

# *Complementary and Alternative medicine*

**PHG 323 (*Ayurveda*)**

**Part 1**



**Department of Pharmacognosy – College of Pharmacy - KSU**

➤ **Topics to be covered (part II):**

**Alternative systems of medical practices (continued)**

G) Ayurveda

**Phytotherapy and herb-drug interactions**

**Other treatment and applications**

- A) Mind & Body Interventions
- B) Bioelectromagnetic Applications
- C) Pharmaco-Biological Treatment
- D) Miscellaneous Diagnostic & treatment Methods

**Various regulatory aspects applied for herbal products**

➤ ***Reference Books***

Book	Authors	Year	Name of Publisher
Pharmacognosy 16 <sup>th</sup> ed.	Trease & Evans	2009	Saunders
Complementary and alternative medicine	Kayne & Steven	2009	Pharmaceutical Press
ABC of complementary medicine	Zollman & Catherine	2008	Wiley-Blackwell Pub./BMJ Books
The ACP Evidence-Based Guide to Complementary and Alternative Medicine	Jacobs & Gundling	2009	American College Physicians

# Ayurveda



# Ayurveda

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## Outline:

- Introduces principles of Ayurveda.
- Summarises some of the important Ayurvedic remedies.
- Discusses safety issues, including possible interactions with conventional medicines.

# Ayurveda

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- Officially recognised by some governments (e.g. India).
- In western countries, interests in Ayurveda is increasing as patients look for a more holistic approach to health, and because Indian's originated patients often continue to use their own traditional remedies.

# Meaning of Ayurveda

- Def. Comprehensive system that places equal emphasis on the body, mind and spirit, and it strives to restore the innate harmony of the individual.
- Ayurveda is the combination of two Sanskrit words
  - “ayu” meaning **long life**
  - “ved” meaning **knowledge = science**
  - “Knowledge or science of life”

# History & Concept

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- Ayurveda is considered to be the most ancient organized system of all medical disciplines.
- It is a system of sacred Hindu medicine, originating in India over 5000 years ago.
- It focuses on unbalances in “life energies” as etiologic for disease states.
- By eliminating unbalanced states, we cure the root of disease, not simply the “symptoms,”
- In Ayurvedic medicine, the patient is viewed as unique, and ‘normality’ as what is appropriate for that particular person.
- This is in contrast to Western medicine, where populations are generalized and ‘normal’ means what is applicable to the majority.

# Ayurveda & TCM

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Philosophically, Ayurveda has similarities with traditional Chinese medicine (TCM):

- 1- Parana, the life energy or force, which must be nourished, is equivalent to qi.
- 2- In TCM, there are two (**yin and yang**), and in Ayurveda there are three opposing principles (**the Tridosha**).
- 3- The doshas of the body, move from one part of the body to another via channels called srotamsi (plural).
- 4- There are **five elements** in both, but they are slightly different.
- 5- Many remedies are common to both systems although the philosophical rationale for their application may be a little different.



# Bhutas, the five elements

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According to Ayurveda every individual is made up of **five** elements (structural aspect)

The basic elements are:

- **Ether (Space)**      **Air**      **Fire**      **Water**      **Earth**      **five**
- The five elements are related to the five senses:
- **Hearing**      **Touch**      **Vision**      **Taste**      **Smell**

**e.g.:** Ether is related to hearing, since sound is transmitted through it, and from there to the ear, the associated sense organ, leading to speech, from the organs of action which are the tongue and vocal cords.



EARTH

SOUND

TOUCH

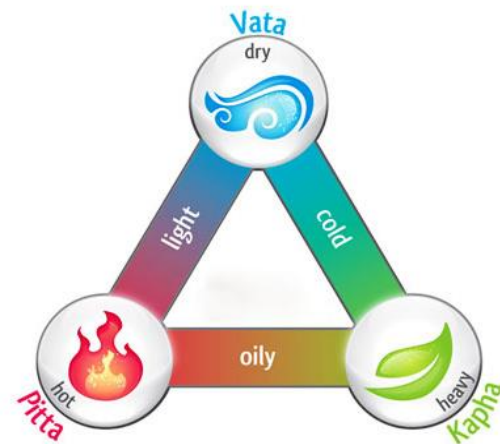
FORM

FLAVOR

ODOR

# Tridosha theory (the Three humors)

- The functional aspect of the body is governed by three biological principles or humors known as the Tridosha.
- The three humors (**Vata**, **Pitta**, **Kapha**) govern all **biological**, **psychological** and physiopathological functions of the body and **mind** (**fear**, **anger**, **understanding**, **compassion** and **love**).
- The key is to understand the relationship between the humors.
- Ayurveda states that a **balance** of the three Doshas, equals **health**, while **imbalance** equals **disease**.
- Ayurvedic theory states that each human possesses a unique combination of these doshas which define this person's temperament and characteristics.



# Tridosha theory (the Three humors)

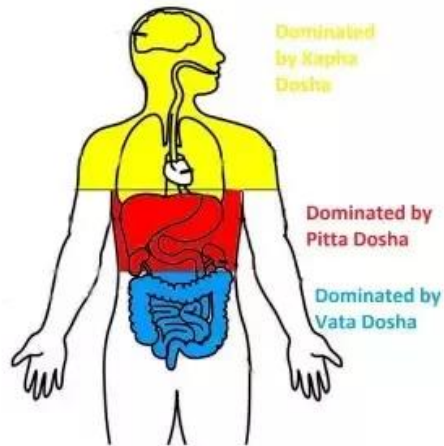
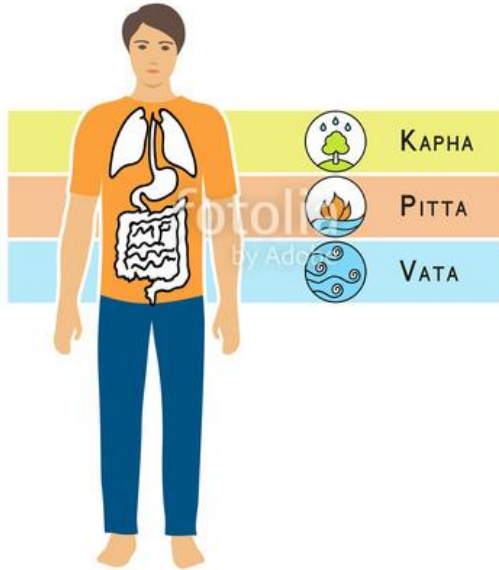
- Ether + air combine to form the **Vata** dosha
- Water + earth combine to form the **Kapha** dosha
- Fire + water combine to form the **Pitta** dosha.
- Each governs a certain Physiological process.



<b>Pitta</b>	<b>Vata</b>	<b>Kapha</b>
Fire + Water	Air + Ether	Earth + Water
Digestion	Movement	Structure
Intellection	Enervation	Immunity
Oily	Light	Heavy
Hot	Dry	Cold
Summer	Fall	Winter/Spring
Wisdom Method Wellness + Yoga		www.KellieAdkins.com
Endocrine system	(CNS)	Immune system




# AYURVEDA

THE DOSHAS AND RELATED PARTS OF THE BODY



# Tridosha theory (the Three humors)

	<b>vata</b>	<b>pitta</b>	<b>kapha</b>
<b>SKIN</b>	Dry, thin, fine-pored, cool to the touch, maybe dry and flaky.	Warm to the touch, reddish or freckled complexion, sensitive to sunlight	Thick, moist; cool to touch; pale complexion; large pores.
<b>HAIR</b>	Thin, dark, tends towards dryness; prone to dandruff	Normal to fine; thinning; tends to grey prematurely	Normal to oily; thick, wavy, shiny.
<b>LIPS</b>	Thin, often dry/cracked	Medium, red or pink	Thick pale
<b>PHYSIQUE</b>	Thinly built frame	Medium frame, well built	Large frame
<b>WEIGHT</b>	Difficult to gain	Medium weight	Easy to gain, hard to lose.
<b>SLEEP</b>	Interrupted, light	Sound, medium length	Sound, long, heavy
<b>TEMPERAMENT</b>	Nervous	Motivated	Content
<b>ENDURANCE</b>	Poor, easily exhausted	Moderate, but focused	High
<b>MEMORY</b>	Quick but absent-minded	Sharp, clear	Slow, steady

VATA	PITTA	KAPHA
<p>The Energy of movement</p> <p>Vata is cold, light, dry and mobile</p>	<p>The Energy of Transformation</p> <p>Pitta is hot, oily, smooth, and light</p>	<p>The Energy of Structure and Lubrication</p> <p>Kapha is cold, moist, heavy, dense and dull</p>
Vata in Nature	Pitta in Nature	Kapha in Nature
<p>Elements: Air/Ether</p> <p>Seasons: Late Autumn- Early Winter</p> <p>Wind/Cold </p>	<p>Elements: Fire/Water</p> <p>Seasons: Late Spring-Summer</p> <p>Sun/Heat </p>	<p>Elements: Earth/Water</p> <p>Seasons: Late Winter-Early Spring</p> <p>Wet/Cold </p>
Balanced Mind	Balanced Mind	Balanced Mind
<p>Energetic, adaptable, healing energy, good communication, positive spirit, creative</p>	<p>Intelligent, perceptive, warm and friendly, courageous, good leader, enlightened</p>	<p>Loving, nurturing, patient, stable, devoted, loyal, peaceful, and forgiving</p>
Vata Body	Pitta Body	Kapha Body
<p>Tall or very short, thin, small eyes, dull/dusky skin, good circulation, and nerve impulses</p>	<p>Good metabolism, digestion, and circulation, toned muscles, ruddy lustrous skin, medium height</p>	<p>Large and well-developed, usually short, can be tall/large, moderate circulation, cool damp skin</p>
Imbalanced Mind	Imbalanced Mind	Imbalanced Mind
<p>Fearful, indecisive, agitated, secretive, anxious unreliable, anxious, hyperactive</p>	<p>Willful, aggressive, vain, manipulating, vindictive, proud, wrecklance, criminal</p>	<p>Controlling, insecure, materialistic, lethargic, apathetic, insensitive, attached</p>
Imbalanced Body	Imbalanced Body	Imbalanced Body
<p>Constipation, PMS, dry skin and hair, brittle nails, arthritis, muscle spasms, anemia</p>	<p>Migrane headaches, skin eruptions i.e. acne, hypertension, nausea, and heartburn</p>	<p>Obesity, allergies and sinus problems, mucus and congestion</p>

# Tridosha theory (Body Types)

There are seven body types:

- Mono-types (vata, pitta or kapha predominant).
- Dual types (vata-pitta, pitta-kapha or, kapha-vata).
- Equal types (vata, pitta and kapha in equal proportions).

Every individual has a **unique combination** of these three doshas.

- To understand the uniqueness of every individual is the very basis of ayurveda.
- The primary requirement for diagnosis and treatment of disease is **determining the individual's balance and bringing him in line with it.**
- There is no “perfect formula” for everyone.



# Channels (Srotas)

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The doshas of the body, Vata, pitta and kapha move from one part of the body to another via channels called srotamsi (plural).

- The largest srotas (singular) or channel is the Maha Srotas or gastrointestinal tract (Maha – large or great).
- The smallest srotamsi can be found in single cells in the body.
- The srotamsi or channels in the body act like paths or roadways transporting blood and sensory information, absorbing nutrients and expelling waste products from the body.
- Each srotas has a sroto mula (root), a sroto marga (passage) and sroto mukha (mouth or opening).

# Channels (Srotas)

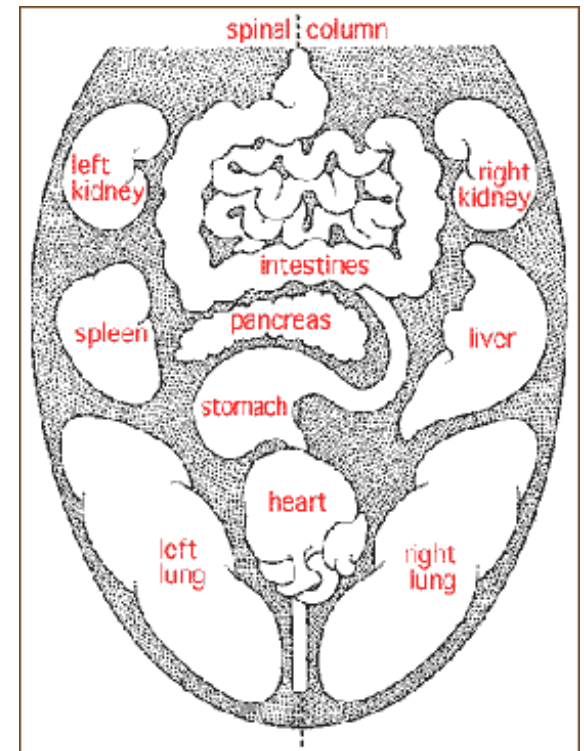
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- Ensuring the proper functions of channels (srotas) is a vital goal of ayurvedic medicine (why?).
- Because the lack of healthy srotas is thought to cause rheumatism, epilepsy, autism, paralysis, convulsions, and insanity.
- Practitioners induce sweating and prescribe steam-based treatments as a means to **open up the channels and dilute the doshas** that cause the blockages and lead to disease.

# Diagnosis

Diagnosis done by observation, touch and questioning.

- Consists of long (1 hr to often 2 hrs) interview and physical examination.
- Find how each activity affects the individual and when it began.
- physical exam includes
  - Pulse diagnosis.
  - Urine examination.
  - Stool examination.
  - Tongue examination.
  - Examination of body sounds.
  - Eye examination.
  - Skin examination.
  - Assessment of total body appearance.



# **Eight components of Ayurveda treatment**

- 1- (**General/Internal medicine**) – Kāya-chikitsā: cure of diseases affecting the body.
- 2- (**Pediatrics**) – Kaumāra-bhṛtya: treatment of children.
- 3- (**Surgery**) – Śhalya-chikitsā: removal of any substance which has entered the body (as extraction of darts, of particles, etc.).
- 4- (**Ophthalmology /ENT**) – Śālākya-tantra: cure of diseases of the eye or ear by sharp instrument.
- 5- (**Demonology /exorcism /psychiatry**) – Bhūta(past)-vidyā: treatment of mental diseases supposed to be produced by past experiences
- 6- (**Toxicology**) – Agada-tantra: "doctrine of antidotes"
- 7- (**Geriatrics/Elixirs**) – Rasayana-tantra: "doctrine of Rasayana" **science of lengthening lifespan**
- 8- (**Reproductive sciences**)-Vajikarana

# Treatment in Ayurveda

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- Treatment has four main parts
  - Shodan – Cleansing
  - Shaman – Palliation "alleviation"
  - Rasayan – Rejuvenation "reversing the aging process"
  - Satwajaya – Mental nurturing and spiritual healing



# Methods Used in Treatment

Treatment may Involve :

Diets

Bloodletting

Fasting

Skin applications

Enemas

Yogic breathing

Herbal treatments

Minerals

# Treatment in Ayurveda

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## Shodan --cleansing

Panchakarma: A common cleansing treatment composed of **procedures** that use purgatives, emetics, enemas, medicated oils, and sometimes bloodletting.

➤ This treatment seems to be more common or more advertised in the United States than other treatments.

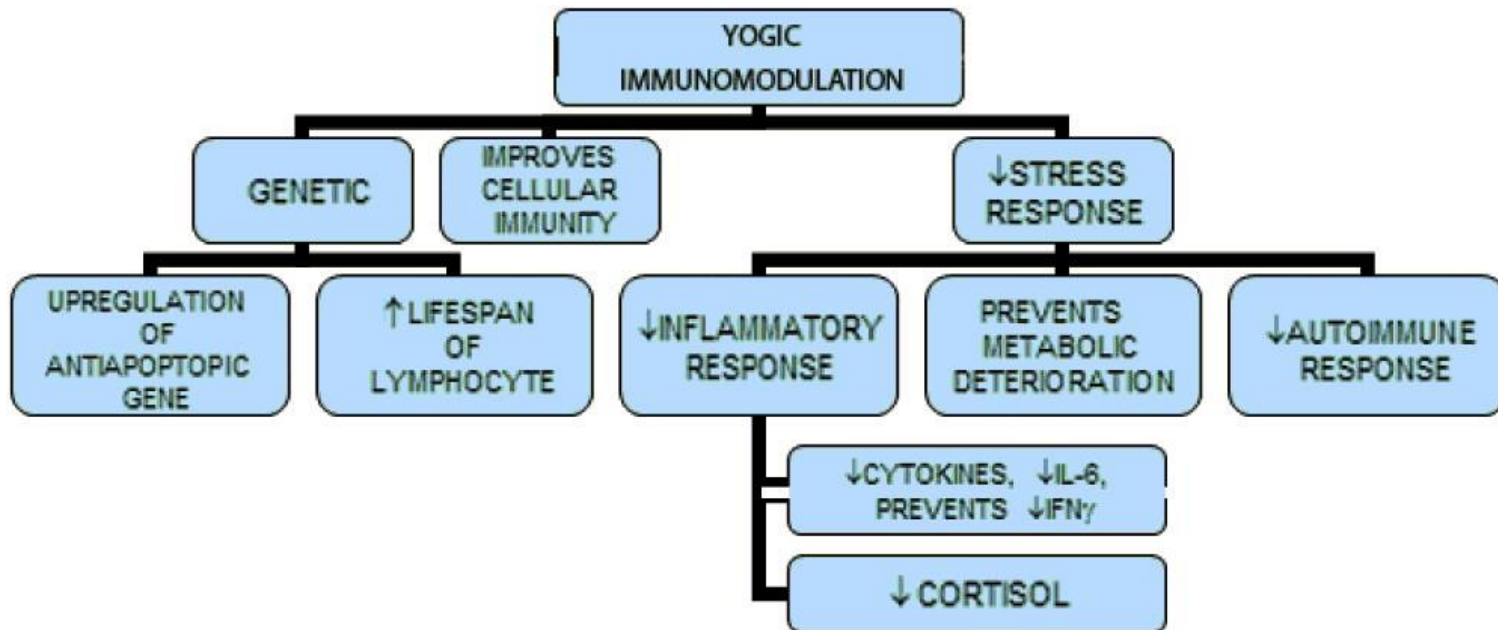
## Shaman - palliation

Yoga: is part of the palliation treatment as well as a part of improving general health. It is essentially considered the restraint of mental activity.

## Rasayan-- rejuvenation

Rasayan: A rejuvenation treatment, composed basically of **dietary supplements**.

# Yoga influences the immune response





# Reported Benefits

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- Slowing the aging process
- Promoting health of all the organs of the body
- Reducing fatigue and stress
- Nurturing the body with proper diet
- Healing disorders of the nervous system

# Caution



- Herbal/mineral Ayurvedic treatments
  - Many include heavy metals such as mercury, lead, and arsenic
  - 1 in 5 herbal products produced in South Asia have toxic levels
  - Reports of lead poisoning

Unfortunately, lack of regulation, quality issues and the discovery of toxic metals in some products has led to serious concerns about the safety of ayurvedic remedies. In addition, because these remedies are pharmacologically active, there is also the potential for interactions with conventional drugs, although few reports on this subject are yet available — under-reporting of adverse reactions to herbal drugs is a universal problem.

# Online Resources

- Seattle's Ayurvedic academy and clinic:  
<http://www.ayurvedaonline.com/>
- Ayurvedic Institute:  
<http://www.ayurveda.com>

# "Ayurveda: Art of Being"

There is a documentary film released in 2001 on Ayurveda, titled "Ayurveda: Art of Being" in which many Ayurvedic practitioner's and patients share their experiences in the film. Major part of this film is shot in India.

<https://www.youtube.com/watch?v=feTiygXQyq0>

AYURVEDA: The Science of Life

<http://www.youtube.com/watch?v=kNa9h9lCUds>