

ALLOPATHY

- ❏ Allopathy is derived from the Greek word allos means “other or different” and pathos means disease or suffering. In combination it means “other than the disease.”
- ❏ The term Allopathy was given by Samuel Hahnemann in early 19th century.
- ❏ Allopathy medicine is basically a part of Western medical system. This system is spread all over the world and adopted by many countries over the world due to effectiveness in emergency.
- ❏ This system is drug oriented methodology which depends on three things viz. hypothesis, experimentation and result of the experiment. The main methodology of this system experimentation.

- ❑ In this system, doctors treat a disease based on the symptoms not based on causes.
- ❑ This system is also known as evidence based or modern medicine.
- ❑ The main drawback is most of the drugs have side effects and for being out of poor people due to the high cost of drugs and also treatments.
- ❑ In this system, the drugs are manufactured using synthetic chemicals or chemical derived from natural products like plants, animals or mineral sources.
- ❑ Various drugs like tablets, capsules, injections, tonic etc. It also uses modern equipments for diagnosis, analysis and surgery.

ROLE OF PHARMACOGNOSY IN ALLOPATHY

- ❑ Pharmacognosy plays a diverse role in the discovery, characterization, production and standardization of these drugs.
- ❑ It is used by pharmaceutical companies to screen, characterize and produce new drugs for the treatment of multiple human diseases.
- ❑ Naturally occurring drugs are not produced in mass quantities hence they are studied in order to develop synthetic biosimilars.
- ❑ Producing these compounds synthetically allows through modifications viz. increases in bioavailability, altered pharmacokinetics and increased efficacy.

- ❑ These modifications transform a crude inactive plant extract into a powerful drug.
- ❑ Some examples are like anticancer drugs, CVS drugs. Thus, natural compounds provide excellent models to discover novel drugs.
- ❑ Digitalis, the most important medicinal plant, is directly used in Allopathy medicine as cardio protective action.
- ❑ Likewise, the importance of medicinal plants are studied in other countries in order to fight currently untreatable, life-threatening diseases such as Alzheimer's, HIV, chronic pain, and malaria.
- ❑ Many natural drugs are under investigation in clinical trials for new drug discovery.

AYURVEDA

- Ayurveda is originated from Sanskrit, composed of "ayus" and "veda." "Ayus" stands for life and "Veda" is knowledge of science. Ayurveda is in combination, **'the knowledge of life' or 'the science of life'**.
- According to **Charaka (the ancient Ayurvedic scholar)**, **"ayu" means the mind, body, senses and the soul.**
- Ayurveda is an intricate medical system which is one of the oldest forms of healthcare system, originated in India thousands of years ago.
- The fundamentals of Ayurveda are found in the Vedas (Hindu scriptures) — the ancient Indian books of wisdom. The Rig Veda (written over 6,000 years ago), contains a series of prescriptions to overcome various ailments of human.

- The aim is to prevent illness, heal the sick and preserve the life as follows:
- **"Swasthyas swasthya rakshanam"**: This indicates prolong life with health protection.
- **"Aturasya vikar prashamanamcha"**: This indicates elimination of diseases and dysfunctions of the body.

Treatment in Ayurveda: Ayurveda has eight different techniques to diagnose illness, namely Nadi (pulse), Mootra (urine), Mala (stool), Jihva (tongue), Shabda (speech), Sparsha (touch), Druk (vision), and Aakruti (appearance). The treatments are carried out using plant based products procured from roots, leaves, fruits, bark, or seeds.

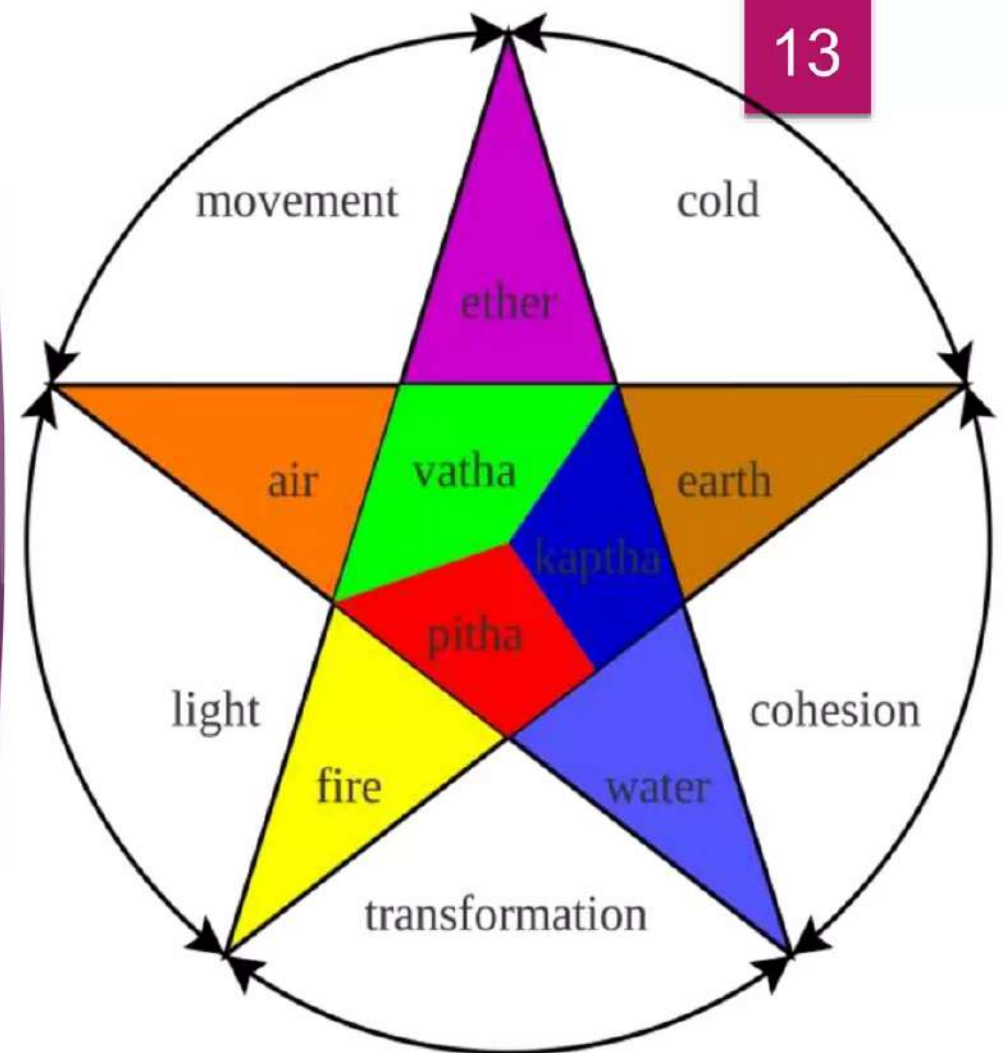
Tridosha or the Theory of Bio-energies

Vata pertains to air and ether elements that act as the force. It directs nerve impulses, circulation, respiration, and elimination.

Kapha pertains to water and earth elements.

Kapha is responsible for growth and protection. Examples: The mucosal lining of the stomach, the cerebral-spinal fluid etc.

Pitta pertains to fire and water elements deals with metabolism, e.g., the transformation of foods into nutrients. It helps in metabolism in the organ and tissue systems.



Panchakarma' or the Therapy of Purification:

- Panchakarma is recommended to purge these unwanted toxins if any present inside the body. It is also known as cleansing process which is much more pure. These specialized procedures consist of the following:
- **Vaman:** It indicates therapeutic vomiting or emesis.
- **Virechan:** It indicates Purgation.
- **Basti:** It indicates Enema.
- **Nasya:** It indicates elimination of toxins through the nose.
- **Rakta moksha:** It indicates bloodletting or detoxification of the blood.

Role of Pharmacognosy in Ayurveda

- Herbal drugs play a major role in formulation of Ayurvedic medicines. Many medicinal plants that used in Ayurveda are selected based on plenty availability, low cost, less side effect, effective therapeutic efficacy and also low toxicity.
- Ayurvedic formulations that are available in market composed of more than 5 to 10 medicinal plants either from leaves or roots or bark or flower parts as sources.
- A vast number of crude drugs that are used in Ayurvedic preparations, procured from the plant sources which are belongs to the Pharmacognosy.

- Pharmacognosy helps in development of Pharmacopoeial standard for herbal drugs with respect to identification followed by characterization.
- Hence, correct authentication of crude drugs is the preliminary source for Ayurvedic medicine system for combined formulation.
- Thereafter Pharmacognosy helps in identification of drugs through morphology and microscopy examinations that further helps in detection of adulterants as well as substituents.
- Hence authenticated drugs are used for the formulations which give proper therapeutic actions with less side effects.

- Furthermore Pharmacognosy helps in identification, detection and isolation of the phytochemicals which gives idea for root level curing of the diseases.
- Seventy percent of the population in the rural India is dependent on the ayurvedic system of medicine which is of plant origin.
- Ayurvedic products in Indian market are projected to register a CAGR of 16% during 2016-2021.

- It is predicted that many Ayurvedic formulations viz. Ayurvedic nutraceuticals and dietary supplements, Ayurvedic cosmetics and skin care products are likely to boost the market over the years.
- Awareness of side-effects of allopathy and health concerns is
- few of the major factors driving consumer preference for Ayurvedic products in the country. There are more than 5000 plants which are used in Ayurveda among that some of the major plants are namely Ashwagandha, Ashoka, Triphala, Amla, Arjuna, Turmeric, Shatavari, Tulsi, Haridra, Neem, Rauwolfia, Gymnema, Pudina, Hibiscus, Lemon grass, Henna, Black pepper, Clove, Cinnamon, Ginger etc.

SIDDHA

- Siddha medicine is also one of the oldest traditional medicines.
- This healing system is originated in South India (Tamil Nadu).
- This system is based on ancient medicinal practices as well as spiritual disciplines. It also includes alchemy and mysticism.
- This system is thought to have developed between 250 and 1700 BC.

Principle

- In this medicine system, the physiological components of the humans are classified as Vaadham (air), Pitham (fire) and Kabam (earth and water) as like as Ayurveda system.
- The only difference is that the siddha medicine based on the concept of Vaadham, Pitham and Kabam in childhood, adulthood and old age, respectively, whereas in ayurveda, it is totally reversed, as said Kabam is dominant in childhood, Vaatham in old age and Pitham in adults.
- According to the Siddha medicine, various psychological and physiological functions of the body are made up of the combination of seven elements.

- (a) **ooneer (plasma)** is responsible for growth, development and nourishment;
- (b) **ischeneer (blood)** is responsible for nourishing muscles, imparting colour and improving intellect;
- (c) **oon (muscle)** is responsible for shape of the body;
- (d) **koluppu/Kozhuppu (fatty tissue)** is responsible for lubricating joints as well as oil balance;
- (e) **elumbu (bone)** is responsible for body structure and posture and movement
- (f) **elumbu majjai (bone marrow)** is responsible for formation of blood corpuscles; and
- (g) **sukkilam (semen)** which is responsible for human reproduction.

The Five Elements

- According to this medicine system, the five elements that exist in nature are earth, water, fire, air, and ether, all of which form the original basis of all corporeal things.
- Traditionally, it believed that there is an intimate connection between the macrocosm of the external world and the microcosm of the corporeal being.
- As per the system the element of **earth is present in the human bone, flesh, nerves, skin and hair**; **water, as element, is present in bile, blood semen, glandular secretions, and sweat**; the **fire element is present in hunger, thirst, sleep, beauty, and indolence**; the **air is present in contraction, expansion, and motion**; and the **ether is present in stomach, heart, neck and head**.

UNANI

- This system is a traditional system of healing and health maintenance.
- It is believed that the system is originated in South Asia which is found in the doctrines of the ancient Greek physicians Hippocrates and Galen (460-377 BC).
- Unani system is written in Unan or Yunan in Arabic language. Hence, Unani medicine is also known as **Unani tibb Arabian or Islamic medicine**.
- Unani medicine first came in India around 12th or 13th century with establishment of Delhi Sultanate (1206-1527) and Islamic rule over North India.
- Subsequently, the system is flourished under Mughal Empire. Alauddin Khilji was famous **Unani physicians (Hakim)** during that time.

- In India, Ajmal Khan was the man who contributed almost single handedly for this medicine system and made available some of the great benefits of traditional medicine.

Principle: This medicine system is based on two theories namely Hippocrates theory (Humour theory) and Pythagoras theory (Four Proximate qualities). The four humours namely Phlegm, Blood, Yellow bile and Black bile.

- Phlegm means Balgham, Blood is Dam, Yellow bile is Safra and Black bile is Sauda. The proximate qualities are like Hot, Cold, Moist and Dry.
- All the humours are entered into the body and due to their balance or imbalance, healthy and illness are occurred respectively.

Treatments

- There are six external or physical factors in Unani medicine, known as asbab-e-sittahzarooriah. All these factors are essential in establishing a synchronized biological rhythm and thus living a balanced existence. The six asbab-e-sittah-zarooriah are:

Hawa: It indicates air, in which the **quality of the air** a person breathes is thought to have a direct effect on human temperament that gives impact on health.

Makool-wo-mashroob: It indicates **food and drink**, in which the nutritional value and the quality and quantity of one's food and drink are believed to ensure physical fitness by strengthening tabiyat.

Harkat-wo-sakoon-e-jismiah: It indicates **exercise and repose**, which emphasizes the positive effects of balanced physical exercise on an individual's internal resistance and tabiyat.

Harkat-o-sakoon nafsaniah: The **mental work and rest**, which emphasizes the simultaneous engagement of the human mind in numerous emotional and intellectual activities. This medicine system believes that the human mind and brain need adequate stimulation and proper relaxation as well.

Naum-o-yaqzah: It is **sleep and wakefulness**, in which an individual's health and alertness are understood as being dependent on a specific amount of sound sleep.

Ihtebas and istifragh: It indicates **retention and excretion**, which considers the metabolism of food and liquid as both affecting and being regulated by tabiyat. Unani medicine system believes that assimilation of food and liquid facilitates the elimination from the body of excessive and noxious substances. That means to maintain a harmonic and synchronized tabiyat, certain beneficial end-products of kaun-o-fasad (genesis and lysis) are retained and harmful substances are expelled out from the body.