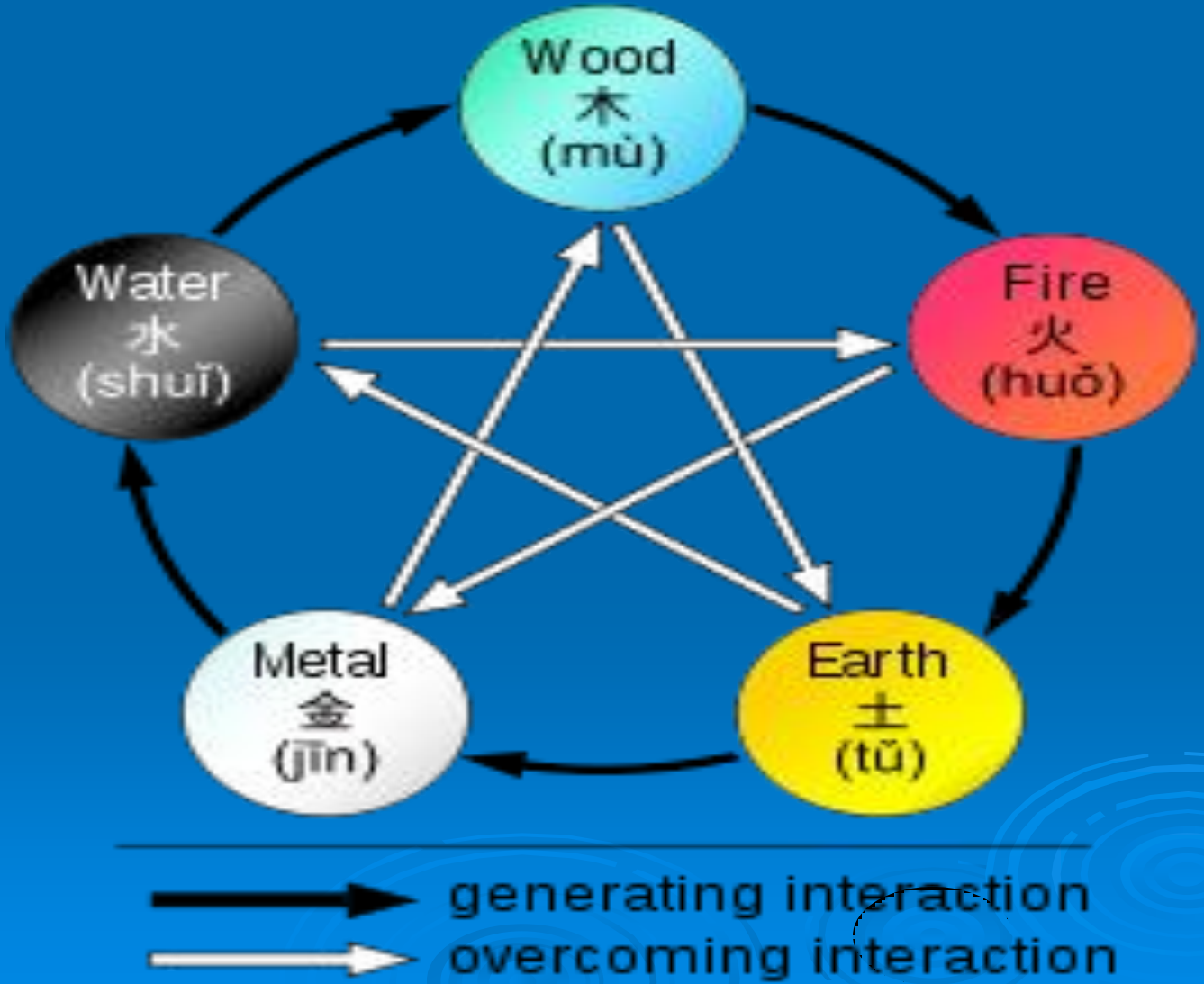
The Inter-transformation of Yin/Yang

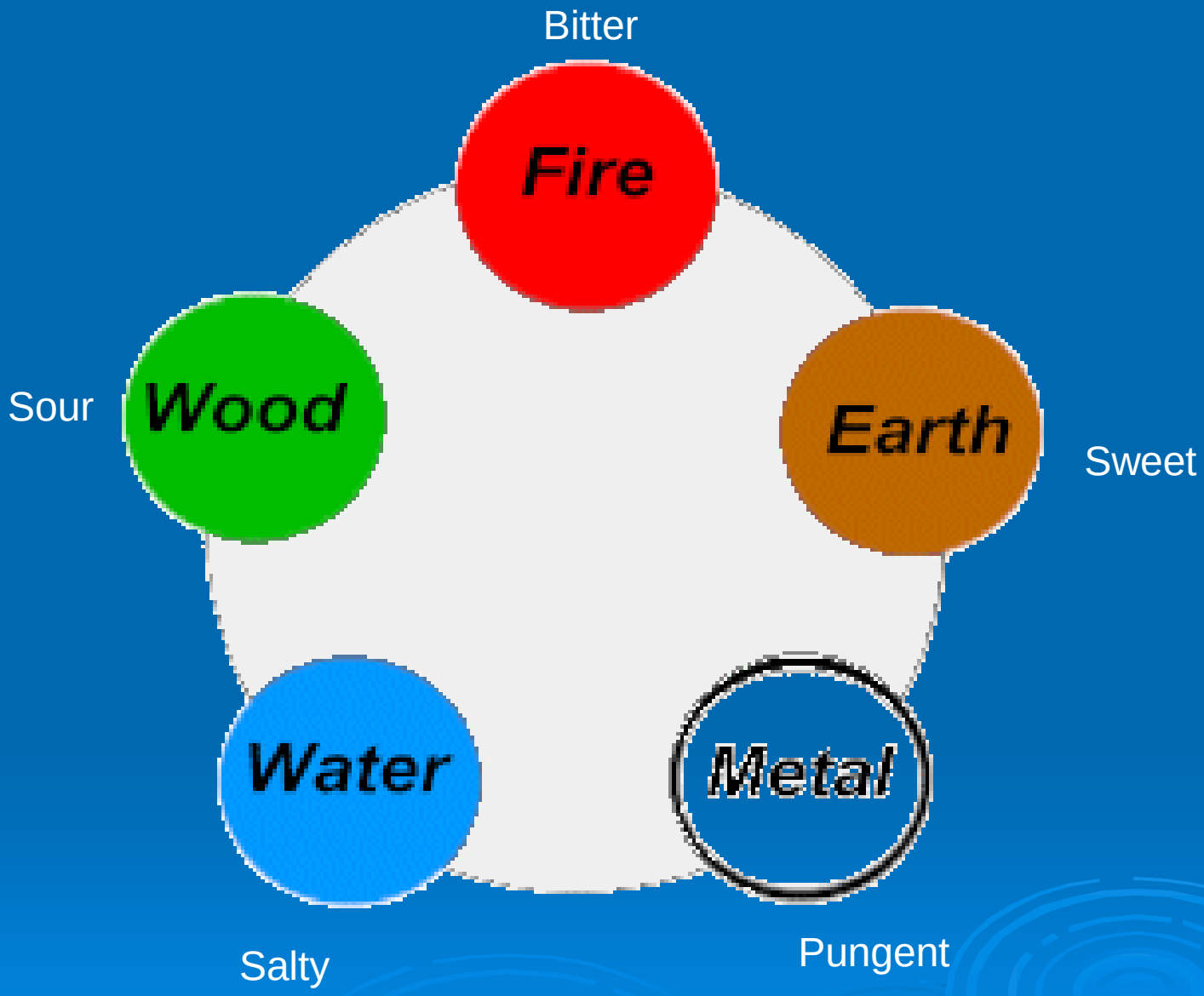
- Clinical examples:

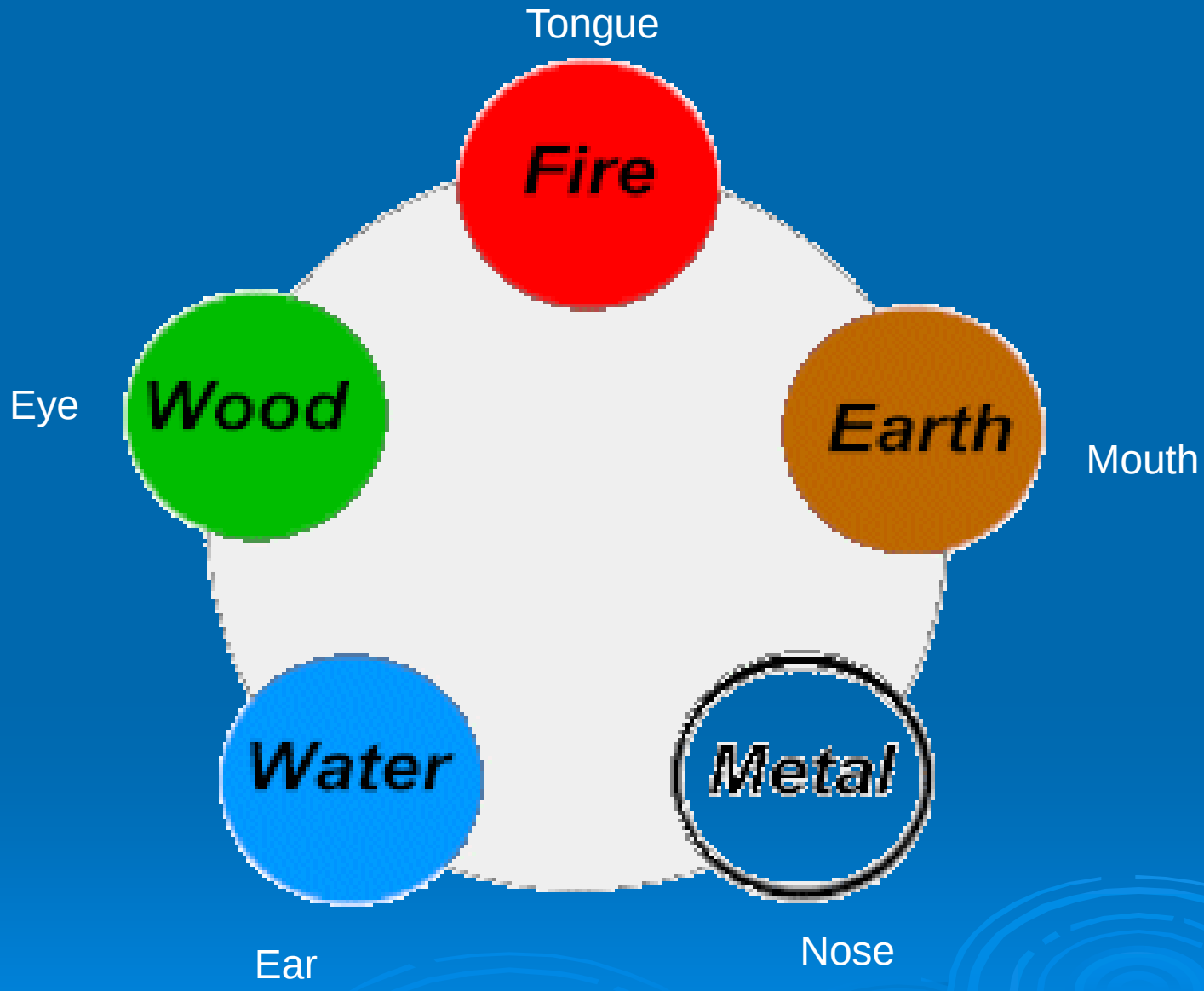
  Excessive work (Yang) without rest induces deficiency (Yin) of the body's energy

  Excessive consumption of alcohol creates a pleasant euphoria(yang) which is all too soon followed by a hangover(Yin)

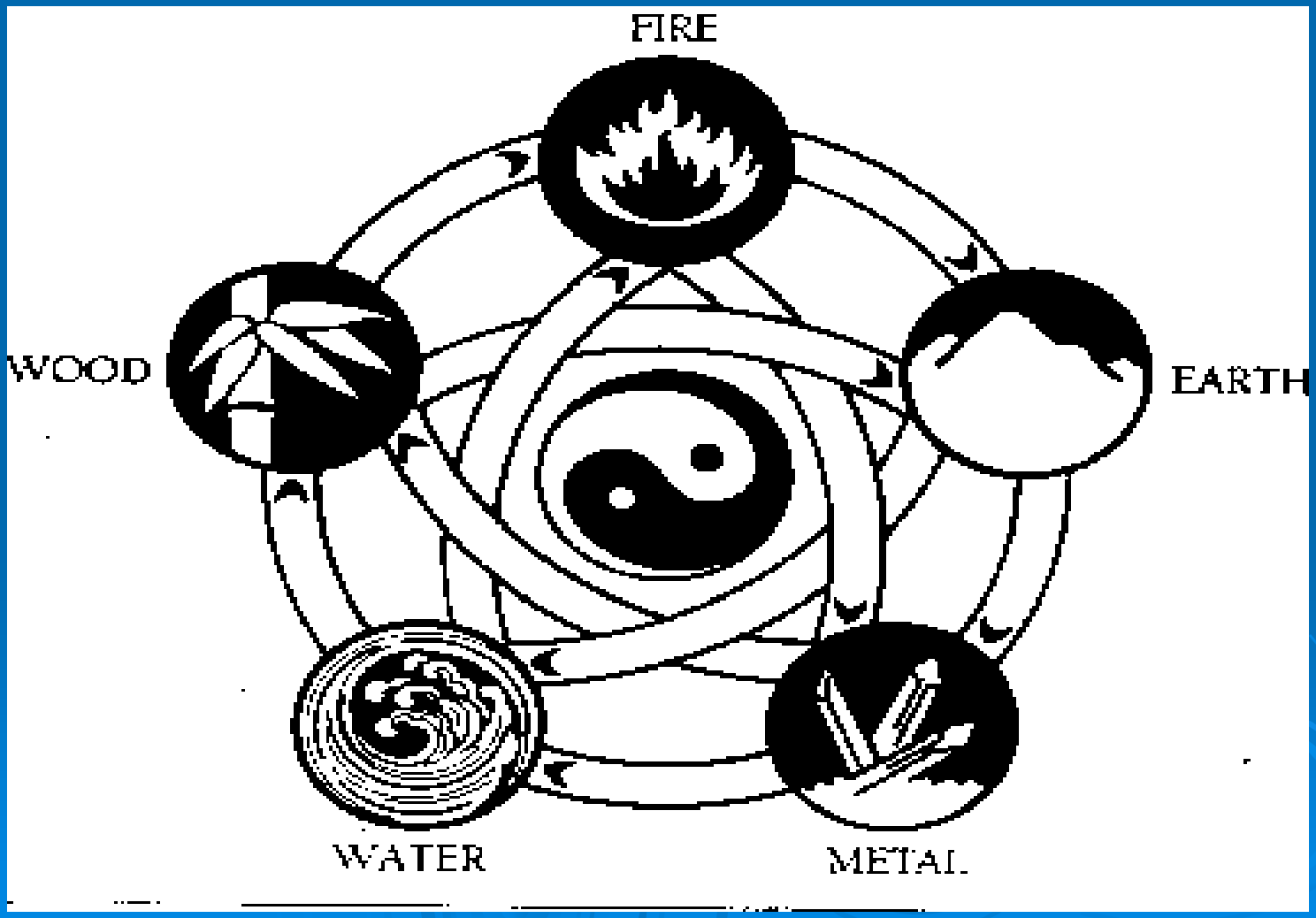
Five Phase Theory

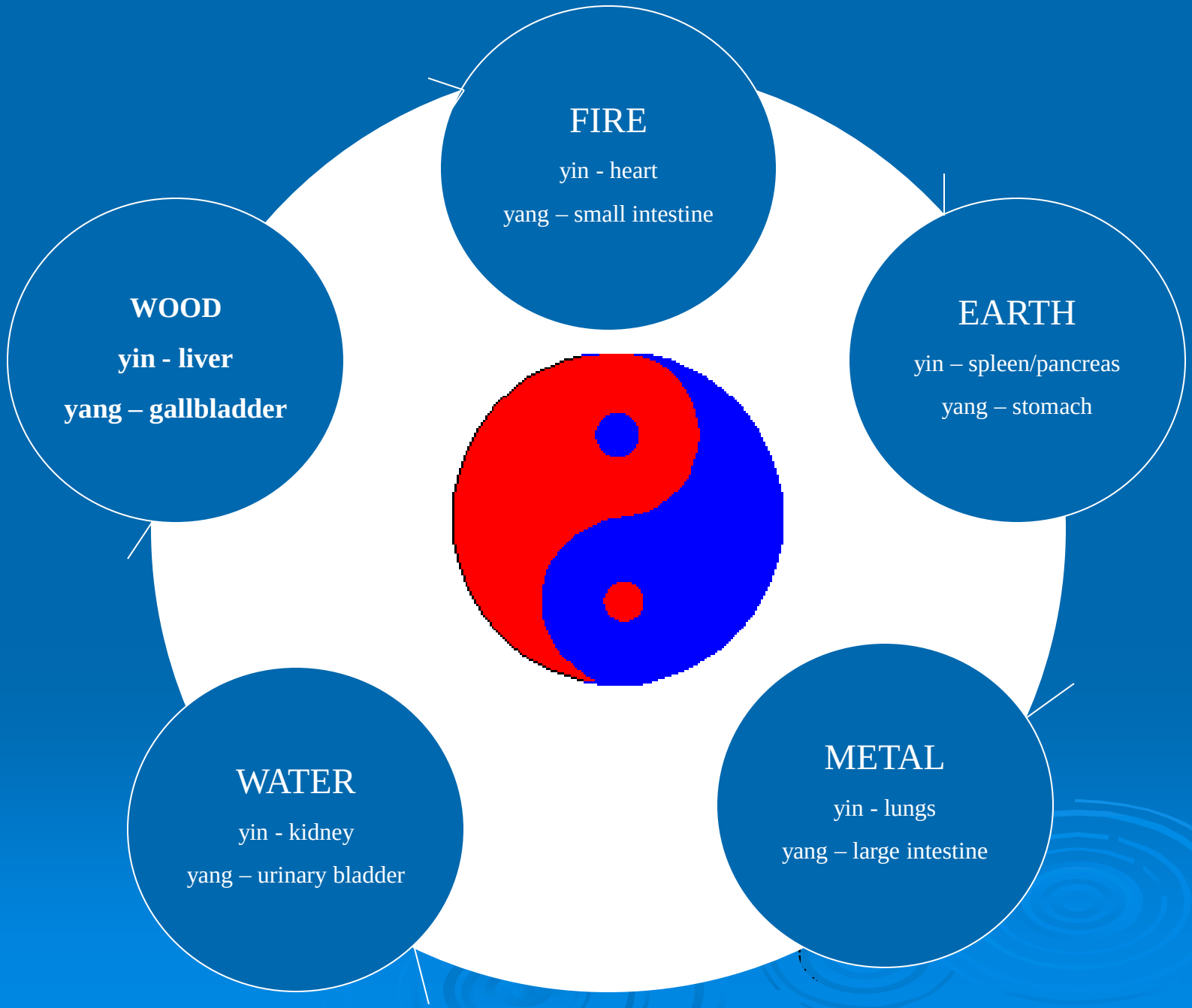



Bitter
Fire
Sour
Wood
Earth
Sweet
Water
Metal
Salty
Pungent

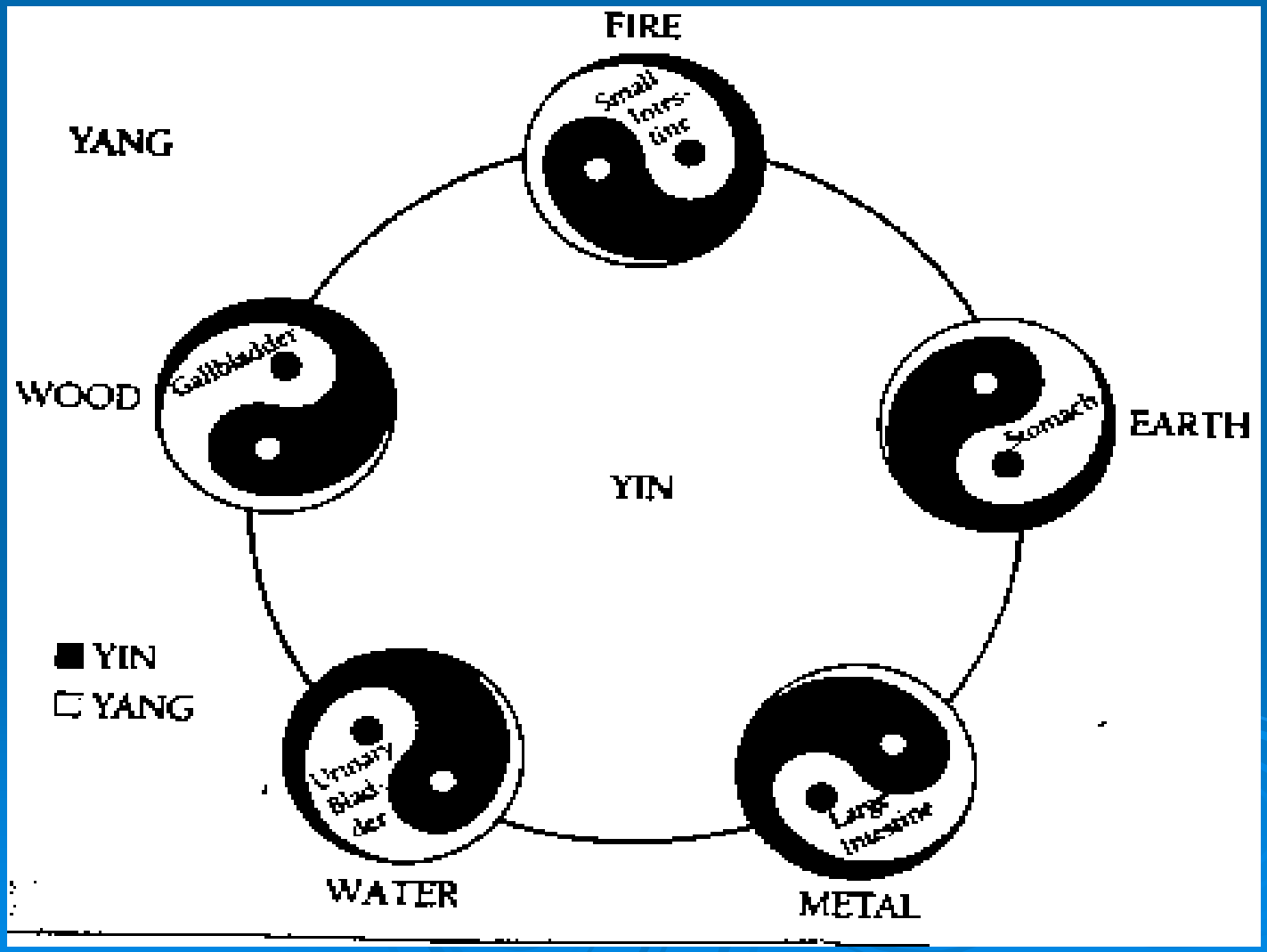

Tongue
Fire
Eye
Wood
Earth
Mouth
Water
Metal
Ear
Nose

Five Phase Theory




FIRE
yin - heart
yang – small intestine
EARTH
yin – spleen/pancreas
yang – stomach
METAL
yin - lungs
yang – large intestine
WATER
yin - kidney
yang – urinary bladder
WOOD
yin - liver
yang – gallbladder

Five Organ Network



5 Organ Network

Liver

-Stores blood
-Regulates the even movement of skin

Heart

-Pumps blood
-Seat of consciousness

5 Organ Network

Spleen
- -Generates
- -Distributes

→ Nourishment

Lung
- -Receives
- -Disperses

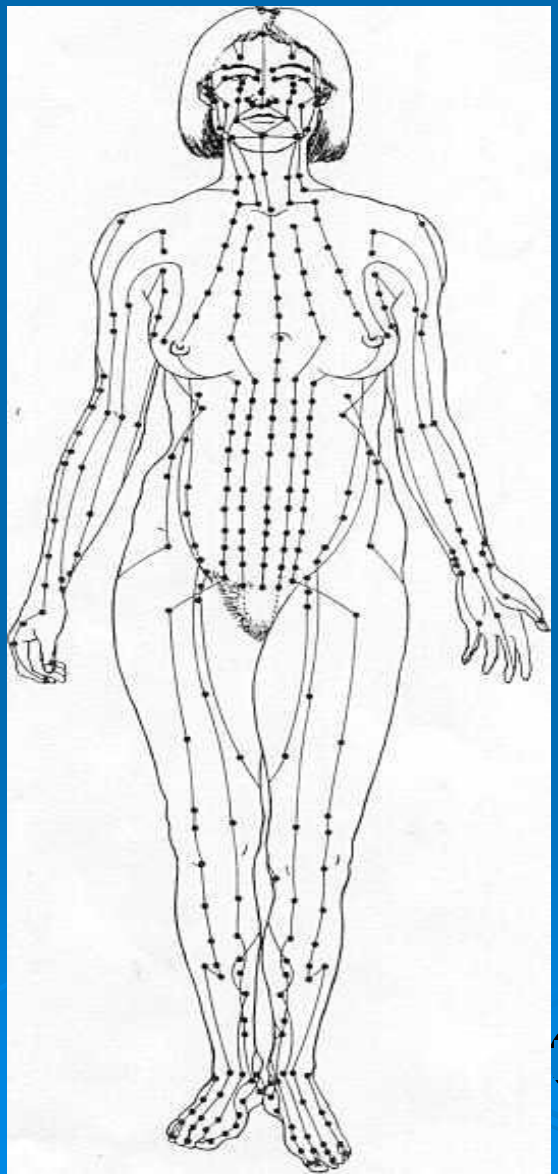
→ Qi

Kidney
- -Stores the Vital Essences

- Together the Organ Networks comprise the team that gets the work of the body done

- Through the division of labor, all tasks are accomplished

Channels of Qi



Causes of Disease

- Exogenous
- Endogenous
- Non-exo-endogenous

Exogenous

Excessive & Sudden Changes of Weather

1. Wind
2. Cold
3. Heat
4. Dampness
5. Dryness

Endogenous

- Excessive emotional changes

Wind

- Movement of air
- Foreboding nature of shifting conditions
- Intense drafts invade the body
- Cause dizziness, jerky movement, incoordination
- Soreness, itching, sensitivity of the skin/muscle

Cold

- Slow things down
- Decrease metabolism & circulation
- Skin/muscle contract, increase shivering
- Increase fever by mobilization of yang energy to repel cold

Heat

1. Accelerate metabolic activity
2. Accelerate circulation.
3. Dilate blood vessels.
4. Excessive heat→ inflammation, rapid pulse, fever.
5. Thirst, dryness, constipation, difficult urination, agitation,
6. A desire for cold,
7. An aversion to warm food.

Dampness

1. Sink and accumulate.
2. An abnormal build-up of fluids or excess secretions.
3. Swelling, fullness/heaviness.
4. Collect & coagulate.
5. Stagnate/obstruction of circulation.
6. Oily skin, sticky perspiration, subcutaneous edema, swelling around the joints.
7. Do not appear by itself:
   accompanied by cold, heat or wind.

Dryness

1. To wither & shrivel, damage fluids & dehydration.
2. Brittle hair and nails, cracked, wrinkled skin, mucous membranes, irritated eyes, dry stool, constipation, lack of perspiration, scanty urine.
3. External: Hot & windy weather

   Internal: body fluid is damaged or lost
4. Heat, profuse perspiration, prolonged diarrhea, excessive urination, loss of blood
5. Cause irritation, inflammation, & heat r/t lack of lubrication & moisture.

4 Modes of Diagnosis

1. **Seeing**

2. Listening/Smelling

3. Questioning

4. Palpating

Seeing

- Complexion
- Eyes, Tongue
- Nails, Hair
- Gait
- Stature
- Affect
- Quality of excretions, secretions

Listening & Smelling

- Sound of voice and breath
- Odor of breath
- Skin
- Excretions, secretions

Questioning

- Current complaints
- Health history
- Family health history
- Patterns of sleep
- Appetite
- Weight
- Elimination
- Menses
- Stress

Palpation

- Texture, Humidity, Temperature, Elasticity of skin
- Flexibility, ROM of joints
- Sensitivity of diagnostic points
- Radial pulse evaluation

Rene Dubois

"It is a painful and richly documented paradox that every drug of proven worth can itself become a cause of disease"

Oriental Drugs

1. The Tang Materia Media by Su Jing & 22 other scholars (7th century):
   - 844 medical substances
2. Compendium of Materia Media by Li Shi Zhen (1590):
   - 1892 medical substances
3. A Supplement to the Compendium by Zhan Xue Min (1765):
   - 716 more substances

Oriental Drugs

1. Herbal
   - -Grass
   - -Tree
     - Bark
     - Stem
     - Leaf
     - Root
     - Fruits
   - -Beans

Tastes

- Sweet (Tonifying; Regulating)
- Sour (Astringing; Preserving)
- Bitter (Drying;Lowering; Releasing
- Salty (Softening;Dispersing stagnation; Purgative
- Spicy (Expelling; Activating)
- Bland (Promoting diuresis)

Characters

- Denote an overall property of the Chinese drugs
- Determined by their therapeutic effects

1. Warm:
2. Cool
3. Hot
4. Cold
5. Neutral

Categories of Drugs

- Tonifying (Augmenting)
- Consolidating (Gathering)
- Dispersing (Moving)
- Purging (Expelling)

Superficies-Syndrome Relieving Drugs:

1. Expel exogenous forces

2. Relieve superficies syndrome
   - A. Wind-Cold SSRD
   - B. Wind-Heat SSRD

Heat Clearing Drugs

- **Heat-Clearing Fire-Purging Drugs:**

  -Clear away heat from Qi-system

  -Dry dampness

- **Heat-Clearing & Blood-Cooling**

  - Clear away heat from yin system

  - For excess heat

Heat Clearing Drugs

- Deficiency-Heat Clearing Drugs:

  -For fever of Yin deficiency and late stage of febrile diseases

  -Radix Paeoniae Rubra (Juk Bong Ryong)

  -Cortex Lycii (Ghi Gol Pi)

- Heat & Toxic Material Clearing Drugs

  -For heat toxic syndrome such as furunculosis, eruptive diseases, sore throat etc.

  -Flos Lonicerae (Gum Eun Hwa)

  -Fructus Forsythiae (Yun Kyo)

Purgatives

- Cause evacuation of the bowels:
- For interior excess syndrome
  1. Cathartics:
  2. Lubricant Cathartics:
  3. Potent Carthartics:

Interior-Warming Drugs

- Expel cold from the interior
- Keep interior warm
  - -Radix Aconiti Lateralis Preparata
  - -Rhixoma Zingiberis (Kun Gang)
  - -Cortex Cinnamomi (Yuk Gae)
  - -Fructus Evodiae (Oho Soo Ru)

Dampness-Eliminating Drugs

- **Promote diuresis to eliminate dampness:**
  1. Antioncotic Diuretics:
     -Poria (Bok Ryoung)
     -Rhizoma Alismatis (Taek Sa)
  2. Stranguria-Relieving Diuretics:
     -Semen Plantaginis (Cha Jun Za)
  3. Anti-icteric Diuretics:
     -Herba Artemisiae Scopariae (In Ghin)
     -Herba Lysimachiae (Kum Yhun Cho)

Dampness-Dispersing Aromatics

- To invigorate spleen and disperse dampness
  - Herba Agastaches (Kwak Hyang)
  - Fructus Amomi (Sa In)
  - Rhizoma Atractylodis (Chang Chool)

Qi-Activating Drugs

- Activate Qi
- Relieve stagnation of Qi

-Fructus Aurantii Immaturus (Zhi Shil)

-Paricarpium Citri Reticulatae (Jin Pi)

-Radix Aucklandiae (Mok Hyang)

-Rhizoma Cyperi (Haeng Boo Zha)

Wind-Dampness Eliminating Drugs

- Eliminate wind and dampness from the muscles, meridians, & tendons:
  - -Radix Angelicae Pubescentis (Dok Hwal)
  - -Radix Stephaniae Tetrandrae (Bang Ki)
  - -Radix Gentianae Macrophyllae (?)

Blood-Circulation Activating & Blood-Stasis Removing Drugs

- Accelerate blood circulation
- Relieve stagnation
  - -Rhizoma Chuanxiong (Cheun Ghoong)
  - -Herba Leonuri (Yik Mo Cho)
  - -Radix Achyranthis Bidentatae (Ohu Sheul)
  - -Rhizoma Corydalis (Hyun Ou Sak)

Hemostatics

- **Flioum Callicarpae pedunculatae (Zhi Zhu)**
- **Herba Agrimoniae (Shun Hae Cho)**
- **Rhizoma Bletillae (Baek Jhi)**
- **Herba cephalanoploris (So Jhi)**
- **Cacumen Biotae (Chi Baek Yhup)**
- **Pollen Typhae(Poe Huang)**

Expectorants, Antitussives, and Antiasthmatics

1. **Cold-Phlegm Warming Drugs:**

   -Warm the lung and eliminate cold

   -Rhizoma Pinelliae: Rhizoma Arisaematis (Chun Nam Shung)

2. **Heat-Phlegm Eliminating Drugs**

   -Clear heat-phlegm, lung fire, moisturize dryness, soften indurated mass

   -Radix Platycodi (Ghil Gyung); Radix Peucedani (Chun Ho). Cough

Expectorants, Antitussives & Antiasthmatics

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   -Clear heat-phlegm, lung fire, moisturize dryness, soften indurated mass

   -Radix Platycodi (Gil Kyung); Radix Peucedani(Chun Ho)

3. **Cough & Dyspnea Relieving Drugs:**

   -Cortex Mori (Sang Baek Pi)

   -Semen Armeniacae Amarum (Haeng In)

Liver-Calming Drugs

1. **Liver & Wind-Calming Drugs:**

-Anticonvulsive effect

-Calculus Bovis (Ohu Huang)

-Lumbricus (Zhi Rhong)

2. **Liver-Calming & Yang-Suppressing Drugs:**

-for hyperactivity of liver yang

-Radix Paeoniae Alba (Baek Jak Yak)

-Os Draconis (Yong Ghol)

Sedatives

- Cinnabaris (Chu Sah)
- Semen Ziziphi Spanosae (San Zho In)
- Ganoderma Lucidum Japonicum (Young Zhi)
- Radix Polygalae (Whan Zhi)

Analeptics

- Restore consciousness:

  -Moschus (? Hyang)

  -Venenum Bufonis (?)

  -Storax (So Hap Hyang)

Tonics

1. **Qi-Invigorating Drugs:**

   -Radix Ginseng(In Sam)

   -Fructus Schisandrae (Oho Mi Zha)

   -Radix Astragali (Huang Ghi)

   -Rhizoma Atratylodis Maacrocephalae (Baek Cheul)

   -Rhizoma Dioscoreae (San Yhak)

   -Radix Glycyrrhizae(Gam Cho)

Tonics

2. Yang-Invigorating Drugs:

-Cornu Cervi Pantotrichum (Nhok Yhong)

-Fructus Psoraleae (Po Gol Zhi)

-Cortex Eucommiae (Dhu Choong)

3. Blood-Tonifying Drugs:

-Radix Angelicae Sinensis (Dang Gui)

-Radix Rehmanniae Preparata (Seuk Zhi Huang)

-Fructus Lycii (Ghu Ghi Zha)

Tonics

4. Yin-Invigorating Drugs:

- Radix Ophiopogonis (Maek Moon Dong)
- Fructus Ligustri Lucidi (Yeu Jhung Zha)
- Fructus Jujubae (Dae Zho)

Astringents

- Fructus Mume (Oho Hae?)
- Os sepiae (Hae Pyo Sho)?
- Fructus Alpiniae oxyphyllae (Ik Zhi In)
- Radix Ephedrae (Ma Huang Gheun)

Digestants

- Fructus Hordei Germinatus(Mag Aha)
- Fructus Crataegi (San Sah)
- Semen Raphani (Nah Bok Zha)
- Massa Medicata Fermentata (Shin Ghuk)

Antimalarial Drugs

- **Herba Artemisiae Annuae (Chung Gho)**
- **Radix Dichroae (Dang San)**

Antihelmintics

- **Fructus Quisqualis (Sah Ghun Zha)**
- **Cortex Meliae (Kho Rhun Pi)**
- **Semen Cucurbitae (Nam Gua Zha)**
- **Semen Arecae (Bhin Rhang)**

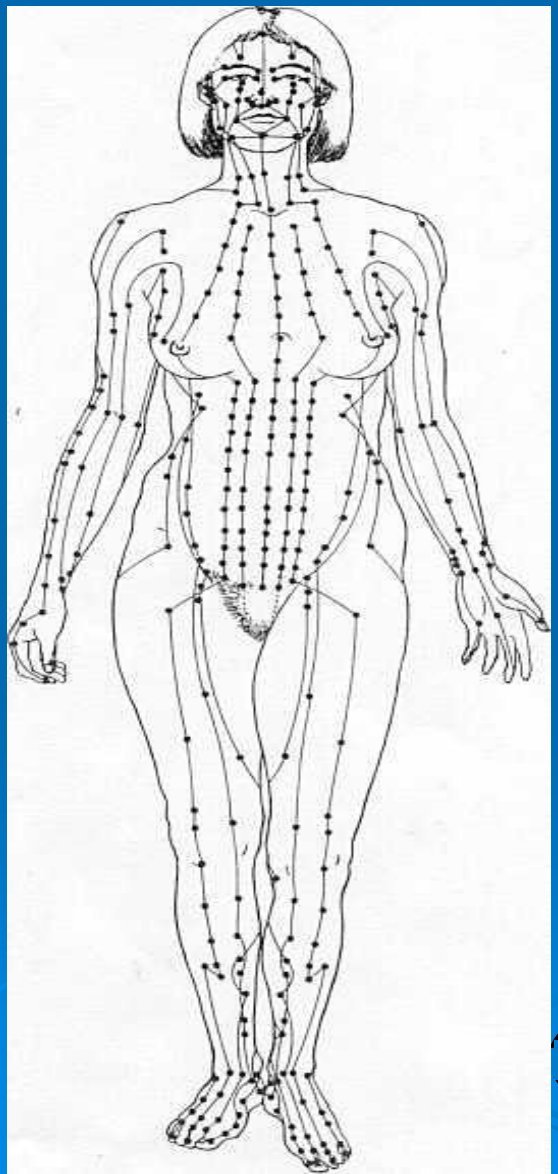
Drugs for External Use

- **Cortex Hibisci (Mok Dan Pi)**
- **Sulfur (Yhoo Huang)**
- **Arsenicum (Seuk? AS_2O_3)**

Philippus Aureolus Paracelsus

"Man is a microcosm, or a little world, because he is an extract from all the stars and planets of the whole firmament, from the earth and the elements; and so he is their quintessence."

Channels of Qi



NIH Consensus 1997

Acupuncture is being "widely" practiced—by thousands of physicians, dentists, acupuncturists, and other practitioners—for relief or prevention of pain and for various other health conditions.

2007 National Health Interview Survey

- An estimated 3.1 million U.S. adults and 150,000 children had used acupuncture in the previous year.
- Between the 2002 and 2007 NHIS, acupuncture use among adults increased by three-tenths of 1 percent (approximately 1 million people).

Acupuncture

- One of the oldest healing practices in the world.
- A part of Traditional Chinese Medicine (TCM).
- The most common invasive complementary and alternative medical treatment method.
- Safe and effective treatment for a variety of medical conditions.
- Although numerous trials have demonstrated the clinical effects of acupuncture, the mechanism of its therapeutic effect still remains uncertain.

Acupuncture

- Based on the concept that disease results from disruption in the flow of Qi and imbalance in the forces of yin and yang.
- Seeks to aid healing by restoring the yin-yang balance and the flow of qi (TCM),
- Stimulation of specific points on the body by a variety of techniques, including the insertion of thin metal needles though the skin.

Acupuncture

- Intended to remove blockages in the flow of Qi and restore and maintain health.
- To restore and maintain health through the stimulation of specific points on the body

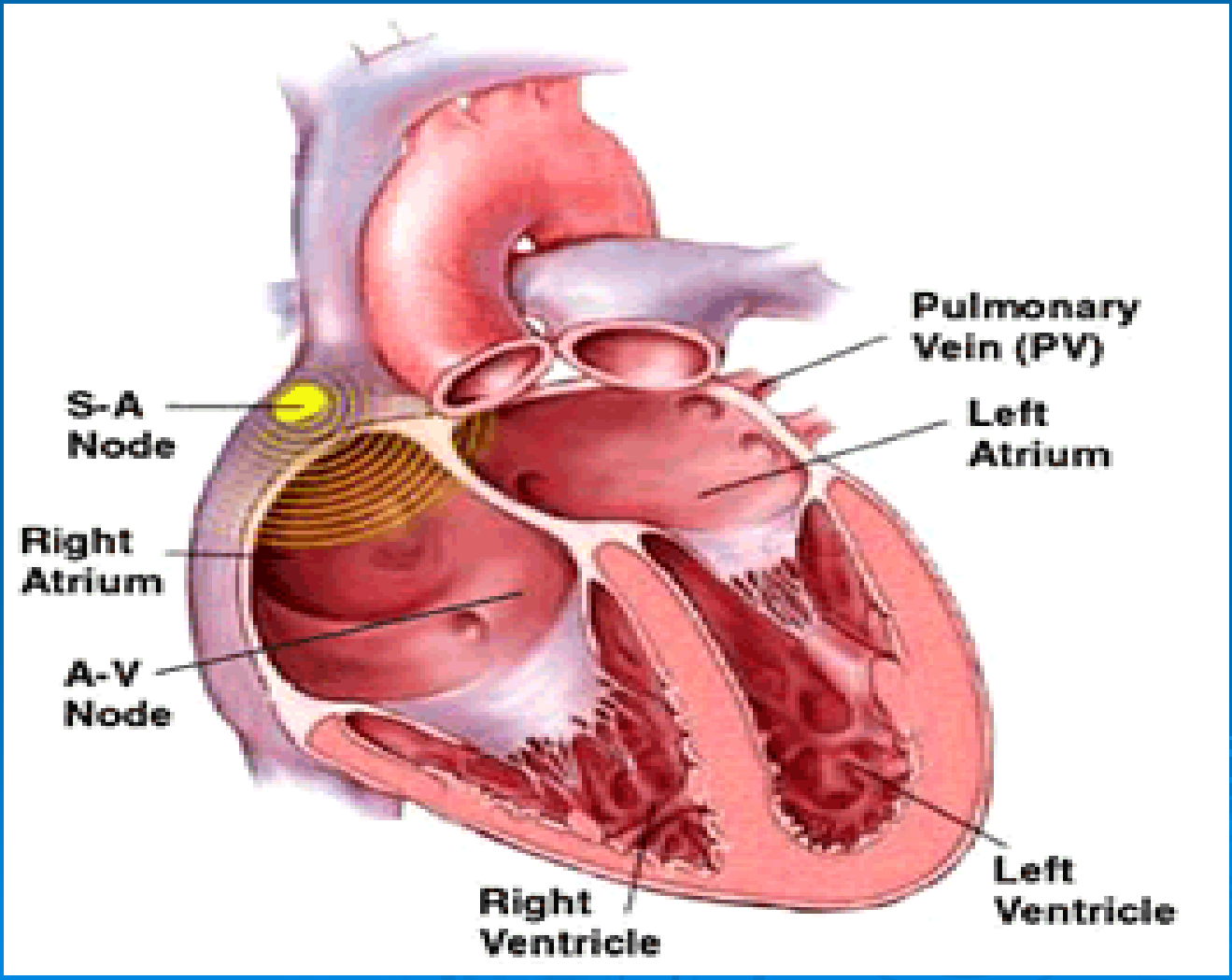
Acupuncture

Ear Acupuncture

Acupuncture

- Nausea
- Stroke
- Trigeminal neuralgia
- Food stagnation
- Reversal of breech presentation
- Musculoskeletal conditions
- Insomnia
- Stress relief

Atrial Fibrillation



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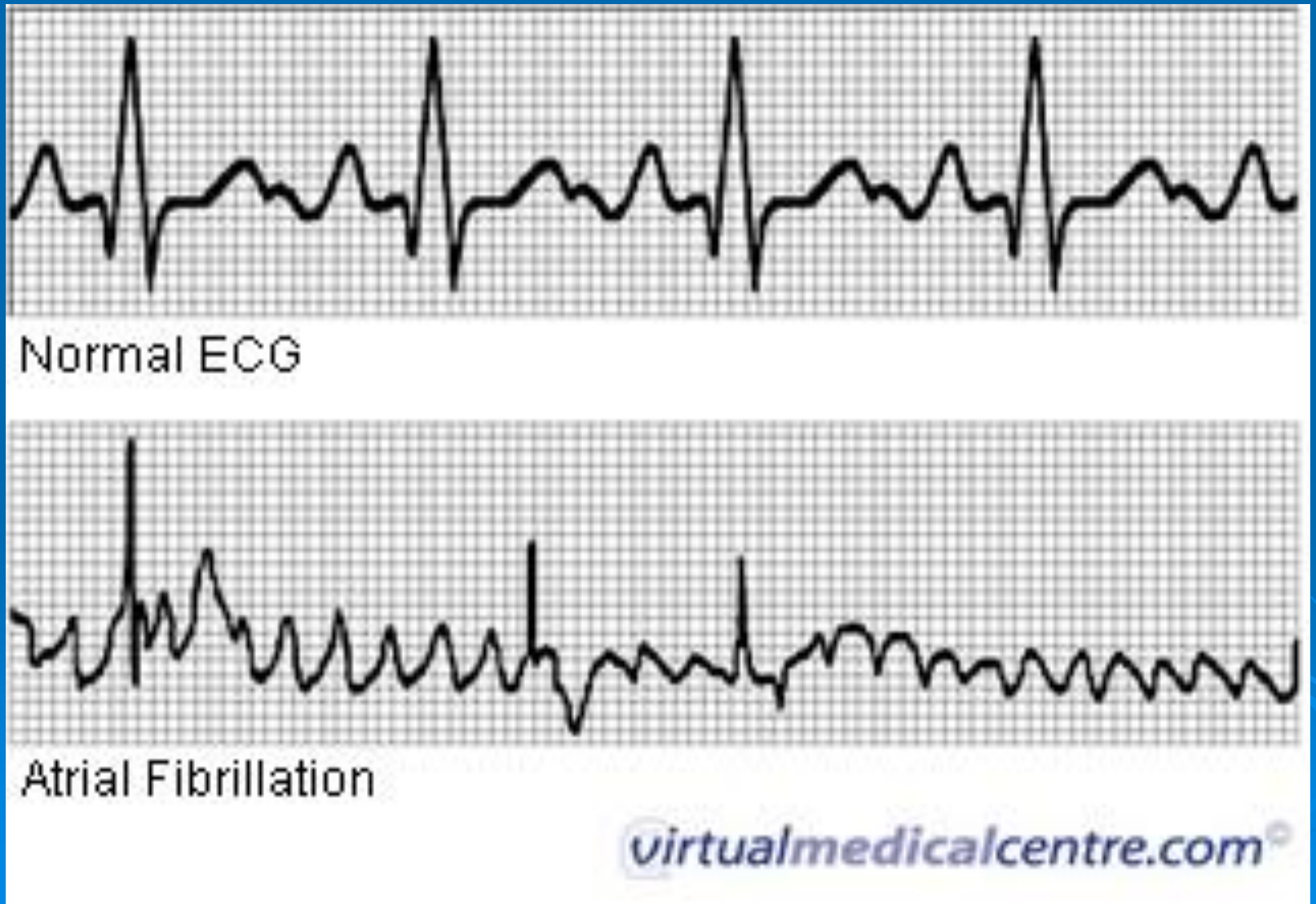


Cupping

Moxabustion

Popular Herbs

1. Echinacea (Purpura, Angustifolia, Pallida)
2. Garlic (Allium Sativum)
3. Ginger (Gingivaris)
4. Ginko Biloba
5. St. John's Wort (Hypericum Perforatum)
6. Ginseng
7. Kava Kava
8. Feverfew
9. Ma Huang (Ephedra)

Cardiovascular Herbs

Dang Qui
(Radix Angelica Sinensis)

- Called female ginseng
- **Properties:** sweet, acrid, bitter, warm.
  Meridians: HT, LV, SP
- **Function:** anti-inflammatory, antispasmodic, vasodilatory, estrogenic, and antitumor activities.

Angelica Sinensis (當歸)

- **Chemicals: Coumarin derivatives** (psoralens, bergapten, osthol, imperatorin, & oxypeucedanin)→ Dicoumarol→ **Vasodilate**, relax smooth muscle & exhibit anticoagulant effects; **increase circulation**
- **Ferulic acid**→phenolic hytochemical in cell walls →neutralize free radicals →**antioxidant activity** (NCI)
- Phytosterols, polysaccarides, ferulate acid, Flavonoids, ferulic acid, safrole, sosafrole & n-butylphthalide

Angelica Sinensis (當歸)

- Inhibit the growth & induce apoptosis of glioblastoma mutltiforme brain tumor cells through p53-dependent and p53-independent pathways (NCI, 2010)
- Promote circulation; Tonifies the blood; Invigorates and harmonizes the blood
- Used for deficient blood patterns: Pale ashen face, tinnitus, blurred vision, and palpitations
- Invigorates and harmonizes the Blood: an important herb used to stop pain from congealed blood.

Angelica Sinensis (當歸)

- **Uses:**
  1. **Gynecological disorders** (PMS: dysmenorrhea, pelvic pain, metrorrhagia, and amenorrhea, Infertility, Menopause, Recovery from childbirth, or illness, & fatigue/low vitality
  2. **Strengthen *xue*** (blood) →for CV conditions (HTN, anemia), Inflammation, HA due to blood deficiency, infections, insomnia & nerve pain,
  3. Uterine bleeding, abdominal pain after childbirth, dry intestines, chronic pelvic disorders and constipation
  4. Arthritis, bowel/bladder conditions
  5. Skin problems (discoloration, psoriasis & allergies)

Angelica Sinensis (當歸)

- Blood pressure stability for both men and women

  Initially may rise, then decline
- Helps the LV utilize more oxygen →treat hepatitis and cirrhosis.
- Help with abnormal protein metabolism.
- Dilate peripheral blood vessels→ increase circulation →used as a mild laxative
- For treatment of Deficient Blood with chronic Wind Damp Painful Obstruction; Moistens the intestines and moves stool
- Can use during pregnancy to ease delivery, reduce pain and discomfort and eliminate complications

Angelica Sinensis (當歸)

- **Cautions and contraindications:**

  Diarrhea, abdominal distension due to Damp Obstruction.

Panax Ginseng (人蔘)

- Chemicals: Ginsenosides/panaxosides
- Increase protein synthesis and activity of neurotransmitters in the brain.
- Stimulate the formation of blood vessel & improve blood circulation in the brains → improve memory & cognitive abilities
- DM, migraine, infections, radiation & chemotherapy protection
- Insomnia & stimulate the appetite
- Support overall health & boost immunity

Panax Ginseng (人蔘)

- Recover from severe illness
- Increase a sense of well-being & stamina
- Improving mental & physical performance
- Treat erectile dysfunction, hepatitis C & symptoms r/t menopause →Contains steroids (panaxtriol) →similar in structure to anabolic steroids found naturally in our body →ideal for athletes and body builders looking for a natural alternative to anabolic steroid
- Korean ginseng is also used by women for treatment of post menopausal symptoms.
- Lower blood glucose & control BP

Panax Ginseng (人蔘)

- Energy tonic
- Stimulate heat production
- Increase yang energies
- Used in a number of degenerative & "wasting" diseases where chi or vital energy is deficient
- The red variety → more potent and stimulating than white

Panax Ginseng (人蔘)

- 西洋参
- Side effects:

  HA, sleep & GI problems.
- Asian ginseng:

  Can cause allergic reactions

  May lower levels of B-sugar → seen more in people with DM.

  DM →caution with Asian ginseng, especially if they are using medicines to lower blood sugar or taking other herbs (bitter melon, fenugreek)
- Breast tenderness, menstrual irregularities, and high BP associated with Asian ginseng products
- Contraindicated in conditions such as colds and flu

Rhizoma Dioscoreae (山藥)

Shan Yao (Chinese Yam)
Taste: Neutral; sweet
Meridian: SP, LU & Kd
Function:

1. Invigorate SP & ST (Poor appetite, Loose stools or Chronic diarrhea
2. Invigorate LU (Chronic cough or TB)
3. Stimulate endocrine secretions for immune deficiency;
3. Strengthen Kd functions for frequent urination & leucorrhagia & nourish semen-essence.

Fructus Lycii (枸杞子)

Gou Qi Zi

Lycium barbarum, Matrimony vine fruit, Lycii berry, goji berry, magic berry, miracle berry, Chinese Wolfberry fruit

Taste: Neutral & Sweet

:

Function: Tonify blood

Constituents : Ascorbic acid, Beta-sitosterol, Betaine, Beta-carotene, Niacin and Pyridoxine==Zeaxanthin Polysaccharides, Selenium, Calcium 6 vitamins, Many others

Fructus Lycii (枸杞子)

- **Functions and Usage:**
- Nourish and tonify LV &&KD - yin and/or blood deficiency w/sore back and legs, low grade abdominal pain, impotence, nocturnal emission, xiao ke; neutral nature - commonly used for LV & KD deficiency.
- Benefits the essence and brightens the eyes - essence and blood are unable to nourish eyes, dizziness, blurred vision, diminished acuity.
- Enrich yin and moisten the LUs - consumptive cough.

Echinacea (紫錐菊)

- Purple coneflower, coneflower, American coneflower
- Latin Names--Echinacea purpurea, Echinacea angustifolia, Echinacea pallida
- Flavonoids, akylamides, caffeic acid derivatives, polysacharrides, polyacetylenes, evaporating oil

Echinacea (紫錐菊)

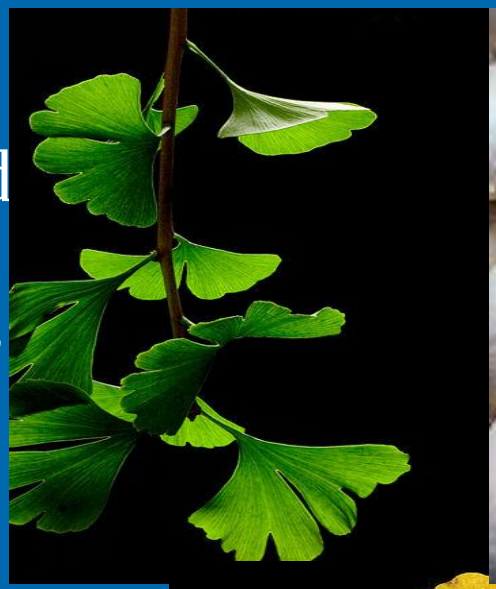
- Stimulate the immune system to help fight infections
- Treat or prevent colds, flu, and other infections, wounds & skin problems (acne or boils)
- SE: rashes, increased asthma, & anaphylaxis gastrointestinal side effects

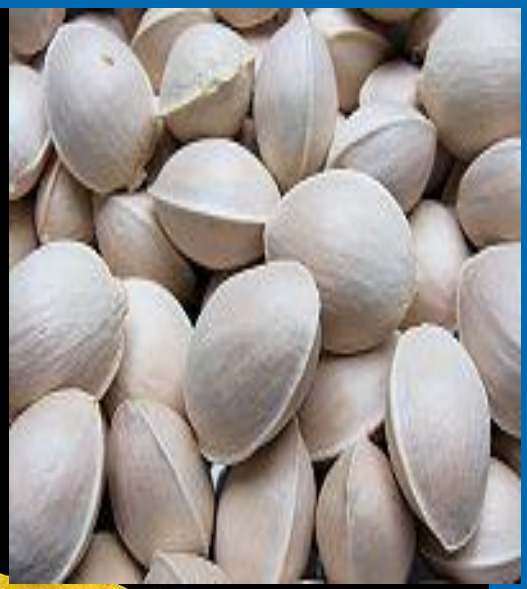
Echinacea (紫錐菊)

- **Contraindication:**
  pregnancy
  Autoimmune diseases

Ginko Biloba 銀杏

- 은행
- Extracts of Ginkgo leaves contain flavonoid glycosides and terpenoids (ginkgolides, bilobalides)
- Amentoflavone: potential for interaction with many medications through the strong inhibition of CYP3A4 & CYP2C9
- Long-chain alkylphenols, urushiols (poison ivy)





Ginko Biloba 銀杏

- Improve blood flow (including microcirculation in small capillaries) to most tissues and organs;
- Protect against oxidative cell damage from free radicals & block platelet aggregation → Prevent CV, renal, respiratory, CNS diseases; intermittent claudication
- Tinnitus
- Recently, clinical trials have shown *Ginkgo* to be ineffective in treating dementia or preventing the onset of Alzheimer's disease in normal people

Ginko Biloba 銀杏

- **Interaction:**
  Anticoagulants , ibuprofen, aspirin, warfarin
  Antidepressants (MAO's, SSRI's)
  Pregnancy

- **SE:**
  Bleeding, N&V, Diarrhea, HA, dizziness, palpitations, restlessness, allergic reaction

St. John’s Wort

- Plant species: Hypericum perforatum
- Tipton's Weed, Chase-devil, or Klamath weed.
- Hypericin, Hyperforin
- Amentoflavon
- For depression, PMS, ADHD, alcoholism, Parkinson’s Disease
- Germany: commonly prescribed for mild depression, especially in children and adolescents

St. John's Wort

- Interaction with drugs: Cytochrome P450, CYP3A4, CYP2C9
- **SE:**

  gastrointestinal symptoms, dizziness, confusion, tiredness and sedation, photosensitivity
- Women on contraceptive implant Implanon → Reduce the effectiveness.

Ephedra (麻黄)

- *Ephedra sinica*
- Has Ephedrine.
- Powerful stimulant of the sympathetic nervous system → Mimics the effects of adrenaline on the body
- Bronchodilator, vasoconstrictor,
- Positive chronotropics, positive dromotropics
- Used to treat asthma for years.

Ephedra (麻黄)

- Became popular in the U.S. for uses in diet & energy & was used in larger doses.
- Had many serious health related problems & even deaths and Ephedra containing supplements have since been banned in the U.S.
- Two of the chief components: ephedrine and pseudoephedrine
- A stimulant & thermogenic
- Used for respiratory ailments & decongestants & has also become an ingredient in the production of methamphetamine.

Ephedra (麻黄)

- Stimulates the CNS to enhance mood, reduce fatigue, & to make a person alert enough to smell their coffee in the morning
- Increase energy and endurance →increase blood flow to the muscles →increase of oxygen & nutrient supply to the muscles
- Increase basal metabolic rate (BMR) → burn calories faster → increase thermogenic process→ cause substantial weight loss
- In thermogenesis, white fat stores are mobilized into the bloodstream →where they are carried to the brown fat to be burned up & dissipated as heat.

Black Cohosh

- Cimicifuga Racemosa
- black snakeroot, macrotys, bugbane, bugwort, rattleroot, rattleweed
- Knobby rough roots
- Rheumatism, menopause (Hot flashes, night sweats, vaginal dryness) PMS, dysmenorrhea,
- Induce labor

Feverfew(白菊花)

- *Chrysanthemum parthenium*
- Bachelor's buttons, featherfew
- Derives from the Latin *febrifugia*, meaning "fever reducer”
- Used throughout Europe and Asia for centuries
- Contains sesquiterpene lactones; at 250+ micrograms per day,
- inhibiting the release of serotonin & prostaglandins
- Feverfew promotes the easing of tension from stressful lifestyles

Feverfew(白菊花)

- Fever, HA, stomach aches, toothaches, insect bites, infertility, digestive problems, and dysmenorrhea & with labor during childbirth.
- Arthritis
- Allergic reactions, contact dermatitis
- N&V, Pain, diarrhea, flatulence
- Taken orally→ mouth ulcers, swelling, numbness of the mouth
- Not for pregnancy

Job's Tears

薏苡仁

***Yulmu* (　　)**

Yi Yi Ren

Fructus Crataegae

- **Hawthorn**
- **Uses:** Heart disease since the first century, Digestive & KD problems
- Leaf and flower have been used for heart failure, & other heart conditions, including CAD, angina
- **SE**: Mild; upset stomach, HA, & dizziness.

Hawthorn

- Main active ingredient: for the organic acids and
- flavonoids,with the help digestion,
- Cardiac stepdown, hypolipidemic,antibacterial,
- anticancer and other pharmacological effects.
- Clinically for the treatment of major indigestion, h igh blood lipids, hypertension,
- Coronary heart disease, hepatitis, jaundice.

Hawthorn

1. Soften the blood vessel, expanding coronary artery, diastole blood vessels,
2. Strengthen and improve myocardial nutrition
3. Increase coronary blood flow, reduce MVO_2
4. and improving the utilization of oxygen, to improve cardiac function, enhance myocardial contractility and

- alleviate angina, prevention and treatment of ventricular fibrillation, paroxysm al atrial fibrillation and
- arrhythmias.
- 2. Can significantly reducing serum total cholesterol and lipoproterin levels, lo wering cholesterol and lipid
- deposition in the organs.
- 3. Promoting lipolysis and enhance protease activity to improve the vascular wall of atheroscleosis.
- 4. Significantly lowering blood pressure and increasing cardiac function.
- 5. Extracts of Vitexin having anti-cancer compounds for anticancer used.

Hawthorn

- Cardiotonic agent: flavonoids & oligomeric procyanidins
- Reviews of placebo- controlled trials have reported both subjective and objective improvement in patients with mild forms of heart failure (New York Heart Association classes I through III).
- Other studies of hawthorn in patients with heart failure have revealed improvement in clinical symptoms, pressure-heart rate product, left ventricular ejection fraction, and patients' subjective sense of well-being.
- However, there is no evidence of a notable reduction in mortality or sudden death. Hawthorn is well tolerated; the most common adverse effects are **vertigo and dizziness**.
- Theoretic interactions exist with antiarrhythmics, antihypertensives, digoxin, and antihyperlipidemic agents.
- Proven conventional therapies for heart failure are still recommended until the safety and effectiveness of hawthorn has been proven in long-term studies
- Dahmer & Scott, 2010, 81(4), 465-8

Astragalus

- For deficiencies of the "spleen," the energy body responsible for digesting food and "grounding" the energies of the body in the environment
- Diseases treated with herbal formulas featuring astragalus can result from poor nutrition or digestive problems, but they can also be associated with frequent changes of life direction, "flighty" attitudes, or failure to make important decisions
- Stimulate the immune system in several ways:
- Increases the number of stem cells in bone marrow, and encourages their maturity into active white blood cells.
- Help signal the white blood cells known as neutrophils to migrate to places they are needed to fight infection.
- Stimulates the "germ-eating" white blood cells known as macrophages, activates T-cells and natural killer (NIK) cells, and increases the production of immune globulins.
- Taken with a variety of other herbs, astragalus as a whole herb eases chronic respiratory infections, aids in recovery from both cancer and the side effects of cancer therapy, and enhances health in HIV.

Astragalus

- Astragalosides and other immunostimulant polysaccharides, beta-sitosterol, flavonoids, and trace minerals, especially selenium.

And much more……

Major Points

- Entering Meridians, Taste, Functions

Herbal Combinations

- Single effect: Use one ingredient
- Mutual accentuation: Use of two substances with similar effects: Dai Huang & Mang Xiao
- Mutual enhancement: Use of 2 herbs with different functions to enhance the effect of the other: Hwang Qi and Poria
- Mutual counteraction: Sheng Jiang & Ban Xia
- Mutual antagonism: Ren Shen & Lai Fu Ji
- Mutual incompatibility:

Research

Dietary Incompatibility

- Poria: Vinegar
- Mu Dan Pi: Garlic
- Huang Lian: Pork
- Ren Shen: Tea, Turnips
- Indigestion: Pizza, Ham Hock

Patty Davis (2002)

You travel in an arc, a curve away from parents, from childhood, from all that once anchored you…

But, we remain connected to the ones we love… The circle always brings us back around.

And when it does, we have a chance to offer the best of ourselves to the ones who waited for us to grow into who we were always meant to be.