

## **BASIC PRINCIPLES INVOLVED IN AYURVEDA, SIDDHA, UNANI AND HOMEOPATHY**

- Pharmacognosy has been basically evolved as an applied science (Helps to study the all types of drugs of natural origin).
- Systems of medicines developed by the above, called as “**ALTERNATIVE SYSTEMS OF MEDICINE**” – Modern allopathic system developed.
- About 80% of the world population still rely and use the medicines of these traditional systems.
- Traditional chinese medicine – In India  
Unani medicine – Greece  
Siddha and ayurvedic system – India  
H omeopathy system – Germany

- The above systems of medicine which were practised only in the respective areas of the world are now popularly practised all over the world.
- Many modern synthetic drugs have serious toxic effects. But traditional drugs are cheaper without harmful effects.
- Modern allopathic system or treatment developed wonderful techniques and diagnosis and highly effective drugs to provide the best and effective treatment than any other system of medicine till date.

# Ayurvedic Medicinal System

Origin of Ayurveda

God Brahma

Daksha – Prajapati

Aswini Kumaras

Indra

4 Vedas RIG, YASUR, SAMA and ATHARVANA  
(Describes about the Medicine and surgery)

- Concepts of digestion and metabolism
- Anatomical descriptions and discussions about several diseases.
- Different types of bacteria causing diseases
- The process of delivery, toxins and aphrodisiacs

# **SANSKRIT WORD“AYUR VEDA” (Science of life)**

Life

Sacred knowledge or science

Upaveda of Atharvaveda and Rigveda

(Different types of herbs, plants, the anatomy and physiology of different organs of the body and the treatment of diseases)

## **Master pieces on herbal (M.P)**

**1. NARHARI PANDITA – “RAJA NIGHANTU”**

**2. MADANPALA – “MADANPALA NIGHANTU”**

**3. DRIDHOBALA**(9<sup>th</sup> century) – well known famous physician of India – reconstructed & re-edited the CHARAKA SAMHITA.

**4. UGRADITYA CHARYA JAIN – KALYANA KARAKA –**  
Mercury and many other compounds

**5. VRINDA (1000 AD) – SIDDHAYOGA –** Medicinal chemistry and precipitation of metallic drugs.

**6. CHAKARAPANIDATTA (1066 AD) VANGASENA –**  
CHIKISTA SANSANGRAHA

# **Theory and basic concepts of Ayurveda**

Three fundamental principles in Ayurveda

1. PANCHA MAHA BHUTA SIDDHANTA

2. TRIDOSHA THEORY

3. RASA, GUNA, VIRYA, VIPAKA, PRABHAVA, SIDDHANTA

# Pancha Mahabhuta Siddhanta

According to Ayurveda 5 basic elements or mahabhutas – Prithvi(Earth), Apa (Water), Teja (Fire), Vayu (Air), Akasha (Sky).

- Each mahabhuta has its own characteristic feature, properties, effect and means of identification.
- Every substance is a combination of those 5 mahabhutas.
- It states that body takes the elements from nature and again release it.
- The body is balanced with these elements and when it is disturbed an unhealthy condition (illness) develops.



## The basic role of

- **Prithvi** (Earth) – form& shape of the body
- **APA** (Water) – Maintains moisture, liquidity  
lubrication
- **Teja** (Fire) – Heat and energy
- **Vayu** (Air) – Prana a vital force controls  
respiration
- **Akasha** (Sky) – Vacuoles & pores responsible  
for transportation of nutritional elements

# Tridosha theory: (VPK)

Three basic governing factors of pathophysiology of body

VATA,PITTA,KAPHA DOSHA(Impurities or imbalance of three factors) Develops disease in the body

**VATA:-** constituted from Vayu(air),Akasha(sky)

- Balanced Vata          respiration
- Characterised by lightness and mobility
- Imbalance occurs due to diet and cold weather

# Hot, bright, & acidic character

**PITTA:-** organized from Teja(Agni or fire) -

- Balanced Pitta- helps in degeneration, metabolism and energy production
- Imbalance in this dosha is brought by hot summer, hot spicy food etc.

**KAPHA:-** This dosha is made of Prithvi(earth) and Apa(water)

- It is watery and heavy in character
- Balanced Kapha- affords lubrication of joints and stability of the body
- It is increased by cold weather, spring, heavy metals and too much rest

- All the above three doshas, have been individually divided into 5 types depending upon their function and working area in the body

### **Rasa\* Guna\*Virya\*Vipaka\*Prabhava\*Siddhanta:**

The very important pharmacological principles of DRAVYA or DRUG substances are;

- **Rasa** (therapeutically active agent)
- **Guna**(quality)
- **Virya**(active principle responsible for drug potency)
- **Vipaka**(the end product of digestion)
- **Prabhava**(actual therapeutic activity of the drug)
- The above five principles are “**PANCHSHEEL**” or “**FIVE PILLARS**” of Ayurvedic therapeutics- covers the entire range of external and internal diseases.

Another important concept of ayurveda is “**DHATU-MALA siddantha**”

**DHATU** 8 types

Rasa (body liquid), Raktam(blood), Mamsa(muscular tissue), Meda (adipose tissue), Asthi(bone tissue), Majja(nerve and bone tissue), Shukra(sperm) and Oja(ovum)

**MALA** (waste products of body)

3 types - **Purisha** (faeces)

**Mutra** (urine)      **PMS**

**Sweda** (sweat)

“TRI DOSHA and DHATU” are in perfect balance it brings good health. Imbalances cause illness. The concept of “TRIGUNA” named Satva(good), Raja(aggressive), Tama(dullness) Qualities of mind and its balance, necessary for a perfect health

# Various branches of treatment in Ayurveda

S.NO	Type of chikitsa	Treatment
1	Kayachikitsa	General medicine
2	Shalakyatantra(medicineand surgery of supra claviclar diseases)	Treatment of diseases above the clavicular region by shalaka
3	Shalayatantra(surgery)	Acute and chronic diseases caused due to foreign bodies
4	Vishagaravairodhika chikitsa(toxicology)	Toxic substances
5	Rasayan chikitsa	Promotion of health and life
6	Vajeekaranam(Aphrodisiac)	Diseases of genital organs
7	Koumaryabhryatyatantra(including obstretics and gynaecology)	For pediatric diseases
8	Bhutavidya(deals with bhutas, the invisible agents)	For diseases which have no logic causative factor

POWDERS	LIQUIDS	SEMISOLIDS(lehyas)	TABLETS
Churna(powder)	Swaras	Kalka	Vatika
Bhasma(ASH)	Putpak	Ghrita	Gutika
Satva	Manda	Malam	Vati
Rasayan	Kwath	Avaleha	
Pishti	Phanta	Rasayoga	
Mandur	Hima		
Parpati	Taila		
Kshar	Asava		
	Arishta		
	Arka		
	Drawana		



- CHURNA powdered herb
- MARANA
- BAHSMA Vegetable and mineral  
ashes
- **Shodhana**: chemical and medicinal purification  
to increase the therapeutic activity
- **Marana**: killing (burnt-Bhasma-inorganic salts)

# DIAGNOSIS AND TREATMENT

- “**CHARAKA SAMHITA**” describes the “Nidanta stana” which is concerned with the diagnosis of disease .
- Critical observation and study of the patient for tridosha and its imbalance gives information about the “**PRAKRUTI**” of the patient.
- Observation of the skin, eyes, hair, nails and tounge is carried out and the general history of the patient is noted.
- Pulse reading is important in ayurvedic diagnosis.
- Systematic examination is also a part of the diagnosis(Functional nature of Respiratory tract, GIT,and circulatory system is noted )

- Investigation of “Mala”\_also helps in the proper diagnosis of the disease.
- After the above investigation the treatment is given to balance the “doshas”“CHARAKA SAMHITA” describes the “CHIKITSA STANA” which deals with the treatment. There are 8 branches of treatment.
- The classification of medicine depends upon the consistency of the medicine(powder,tablet, semisolid or liquid).
- “PANCHAKARMA” Ayurvedic treatment (SSVVB)
- (SNEHAN, SWEDAN, VAMAN, VIRECHAN, BASTI)

# Important ayurvedic drugs and their uses

No	Ayurvedic drug	Type of formulation	Uses in
1	Arjunaristha	Arishta	Heart diseases
2	Khadirishta	Arishta	Skin diseases
3	Kumaryasava	Asava	Tonic, liver diseases,
4	Triphala churna	Churna	general tonic, stomach diseases
5	Ashwagandha Churna	Churna	Adaptogenic diseases
6	Sitopaladi churna	Churna	Cough, asthma
7	Abhrak bhasma	Bhasma	Uses in many diseases

8	Parad bhasma	Bhasma	Diarrhoeia, dysentery
9	Yasad bhasma	Bhasma	In eye diseases
10	Shatavari gruta	Gruta	Piles
11	Chirayata arka	Arka	In fever
12	Dhananjaya bati	Bati	In cough
13	Amrutprabha bati	Bati	Indigestion
14	Kasturi gutika	Gutika	Aphrodisiac
15	Sarpagandha churnayog	Yog	Heart diseases
16	Vidangasava	Asava	Antimicrobial
17	Adulsa kshar	Kshar	In cough
18	Sankhapushpi sharbat	Sharbat	Memory tonic
19	Dashmula quath	Quath	Ailments of kapha and vata
20	Balant kadha	Kadha	For women after delivery

# SIDDHA SYSTEM OF MEDICINE

- ACHIEVEMENT
- “SIDDHA”
- The term                      means  
;”SIDDHARS”- SAINT PERSONALITIES  
Attained proficiency in medicine through  
practice of bhakti and yoga(SIDDHA  
VAIDYAM). This system is one of pre-vedic  
period identified with Dravidian culture and it  
is largely therapeutic in nature(6000-  
7000years ago).
- Like ayurveda, siddha basic concepts are  
“pancha bhutas” \_namely Earth, Water, Sky, Fire  
and Air

- The literature of siddha systems is mostly in tamil.
- The identification of diseases and its causative factors is done through pulse reading, colour of body, study of voices, urine examination, status of digestive system and examination of tongue.
- This system was believed to be developed with the ancient civilization of Mohenzodara- harappa in the Indus valley(6000-7000 years ago)and translated in the south india especially in Tamilnadu along with Dravidian people who migrated there before 2500 years ago.
- During this migration many plants were added in to the system of “Siddha Vaidya”.
- The 18 siddhars or sittars are mentioned in tamil tradition

## **IMPORTANT SIDDHARS ARE: (18 -19 siddhars)**

- 1.Sundaranandar
- 2.Edaikkadar
- 3.Machchamuni
- 4.Korakkar
- 5.Brahma muni
- 6.Bhogar(chinese)
- 7.Karuvoorar
- 8.Thirumoolar
- 9. Kaalangi nathar
- 10.Pampatti siddhar



- 11.Theraiyyar
- 12.Konganar
- 13.Siva vakkiyar
- 14.Pulippani siddhar(chinese)
- 15.Agappey siddhar
- 16.Yakkobhu siddhar
- 17.Prandhar
- 18.Pattinaththar
- 19.Chattai muni

- **Bogar** came from china and settled down at the pazhani hills in Tamilnadu, India: he did extensive work on alchemy and medicine.
- **Pullipani**(china): authority in medical alchemy.
- **Thirumoolar** :Founder of Siddha schools.
- **Agasthiyar** :An aryan sage from himalayas-  
Development of siddha school-“Agastiyar charakku”-  
An important Tamil work used by the siddha physicians.
- **Siddha vaidya**: Thousands of herbs- diseases relevant to modern age- Effective in managing chronic diseases, degenerative conditions, viral and heart diseases.
- Promising remedy for the health and welfare of humanity.

# **THEORY AND BASIC PRINCIPLES**

## **VATA**

- The siddha system of medicine is strongly based on the 3 principles of the body- vata, pitta, and kapha(TRIGUNA). Body is characterised by black, stout,cold and inactive personalities.Vata increase developes Acidity, dysentery, obesity etc.

## **PITTA**

- Arrogant behaviour, partial paralysis, heart attacks, neck and chest pain, body smell. Body is lean, weatish-complexion, hot and perfectionist personalities.Increase pitta shows early greying of hair, reddish eyes and more sexual desires.

## **KAPHA**

- Burning chest anemia, mental disturbances . Well built body, well behaved and good complexioned.More affinity towards sweet, food and sex.

- A particular guna predominates in the body according to the time day and night.
- During morning hours from
  - 6AM-10AM - vata increases
  - 10AM-2PM - pitta increased
  - 2PM-6PM - kapha increased.

## DIAGNOSIS AND TREATMENT

- Diagnosis is very important in the siddha system. During the diagnosis the physicians generally study the 8 things nadi, dhvani, twaka, dheiham, neeram, malam, mutram, and vizhi.
- Pulse reading or nadi is considered to be a very important factor in the diagnosis of the disease.
- The balance of “Triguna” changes according to the pulse reading.
- Full nadi: Asthmatic conditions
- $\frac{1}{2}$  and  $\frac{1}{4}$  nadi: Gases, pain, arthiritis and swelling

- Abnormally intense pulse: tuberculosis
- Abnormally intense pulse(left): loss of self control
- Abnormally intense pulse(right):indicative of death
- Dhvani or speech with a high sound:- pitta and hyperacidity
- Dhvani or speech with a low sound:-low blood pressure
- Tongue with boils- imbalance of vata
- Sense of bitterness- pitta
- White slimy tongue- indigestion and low B.P.
- A body with vibration- vata
- Hot body- pitta
- Cold body- kapha

- The study on the colour , faecal matter, urine, and eyes gives the idea of “Triguna”:- Imbalance on basis of colour.

A dark colour than normal:- vata

Greenish or reddish:- pitta

Whitish colour:- kapha

- The siddha physicians give treatment with full knowledge of disease diagnosed by him.
- **Siddha vaidya** :- knowledge of 1000 of herbs and their effectiveness in specific composition and formulation.
- Many times the medicines are prepared freshly for the specific diseases.

- Kashayam(extracts), churnam(powders), lehiyam s(semisolids), tailam(medicinal oils), guligai(pills), chenduram(metalcrop), bhasbam, ghritam(medic atedghee)mezhugu(waxes), tinir(distilled essence).
- Siddha formulary have plant, animal,mineral drugs. It also describes the drugs made from metals and non-metals.
  - Mineral drugs:- Borax, asbestos, alum.
  - Metals and non metals:- mercury, gold, silver,sulphur,zinc.
  - Animal drugs:- excretions like civet nd musk, shells and bones of animals.



- In some diseases siddha vaidya restricts on the diet.

**Pattya** - to avoid certain food types- aggravate the balance of triguna and disturb the cure of diseases and the potency of medicines eg: coconut, fengureek, mustard, sesame, almond, groundnut, asafoetida, tamarind, garlic etc. during the treatment.

- Avoid intoxicants, tobacco, sex, day time sleep during the treatment.

# UNANI SYSTEM OF MEDICINE

- “Unani Tibb” may be defined as the system of medicine which was developed during “Arabian civilization”
- In Europe it is known as ARAB MEDICINE.
- The origin of unani system is from the Greek philosopher and physician Hippocrates(460BC), Aristotle, Dioscorides and Galen continued and enriched it.

- At the end of 5<sup>th</sup> century AD western Greeks introduced the Greek civilization to Arab- During this period Greek medicine was translated to Arabic.
- Arabs wrote the official books and made certain alterations in the original “Materia medica” of Greeks.
- A large no.of Indian drugs from the indigenous Ayurvedic system of medicine were derived from the Unani system of medicine

# THEORY AND BASIC CONCEPTS

- Unani system of medicine is based on the “Hippocratic theory ” of 4 humours and the “pythagorian theory” of 4 proximate qualities.
- **Hippocratic theory** of 4 humours includes blood(Khoon), phlegm(Balgham), yellow bile(Safra), Black bile(Sanda) which regulates the functions of the body.

- **The pythagorian theory of 4 proximate qualities or states of matter includes hot, cold, moist and dry which are related to the human body.**
  - Hot and moist(Air)
  - Hot and dry(Fire)- ENERGY
  - Cold and moist(water)- BODY ORGANS
  - Cold and dry(earth)

- Earth and water develops organs and Air and fire- ENERGY.
- According to Unani, the interactions of the above qualities give rise to the quality of the person known as temperament or MIZAJ

- As per the temperments personalities are described as
  - HOT (Mizaj-e-har)
  - COLD (Mizaj-e-barid)
  - DRY (Mizaj-e-yabis)
  - MOIST (mizaj-e-rath).

- Health is described as the primary state in which 4 humours are present in correct proportion and cause of disease may be due to
  - Humours deficiency
  - Disturbance in the balance of humours.
- The cause of illness may be due to external factors such as infections (TADIA).



# DIAGNOSIS AND TREATMENT

- The Hakeems and physicians diagnose their patients by pulse reading, and by the examination of sputum, urine, and stool.
- Other aspects like patients Psychology, Sex, Habits, Family history, Hobbies, Occupation and working condition also taken into account while diagnosing the disease.

- If the disease is caused by the imbalance of humours, the body system is cleaned by carrying out purgation, vomiting or bleeding. Proper massage for toning the nervous system as well as circulatory system.
- The treatments include 2 steps:
  - Remove the cause of the ailment.
  - Strengthening of natural defence mechanism and prevention of diseases.

# UNANI MEDICINE

- “Materia medica ” of Unani system consists of the drugsof vegetable animal or mineral origin.
- Vegetable drugs- Various parts of plants or the secretory products like latex, gums etc.
- **Animal drugs** – Derived from animal organs, bones etc.
- **Mineral drugs**- Gold,silver, lead, zinc,copper, iron and antimony also precious stones like emerald, sapphire.
- (all these above drugs are used in liquid forms or as semisolid)

No	Preparation	Drug character	Uses
1	Saffoof	From crude drug to powder	-
2	Saffoof mahllool	From coarse to fine powder	-
3	Sharbat	Aqueous concentrates with sugar	Oral drinks
4	Mazoom	Powdered drug and honey(1:3)	Electuaries
5	Jawarish	Concentrated mazoon	Stomach infection
6	Araq	Distilled aromatic waters	Digestion aids
7	Laooq	Drug powder and syrup preparation	For chest infections
8	Kohal	Surma	Eye remedies
9	Marham	Drug in fatty base	For topical application
10	Joshanda	Decoctions	Internal administration
11	Khaisanda	Infusions	Internal use
12	Shaif and Battis	Suppositories and pessaries	Diseases

- Unani system of medicine is considered to be Holistic system of medicine.
- Unani system believes that the plants, animals and minerals (drugs) are effective in curing the disease since they are products of 4 elements and most suitable for human temperments.

# HOMEOPATHIC SYSTEM OF MEDICINE

“Homeo”- “Pathos” “  
(similar) (suffering)

- The founder of this is **DR.SAMUEL CHRISTIAN-PRIEDRICH HAHNEMAN**(1790-1810 :eminent physician and chemist of Germany).

## LIKE CURES LIKE

- He found “Law of similars” indicating the similarity in between drugs and diseases. He introduced his new principle  
cured by like medicine Like diseases are  
-“like be treated by like”-

- In 1790- DR. HAHNEMAN- Antimicrobial activity of cinchona in his body.
- Effect of different substances on his close friends and relatives were studied and he published his discovery in 1796 in “An essay on a new principle of ascertaining the curative powers of drugs and some examinations of previous principles”.

- Administration of drug which has the capacity to produce diseased state in healthy individuals. This is known as the proving of medicine. If the symptoms arised in the patient , then the same may also act as a curative agent- “Like cures like”- basic concept of homeopathy system of medicine.



# Basic principle of Homeopathy is seven in numbers

1. Individualization (No two individuals are same).
2. Principle of similia (Like cures like).
3. Principle of Simplex (single, simple medicine at one time).
4. Principle of minimum dose.
5. Law of proving.
6. Law of Dynamisation.
7. Vital force.

## Diagnosis and treatment

- Homeopaths usually collect an extremely detailed case history – Patients medical history, current symptoms, symptoms vary according to the weather, time of day, season etc. Patients mood and behaviour, like and dislikes, food habits, responses to stress and personality – “Symptom picture” of the patient.
- This is matched with “Drug picture” mentioned in the “Homeopathic materia medica” and the treatment is given

- Single medicine is prescribed correspond to a general “Symptom picture” of the patient.
- According to the disease condition the doses vary. Medicines prescribed daily dose for 2 to 6 weeks etc.
- Chronic diseases like Rheumatism, Asthma, Migraine, GIT problems, Dysmenorrhoea, Respiratory and Urinary infections, Psychological disorders can be cured (Children diseases)

# HOMEOPATHIC MEDICINE

Three essential processes involved in the preparation of remedies are

1. Serial dilution
2. Succession
3. Trituration

- Serial dilution is the process of reducing toxicity of the original crude drug in a sequential order.
- Succession and Trituration is the power delivered to the preparation

# Standardisation parameters

- Specific gravity, Alcohol content, Assays, Total solids, PH and TLC are used for the evaluation.
- Basic concept Homeopathy is discovered by the “**Father of Homeopathic medicine Dr.Samuel Hanemann** – similar symptoms produced by the disease and the symptoms produced by the particular drug in healthy individual- leads to its successful application in the treatment of disease.

- The concept is based on the Law of Similars – which means “Like Sufferings be treated by the Like medicines”.
- Remedy is prescribed in a minimum normal doses which would produce similar effects.
- The Government of India accepted Homeopathy after the Homeopathic enquiry commission report in 1948.

# **Sources of Homeopathic medicines**

**1.Plant kingdom** – Various morphological parts of plants, fungi etc.

**2.Animal kingdom** – Secretion, saliva, poisons and whole animals.

**3.Minerals and Chemicals** – Inorganic salts, nonmetals, acids and mixtures.



**4.Sarcodes** – Protoplasm of animals, hormonal secretions etc.

**5.Nasodes** – Products of causative agents diseased tissues,  
bacterial and viral products etc.

**6.Imponderabilia** – Natural and physical reactions, magnets, fullmoon.

The vehicles used as a means of developing therapeutic activity of medicinal substances are inert, solid, semisolid or liquid vehicles.

**1.Solids** – Lactose, Globules, Pellets, Tabloids.

**2.Semisolids** – Vaseline, Lanolin, Spermaceti.

**3.Liquids** – Alcohol, Glycerin, Olive oil.

# Important Homeopathic drugs and their uses

- **Allium cepa** – Allergies and hay fever
- **Apis**(crushed bees preparation) – Inflammation
- **Arnica spp** – Aches, Pain
- ***Arsenicum album*** – Diarrhoea, indigestion
- ***Atropa belladonna*** – Headache, fever
- **Borax** – Ulcers
- **Calendula** – Antiseptic

- **Equisetum** – Urinary tract infection
- **Magphos** – Antispasmodic
- **Rauwolfia** – Hypertension
- **Tuberculum** – Tuberculosis
- **Urtica urens** – Burn treatment

# ALLOPATHY SYSTEM OF MEDICINE

- The term **Allopathy** has been derived from the Greek word **allos** ( meaning other or different) and **pathos** ( meaning suffering).
- The term Allopathic medicine and Allopathy were invented by **Samuel Hahnemann** (the founder of homeopathy) in the early 19<sup>th</sup> century.

# Four humors theory

- A disease results due to an imbalance of four humors (blood, phlegm and black and yellow bile) and four bodily conditions (hot, cold, wet and dry) four elements (earth, air, fire and water)
- Some physicians tried to balance the humors by treating the symptoms with opposites.
- **For eg** – Fever (hot) due to excess blood flush, balance was maintained by blood letting to cool the patient.

# TREATMENT

Several allopathic methods were used for balancing humoral harmony of the four humors.

## **Bleeding**

Disease containing bad blood is released out from the persons body.

**1. Blood letting** – patients vein was cut with a lancet ( venesection)

## 2. Leeching

- Leeches were used to bleed the patient. A leech was placed in a thin tube and the patients skin was washed and shaved.
- A blood or milk drop was placed on the area of vein and then the tube containing the leech was inverted over the spot so that the leech sucks the blood from the vein.
- When the leech had sucked sufficient blood, salt was sprinkled on it so that it stops sucking.



## **Cupping**

Evacuated glass cups were applied to cut skin for collecting blood.

## **Blistering**

The patient was given a second degree burn and resulting sores were drained out.

## **Plastering**

Blistering plasters were applied to the chest or back of the patient suffering from chest cold, an internal pain or pneumonia.

## **Poulticing**

Poultices ( made from bread and milk, sometimes added with potatoes, onions, herbs and linseed oil) were applied to cuts, wounds, bites and boils.

## **Puking**

The patient was given emetics to make vomit. Relieves tension on arteries and also expels poisons from the body.

## **Sweating**

The patient were made to sweat out the disease causing poisons.

## **Fumigations**

The breathing apparatus was drugged with everything that could be smoked and gasified.

## **Purging**

Evacuation of the patients bowels or intestines was induced by using powerful laxatives.it removes the toxins or irritants from the body.

Calomal( a form of mercuric chloride) was the most commonly used purgative.

## **Ointments**

Mercury containing ointments were topically applied to treat venereal diseases. sulphur was used commonly for treating itching.

## **Dehydration**

Water is given inside or out to fever patients.

## **Side effects of Allopathy**

Constipation, suicidal thoughts, vomiting, hair loss, elevated blood pressure, coma, anemia, dizziness etc. by consulting with a physician and general awareness these side effects can be prevented.

# **Allopathic medicines**

## **Antibiotics**

They kill or delay the growth of bacteria and fungi in the body, for treating infections caused by bacteria (during surgeries). tablets, capsules, syrups and other forms.

## **Antacids**

Used for treating heart burns, gastric problems or other problems related to acid production in stomach.

## **Enzymes**

For proper digestion of food.

## **Vitamins**

The essential vitamins are taken in the form of capsules, tablets or injections. vitamin A and the group of B-complex vitamins are available as substitutes for oral consumption.

## **Amino acids**

They are essential nutrients obtained from a diet rich in proteins, capsules and tablets are available.

## **Steroids**

They have anti inflammatory effects, used for treating redness, inflammation etc. bone weakness, blood sugar reduction are the side effects.

## **Anti allergic medicines**

They are orally administered for increasing body's resistance against external allergies (like dust) which are not accepted by the immune system.

## **Anti diabetic medicines**

They are taken in the form of capsules, tablets and injections to keep diabetes (caused due to insufficient insulin secretion by the body which results in increased blood sugar level) under control.

## **Laxatives**

They are used for treating constipation. To avoid using laxatives vitamins and aminoacids intake should be increased.

## **Miscellaneous**

Allopathy also has curative medicines for numerous other diseases like epilepsy, reduced brain activity, cold ,cough, fevers, ulcers, insomnia etc.



# CHINESE SYSTEM OF MEDICINE

- The encyclopedia of traditional Chinese medicine substances is the result of 25 years research project led by the Jiangsu college of new medicine.
- This book contains 5,767 entries and is the complete compilation of chinese herbal tradition.
- During the period of **Emperor ingyo**(411-453AD) the traditional Chinese medicine was brought to Japan from korea. The Japanese started developing own traditional oriental medicine called **kampo medicine**.

# PRINCIPLES OF CHINESE MEDICINE

- **Yin and yang theory – yin means darkness and yang means light.** According to the yellow emperor yin and yang is the base of the entire universe.
- Heaven was made by the **yang** and earth was made by **yin**.
- **Yang** is for peace and serenity **yin** for confusion and turmoil.
- **Yang** for destruction **yin** for conservation.
- Water is for **yin** and fire is for **yang**.
- **Yang** creates the air ,**yin** creates the senses belonging to the physical body.

- When **yang** is stronger people can tolerate winter but not summer ,their body becomes hot ,they don't sweat, they become feverish, mouth becomes dry ,their stomach become tight and they die of constipation.
- When **yin** is stronger people can tolerate summer but not winter their body becomes cold, they sweat, they feel chilled, their stomach fail to digest food and they die ultimately.
- Thus **yin and yang** are the **opposite**.when they are balanced individual is filled with strength.

# TREATMENT

Each herb has four types of energies, cold, cool, warm and hot.

**1. The cold or cool herbs** are used for treating fever, thirst, sore throat and general heat diseases.

**2. The hot or warm herbs** are used for treating cold sensations in the limbs, cold pain and general cold diseases.

**Pungent, sour, sweet, salty and bitter** are the **five flavours of herbs**.

**1. Pungent herbs** are used for inducing perspiration and promoting circulation of blood vital energy of the body is increased.

**2. Sour herbs** stop perspiration, diarrhoea, seminal emission and leucorrhoea.

**3. Sweet herbs** reduces toxicity,relieves pain and slows down acute diseases.

**4. Salty herbs** used for constipation and in hard swellings ( goitre ).

**5. Bitter herbs** for inducing bowel movements, reducing fevers and hot sensations.

Four different directions in which the herbs move after absorption.

**1.Up ward – moving herbs** for prolapsed organs.

**2.Down ward – moving herbs** for cough and vomiting.

**3.Outward – moving herbs** for inducing perspiration .

**4.Inward – moving herbs** for inducing bowel movements and promoting digestion.

- Herbs active against respiratory tract infections can be used for asthma or cough.

# QUALITY ASSURANCE

## STANDARDISATION OF AYURVEDIC FORMULATIONS – THE NEED

- Quality assurance is an important part of allopathic formulations which ensures that it delivers the required quantity of medicament when used before its expiry.
- Every allopathic product enters in to the market with a quality assurance seal.This aspect is not stressed in Ayurveda.The major reasons for this are;
- In olden days Ayurvedic formulations were prepared by Vaidyas as and when necessary in fresh form for administration.

- They were not manufactured for mass consumption.
- The combination of drugs and dosage differ from person to person depending on the intensity of the disease.
- Most of the Ayurvedic preparations have to be consumed with different vehicles such as milk, ghee, honey, water etc. Sometimes even though the medicine is same the vehicle may be different from different conditions.



- Ayurveda treatment consists of not just medicines but also restricted and recommended diet.
- Ayurvedic formulations are marketed for mass consumption in the form of general tonics, Memory enhancers, Immune stimulants, Blood purifiers etc.
- Major forms of Ayurvedic formulations are;
- CHURNAS – Powders of crude drugs in purified form.
- BHASMAS - The ashes of medicinal substances.
- LIQUID ORALS – As syrups, solutions, mixtures, Asavas and Aristas.
- LEHYAS – As poultices and semisolid preparations.

## **Quality control of Churnas**

- Ash content, weight content and active constituent in the extract.

## **Quality assurance of Liquid orals**

- Titrimetry, gravimetry, colorimetric.

## **Quality assurance for Bhasmas**

- Water soluble ash / Acid insoluble ash

## **Quality assurance for Lehyas (Pastes)**

- Extraction with solvents and their analysis by suitable techniques as titration, gravimetric, fluorimetry, Nephelometry. Generally many Ayurvedic formulations don't have expiry dates hence accelerated stability studies can be adopted.

# **THE AYURVEDIC PHARMACOPOEIA OF INDIA (API)**

- The API, Part I, volume I 1st edition containing 80 monographs on single drugs was published in 1989 by the Government of India.
- API provides Pharmacopoeial standards of single drugs of plant origin according to the parameters approved by the Ayurvedic Pharmacopoeial Committee(APC)
- API has published out monographs on the basis of genuine and authentic drug samples approved by the Physician, Manufacturing experts and other expertise on the subject.

## **LEHYAS (OR) AVALEHA (OR) LEHA AND PAK**

**Definition:** Avaleha or Leha is a semisolid preparation of drugs prepared with the addition of jaggery, sugar or sugar candy and boiled with prescribed drug juice or decoction.

## **Method of preparation**

- These preparations generally have
- Kasaya or other liquids
- Jaggery, sugar or sugar candy
- Powders or pulps of certain drugs
- Ghee or oil and honey

- Jaggery sugar or Sugar candy is dissolved in the liquid and strained to remove the foreign particles.
- This solution is boiled with a moderate fire
- When “Paka” (Phanita) is thready (Tantum) on pressing between two fingers or if it sinks in water without getting easily dissolved it should be removed from the fire.
- Fine powders of drugs are then added in small quantities and stirred continuously and vigorously to form a homogenous mixture.
- Ghee or oil, if mentioned is added with mixing, while the precipitate is cool and mixed well.

## Characteristics

- The Lehya should neither be hard nor be a thick fluid.
- When the pulp of the drugs is added and ghee or oil is present in the precipitate, this can be rolled between the fingers.
- Growth of fungus over it or fermentation are, among others, signs of deterioration.
- When metals are mentioned, the bhasmas of the metals are used.
- In the case of drugs like “bhallataka”, purified drugs alone are included in the preparation.
- The colour and smell depend on the drugs used.



## **Preservation and Storage**

- The Lehya should be kept in glass or porcelain jars.
- It can also be kept in a metal container which doesnot react with it.
- Normally Lehyas should be used within one year.

## **Avaleha or Lehya formulations**

- Astangavaleha
- Ardraka khanda avaleha
- Eranda Paka
- Kalyanavaleha
- Apaugakhanda(Aparah)
- Vyaghri Haritaki
- Sri Bahusa

# BHASMA

## Definition

- Power of a substance obtained by calcination is called Bhasma. This can be applied to the metals and minerals and animal products calcined in closed crucibles in pits and with cow dung cakes.

## Method of preparation

- First stage: (SODHANA – Process of purification)
- Bhasmas are prepared from purified minerals, metals, marine and animal products.

## **Second stage:(MARANA- Precipitation of Bhasma)**

- The purified drug is put into a “Khalva” (stone mortar & pestle) and ground with juices of the specified plants or Kasayas of drugs mentioned for a particular mineral or metal.
- It is ground to a specified period of time.
- Then small cakes (cakrikas) are made.
- These cakes are dried well under sunlight and placed in one single layer in a shallow earthen plate (Sarava) and closed with another plate.

- The edge is sealed with clay smeared cloth in consecutive layers and dried.
- A pit is dug in an open space. Half the pit is filled with cow dung cakes. The earthen container(sealed) is placed in it and the remaining space is filled with cowdung cakes.
- Fire is put in all four sides and the middle of the pit. After burning is over, allow it to cool completely

- The earthen container is taken out, open the seal remove the medicine and ground in “Khalva” (Repeat the above process many times as prescribed in the text or till the proper fineness and quality are obtained).

## Characteristics and Preservation

- The tests for properly prepared Bhasma are:
- There should be no Chandrika (Metallic lusture-Nischandrika).
- When taken between the index finger , thumb and the spread, it should be so fine, so as to get easily into the finger lines(Rekha purita)
- When a small quantity is spread on cold and still water, it should float on the surface(Varitara).
- The Bhasma should not revert to the original state(Apunarbham)

- Generally Bhasmas are yellowish,black,dark white,grey,red and reddish black.
- Bhasmas are preserved in air tight glass or earthen containers to maintain their potency indefinitely.
- Bhasmas have no characteristic taste.
- Eg; -Akika Bhasma
- -Sphatika Bhasma
- -Varatika Bhasma
- -Jahara mohara Bhasma
- -Hajarulayahuda Bhasma.



# CHURNA

Churna is a fine powder of drug or drugs.

- **Method of preparation:**
- Drugs mentioned in the formulation are cleaned and dried properly.
- If the no of drugs are many, powder the drugs separately and well mix together.
- If some of the drugs contain more fibrous matter than others, powder it separately and weigh then mix it together.
- Drugs like Satavari, Guduchi etc, to be taken in a fresh form and made into a paste, dried and then added

## **Characteristics and Preservation**

The powder should be fine(80 mesh seive). It should be free from moisture.The finer the powder, the better its therapeutic value.They retain potency for one year and should be kept in airtight containers

## Examples of churnas

- Agnimukha churna
- Asvagandhadi churna
- Gandhaka rasayana
- Astangalavana churna
- Katphaladi churna
- Dasana samskara churna

# ASAVA AND ARISTA

## Definition

Asavas and aristas are medicinal preparations made by soaking the drugs, either in powder form, or in the form of decoction (Kasaya) in a solution of sugar or jaggery, for a specified period of time. Fermentation occurs by generating alcohol which serves as a preservative and facilitates the extraction of the active principles contained in the drugs.

# Method of preparation

## ARISTA

- The drugs mentioned in the texts are coarsely powdered and kasaya is prepared. The kasaya is stained and kept in the fermentation pot vessel or barrel.
- Sugar, jaggery or honey according to the formula is dissolved, boiled and added. Drugs mentioned to make the formulations are also finely powdered and added.
- The mouth of the pot, vessel or barrel is covered with a lid and the edges sealed with clay smeared cloth would in seven consecutive layers

- The container is either kept in a special room, underground cellar, or in a heap of paddy for fermentation at constant temperature.
- After the specified period, the lid is removed and the contents are examined for the fermentation process(Sandhana).The fluid is first decanted and then strained after 2-8 days.

# ASAVA

- The required quantity of water, to which jaggery or sugar as prescribed in the formula is added, boiled and cooled.
- This is poured into the fermentation pot, vessel or barrel.
- Fine powder of the drugs mentioned in the formula is added.
- The container is covered with a lid and the edges are sealed with clay smeared cloth in consecutive layers.
- The remaining process is (as Arista preparation).

## **General precautions**

- If the fermentation is to be carried on in an earthen vessel, it should not be new, water should be boiled first in the vessel, absolute cleanliness is required during the process, Each time the inner surface of the fermentation vessel should be fumigated with the Pipali churna(In large scale manufacturing wooden vats, Porcelain jars or metal vessels are used instead of earthen vessels.



## **Characteristics**

- The filtered Asava or Arista should be clear without froth at the top. It should not become sour. The preparation has the characteristic aromatic alcoholic odour.

## Preservation

- Kept in a well closed bottles or jars.
- Eg;- Draks Asava
  - -Punarnavady Arista
  - -Babbul Arista

# VATI AND GUTIKA

## Definition

- Medicines are prepared in the form of tablets or pills are known as VATIKA and GUTIKAS. These are made of one or more drugs of plant animal or mineral origin.

## **Method of preparation**

- The drugs of plant origin are dried and made into powder.
- The minerals are made into Bhasma or Sindura.
- These are put in to “Khalva” and ground to a soft paste with the prescribed fluids.
- When the mass is properly ground, Sugandha dravyas like Kasturi, Karpura are included and grounded again

- The final stage of the formulation can be determined before making pills is that it should not stick to the fingers when rolled.
- Pills may be dried in shade or in sun as specific in the texts.
- In cases when sugar or jaggery is mentioned, “Paka” should be made on mild fire and removed from the oven.
- The powder of ingredients are added to the ‘Paka” and briskly mixed and made into pills.

## **Characteristics and Preservation**

- Pills made from plant drugs can be stored in air tight containers for 2 years. Pills containing mineral drugs are stored for an indefinite period. Pills should not lose their colour, smell, taste and form. Keep away from light.